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Institute of Education Sciences

High School Longitudinal Study of 2009 (HSLS:09) Base Year to First Follow-Up Data File Documentation

Appendixes

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Institute of Education Sciences

High School Longitudinal Study of 2009 (HSLS:09) First Follow-Up Data File Documentation

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Appendixes

List of Tables ..... **vii**

List of Figures ..... **xv**

A First Follow-up Questionnaires A-1

B HSLS:09 First Follow-up Mathematics Assessment Item Characteristics B-1

C Glossary of Terms C-1

D Data Collection Materials: Contacting and Permission Forms D-1

E Documentation for Composite Variables E-1

F Standard Errors and Design Effects F-1

G Unit and Item Nonresponse Bias Analyses G-1

H Imputation Details H-1

I Hard Copy Codebooks: Student and School I-1

J Comparison of Public- and Restricted-use Files J-1

K Variable List for HSLS:09 Electronic Codebook (ECB) K-1

L High School Longitudinal Study of 2009 (HSLS:09) First Follow-Up Field Test Report L-1

M Field Test Report Appendixes M-1

N First Follow-up Critical Items N-1

O Questionnaire Flow Charts O-1

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List of Tables

B-1. Item forms, item parameters and their standard errors of the HSLS:09 First Follow-up mathematics assessment items: 2012 3
B-2. Proportion correct for each of the HSLS:09 First Follow-up mathematics assessment items: 2012 5
F-1. Student standard errors and design effects—Overall 4
F-2. Student standard errors and design effects—Public schools 6
F-3. Student standard errors and design effects—Private schools 8
F-4. Student standard errors and design effects—Northeast schools 10
F-5. Student standard errors and design effects—Midwest schools 12
F-6. Student standard errors and design effects—South schools 14
F-7. Student standard errors and design effects—West schools 16
F-8. Student standard errors and design effects—City schools 18
F-9. Student standard errors and design effects—Suburban schools 20
F-10. Student standard errors and design effects—Town schools 22
F-11. Student standard errors and design effects—Rural schools 24
F-12. Student standard errors and design effects—Male students 26
F-13. Student standard errors and design effects—Female students 28
F-14. Student standard errors and design effects—Hispanic students 30
F-15. Student standard errors and design effects—Asian students 32
F-16. Student standard errors and design effects—Black students 34
F-17. Student standard errors and design effects—White students 36
F-18. Student standard errors and design effects—Multiracial students 38
F-19. Student standard errors and design effects—Low percentile SES students 40
F-20. Student standard errors and design effects—Middle percentile SES students 42
F-21. Student standard errors and design effects—High percentile SES students 44
F-22. Parent standard errors and design effects—overall 46
F-23. Parent standard errors and design effects—Public schools 48
F-24. Parent standard errors and design effects—Private schools 50
F-25. Parent standard errors and design effects—Northeast schools 52
F-26. Parent standard errors and design effects—Midwest schools 54
F-27. Parent standard errors and design effects—South schools 56
F-28. Parent standard errors and design effects—West schools 58
F-29. Parent standard errors and design effects—City schools 60
F-30. Parent standard errors and design effects—Suburban schools 62
F-31. Parent standard errors and design effects—Town schools 64

F-32. Parent standard errors and design effects—Rural schools 66
F-33. Parent standard errors and design effects—Male students 68
F-34. Parent standard errors and design effects—Female students 70
F-35. Parent standard errors and design effects—Hispanic students 72
F-36. Parent standard errors and design effects—Asian students 74
F-37. Parent standard errors and design effects—Black students 76
F-38. Parent standard errors and design effects—White students 78
F-39. Parent standard errors and design effects—Multiracial and other students 80
F-40. Parent standard errors and design effects—Low percentile SES students 82
F-41. Parent standard errors and design effects—Middle percentile SES students 84
F-42. Parent standard errors and design effects—High percentile SES students 86
G-1. Unit nonresponse bias before and after adjustments were applied to the student base weights used in the first follow-up student analytic weights (W2STUDENT) for selected variables 4
G-2. Comparison of student estimates calculated with the nonresponse adjusted weight, the base weight, and the student analytic weight (W2STUDENT) for selected variables 8
G-3. Unit nonresponse bias before and after adjustments were applied to the student base weights used in the longitudinal student analytic weights (W2W1STU) for selected variables 12
G-4. Comparison of student estimates calculated with the nonresponse adjusted weight, the base weight, and the student longitudinal weight (W2W1STU) for selected variables 16
G-5. Unit nonresponse bias before and after adjustments were applied to the student home-life contextual base weights used in the student home-life contextual analytic weights (W2PARENT) for selected variables 20
G-6. Unit nonresponse bias before and after adjustments were applied to the student student home-life contextual base weights used in the student home-life contextual longitudinal weights (W2W1PAR) for selected variables 24
G-7. Unit nonresponse bias before and after inclusion of additional parent cases attributed to the responsive design 29
G-8. Comparison of item respondents and nonrespondents for S2MNOFAMREC (Not taking math because family member discouraged teen) by select sample school characteristics, using student base weight 34
G-9. Comparison of item respondents and nonrespondents for S2MNOTCHRREC (Not taking math because teacher discouraged teen) by select sample school characteristics, using student base weight 35
G-10. Comparison of item respondents and nonrespondents for S2MNOASSIGN (Not taking math because not assigned to it) by select sample school characteristics, using student base weight 36

G-11. Comparison of item respondents and nonrespondents for S2MDONTDOWELL (Not taking math because doesn't do well in math) by select sample school characteristics, using student base weight 37
G-12. Comparison of item respondents and nonrespondents for S2MNOCNSLREC (Not taking math because HS counselor discouraged teen) by select sample school characteristics, using student base weight 38
G-13. Comparison of item respondents and nonrespondents for S2MNOPARREC (Not taking math because parent discouraged teen) by select sample school characteristics, using student base weight 39
G-14. Comparison of item respondents and nonrespondents for S2MNOCAREER (Not taking math because won't be needed for career) by select sample school characteristics, using student base weight 40
G-15. Comparison of item respondents and nonrespondents for S2MNOEMPREC (Not taking math because employer discouraged teen) by select sample school characteristics, using student base weight 41
G-16. Comparison of item respondents and nonrespondents for S2MNOCLGSUCC (Not taking math because won't be needed to succeed in college) by select sample school characteristics, using student base weight 42
G-17. Comparison of item respondents and nonrespondents for S2MNOFRIEND (Not taking math because friends were not taking it) by select sample school characteristics, using student base weight 43
G-18. Comparison of item respondents and nonrespondents for S2SDISLIKE (Not taking science because really dislikes science) by select sample school characteristics, using student base weight 44
G-19. Comparison of item respondents and nonrespondents for S2SNOTHSREQ (Not taking science because it is not required for HS graduation) by select sample school characteristics, using student base weight 45
G-20. Comparison of item respondents and nonrespondents for S2STOOKBEFORE (Not taking science because took it earlier in the school year) by select sample school characteristics, using student base weight 46
G-21. Comparison of item respondents and nonrespondents for S2SNOCNSLREC (Not taking science because HS counselor discouraged teen) by select sample school characteristics, using student base weight 47
G-22. Comparison of item respondents and nonrespondents for S2SNOCAREER (Not taking science because won't be needed for career) by select sample school characteristics, using student base weight 48
G-23. Comparison of item respondents and nonrespondents for S2SNOASSIGN (Not taking science because not assigned to it) by select sample school characteristics, using student base weight 49
G-24. Comparison of item respondents and nonrespondents for S2SNOCLGADM (Not taking science because won't be needed to get into college) by select sample school characteristics, using student base weight 50

G-25. Comparison of item respondents and nonrespondents for S2OCC30EARN (Expected earnings for choice of occupation at age 30) by select sample school characteristics, using student base weight 51
G-26. Comparison of item respondents and nonrespondents for S2SNOFAMREC (Not taking science because family member discouraged teen) by select sample school characteristics, using student base weight 52
G-27. Comparison of item respondents and nonrespondents for S2SNOTCHRREC (Not taking science because teacher discouraged teen) by select sample school characteristics, using student base weight 53
G-28. Comparison of item respondents and nonrespondents for S2SNOPARREC (Not taking science because parent discouraged teen) by select sample school characteristics, using student base weight 54
G-29. Comparison of item respondents and nonrespondents for S2SDONTDOWELL (Not taking science because doesn't do well in science) by select sample school characteristics, using student base weight 55
G-30. Comparison of item respondents and nonrespondents for S2SNOEMPREC (Not taking science because employer discouraged teen) by select sample school characteristics, using student base weight 56
G-31. Comparison of item respondents and nonrespondents for S2SNOCLGSUCC (Not taking science because won't be needed to succeed in college) by select sample school characteristics, using student base weight 57
G-32. Comparison of item respondents and nonrespondents for S2SNOFRIEND (Not taking science because friends were not taking it) by select sample school characteristics, using student base weight 58
G-33. Comparison of item respondents and nonrespondents for S2JOBYR (Year dropout/early grad started current/most recent job) by select sample school characteristics, using student base weight 59
G-34. Comparison of item respondents and nonrespondents for X2PROBLEM (X2 Scale of problems at high school) by select sample school characteristics, using student base weight 60
G-35. Comparison of item respondents and nonrespondents for S2CHILDBORNYR (Year dropout/early grad's first child was born) by select sample school characteristics, using student base weight 61
G-36. Comparison of item respondents and nonrespondents for X2S2EARNNOHS (Earnings without HS diploma standardized by year) by select sample school characteristics, using student base weight 62
G-37. Comparison of item respondents and nonrespondents for X2S2EARNHS (Earnings with HS diploma standardized by year) by select sample school characteristics, using student base weight 63
G-38. Comparison of item respondents and nonrespondents for X2S2EARN4Y (Earnings with four year college degree standardized by year) by select sample school characteristics, using student base weight 64

G-39. Comparison of item respondents and nonrespondents for X2S2EARNOCC (Earnings with occupational training diploma standardized by year) by select sample school characteristics, using student base weight 65
G-40. Comparison of item respondents and nonrespondents for X2S2EARN2YPUB (Earnings with two year college degree standardized by year) by select sample school characteristics, using student base weight 66
G-41. Comparison of item respondents and nonrespondents for S2IBOTHER (Has taken IB course(s) in another subject) by select sample school characteristics, using student base weight 67
G-42. Comparison of item respondents and nonrespondents for S2IBSCIENCE (Has taken IB science course(s)) by select sample school characteristics, using student base weight 68
G-43. Comparison of item respondents and nonrespondents for S2IBMATH (Has taken IB math course(s)) by select sample school characteristics, using student base weight 69
G-44. Comparison of item respondents and nonrespondents for P2CLGWORKFT (Teenager will work full-time or part-time while attending college) by select sample school characteristics, using parent base weight 70
G-45. Comparison of item respondents and nonrespondents for P2CONF2YPUB (Confidence in estimate of cost of public in-state 2-year college) by select sample school characteristics, using parent base weight 71
G-46. Comparison of item respondents and nonrespondents for P2CONF4YPRV (Confidence in estimate for cost of typical 4-year private college) by select sample school characteristics, using parent base weight 72
G-47. Comparison of item respondents and nonrespondents for P2FIRSTCHOICE (Most likely postsec school is parent's 1st choice not considering cost) by select sample school characteristics, using parent base weight 73
G-48. Comparison of item respondents and nonrespondents for P2CERTAINCLG (How certain teenager is to attend most likely postsecondary institution) by select sample school characteristics, using parent base weight 74
G-49. Comparison of item respondents and nonrespondents for P2USYR1 (Year Parent 1 came to U.S. to stay) by select sample school characteristics, using parent base weight 75
G-50. Comparison of item respondents and nonrespondents for P2USYR2 (Year Parent 2 came to U.S. to stay) by select sample school characteristics, using parent base weight 76
G-51. Comparison of item respondents and nonrespondents for P2LIKELYCLGLV (Level of postsecondary institution most likely to attend in fall 2013) by select sample school characteristics, using parent base weight 77
G-52. Comparison of item respondents and nonrespondents for P2LIKELYCLGTYP (Control (public/private) of postsec inst most likely to attend in fall 2013) by select sample school characteristics, using parent base weight 78

G-53. Comparison of item respondents and nonrespondents for X2PEARNNOHS (Parent questionnaire earnings without HS diploma standardized by year) by select sample school characteristics, using parent base weight 79
G-54. Comparison of item respondents and nonrespondents for X2PEARNHS (Parent questionnaire earnings with HS diploma standardized by year) by select sample school characteristics, using parent base weight 80
G-55. Comparison of item respondents and nonrespondents for P2CHOICECLGLV (Level of parent's first choice postsecondary institution) by select sample school characteristics, using parent base weight..... 81
G-56. Comparison of item respondents and nonrespondents for P2CHOICECLGTYP (Control (public/private) of parent's first choice postsecondary institution) by select sample school characteristics, using parent base weight..... 82
G-57. Comparison of item respondents and nonrespondents for X2PEARN4Y (Parent questionnaire earnings with four year college degree standardized by year) by select sample school characteristics, using parent base weight 83
G-58. Comparison of item respondents and nonrespondents for P2ENGLISH (English is regularly spoken in home) by select sample school characteristics, using parent base weight 84
G-59. Comparison of item respondents and nonrespondents for X2PEARN2YPUB (Parent questionnaire earnings with two year college degree standardized by year) by select sample school characteristics, using parent base weight 85
G-60. Comparison of item respondents and nonrespondents for X2PEARNOCC (Parent questionnaire earnings with occupational training diploma standardized by year) by select sample school characteristics, using parent base weight..... 86
G-61. Comparison of item respondents and nonrespondents for P2USGRADE (Grade level teenager was placed in when started school in U.S.) by select sample school characteristics, using parent base weight 87
G-62. Comparison of item respondents and nonrespondents for P2USYRT (Year teenager came to the U.S. to stay) by select sample school characteristics, using parent base weight 88
G-63. Comparison of item respondents and nonrespondents for P2DKHOWAPP (Won't apply for financial aid because does not know how) by select sample school characteristics, using parent base weight..... 89
G-64. Comparison of item respondents and nonrespondents for P2NODEBT (Won't apply for financial aid because family doesn't want debt) by select sample school characteristics, using parent base weight..... 90
G-65. Comparison of item respondents and nonrespondents for P2NOPLANS (Won't apply for financial aid because doesn't plan to continue education) by select sample school characteristics, using parent base weight 91

G-66. Comparison of item respondents and nonrespondents for P2INELIGIBLE (Won't apply for financial aid because may be ineligible/unqualified) by select sample school characteristics, using parent base weight 92
G-67. Comparison of item respondents and nonrespondents for P2FORMSDIFF (Won't apply for financial aid because forms are too difficult) by select sample school characteristics, using parent base weight 93
G-68. Comparison of item respondents and nonrespondents for P2CANAFFORD (Won't apply for financial aid because can afford college/school w/out it) by select sample school characteristics, using parent base weight 94
G-69. Comparison of item respondents and nonrespondents for P2NOQUALCRED (Won't qualify for financial aid because of credit score) by select sample school characteristics, using parent base weight..... 95
G-70. Comparison of item respondents and nonrespondents for P2NOQUALTEST (Won't qualify for financial aid because grades or test scores too low) by select sample school characteristics, using parent base weight 96
G-71. Comparison of item respondents and nonrespondents for P2NOQUALINC (Won't qualify for financial aid because income is too high) by select sample school characteristics, using parent base weight..... 97
G-72. Comparison of item respondents and nonrespondents for P2NOQUALFAM (Won't qualify for financial aid because family member didn't qualify) by select sample school characteristics, using parent base weight 98
G-73. Comparison of item respondents and nonrespondents for P2NOQUALPT (Won't qualify for financial aid because will attend part-time) by select sample school characteristics, using parent base weight 99
G-74. Comparison of item respondents and nonrespondents for P2QHELP2 (Other family member helped respondent complete questionnaire) by select sample school characteristics, using parent base weight..... 100
G-75. Comparison of item respondents and nonrespondents for P2QHELP4 (Someone else helped respondent complete questionnaire) by select sample school characteristics, using parent base weight..... 101
G-76. Comparison of item respondents and nonrespondents for P2QHELP1 (Teenager helped respondent complete questionnaire) by select sample school characteristics, using parent base weight 102
H-1. Details of imputation procedures for first follow-up student variables 4
H-2. Details of imputation procedures for first follow-up responding parent – base-year responding parent (Group 1—see chapter 7) 5
H-3. Details of imputation procedures for first follow-up responding parent – no base-year parent data (Group 2—see chapter 7)..... 6
H-4. Details of imputation procedures for no first follow-up parent data – base-year responding parent (Group 3—see chapter 7) 7

H-5. Details of imputation procedures for no first follow-up parent data – no base-year parent data – first follow-up responding student – base-year responding student (Group 4—see chapter 7) 8
H-6. Details of imputation procedures for no first follow-up parent data – no base-year parent data – first follow-up responding student – no base-year student data (Group 5—see chapter 7) 9
H-7. Weighted distribution of imputed first follow-up student variables before and after imputation 10
H-8. Weighted distribution of imputed first follow-up parent variables from parent survey subsample before and after imputation 12
H-9. Weighted distribution of imputed first follow-up parent variables for all first follow-up student respondents before and after imputation 20
H-10. Covariates include in the *theta* and *sem* multiple imputation model 30
H-11. Covariates included in the socioeconomic status (SES) multiple imputation model 32
J-1. Comparison of Public- and Restricted-use Files 3
K-1. Variable List for HSLS:09 Electronic Codebook (ECB)**Error! Bookmark not defined.**
N-1. HSLS:09 F1 Student First Follow-up Critical Items 3
N-2. HSLS:09 F1 Parent First Follow-up Critical Items 4
N-3. HSLS:09 F1 Administrator First Follow-up Critical Items 5
N-4. HSLS:09 F1 Counselor First Follow-up Critical Items 6

List of Figures

O-1. Student Flow Chart: Section A-1 ..... O-3
O-2. Student Flow Chart: Section A-2 ..... O-4
O-3. Student Flow Chart: Section A-3 ..... O-5
O-4. Student Flow Chart: Section B-1 ..... O-6
O-5. Student Flow Chart: Section B-2 ..... O-7
O-6. Student Flow Chart: Section C-1 ..... O-8
O-7. Student Flow Chart: Section C-2 ..... O-9
O-8. Student Flow Chart: Section C-3 ..... O-10
O-9. Student Flow Chart: Section C-4 ..... O-11
O-10. Student Flow Chart: Section C-5 ..... O-12
O-11. Student Flow Chart: Section C-6 ..... O-13
O-12. Student Flow Chart: Section D-1 ..... O-14
O-13. Student Flow Chart: Section D-2 ..... O-15
O-14. Student Flow Chart: Section D-3 ..... O-16
O-15. Student Flow Chart: Section E-1 ..... O-17
O-16. Student Flow Chart: Section F-1 ..... O-18
O-17. Student Flow Chart: Section F-2 ..... O-19
O-18. Student Flow Chart: Section F-3 ..... O-20
O-19. Parent Flow Chart: Section A-1 ..... O-21
O-20. Parent Flow Chart: Section A-2 ..... O-22
O-21. Parent Flow Chart: Section A-3 ..... O-23
O-22. Parent Flow Chart: Section B-1 ..... O-24
O-23. Parent Flow Chart: Section B-2 ..... O-25
O-24. Parent Flow Chart: Section C-1 ..... O-26
O-25. Parent Flow Chart: Section C-2 ..... O-27
O-26. Parent Flow Chart: Section C-3 ..... O-28
O-27. Parent Flow Chart: Section C-4 ..... O-29
O-28. Parent Flow Chart: Section C-5 ..... O-30
O-29. Parent Flow Chart: Section D-1 ..... O-31
O-30. Parent Flow Chart: Section D-2 ..... O-32
O-31. Parent Flow Chart: Section D-3 ..... O-33
O-32. Parent Flow Chart: Section E-1 ..... O-34
O-33. Parent Flow Chart: Section E-2 ..... O-35
O-34. Parent Flow Chart: Section E-3 ..... O-36

O-35. Parent Flow Chart: Section F-1 ..... O-37
O-36. Administrator Flow Chart: Section A-1 ..... O-38
O-37. Administrator Flow Chart: Section B-1 ..... O-39
O-38. Administrator Flow Chart: Section B-2 ..... O-40
O-39. Administrator Flow Chart: Section B-3 ..... O-41
O-40. Administrator Flow Chart: Section C-1 ..... O-42
O-41. Administrator Flow Chart: Section D-1 ..... O-43
O-42. Administrator Flow Chart: Section D-2 ..... O-44
O-43. Administrator Flow Chart: Section D-3 ..... O-45
O-44. Counselor Flow Chart: Section A-1 ..... O-46
O-45. Counselor Flow Chart: Section B-1 ..... O-47
O-46. Counselor Flow Chart: Section B-2 ..... O-48
O-47. Counselor Flow Chart: Section B-3 ..... O-49
O-48. Counselor Flow Chart: Section B-4 ..... O-50
O-49. Counselor Flow Chart: Section C-1 ..... O-51
O-50. Counselor Flow Chart: Section C-2 ..... O-52
O-51. Counselor Flow Chart: Section D O-53

Appendix A.
First Follow-up Questionnaires

Student **A-3**
Parent **A-97**
Administrator **A-153**
Counselor **A-181**

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Student

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Section A: Screening and Schools Attended

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Screen: S2AINTRO
Question Wording: Next, we'd like to ask some questions about the schools you have attended.
Routing: If respondent is participating in school and the school enrollment status information indicates they are a student, then define respondent as "regular student" and go to S2 A11; If respondent is participating in school and the school enrollment status information indicates they are a transfer, then define respondent as "transfer student" and go to S2 A03; Else if respondent is participating in school, go to S2 A02; Else go to S2 A01.

~~~~~~

Screen: S2 A01
Question Wording: [Are you currently/At the end of the spring 2012 term, were you] attending high school, not attending high school, or being homeschooled?
If you [are/were] out for school break, illness, injury, or vacation, please consider yourself as attending school.
Note: Question wording was customized such that "are you currently" and "are" displayed if the school enrollment status indicated they were still in school, otherwise "At the end of the spring 2012 term, were you" and "were" displayed.

Variable: S2ENROLLHS12

1=Attending high school
2=Not attending high school
3=Being homeschooled

Routing: If respondent is attending high school, go to S2 A02; Else if homeschooled, define respondent as "homeschooler" and go to S2 A04; Else if not attending high school or no answer, go to S2 A05.
Administered to: Respondents participating out of school.

~~~~~~

Screen: S2 A02
Question Wording: [Are you currently/At the end of the spring 2012 term, were you] attending [base year high school name] or another high school?
Note: Question wording was customized such that "are you currently" displayed if the respondent indicated they were currently attending high school, otherwise "At the end of the spring 2012 term, were you" displayed.

Variable: S2ENROLLBYHS

1=[base year high school name]
2=Another high school

Routing: If respondent is enrolled in base year school, then define respondent as "regular" student and go to S2 A11; Else if respondent is enrolled in another school, then define respondent as "transfer student" and go to S2 A03; Else if no answer then define respondent as "regular" student and go to S2 A03.
Administered to: Respondents participating in school, but it is unknown whether the respondent is attending their base year high school or another high school.

~~~~~~

Screen: S2 A03
Question Wording: What are the full name, city and state of the high school you [are currently attending/were attending at the end of the spring 2012 term]?
(Please type in the full name. Do not use abbreviations.)
Note: Question wording was customized such that "are currently attending" displayed if the respondent indicated they were currently attending high school, otherwise "were attending at the end of the spring 2012 term" displayed.

Variable: not delivered
Item Wording: School name:

Variable: not delivered
Item Wording: City:

Variable: not delivered
Item Wording: State:

-9=Select one
1=Alabama
2=Alaska
3=Arizona
4=Arkansas
5=California
6=Colorado
7=Connecticut
8=Delaware
9=District of Columbia
10=Florida
11=Georgia
12=Hawaii
13=Idaho
14=Illinois
15=Indiana
16=Iowa
17=Kansas
18=Kentucky
19=Louisiana
20=Maine
21=Maryland
22=Massachusetts
23=Michigan
24=Minnesota
25=Mississippi
26=Missouri
27=Montana
28=Nebraska
29=Nevada
30=New Hampshire
31=New Jersey
~~~~~~

32=New Mexico
33=New York
34=North Carolina
35=North Dakota
36=Ohio
37=Oklahoma
38=Oregon
39=Pennsylvania
40=Rhode Island
41=South Carolina
42=South Dakota
43=Tennessee
44=Texas
45=Utah
46=Vermont
47=Virginia
48=Washington
49=West Virginia
50=Wisconsin
51=Wyoming
99=FOREIGN COUNTRY

Routing: If respondent is defined as "regular" student then go to S2 A11; Else if respondent is defined as "transfer student" then go to S2 A04.
Administered to: Respondents participating in school, and attending a high school other than their base year high school.

~~~~~~

Screen: S2 A04
Question Wording: Why did you [transfer to [current high school's name]/transfer to your current school/transfer to [last high school's name]/transfer to your most recent school/begin homeschooling]?
Note: Question and item wording was customized such that the language that was displayed depended on whether the respondent was still in school or being homeschooled at the time of responding to the survey. If the respondent was still in school, S2TREXPEL was not displayed as an option.

Variable: S2TRMOVED
Item Wording: You moved to a new area or [your current school is more conveniently located/homeschooling is more convenient.]
1=Yes
0=No

Variable: S2TRBEHIND
Item Wording: You fell behind in your schoolwork at your previous school.
1=Yes
0=No
~~~~~~

Variable: S2TRREASSIGN
Item Wording: You were re-assigned by the school system.
1=Yes
0=No

Variable: S2TRPERSONAL
Item Wording: You [transferred/began homeschooling] for personal or family reasons.
1=Yes
0=No

Variable: S2TRFINANCIAL
Item Wording: You [transferred/began homeschooling] for financial reasons.
1=Yes
0=No

Variable: S2TREXPEL
Item Wording: You were expelled or suspended from your previous school.
1=Yes
0=No

Variable: S2TRADVANTAGE
Item Wording: You wanted to take advantage of your [current school's/homeschool's] programs, offerings, or quality of instruction.
1=Yes
0=No

Variable: S2TRDISLIKE
Item Wording: You didn't like your previous school.
1=Yes
0=No

Routing: Go to S2 A11.
Administered to: Respondents identified as transfer students or homeschooled.

~~~~~~

Screen: S2 A05
Question Wording: [At the end of the spring 2012 term, had/Have] you earned a regular high school diploma, GED, or alternative high school credential?
Note: Question wording was customized in the survey instrument such that "At the end of the spring 2012 term, had" displayed if the respondent indicated they were not currently attending school, otherwise "Have" displayed.

Variable: S2HSCRED
1=Yes, a regular diploma
2=Yes, a GED or alternative high school credential
3=No

Routing: If respondent has received a regular diploma or GED/alternative credential, then define respondent as an "early graduate" and go to S2 A06; Else go to S2 A07.
Administered to: Respondents who were not attending high school or who did not provide their enrollment status.

~~~~~~

Screen: S2 A06
Question Wording: In what month and year did you receive your [high school diploma/GED or alternative high school credential]?

Variable: S2HSCREDMO
Item Wording: Month:
-9=Select one
1=January
2=February
3=March
4=April
5=May
6=June
7=July
8=August
9=September
10=October
11=November
12=December
Variable: S2HSCREDYR
Item Wording: Year:
-9=Select one
2009=2009
2010=2010
2011=2011
2012=2012
Routing: Go to S2 A07.
Administered to: Respondents who graduated high school early and received either their diploma or GED.
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Screen: S2 A07
Question Wording: [In/Prior to the end of the spring term of 2012, in] what month and year did you last attend high school?
Note: Question wording was customized such that "in" displayed if the respondent indicated they were not currently attending high school, otherwise "Prior to the end of the spring term of 2012, in" displayed.
Variable: S2LASTHSMO
Item Wording: Month:
-9=Select one
1=January
2=February
3=March
4=April
5=May
6=June
7=July
8=August
9=September
10=October
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11=November
12=December

Variable: S2LASTHSYR

Item Wording: Year:
-9=Select one
2009=2009
2010=2010
2011=2011
2012=2012

Routing: If respondent is already defined as an early grad then go to S2 A09; Else if year last attended is missing then go to S2 A08; Else if year last attended is 2012 and month last attended is missing then go to S2 A08; Else if last attended month/year is the same as interview month/year, then go to S2 A09; Else if last attended month/year is the month prior to the interview month/year, then go to S2 A08; Else if last attended date is prior to 5/12 then define respondent as “dropout” and go to S2 A09; Else if last attended date is 5/12 or after then go to S2 A08; Else go to S2 A09.
Administered to: Respondents who are not currently attending high school and did not indicate they had graduated early or received a GED.

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Screen: S2 A08
Question Wording: [Has it been/At the end of the spring term of 2012, had it been] 4 or more weeks since you last attended high school?
Note: Question wording was customized such that “Has it been” displayed if the respondent did not indicate when they last attended school. Otherwise, “At the end of the spring term of 2012, had it been” displayed if the respondent indicated they last attended school in May of 2012.

Variable: S2LASTATTEND
1=Yes
0=No

Routing: If S2LASTATTEND =yes then define respondent as a “dropout” and go to S2 A09; Else if not attending, but no answer about when last attended school, define as a “dropout” and go to S2 A09; Else leave R’s respondent type undefined and go to S2 A09.
Administered to: Respondents who were not currently attending high school, and the date the respondent left school was unknown or the respondent indicated they stopped attending one month or more before completing the interview.

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Screen: S2 A09
Question Wording: When you last attended high school, were you attending [base year high school name], attending another high school, or being homeschooled?
Note: Question wording was customized such that the actual high school the respondent attended in base year displayed in place of “base year high school name.”

Variable: S2LASTHS
1=[base year high school name]
2=Another high school
3=Homeschooled

Routing: If respondent indicates “base year school” (or provides no response) then go to S2 A11 (and, if respondent is not already defined as a dropout, then define respondent as a “regular”

student); Else if respondent indicates "another school" then go to S2 A10 (and, if respondent is not already defined as a dropout, then define respondent as a "transfer student"); Else if respondent indicates "homeschooled" then go to S2 A11 (and, if respondent is not already defined as a dropout, then define respondent as a "homeschooler");
Administered to: Respondents who were not currently attending high school.

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Screen: S2 A10
Question Wording: What are the full name, city, and state of the last high school you attended? (Please type in the full name. Do not use abbreviations.)

Variable: not delivered
Item Wording: High school name:

Variable: not delivered
Item Wording: City:

Variable: not delivered
Item Wording: State:

-9=Select one
1=Alabama
2=Alaska
3=Arizona
4=Arkansas
5=California
6=Colorado
7=Connecticut
8=Delaware
9=District of Columbia
10=Florida
11=Georgia
12=Hawaii
13=Idaho
14=Illinois
15=Indiana
16=Iowa
17=Kansas
18=Kentucky
19=Louisiana
20=Maine
21=Maryland
22=Massachusetts
23=Michigan
24=Minnesota
25=Mississippi
26=Missouri
27=Montana
28=Nebraska
29=Nevada
30=New Hampshire
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31=New Jersey
32=New Mexico
33=New York
34=North Carolina
35=North Dakota
36=Ohio
37=Oklahoma
38=Oregon
39=Pennsylvania
40=Rhode Island
41=South Carolina
42=South Dakota
43=Tennessee
44=Texas
45=Utah
46=Vermont
47=Virginia
48=Washington
49=West Virginia
50=Wisconsin
51=Wyoming
99=FOREIGN COUNTRY

Routing: Go to S2 A11.
Administered to: Respondents who are not currently attending high school and attended another high school since base year.

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Screen: S2 A11
Question Wording: Have you attended any other high school besides [base year high school name] [and [current high school's name] / and [last high school's name]] since you were a 9th-grader in the fall of 2009?
Note: Question wording was customized in the survey instrument such that the high school the respondent attended in base year was displayed in place of "base year high school" or the respondent's current high school name was displayed in place of "current high school name" if the respondent was still attending school. If the respondent was not attending high school, the name of the high school that the respondent last attended was displayed in place of "last high school's name."

Variable: S2OTHHS

1=Yes
0=No

Routing: If has attended another school, go to S2 A12; Else if a dropout or early graduate who last attended in 2009 or in the spring term of 2010, go to S2 A15; Else go to S2 A13
Administered to: All respondents
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Screen: S2 A12
Question Wording: Schools you've already told us about:
[base year high school name]
[current high school's name]
[last high school's name]
[1st other high school name]
[2nd other high school name]
[etc.]
What are the full name, city and state of the other high school you attended?
(Please type in the full name. Do not use abbreviations.)
Note: Question wording was customized in the survey instrument such that the applicable school names were displayed depending on whether the respondent was still attending school or not and whether the respondent is attending or attended any other schools besides their base year school.

Variable: not delivered
Item Wording: High school name:

Variable: not delivered
Item Wording: City:

Variable: not delivered
Item Wording: State:
-9=Select one
1=Alabama
2=Alaska
3=Arizona
4=Arkansas
5=California
6=Colorado
7=Connecticut
8=Delaware
9=District of Columbia
10=Florida
11=Georgia
12=Hawaii
13=Idaho
14=Illinois
15=Indiana
16=Iowa
17=Kansas
18=Kentucky
19=Louisiana
20=Maine
21=Maryland
22=Massachusetts
23=Michigan
24=Minnesota
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25=Mississippi
26=Missouri
27=Montana
28=Nebraska
29=Nevada
30=New Hampshire
31=New Jersey
32=New Mexico
33=New York
34=North Carolina
35=North Dakota
36=Ohio
37=Oklahoma
38=Oregon
39=Pennsylvania
40=Rhode Island
41=South Carolina
42=South Dakota
43=Tennessee
44=Texas
45=Utah
46=Vermont
47=Virginia
48=Washington
49=West Virginia
50=Wisconsin
51=Wyoming
99=FOREIGN COUNTRY

Routing: Go to S2MOREHS.

Administered to: Respondents who indicated they attended additional high schools since attending their base year high school.

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Screen: S2MOREHS

Question Wording: Schools you've already told us about:

[base year high school name]
[current high school's name]
[last high school's name]
[1st other high school name]
[2nd other high school name]
[etc.]

Have you attended any other high school since you were a 9th-grader in the fall of 2009?

Note: Question wording was customized in the survey instrument such that the applicable school names were displayed depending on whether the respondent was still attending school or not and whether the respondent is attending or attended any other schools besides their base year school.
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Variable: not delivered
1=Yes
0=No

Routing: If respondent has attended another high school then go to S2 A12; Else if respondent is a dropout or early graduate who last attended in 2009 or in the spring term of 2010, go to S2 A15; Else go to S2 A13.
Administered to: Respondents who indicated they attended additional high schools since attending their base year high school.

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Screen: S2 A13
Question Wording: What grade were you in [last school year, that is, during the 2010–2011 school year/during the 2010–2011 school year/when you last attended school]?
Note: Question wording was customized such that "last school year, that is, during the 2010–2011 school year" was displayed if the respondent was still in school, "during the 2010–2011 school year" was displayed if the respondent was not currently in school but attended school in the 2010–2011 school year, and "when you last attended school" was displayed if the respondent is currently not in school and did not attend high school during the 2010–2011 school year. In addition, the last option was not displayed if the student reported last attending high school during the 2010–2011 school year in item S2 A07.

Variable: S2GRD1011
1=9th grade
2=10th grade
3=11th grade
4=12th grade
5=You were in an ungraded program
6=You were not attending during the 2010–2011 school year

Routing: If respondent is a dropout or early graduate who last attended in 2010 or in the spring term of 2011, then go to S2 A15; Else go to S2 A14.
Administered to: Respondents who last attended school during the 2010–2011 school year.

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Screen: S2 A14
Question Wording: What grade [are you currently in/were you in at the end of the spring term of 2012/were you in when you last attended school during the 2011–2012 school year]?
Note: Question wording was customized such that "are you currently in" was displayed if the respondent was still in school, "were you in at the end of the spring term of 2012" was displayed if the respondent was currently not in school but attended school in the spring of 2012, and "were you in when you last attended school during the 2011–2012 school year" was displayed if the respondent was currently not in school and attended high school during the 2011–2012 school year. In addition, the last option was not displayed if the student reported last attending high school during the 2010–2011 school year in item S2 A07.

Variable: S2GRD1112
1=9th grade
2=10th grade
3=11th grade
4=12th grade
5=You [are/were] in an ungraded program

6=You [are/were] not attending high school during the 2011–2012 school year

Routing: If respondent is a student, transfer or homeschooler, go to S2 A16; Else go to S2 A15
Administered to: Respondents who last attended school during the 2011–2012 school year.

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Screen: S2 A15
Question Wording: When you left high school, had you passed the [9th grade/10th grade/11th grade/12th grade/highest grade you were enrolled in]?
Note: Question wording that is displayed is dependent on the response to the S2 A14.

Variable: S2PASSGRADE

1=Yes
0=No

Routing: Go to S2 A16
Administered to: Respondents who were not currently attending high school.

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Screen: S2 A16
Question Wording: [At any time since the fall of 2009, have you stopped/Prior to [month/year last attended], had you ever stopped/Prior to the date you last attended high school, had you ever stopped/Before you began homeschooling, had you ever stopped] going to high school for a period of 4 weeks or more? Do not include school breaks, illness, injury, or vacation. Do include school expulsions or out-of-school suspensions.
Note: Question wording was customized such that "At any time since the fall of 2009, have you stopped" was displayed if the respondent was still in school, "Prior to [month/year last attended], had you ever stopped" was displayed and "month/year last attended" was replaced with the actual month and year the respondent reported was the last date they attended school if the respondent was currently not in school; "Prior to the date you last attended high school, had you ever stopped" was displayed if the respondent was currently not in school and did not report the date they last attended school; and "Before you began homeschooling, had you ever stopped" was displayed if the respondent reported they were being homeschooled.

Variable: S2DROPOUTHS

1=Yes
0=No

Routing: Go to S2 A17
Administered to: All respondents.

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Screen: S2 A17
Question Wording: How many times did the following things happen during the last 6 months[you were in school]?
Note: Question wording was customized in the survey instrument such that "you were in school" displayed only if the respondent reported they were not currently attending school.

Variable: S2LATESCH

Item Wording: You were late for school.

1=Never
2=1–2 times
3=3–6 times
4=7–9 times
5=10 or more times
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Variable: S2ABSENT
Item Wording: You were absent from school.
1=Never
2=1–2 times
3=3–6 times
4=7–9 times
5=10 or more times

Variable: S2WOHWDN
Item Wording: You attended class without your homework done.
1=Never
2=1–2 times
3=3–6 times
4=7–9 times
5=10 or more times

Variable: S2WOPAPER
Item Wording: You attended class without pencil and paper, computer or other device for taking notes.
1=Never
2=1–2 times
3=3–6 times
4=7–9 times
5=10 or more times

Variable: S2WOBOOKS
Item Wording: You attended class without books or other reading material.
1=Never
2=1–2 times
3=3–6 times
4=7–9 times
5=10 or more times

Variable: S2SKIPCLASS
Item Wording: You cut or skipped classes.
1=Never
2=1–2 times
3=3–6 times
4=7–9 times
5=10 or more times

Variable: S2INSCHSUSP
Item Wording: You were put on an in-school suspension.
1=Never
2=1–2 times
3=3–6 times
4=7–9 times
5=10 or more times

Routing: If respondent is a regular student, transfer or homeschooler, go to Introduction to Section B; Else go to S2 A18.
Administered to: All respondents.

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Screen: S2 A18
Question Wording: How many times did the following things happen to you during the last 6 months you were in school?

Variable: S2OUTSCHSUSP
Item Wording: You were put on an out-of-school suspension or probation from school.
1=Never
2=Once
3=More than once

Variable: S2DISCIPLINE
Item Wording: You were transferred to another school for discipline reasons.
1=Never
2=Once
3=More than once

Variable: S2EXPELLED
Item Wording: You were expelled.
1=Never
2=Once
3=More than once

Variable: S2ARRESTED
Item Wording: You were arrested.
1=Never
2=Once
3=More than once

Variable: S2JUVHOME
Item Wording: You spent time in a juvenile home or detention center.
1=Never
2=Once
3=More than once

Routing: Go to S2 A19
Administered to: Respondents not currently attending high school.

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Screen: S2 A19
Question Wording: Here are some reasons other people have given for leaving high school. Which of these would you say applied to you?

Variable: S2TOWORK
Item Wording: You couldn't work and go to school at the same time.
1=Yes
0=No

Variable: S2DISLIKESCH
Item Wording: You did not like school.
1=Yes
0=No

Variable: S2POORGRADE
Item Wording: You were getting behind in your schoolwork or getting poor grades.
1=Yes
0=No

Variable: S2GEDEASIER
Item Wording: You thought it would be easier to get a GED or alternative high school credential.
1=Yes
0=No

Variable: S2SUSPENDEXP
Item Wording: You were suspended or expelled.
1=Yes
0=No

Variable: S2FRIENDSDO
Item Wording: Your friends had dropped out of school.
1=Yes
0=No

Variable: S2NONEEDHS
Item Wording: You didn't need to complete high school for what you wanted to do.
1=Yes
0=No

Variable: S2SUPPORTFAM
Item Wording: You had to take care of or financially support your family.
1=Yes
0=No

Variable: S2EARLYADMIT
Item Wording: You wanted to gain early admission to a school that provides occupational training or a college.
1=Yes
0=No

Routing: If a dropout, go to S2 A20; Else got to S2 A22.
Administered to: Respondents not currently attending high school.

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Screen: S2 A20
Question Wording: Since leaving high school, have you enrolled in a program to prepare for a high school diploma, GED or an alternative high school credential?

Variable: S2HSPROGRAM
1=Yes
0=No

Routing: Go to S2 A21.
Administered to: Respondents not currently attending high school because they have dropped out.

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Screen: S2 A21
Question Wording: Have you taken the GED exam?

Variable: S2GEDEXAM
1=Yes
0=No
Routing: Go to S2 A22.
Administered to: Respondents not currently attending high school because they have dropped out.

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Screen: S2 A22
Question Wording: Since leaving high school, have you taken a course for credit at a school that provides occupational training, a 2-year community college, or a 4-year college? (Include any courses for credit you are taking now.)
Variable: S2PSCREDIT
1=Yes
0=No
Routing: If respondent has attended a postsecondary institution, go to S2 A23; Else go to Introduction to Section B.
Administered to: Respondents not currently attending high school.

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Screen: S2 A23
Question Wording: Since leaving high school, at which of the following types of schools have you taken courses for credit?
Variable: S2ENROCCTRN
Item Wording: School that provides occupational training, usually less than 2 years
1=Yes
0=No
Variable: S2ENR2YPUB
Item Wording: 2-year community college
1=Yes
0=No
Variable: S2ENR4Y
Item Wording: 4-year college
1=Yes
0=No
Routing: Go to Introduction to Section B
Administered to: Respondents who have taken a course for credit at a school that provides occupational training, a 2-year community college, or a 4-year college

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Section B: Demographics and Socio-economic Status

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Screen: S2BINTRO
Question Wording: The next set of questions is about your background and your family.
Routing: If student is a base year nonrespondent or response status is undetermined, go to S2 B01; Else if student is a base year respondent who is a non-native English speaker, go to S2 B09; Else if parents were base year nonrespondents then go to S2 B11; Else go to Introduction to Section C.

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Screen: S2 B01
Question Wording: Are you…
Variable: S2SEX
1=Male or
2=Female?
Routing: Go to S2 B02.
Administered to: Respondents who did not participate in base year.

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Screen: S2 B02
Question Wording: Are you Hispanic or [Latino/Latina]?
Variable: S2HISPANIC
1=Yes
0=No
Routing: If respondent is Hispanic then go to S2 B03; Else go to S2 B04.
Administered to: Respondents who did not participate in base year.

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Screen: S2 B03
Question Wording: Are you…
Variable: S2HISPOR
1=Mexican, Mexican-American, or Chicano
2=Cuban
3=Dominican
4=Puerto Rican
5=Central American such as Guatemalan, Salvadoran, Nicaraguan, Costa Rican, Panamanian, or Honduran
6=South American such as Colombian, Argentinian, or Peruvian, or
7=Other Hispanic or Latino or Latina?
Routing: Go to S2 B04.
Administered to: Respondents who indicated they were Hispanic in S2HISPANIC.

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Screen: S2 B04
Question Wording: [In addition to learning about your Hispanic background, we would also like to know about your racial background.]
What is your race?
Note: Question wording was customized such that text in brackets was displayed if the respondent indicated they were Hispanic or Latino/Latina in S2B02.
Variable: S2WHITE
Item Wording: White
0=No
1=Yes
Variable: S2BLACK
Item Wording: Black or African American
0=No
1=Yes

Variable: S2ASIAN
Item Wording: Asian
0=No
1=Yes
Variable: S2PACISLE
Item Wording: Native Hawaiian or other Pacific Islander
0=No
1=Yes
Variable: S2AMINDIAN
Item Wording: American Indian or Alaska Native
0=No
1=Yes
Routing: If respondent is Asian, then go to S2 B05; Else go to S2 B06.
Administered to: Respondents who did not participate in base year.

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Screen: S2 B05
Question Wording: Are you…
Variable: S2ASIANOR
1=Chinese
2=Filipino
3=Southeast Asian such as Vietnamese or Thai
4=South Asian such as Asian Indian or Sri Lankan, or
5=Other Asian such as Korean or Japanese?
Routing: Go to S2 B06
Administered to: Respondents who indicated they were Asian in S2ASIAN.

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Screen: S2 B06
Question Wording: What is your birth date?
Variable: S2BIRTHMON
Item Wording: Month:
-9=Select one
1=January
2=February
3=March
4=April
5=May
6=June
7=July
8=August
9=September
10=October
11=November
12=December

Variable: not delivered, but used to construct X2STDOB
Item Wording: Day:
-9=Select one
1=1
2=2
3=3
4=4
5=5
6=6
7=7
8=8
9=9
10=10
11=11
12=12
13=13
14=14
15=15
16=16
17=17
18=18
19=19
20=20
21=21
22=22
23=23
24=24
25=25
26=26
27=27
28=28
29=29
30=30
31=31

Variable: S2BIRTHYR
Item Wording: Year:
-9=Select one
0=1990 or earlier
1=1991
2=1992
3=1993
4=1994
5=1995
6=1996
7=1997 or later

Routing: Go to S2 B07

Administered to: Respondents who did not participate in base year.

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Screen: S2 B07
Question Wording: What was the first language you learned to speak when you were a child? Was it…

Variable: S2LANG1ST

1=English
2=Spanish
3=Another language
4=English and Spanish equally or
5=English and another language equally?

Routing: If S2 B07 is "Spanish" or "English and Spanish equally" then go to S2 B09; Else if S2 B07 is "another language" or "English and another language equally" then go to S2 B08; Else if S2 B07 is "English" (or no response) and respondent did not have a responding parent in the base year, then go to S2 B11; Else if S2 B07 is "English" (or no response) and respondent did have a responding parent in the base year, then go to Introduction to Section C;
Administered to: Respondents who did not participate in base year.

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Screen: S2 B08
Question Wording: What is the [other] language you first learned to speak?
Note: "Other" was displayed in question wording if respondent indicated their first language was "English and another language equally" in S2 B07.

Variable: S2LANG1STOS

1=A European language, such as French, German, or Russian
2=A Chinese language
3=A Filipino language
4=A Southeast Asian language such as Vietnamese or Thai
5=A South Asian language such as Hindi or Tamil
6=Another Asian language such as Japanese or Korean
7=A Middle Eastern language such as Arabic or Farsi
8=Another language

Routing: Go to S2 B09.
Administered to: Respondents who did not participate in base year or indicated they spoke another language other than English and Spanish.

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Screen: S2 B09
Question Wording: [In the fall of 2009, you indicated that [native language as reported in base year] was the first language you learned to speak as a child].]
How often do you speak [[native language as reported in base year] / Spanish / this European language / this Chinese language / this Filipino language / the Southeast Asian language / this South Asian language / this Asian language / this Middle Eastern language / this non-English language] with your mother or female guardian at home?
Note: Question wording was customized such that "In the fall of 2009, you indicated that [native language as reported in base year] was the first language you learned to speak as a child" displayed only if the respondent reported the native language they spoke in base year. In addition, the respondent's native language was displayed in place of "native language as
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reported in base year" or if no language was reported in base year, the language that was reported in S2 B07 or S2 B08 was displayed.

Variable: S2LANGMOM

1=Never
2=Sometimes
3=About half the time
4=Most of the time
5=Always
6=No mother or female guardian in your household

Routing: Go to S2 B10

Administered to: Respondents who indicated they were not a Native English speaker in base year or a base year nonrespondent who indicated they spoke another language other than English.

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Screen: S2 B10

Question Wording: How often do you speak [[native language as reported in base year] / Spanish / this European language / this Chinese language / this Filipino language / the Southeast Asian language / this South Asian language / this Asian language / this Middle Eastern language / this non-English language] with your friends?

Note: Question wording was customized such that the respondent's native language was displayed in place of "native language as reported in base year" or if no language was reported in base year, the language that was reported in S2 B07 or S2 B08 was displayed.

Variable: S2LANGFRIEND

1=Never
2=Sometimes
3=About half the time
4=Most of the time
5=Always

Routing: If respondent has a parent who responded to the base year parent questionnaire, then go to Introduction to Section C; Else go to S2 B11.

Administered to: Respondents who indicated they were not a Native English speaker in base year or a base year nonrespondent who indicated they spoke another language other than English.

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Screen: S2 B11

Question Wording: The next series of questions are about your parents or guardians. If you live in more than one household, answer about the parents or guardians you live with most of the time. Please choose one parent to begin.

What is this parent's or guardian's relationship to you?

Variable: S2PARREL1

1=Biological mother
2=Biological father
3=Adoptive mother
4=Adoptive father
5=Stepmother
6=Stepfather

7=Foster mother
8=Foster father
9=Female partner of your parent or guardian
10=Male partner of your parent or guardian
11=Grandmother
12=Grandfather
13=Other female relative
14=Other male relative
15=Other female guardian
16=Other male guardian

Routing: Go to S2 B12.
Administered to: Respondents whose parent or guardian did not participate in the base year.

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Screen: S2 B12
Question Wording: What is the highest level of education [he/she] has completed ?
Note: Question wording was customized in the survey instrument based on the gender of the parent or guardian the respondent selected in S2 B11.

Variable: S2HIDEG1

1=Less than high school completion
2=Completed a high school diploma, GED or alternative high school credential
3=Completed a certificate or diploma from a school that provides occupational training
4=Completed an Associate's degree
5=Completed a Bachelor's degree
6=Completed a Master's degree
7=Completed a Ph.D., M.D., law degree, or other high level professional degree
8=Don't know

Routing: If respondent reports that parent/guardian #1 has completed anything less than a PhD/MD/law/other professional degree, then go to S2 B13; Else go to S2 B14.
Administered to: Respondents whose parent or guardian did not participate in the base year.

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Screen: S2 B13
Question Wording: Has [he/she] started, but not completed, any work on a degree beyond [highest degree completed]? [(If [he/she] has started more than one of the degrees listed below, please select the higher degree.)]
Note: Item options were customized such that only degrees that were higher than the degree selected in S2 B12 were displayed.

Variable: S2STARTDEG1

1=No, has not started any other degree
2=Yes, a certificate or diploma from a school that provides occupational training
3=Yes, an Associate's degree
4=Yes, a Bachelor's degree
5=Yes, a Master's degree
6=Yes, a Ph.D., M.D., law degree, or other high level professional degree
7=Don't know

Routing: Go to S2 B14.

Administered to: Respondents whose parent or guardian did not participate in base year and have not completed a Ph.D., M.D. Ph.D., M.D., law degree, or other high level professional degree.

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Screen: S2 B14
Question Wording: Does [he/she] currently hold a job for pay?
Variable: S2JOBNOW1
1=Yes
0=No
Routing: If respondent currently holding a job for pay, go to S2 B16; Else go to S2 B15.
Administered to: Respondents whose parent or guardian did not participate in base year.

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Screen: S2 B15
Question Wording: Has [he/she] ever held a job for pay?
Variable: S2JOBEVER1
1=Yes
0=No
Routing: If respondent has ever held a job for pay, then go to S2 B16; Else go to S2 B17.
Administered to: Respondents whose parent or guardian did not participate in base year and did not currently hold a job for pay.

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Screen: S2 B16
Question Wording: [What is [his/her] job title? If [he/she] works at more than one job, describe the job at which [he/she] works the most hours. / What was [his/her] most recent job title? If [he/she] worked more than one job, describe the job at which [he/she] worked the most hours.]
Variable: S2JOBTV1
Variable: S2JOBDV1
Routing: Go to S2 B17.
Administered to: Respondents whose parent or guardian did not participate in base year and held a job for pay.

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Screen: S2 B17
Question Wording: Do you have another parent or guardian in the same household as you and [your biological mother/your biological father/your adoptive mother/your adoptive father/your stepmother/your stepfather/your foster mother/your foster father/your parent or guardian's female partner/your parent or guardian's male partner/your grandmother/your grandfather/your female relative/your male relative/your female guardian/your male guardian/the first parent or guardian you told us about]?
Note: Question wording was customized in the survey instrument to display the parent or guardian the respondent selected in S2 B11.
Variable: S2OTHERPAR
1=Yes
0=No
Routing: If yes, go to S2 B18; Else, go to Introduction to Section C.
Administered to: Respondents whose parent or guardian did not participate in base year.

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Screen: S2 B18
Question Wording: What is this other parent's or guardian's relationship to you?
Notes: Response options were customized so that biological mother or father would not be displayed if either of those parents were selected in S2 B11.

Variable: S2PARREL2

1=Biological mother
2=Biological father
3=Adoptive mother
4=Adoptive father
5=Stepmother
6=Stepfather
7=Foster mother
8=Foster father
9=Female partner of your parent or guardian
10=Male partner of your parent or guardian
11=Grandmother
12=Grandfather
13=Other female relative
14=Other male relative
15=Other female guardian
16=Other male guardian

Routing: Go to S2 B19.
Administered to: Respondents whose parent or guardian did not participate in base year and indicated there was another parent or guardian in the household.

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Screen: S2 B19
Question Wording: What is the highest level of education [he/she] has completed?

Variable: S2HIDEG2

1=Less than high school completion
2=Completed a high school diploma, GED or alternative high school credential
3=Completed a certificate or diploma from a school that provides occupational training
4=Completed an Associate's degree
5=Completed a Bachelor's degree
6=Completed a Master's degree
7=Completed a Ph.D., M.D., law degree, or other high level professional degree
8=Don't know

Routing: If respondent reports that parent/guardian #2 has completed anything less than a PhD/MD/law/other professional degree, then go to S2 B20; Else go to S2 B21.
Administered to: Respondents whose parent or guardian did not participate in base year.

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Screen: S2 B20
Question Wording: Has [he/she] started, but not completed, any work on a degree beyond [highest degree completed]? [(If [he/she] has started more than one of the degrees listed below, please select the higher degree.)]
~~~~~~

Note: Item options were customized such that only degrees that were higher than the degree selected in S2 B19 were displayed.

Variable: S2STARTDEG2

1=No, has not started any other degree
2=Yes, a certificate or diploma from a school that provides occupational training
3=Yes, an Associate's degree
4=Yes, a Bachelor's degree
5=Yes, a Master's degree
6=Yes, a Ph.D., M.D., law degree, or other high level professional degree
7=Don't know

Routing: Go to S2 B21.
Administered to: Respondents whose parent or guardian did not participate in base year and had not completed a Ph.D., M.D., law degree, or other high level professional degree.

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Screen: S2 B21
Question Wording: Does [he/she] currently hold a job for pay?

Variable: S2JOBNOW2

1=Yes
0=No

Routing: If yes, go to S2 B23; Else, go to S2 B22.
Administered to: Respondents whose parent or guardian did not participate in base year.

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Screen: S2 B22
Question Wording: Has [he/she] ever held a job for pay?
Note: Question wording was customized in the survey instrument based on the gender of the parent or guardian the respondent selected in S2 B18.

Variable: S2JOBEVER2

1=Yes
0=No

Routing: If yes, go to S2 B23; Else, go to Introduction to Section C.
Administered to: Respondents whose parent or guardian did not participate in base year and did not currently hold a job for pay.

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Screen: S2 B23
Question Wording: [What is [his/her] job title? If [he/she] works at more than one job, describe the job at which [he/she] works the most hours. / What was [his/her] most recent job title? If [he/she] worked more than one job, describe the job at which [he/she] worked the most hours.]

Variable: S2JOBTV2

Question Wording: [What does [he/she] do in that job? That is, what are [his/her] main activities and duties? / What did [he/she] do in that job? That is, what were [his/her] main activities and duties?]
Note: Question wording was customized such that if the parent or guardian currently held a job for pay "[What is [his/her] job title? If [he/she] works at more than one job, describe the job at which [he/she] works the most hours." displayed. If the parent or guardian did not currently hold a job, but did in the past, "What was [his/her] most recent job title? If [he/she] worked more than one job, describe the job at which [he/she] worked the most hours.]" displayed.
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Variable: S2JOBDV2
Routing: Go to Introduction to Section C.
Administered to: Respondents whose parent or guardian did not participate in base year and held a job for pay either presently or in the past.

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Section C: Plans and Preparation for Future

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Screen: S2CINTRO
Question Wording: Now we are going to ask you some questions about your plans and preparations for your future.
Many of these questions relate to your decision making about education after high school regardless of whether you plan to continue your education. Please do your best to answer these questions even if you do not expect to continue with school or you are unsure about your plans.
For the rest of the interview, the general term "college" refers to 2-year colleges or 4-year colleges. Specifically, the term "2-year college" will refer to community colleges or junior colleges. The term "4-year college" refers to colleges and universities.
Questions in this interview also use the phrase "schools that provide occupational training" to refer to other types of schools, sometimes called technical institutes or trade schools. These schools usually offer programs that take less than 2 years to complete. Examples include culinary institutes and cosmetology schools.
Routing: Go to S2 C01.

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Screen: S2 C01
Question Wording: *An internship is a work-related learning experience for individuals who wish to develop hands on work experience in a certain occupational field. Apprenticeship programs provide formal training in specific occupations; the apprentice/participant learns a trade through on-the-job training and other related instruction, often under the supervision of a journey-level craft person or trade professional.

Variable: S2JOBFAIR
Item Wording: Attended a career day or job fair
1=Yes
0=No

Variable: S2CLGTOUR
Item Wording: Attended a program at, or taken a tour of a college campus
1=Yes
0=No

Variable: S2CLGCLASS
Item Wording: Sat in on or taken a college class
1=Yes
0=No

Variable: S2INTERN
Item Wording: Participated in an internship or apprenticeship related to your career goals*
1=Yes
0=No
~~~~~~

Variable: S2CAREERJOB
Item Wording: Worked or volunteered in a job related to your career goals
1=Yes
0=No
Variable: S2CLGSEARCH
Item Wording: Searched the Internet for college options or read college guides
1=Yes
0=No
Variable: S2TALKHSCNSL
Item Wording: Talked with a high school counselor about your options for life after high school
1=Yes
0=No
Variable: S2TALKCLGCNSL
Item Wording: Talked about your options with a counselor hired by your family to help you prepare for college admission
1=Yes
0=No
Variable: S2CLGEXAMPREP
Item Wording: Took a course to prepare for a college admission exam such as SAT or ACT
1=Yes
0=No

Routing: Go to S2 C02
Administered to: All respondents.

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Screen: S2 C02
Question Wording: How many times, if any, have you taken the following tests?
Variable: S2PSATNUM
Item Wording: PSAT or PLAN
0=Never
1=Once
2=Twice
3=3 or more times
4=You don't know what this is
Variable: S2SATNUM
Item Wording: SAT or ACT
0=Never
1=Once
2=Twice
3=3 or more times
4=You don't know what this is
Variable: S2APEXAMNUM
Item Wording: Any Advanced Placement (AP) test
0=Never
1=Once
~~~~~~

2=Twice
3=3 or more times
4=You don't know what this is

Variable: S2IBEXAMNUM

Item Wording: Any International Baccalaureate (IB) test

0=Never
1=Once
2=Twice
3=3 or more times
4=You don't know what this is

Routing: Go to S2 C03.
Administered to: All respondents.

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Screen: S2 C03
Question Wording: Who has had the most influence on your thinking about education after high school, if anyone?

Variable: S2CLGINFLU

1=A high school counselor
2=A counselor hired by your family to help you prepare for college admission
3=A teacher
4=Your parents
5=Another family member
6=Your friends
7=Your employer
8=A military recruiter
9=A coach or scout
10=Yourself
11=No one in particular
12=Don't know

Routing: Go to S2 C04
Administered to: All respondents.

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Screen: S2 C04
Question Wording: Who has had the most influence on your thinking about careers, if anyone?

Variable: S2CAREERINFLU

1=A high school counselor
3=A teacher
4=Your parents
5=Another family member
6=Your friends
7=Your employer
8=A military recruiter
9=A coach or scout
10=Yourself
11=No one in particular
12=Don't know

Routing: Go to S2 C05
Administered to: All respondents.

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Screen: S2 C05
Question Wording: How many of your close friends…

Variable: S2FRGRADES
Item Wording: get good grades?
0=None of them
1=Less than half
2=About half
3=More than half
4=All of them
5=Don't know

Variable: S2FRDROPOUT
Item Wording: have ever dropped out of high school?
0=None of them
1=Less than half
2=About half
3=More than half
4=All of them
5=Don't know

Variable: S2FRCLGEXAM
Item Wording: have taken the PSAT, SAT, PLAN or ACT?
0=None of them
1=Less than half
2=About half
3=More than half
4=All of them
5=Don't know

Variable: S2FROCCTRN
Item Wording: plan to attend a school that provides occupational training (usually less than 2 years)?
0=None of them
1=Less than half
2=About half
3=More than half
4=All of them
5=Don't know

Variable: S2FR2YPUB
Item Wording: plan to attend a 2-year community college?
0=None of them
1=Less than half
2=About half
3=More than half
4=All of them
5=Don't know
~~~~~~

Variable: S2FR4Y
Item Wording: plan to attend a 4-year college?
0=None of them
1=Less than half
2=About half
3=More than half
4=All of them
5=Don't know

Variable: S2FRFTJOB
Item Wording: plan to have a full-time job instead of continuing their education?
0=None of them
1=Less than half
2=About half
3=More than half
4=All of them
5=Don't know

Routing: Go to S2 C06
Administered to: All respondents.

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Screen: S2 C06
Question Wording: If there were no barriers, how far in school would you want to go?

Variable: S2EDUASP
1=Less than high school completion
2=Complete a high school diploma, GED or alternative high school credential
3=Complete a certificate or diploma from a school that provides occupational training
4=Complete an Associate's degree
5=Complete a Bachelor's degree
6=Complete a Master's degree
7=Complete a Ph.D., M.D., law degree, or other high level professional degree
8=You don't know

Routing: Go to S2 C07
Administered to: All respondents.

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Screen: S2 C07
Question Wording: As things stand now, how far in school do you think you will actually get?

Variable: S2EDUEXP
1=Less than high school completion
2=Complete a high school diploma, GED or alternative high school credential
3=Start, but not complete a certificate or diploma from a school that provides occupational training
4=Complete a certificate or diploma from a school that provides occupational training
5=Start, but not complete an Associate's degree
6=Complete an Associate's degree
7=Start, but not complete a Bachelor's degree
8=Complete a Bachelor's degree
9=Start, but not complete a Master's degree

10=Complete a Master's degree
11=Start, but not complete a Ph.D., M.D., law degree, or other high level professional degree
12=Complete a Ph.D., M.D., law degree, or other high level professional degree
13=You don't know

Routing: If respondent is an early graduate, go to S2 C09; Else, go to S2 C08.
Administered to: All respondents.

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Screen: S2 C08
Question Wording: How sure are you that you will receive a high school diploma?
Variable: S2SUREDIPL
1=Very sure you will
2=You probably will
3=You probably won't
4=Very sure you won't

Routing: Go to S2 C09.
Administered to: Respondents who did not already graduate high school.

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Screen: S2 C09
Question Wording: How sure are you that you will pursue a Bachelor's degree?
Variable: S2SUREBA
1=Very sure you will
2=You probably will
3=You probably won't
4=Very sure you won't

Routing: Go to S2 C10
Administered to: All respondents.

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Screen: S2 C10
Question Wording: By the summer of 2013, do you think you will have met the minimum requirements needed for admission to…
Variable: S2REQOCCTRAIN
Item Wording: a school that provides occupational training, usually less than 2 years?
1=Yes
2=No
3=Don't Know
Variable: S2REQ2YR
Item Wording: a 2-year community college?
1=Yes
2=No
3=Don't Know
Variable: S2REQTYP4YR
Item Wording: a typical 4-year college?
1=Yes
2=No
3=Don't Know
~~~~~~

Variable: S2REQSEL4YR
Item Wording: a highly selective 4-year college such as Harvard University?
1=Yes
2=No
3=Don't Know
Routing: Go to S2 C11.
Administered to: All respondents.

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Screen: S2 C11
Question Wording: How important do you think each of the following is for getting into a typical 4-year college ?

Variable: S2IMPCOURSES
Item Wording: Which high school courses you took
1=Very important
2=Somewhat important
3=Not at all important

Variable: S2IMPGRADES
Item Wording: Your high school grades
1=Very important
2=Somewhat important
3=Not at all important

Variable: S2IMPCLGEXAM
Item Wording: Your SAT or ACT scores
1=Very important
2=Somewhat important
3=Not at all important

Variable: S2IMPACTIVITY
Item Wording: Your participation in sports, clubs, and other student activities
1=Very important
2=Somewhat important
3=Not at all important

Variable: S2IMPRECS
Item Wording: Recommendations from your teachers or other school staff
1=Very important
2=Somewhat important
3=Not at all important

Variable: S2IMPWORKEXP
Item Wording: Your work experience while in high school
1=Very important
2=Somewhat important
3=Not at all important

Routing: Go to S2 C12
Administered to: All respondents.
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Screen: S2 C12
Question Wording: The next series of questions are about what you are most likely to be doing in the fall of 2013.
Which of the following activities do you expect to be doing at that time?
Note: Response options were customized such that option 5 was not displayed if the respondent graduated high school early.

Variable: S2CLG2013
Item Wording: Continuing your education after high school
1=Yes
2=No
3=Don't Know

Variable: S2WORK2013
Item Wording: Working
1=Yes
2=No
3=Don't Know

Variable: S2SERVE2013
Item Wording: Serving in the military
1=Yes
2=No
3=Don't Know

Variable: S2FAMILY2013
Item Wording: Starting a family or taking care of your children
1=Yes
2=No
3=Don't Know

Variable: S2HS2013
Item Wording: Attending high school or a GED completion course
1=Yes
2=No
3=Don't Know

Routing: If answered yes to more than one item, go to S2 C13; Else go to S2 C14.
Administered to: All respondents.

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Screen: S2 C13
Question Wording: What is most likely to be your main focus?
Note: Response options were customized such that only the response options chosen in S2 C12 were displayed.

Variable: S2FOCUS2013
1=Continuing your education after high school
2=Working
3=Serving in the military
4=Starting a family or taking care of your children
6=Attending high school or a GED completion course

Routing: Else go to S2 C14.

Administered to: Respondents who selected more than one activity in S2C12.

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Screen: S2 C14

Question Wording: Which of these activities do your parents think is most important for you to do in the fall of 2013?

Note: Response options were customized such that option 5 was not displayed if the respondent graduated high school early.

Variable: S2MOSTIMP2013

1=Continuing your education after high school
2=Working
3=Serving in the military
4=Starting a family or taking care of your children
5=Attending high school or a GED completion course

Routing: If respondent plans to work, go to S2 C15; Else, if respondent plans to serve in the military, skip to S2 C16; Else, if respondent plans to attend college, technical institute, or trade school, skip to S2 C17; Else, if respondent aspires to some level of postsecondary education, doesn't know, or indicated no aspirations, then skip to S2 C26; Else, if respondent aspires to high school diploma/GED or less, skip to S2 C27.

Administered to: All respondents.

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Screen: S2 C15

Question Wording: Do you expect to be working full-time or part-time in the fall of 2013?

Variable: S2WORKFT2013

1=Full-time
2=Part-time
3=Don't know

Routing: If respondent plans to serve in the military, skip to S2 C16; Else if respondent plans to attend college, technical institute, or trade school, skip to S2 C17; Else if respondent aspires to some level of postsecondary education, doesn't know, or has no aspirations indicated, then skip to S2 C26; Else if respondent aspires to high school diploma/GED or less, skip to S2 C27

Administered to: Respondents who indicated that they planned to work in the fall of 2013 (S2WORK2013=1).

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Screen: S2 C16

Question Wording: Will you be on active military duty in the fall of 2013?

Variable: S2ACTDUTY2013

1=Yes
2=No
3=Don't Know

Routing: If respondent plans to attend college, technical institute, or trade school, go to S2 C17; Else if respondent aspires to some level of postsecondary education, doesn't know, or no aspirations indicated, then skip to S2 C26; Else if respondent aspires to high school diploma/GED or less, skip to S2 C27.

Administered to: Respondents who indicated that they planned to serve in the military in the fall of 2013 (S2SERVE2013=1).
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Screen: S2 C17
Question Wording: What type of program do you plan to enroll in for the fall of 2013?
Variable: S2DEGREE2013
1=Certificate or diploma program at a school that provides occupational training (usually less than 2 years)
2=Associate's degree program
3=Bachelor's degree program
4=You haven't thought about this yet
Routing: Go to S2 C18.
Administered to: Respondents who indicated that they planned to attend a postsecondary institution in the fall of 2013.

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Screen: S2 C18
Question Wording: Do you plan to enroll full-time or part-time in the fall of 2013?
Variable: S2CLGFT2013
1=Full-time
2=Part-time
3=Don't know
Routing: If plans to enroll in a Bachelor's degree program, then go to S2 C20; Else go to S2 C19.
Administered to: Respondents who indicated that they planned to attend a postsecondary institution in the fall of 2013.

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Screen: S2 C19
Question Wording: In the fall of 2013, are you most likely to attend a school that provides occupational training, a 2-year college, a 4-year college, or have you not thought about this yet?
Variable: S2TYPEPS2013
1=A school that provides occupational training (usually less than 2 years)
2=2-year college
3=4-year college
4=You haven't thought about this yet
Routing: If respondent hasn't thought about what type of school to will attend or no answer, skip to S2 C26; Else go to S2 C20.
Administered to: Respondents who indicated that they planned to attend a postsecondary institution in the fall of 2013, but did not indicate they were planning on enrolling in a Bachelor's degree program.

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Screen: S2 C20
Question Wording: Are you more likely to attend a public or private [school that provides occupational training/2-year college/4-year college], or have you not thought about this yet?
Variable: S2PUBPRV2013
1=Public
2=Private
3=You haven't thought about this yet
Routing: Go to S2 C21.

Administered to: Respondents who indicated they had plans to attend a school that provides occupational training, a 2-year college, or 4-year college.

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Screen: S2 C21

Question Wording: Are you more likely to attend an in-state or out-of-state [school that provides occupational training/2-year college/4-year college], or have you not thought about this yet?

Variable: S2INOUTST2013

1=In-state
2=Out-of-state
3=You haven't thought about this yet

Routing: Go to S2 C22.

Administered to: Respondents who indicated they had plans to attend a school that provides occupational training, a 2-year college, or 4-year college.

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Screen: S2 C22

Question Wording: What [school that provides occupational training/2-year college/4-year college/school or college] are you most likely to attend?
(Please type in the full name. Do not use abbreviations.)

Variable: S2LIKELYCLGID

Item Wording: IPEDS ID determined for the institution information provided.

Variable: not delivered

Item Wording: Name:

Variable: not delivered

Item Wording: City:

Variable: not delivered

Item Wording: State or Country:

-9=Select one
1=Alabama
2=Alaska
3=Arizona
4=Arkansas
5=California
6=Colorado
7=Connecticut
8=Delaware
9=District of Columbia
10=Florida
11=Georgia
12=Hawaii
13=Idaho
14=Illinois
15=Indiana
16=Iowa
17=Kansas
18=Kentucky

19=Louisiana
20=Maine
21=Maryland
22=Massachusetts
23=Michigan
24=Minnesota
25=Mississippi
26=Missouri
27=Montana
28=Nebraska
29=Nevada
30=New Hampshire
31=New Jersey
32=New Mexico
33=New York
34=North Carolina
35=North Dakota
36=Ohio
37=Oklahoma
38=Oregon
39=Pennsylvania
40=Rhode Island
41=South Carolina
42=South Dakota
43=Tennessee
44=Texas
45=Utah
46=Vermont
47=Virginia
48=Washington
49=West Virginia
50=Wisconsin
51=Wyoming
99=FOREIGN COUNTRY

Variable: not delivered, but incorporated into S2LIKELYCLGID
Item Wording: Don't know
0=No
1=Yes

Routing: If the respondent does not know or does not provide a college name, then skip to S2 C26; Else if the respondent provides a college name, then go to S2 C23.
Administered to: Respondents who indicated they had plans to attend a school that provides occupational training, a 2-year college, or 4-year college.
~~~~~~

Screen: S2 C23
Question Wording: How certain are you that you will attend [most likely college]?
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Variable: S2CERTAINCLG
1=Very certain
2=Fairly certain
3=Not certain
Routing: Go to S2 C24.
Administered to: Respondents who provided the school name they planned to attend.
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Screen: S2 C24
Question Wording: If cost were not a consideration, would [most likely college] be your first choice for a school or college?
Note: Question wording has been customized such that the college name selected in S2 C22 was displayed in place of "most likely college
Variable: S2FIRSTCHOICE
1=Yes
2=No
3=Don't Know
Routing: If no or no response, go to S2 C25. Else skip to S2 C26.
Administered to: Respondents who provided the school name they planned to attend.
~~~~~~
Screen: S2 C25
Question Wording: If cost were not a consideration, what school or college would be your first choice?
(Please type in the full name. Do not use abbreviations.)
Variable: S2CHOICECLGID
Item Wording: IPEDS ID determined for the institution information provided.
Variable: not delivered
Item Wording: Name:
Variable: not delivered
Item Wording: City:
Variable: not delivered
Item Wording: State or Country:
-9=Select one
1=Alabama
2=Alaska
3=Arizona
4=Arkansas
5=California
6=Colorado
7=Connecticut
8=Delaware
9=District of Columbia
10=Florida
11=Georgia
12=Hawaii
13=Idaho
14=Illinois

15=Indiana
16=Iowa
17=Kansas
18=Kentucky
19=Louisiana
20=Maine
21=Maryland
22=Massachusetts
23=Michigan
24=Minnesota
25=Mississippi
26=Missouri
27=Montana
28=Nebraska
29=Nevada
30=New Hampshire
31=New Jersey
32=New Mexico
33=New York
34=North Carolina
35=North Dakota
36=Ohio
37=Oklahoma
38=Oregon
39=Pennsylvania
40=Rhode Island
41=South Carolina
42=South Dakota
43=Tennessee
44=Texas
45=Utah
46=Vermont
47=Virginia
48=Washington
49=West Virginia
50=Wisconsin
51=Wyoming
99=FOREIGN COUNTRY

Routing: Go to S2 C26.
Administered to: Respondents who indicated that the school they planned to attend was not their first choice.

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Screen: S2 C26
Question Wording: How important to you [will/would] each of the following characteristics be when choosing a school or college to attend after high school?
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Note: Question wording was customized such that if the respondent indicated that they planned on starting some postsecondary education in previous questions "will" displays in place of "will/would" If the respondent indicated that they did not plan on continuing their education, "would" displays.

Variable: S2REPUTATION
Item Wording: Academic quality or reputation
1=Very important
2=Somewhat important
3=Not at all important

Variable: S2COSTATTEND
Item Wording: Cost of attendance
1=Very important
2=Somewhat important
3=Not at all important

Variable: S2JOBPLC
Item Wording: A good record of placing graduates in jobs
1=Very important
2=Somewhat important
3=Not at all important

Variable: S2GRADSCHPLC
Item Wording: A good record of placing graduates in graduate or professional schools
1=Very important
2=Somewhat important
3=Not at all important

Variable: S2PLAYSPORTS
Item Wording: Opportunity to play sports
1=Very important
2=Somewhat important
3=Not at all important

Variable: S2FAMREC
Item Wording: Recommended by family or friends
1=Very important
2=Somewhat important
3=Not at all important

Variable: S2CLOSEHOME
Item Wording: Close to home
1=Very important
2=Somewhat important
3=Not at all important

Variable: S2FARHOME
Item Wording: Far away from home
1=Very important
2=Somewhat important
3=Not at all important

Variable: S2OFFERSPGRM
Item Wording: Offers a particular program of study
1=Very important
2=Somewhat important
3=Not at all important
Variable: S2SOCIALLIFE
Item Wording: Good social life
1=Very important
2=Somewhat important
3=Not at all important
Variable: S2SPIRIT
Item Wording: Good sports teams or school spirit
1=Very important
2=Somewhat important
3=Not at all important
Variable: S2FAMILYWENT
Item Wording: A family member went there
1=Very important
2=Somewhat important
3=Not at all important

Routing: Go to S2 C27.
Administered to: Respondents who reported wanting to attend postsecondary education if there were no barriers.

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Screen: S2 C27
Question Wording: Now we will ask you to estimate the cost of one year's tuition and required fees at different types of colleges. For each of your estimates, please include the cost of courses and required fees such as student activity fees and student health fees. Do not include optional expenses such as room and board.
What is your best estimate of the cost of one year's tuition and required fees at a public 2-year community college in your state ?
Variable: S2COST2YPUB
Item Wording: $ per year
Variable: not delivered, but incorporated into S2COST2YPUB
Item Wording: (Check here if you don't know.)
0=No
1=Yes

Routing: Go to S2 C28
Administered to: All respondents.

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Screen: S2 C28
Question Wording: What is your best estimate of the cost of one year's tuition and required fees at a public 4-year college in your state ?
(Please include the cost of courses and required fees such as student activity fees and student health fees. Do not include optional expenses such as room and board.)

Variable: S2COST4YPUB
Item Wording: $ per year
Variable: not delivered, but incorporated into S2COST4YPUB
Item Wording: (Check here if you don't know.)
0=No
1=Yes
Routing: Go to S2 C29.
Administered to: All respondents.

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Screen: S2 C29
Question Wording: What is your best estimate of the cost of one year's tuition and required fees at a typical private 4-year college ?
(Please include the cost of courses and required fees such as student activity fees and student health fees. Do not include optional expenses such as room and board.)
Variable: S2COST4YPRV
Item Wording: $ per year
Variable: not delivered, but incorporated into S2COST4YPRV
Item Wording: (Check here if you don't know.)
0=No
1=Yes
Routing: Go to S2 C30.
Administered to: All respondents.

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Screen: S2 C30
Question Wording: In the past year, how many conversations have you had about financial aid for college with your parents?
Variable: S2AIDTALKPAR
1=None
2=One to three
3=Four or more
Routing: Go to S2 C31.
Administered to: All respondents.

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Screen: S2 C31
Question Wording: For which types of financial aid do you think you [will/would] qualify?
Note: Question wording was customized such that if the respondent indicated that they planned on starting some postsecondary education in previous questions "will" displays in place of "will/would." If the respondent indicated that they did not plan on continuing their education, "would" displays.
Variable: S2QUALNEED
Item Wording: Financial aid based on financial need
1=Yes
2=No
3=Don't Know
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Variable: S2QUALACHIEVE
Item Wording: Financial aid based on academic achievement such as good grades or college admission test scores
1=Yes
2=No
3=Don't Know

Variable: S2QUALATHLETE
Item Wording: Financial aid through an athletic scholarship
1=Yes
2=No
3=Don't Know

Variable: S2QUALGOVLOAN
Item Wording: Federal or state loans
1=Yes
2=No
3=Don't Know

Variable: S2QUALPRVLOAN
Item Wording: Private loans
1=Yes
2=No
3=Don't Know

Routing: If respondent answers "yes" to any type of financial aid, then go to S2 C33; Else if respondent answers "no" or "don't know" to any type of financial aid, then go to S2 C32; Else, go to S2 C33
Administered to: All respondents.

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Screen: S2 C32
Question Wording: Why do you think you [will/would] not qualify for any kind of financial aid? Is it because …
Note: Question and item wording was customized such that if the respondent indicated that they planned on starting some postsecondary education in previous questions "will" displays in place of "will/would." If the respondent indicated that they did not plan on continuing their education, "would" displays.

Variable: S2NOQUALFAM
Item Wording: another family member did not qualify?
1=Yes
0=No

Variable: S2NOQUALCRED
Item Wording: you have concerns about a credit score?
1=Yes
0=No

Variable: S2NOQUALINC
Item Wording: your family's income is too high?
1=Yes
0=No
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Variable: S2NOQUALGPA
Item Wording: your grades or test scores will be too low?
1=Yes
0=No
Variable: S2NOQUALPT
Item Wording: you [will/would] attend school or college part-time?
1=Yes
0=No
Routing: Go to S2 C33.
Administered to: Respondents who did not indicate they would receive some form of financial aid.
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Screen: S2 C33
Question Wording: [Will you/If you were to continue your education after high school, would you] complete a FAFSA to apply for financial aid?
Note: Question wording was customized such that if the respondent indicated that they planned on starting some postsecondary education in previous questions "will you" displayed otherwise "If you were to continue your education after high school, would you" displayed if the respondent indicated that they did not plan on continuing their education. Response option wording was customized such that "will" displayed if respondent indicated they planned on starting some postsecondary education, otherwise "would" displayed.
Variable: S2APPLYAID
1=Yes
2=No
3=You don't know what a FAFSA is
4=You haven't thought about this yet
5=You don't know if you [will/would] apply
Routing: If no or respondent doesn't know if he/she will apply, go to S2 C34; Else, go to S2 C35.
Administered to: All respondents.
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Screen: S2 C34
Question Wording: What are the reasons you [will/may/would/might] not apply for financial aid?
Note: Question wording was customized such that if the respondent indicated that they planned on starting some postsecondary education and would not apply for financial aid in previous questions, "will" displayed. If the respondent indicated that they planned on starting postsecondary education and did not know if they would apply for financial aid, "may" was displayed. If the respondent only indicated they would not apply for financial aid, "would" displayed, otherwise "might" displayed.
Variable: S2INELIGIBLE
Item Wording: You or your family think you may be ineligible or may not qualify.
1=Yes
0=No

Variable: S2CANAFFORD
Item Wording: You or your family can afford school or college without financial aid.
1=Yes
0=No
Variable: S2DKHOWAPPLY
Item Wording: You or your family do not know how to apply for financial aid.
1=Yes
0=No
Variable: S2NODEBT
Item Wording: You or your family do not want to take on debt.
1=Yes
0=No
Variable: S2FORMSDIFF
Item Wording: You or your family think the application forms are too difficult.
1=Yes
0=No
Variable: S2NOPLANS
Item Wording: You do not plan to continue your education after high school.
1=Yes
0=No

Routing: Go to S2 C35.
Administered to: Respondents who indicated they would not, or did not know if they would, apply for financial aid.

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Screen: S2 C35
Question Wording: What is the maximum amount you [are/would be] willing to borrow per year to pay for school or college?
Note: Question wording was customized such that if the respondent indicated they planned on continuing their education, "are" displayed, otherwise "would be" displayed.
Variable: S2MAXBORROW
1=None
2=$1–$500
3=$501–$1,000
4=$1,001–$2,000
5=$2,001–$5,000
6=$5,001–$10,000
7=$10,001–$15,000
8=$15,001–$25,000
9=$25,001–$35,000
10=More than $35,000
11=Don't know

Routing: Go to S2 C36.
Administered to: All respondents.
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Screen: S2 C36
Question Wording: Considering all sources of funds including scholarships, grants, loans and savings, do you think your family [will/would] be able to afford to send you to…
Note: Question wording was customized such that if the respondent indicated they planned on continuing their education, "will" displayed, otherwise "would" displayed.

Variable: S2AFFOCCTRN
Item Wording: a school that provides occupational training?
1=Yes
2=No
3=Don't Know

Variable: S2AFF2YPUB
Item Wording: a 2-year community college?
1=Yes
2=No
3=Don't Know

Variable: S2AFF4YIN
Item Wording: a 4-year public college in your state?
1=Yes
2=No
3=Don't Know

Variable: S2AFF4YOUT
Item Wording: a 4-year public college out of state?
1=Yes
2=No
3=Don't Know

Variable: S2AFF4YPRV
Item Wording: a typical 4-year private college?
1=Yes
2=No
3=Don't Know

Variable: S2AFF4YSEL
Item Wording: a highly selective 4-year private college such as Harvard?
1=Yes
2=No
3=Don't Know

Routing: Go to S2 C37.
Administered to: All respondents.

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Screen: S2 C37
Question Wording: [How will/If at any point in time you continue your education after high school, how would] you pay for tuition, room, and board?
Note: Question wording was customized such that "How will" displayed if the respondent indicated they planned on continuing their education, otherwise "If at any point in time you continue your education after high school, how would" displayed.

Variable: S2NEVERCLG
Item Wording: (Check here if you are sure you will never continue your education after high school.)
0=No
1=Yes
Variable: S2TEENSAVING
Item Wording: Your own earnings and savings
1=Yes
2=No
3=Don't Know
Variable: S2PARSAVING
Item Wording: Parents' or relatives' earnings and savings including a pre-paid tuition account or 529 plan
1=Yes
2=No
3=Don't Know
Variable: S2GRANTS
Item Wording: Scholarships or grants that do not have to be repaid
1=Yes
2=No
3=Don't Know
Variable: S2GOVLOAN
Item Wording: Federal or state loans
1=Yes
2=No
3=Don't Know
Variable: S2TEENPRVLOAN
Item Wording: Private loan in your name
1=Yes
2=No
3=Don't Know
Variable: S2PARPRVLOAN
Item Wording: Private loan in parents' or relatives' names
1=Yes
2=No
3=Don't Know

Routing: If respondent will use own earnings to pay for college, then go to S2 C38; Else go to S2 C39.
Administered to: All respondents.

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Screen: S2 C38
Question Wording: [Will/Would] your earnings and savings for your education after high school come from your…
Note: Question wording was customized such that "Will" displayed if the respondent indicated they planned on continuing their education, otherwise "Would" displayed. Response option wording for option 1 was customized such that "when you were still attending" displayed only if
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respondent indicated they were not attending high school. Response option wording for option 2 was customized such that "while in high school" displayed only if respondent indicated they were still attending high school and "when you were in high school" displayed if respondent indicated they were not attending high school.

Variable: S2SCHYRWORK

Item Wording: evening or weekend work during the high school year [when you were still attending]?

1=Yes
2=No
3=Don't Know

Variable: S2SUMMERWORK

Item Wording: summer work [while in high school/when you were in high school]?

1=Yes
2=No
3=Don't Know

Variable: S2BTWNWORK

Item Wording: work between high school and the start of your further education?

1=Yes
2=No
3=Don't Know

Variable: S2CLGWORK

Item Wording: work while attending college including work-study?

1=Yes
2=No
3=Don't Know

Routing: If respondent will work during college, go to S2 C39; Else go to S2 C40
Administered to: Respondents who indicated their earnings will be used to pay for college.

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Screen: S2 C39
Question Wording: [Will/Would] you work full-time or part-time while attending college?
Note: Question wording was customized such that "Will" displayed if the respondent indicated they planned on continuing their education, otherwise "Would" displayed.

Variable: S2CLGWORKFT

1=Full-time
2=Part-time
3=Don't know

Routing: Go to S2 C40.
Administered to: Respondents who indicated they will be working while in college.

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Screen: S2 C40
Question Wording: What do you think your starting pre-tax income would be in your first job after…
(Please specify pay periods for your answers.)

Variable: S2EARNNOHS
Item Wording: leaving high school without completing a high school diploma?
Variable: S2EARNNOHSUN
Item Wording: per
-9=Select one
1=hour
2=day
3=week
4=month
5=year
Variable: S2EARNHS
Item Wording: completing a regular high school diploma?
Variable: S2EARNHSUN
Item Wording: per
-9=Select one
1=hour
2=day
3=week
4=month
5=year
Variable: S2EARNOCC
Item Wording: completing a certificate or diploma from a school that provides occupational training?
Variable: S2EARNOCCUN
Item Wording: per
-9=Select one
1=hour
2=day
3=week
4=month
5=year
Variable: S2EARN2YPUB
Item Wording: completing a 2-year community college degree?
Variable: S2EARN2YPUBUN
Item Wording: per
-9=Select one
1=hour
2=day
3=week
4=month
5=year
Variable: S2EARN4Y
Item Wording: completing a 4-year college degree?
Variable: S2EARN4YUN
Item Wording: per
-9=Select one

1=hour
2=day
3=week
4=month
5=year

Routing: Go to S2 C41.
Administered to: All respondents.

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Screen: S2 C41
Question Wording: As things stand now, what is the job or occupation that you expect or plan to have at age 30?

Variable: S2OCC30
Item Wording: Job title:

Variable: S2OCC30DK
Item Wording: You don't know
0=No
1=Yes

Routing: If respondent provides job title then go to S2 C42; Else if respondent is in rotation group 1 then skip to Introduction to Section D; Else if the respondent is in rotation group 2 then skip to Introduction to Section F.
Note: So as to more evenly distribute item non-response resulting from an inability to complete the student questionnaire within the allotted time, the survey instrument rotated the order in which certain sections of the student questionnaire were administered. Respondents assigned to Rotation group 1 (Y_SGRP=1) were administered the questionnaire sections in the following order: A, B, C, D, E, F, G. Respondents assigned to Rotation group 2 (Y_SGRP=2) were administered the questionnaire sections in the following order: A, B, C, F, D, E, G.
Administered to: All respondents.

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Screen: S2 C42
Question Wording: How much have you thought about this choice?

Variable: S2OCC30THINK
1=Not at all
2=A little
3=Somewhat
4=A lot

Routing: Go to S2 C43.
Administered to: Respondents who provided a job in S2 C41.

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Screen: S2 C43
Question Wording: How certain are you that this will be your job or occupation at age 30?

Variable: S2OCC30CERTAIN
1=Very certain
2=Fairly certain
3=Not certain

Routing: Go to S2 C44.
Administered to: Respondents who provided a job in S2 C41.
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Screen: S2 C44
Question Wording: What is your best estimate about how much you would earn per year as a/an [job title] at age 30?

Variable: S2OCC30EARN

Item Wording: $ per year

Routing: If respondent is in student rotation group 1, then skip to Introduction to Section D; Else if respondent is in student rotation group 2, then skip to Introduction to Section F.
Note: So as to more evenly distribute item non-response resulting from an inability to complete the student questionnaire within the allotted time, the survey instrument rotated the order in which certain sections of the student questionnaire were administered. Respondents assigned to Rotation group 1 (Y_SGRP=1) were administered the questionnaire sections in the following order: A, B, C, D, E, F, G. Respondents assigned to Rotation group 2 (Y_SGRP=2) were administered the questionnaire sections in the following order: A, B, C, F, D, E, G.
Administered to: Respondents who provided a job in S2 C41.

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Section D: High School Coursetaking

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Screen: S2DINTRO
Question Wording: Now we are going to ask you some questions about your high school coursetaking.
Routing: Go to S2 D01.

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Screen: S2 D01
Question Wording: Not including lunch or study periods, what [is/was] your favorite school subject?
Note: Question wording was customized so that "is" displayed if the respondent indicated they were currently attending high school, otherwise "was" displayed.

Variable: S2FAVSUBJ

1=English
2=Foreign language
3=Science
4=Art
5=Music
6=Mathematics
7=Physical education or gym
8=Religion
9=Health education
10=Computer science
11=Social studies, history, government, or civics
12=Career preparation class such as health professions, business, or culinary arts
13=Other subject

Routing: Go to S2 D02.
Administered to: All respondents.

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Screen: S2 D02
Question Wording: What grade were you in when you took Algebra I?
[(If you have taken it more than once, answer for your most recent course. If you are currently taking Algebra I, choose your current grade.) / (If you have taken it more than once, answer for your most recent course.)]
Notes: Question wording was customized such that "If you have taken it more than once, answer for your most recent course. If you are currently taking Algebra I, choose your current grade." displayed if the respondent indicated they were currently in school, otherwise "If you have taken it more than once, answer for your most recent course" displayed if the respondent indicated they were not currently in school. Response options were customized such that the grade the respondent indicated they were currently in did not display as one of the options the respondent could select.

Variable: S2ALG1WHEN
1=8th grade or earlier
2=9th grade
3=10th grade
4=11th grade
5=12th grade
6=You have not taken Algebra I yet

Routing: If respondent has taken Algebra I in any grade, go to S2 D03; Else go to S2 D04.
Administered to: All respondents.

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Screen: S2 D03
Question Wording: What was your final grade in Algebra I?

Variable: S2ALG1GRADE
1=A (between 90–100)
2=B (between 80–89)
3=C (between 70–79)
4=D (between 60–69)
5=Below D (anything less than 60)
6=Your class was not graded
7=You haven't completed the course yet

Routing: Go to S2 D04.
Administered to: Respondents who took Algebra I.

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Screen: S2 D04
Question Wording: Have you taken any Advanced Placement (AP) courses? [Include any courses you are taking now.]
Notes: Question wording was customized such that "Include any courses you are taking now" only displayed if the respondent indicated they were currently taking an AP course.

Variable: S2ANYAP
1=Yes
2=No
3=You don't know what an AP course is

Routing: If respondent has taken any AP courses, then go to S2 D05; Else skip to S2 D06.
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Administered to: All respondents.

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Screen: S2 D05
Question Wording: In which of the following subject areas have you taken Advanced Placement (AP) courses? [(Include any courses you are taking now.)]
Notes: Question wording was customized such that "Include any courses you are taking now" only displayed if the respondent indicated they were currently taking an AP course.

Variable: S2APMATH
Item Wording: Math
1=Yes
0=No

Variable: S2APSCIENCE
Item Wording: Science
1=Yes
0=No

Variable: S2APOTHER
Item Wording: Another subject
1=Yes
0=No

Routing: Go to S2 D06.
Administered to: Respondents who have taken an AP course.

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Screen: S2 D06
Question Wording: Have you taken any International Baccalaureate (IB) courses? [Include any courses you are taking now.]
Notes: Question wording was customized such that "Include any courses you are taking now" only displayed if the respondent indicated they were currently taking an IB course.

Variable: S2ANYIB
1=Yes
2=No
3=You don't know what an IB course is

Routing: If respondent has taken any IB courses, then go to S2 D07; Else skip to S2 D08.
Administered to: All respondents.

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Screen: S2 D07
Question Wording: In which of the following subject areas have you taken International Baccalaureate (IB) courses? [(Include any courses you are taking now.)]
Notes: Question wording was customized such that "Include any courses you are taking now" only displayed if the respondent indicated they were currently taking an IB course.

Variable: S2IBMATH
Item Wording: Math
1=Yes
0=No
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Variable: S2IBSCIENCE
Item Wording: Science
1=Yes
0=No
Variable: S2IBOTHER
Item Wording: Another subject
1=Yes
0=No

Routing: Go to S2 D08.
Administered to: Respondents who have taken an IB course.

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Screen: S2 D08
Question Wording: Other than AP and IB courses, [have you taken any high school courses for college credit/did you take any high school courses for college credit when you were in high school]? [Include any courses for college credit that you are taking now.]
Notes: Question wording was customized such that "have you taken any high school courses for college credit" is displayed if the respondent indicated they were currently attending high school. In addition, "include any courses for college credit that you are taking now" also displayed if the respondent indicated they were currently taking AP and IB courses. If the respondent indicated they were not currently attending high school, "did you take any high school courses for college credit when you were in high school" displayed.

Variable: S2ANYDUAL
1=Yes
2=No
3=Don't know

Routing: If respondent has taken any high school courses for college credit, then go to S2 D09; Else if respondent is regular student, transfer, or homeschooler, skip to S2 D13; Else if respondent is dropout or early graduate, skip to S2 D20.
Administered to: All respondents.

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Screen: S2 D09
Question Wording: In which of the following subject areas [have you taken/did you take] these courses for college credit other than AP and IB? [(Include any courses for college credit that you are taking now.)]
Notes: Question wording was customized such that "have you taken" is displayed if the respondent indicated they took currently attending high school. In addition, "include any courses for college credit that you are taking now" also displayed if the respondent indicated they were currently taking other courses for credit. If the respondent indicated they were not currently attending high school, "did you take" displayed.

Variable: S2DUALMATH
Item Wording: Math
1=Yes
0=No

Variable: S2DUALSCIENCE
Item Wording: Science
1=Yes
0=No
Variable: S2DUALOTHER
Item Wording: Another subject
1=Yes
0=No
Routing: Go to S2 D10.
Administered to: Respondents who took additional high school courses for college credit.
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Screen: S2 D10
Question Wording: Where [have you taken/did you take] high school courses for college credit other than AP and IB? [(Include any courses for college credit that you are taking now.)]
Notes: Question wording was customized such that "have you taken" is displayed if the respondent indicated they were currently attending high school. In addition, "include any courses for college credit that you are taking now" also displayed if the respondent indicated they were currently taking AP and IB courses in previous questions. If the respondent indicated they were not currently attending high school, "did you take" displayed.
Variable: S2DUALCLG
Item Wording: On a college campus
1=Yes
0=No
Variable: S2DUALHS
Item Wording: At your high school
1=Yes
0=No
Variable: S2DUALOTHHS
Item Wording: At a different high school
1=Yes
0=No
Variable: S2DUALONLINE
Item Wording: Online
1=Yes
0=No
Routing: Go to S2 D11.
Administered to: Respondents who took additional high school courses for college credit.
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Screen: S2 D11
Question Wording: [Have you received/Did you receive] high school credit for any of these courses?
Note: Question wording was customized such that "have you received" is displayed if the respondent indicated they were currently attending high school. If the respondent indicated they were not currently attending high school, "Did you receive" displayed.

Variable: S2DUALHSCRED
1=Yes
2=No
3=Have not completed a course yet
Routing: If respondent has not completed a course yet, skip to S2 D13; Else go to S2 D12.
Administered to: Respondents who took additional high school courses for college credit.
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Screen: S2 D12
Question Wording: [Have you received/Did you receive] college credit for any of these courses?
Note: Question wording was customized such that "have you received" is displayed if the respondent indicated they were currently attending high school. If the respondent indicated they were not currently attending high school, "Did you receive" displayed.
Variable: S2DUALCLGCRED
1=Yes
0=No
Routing: If respondent is a regular student, transfer, or homeschooler, go to S2 D13; Else go to S2 D20.
Administered to: Respondents who received college credit for additional high school courses.
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Screen: S2 D13
Question Wording: [Are you currently/Were you] taking a math course [during the spring term of 2012?]
Note: Question wording was customized such that "are you currently" displayed if the respondent indicated they were currently taking a math course. If the respondent indicated they were not currently taking a math course, "Were you" and " during the spring term of 2012" displayed.
Variable: S2MSPR12
1=Yes
0=No
Routing: If respondent is/was taking a math course, then go to S2 D15; Else if not then go to S2 D14; Else if no response, go to S2 D20.
Administered to: Respondents who were currently attending school or being homeschooled.
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Screen: S2 D14
Question Wording: Why [are/were] you not taking a math course [in the spring term]?
Note: Question and item wording was customized such that "are" displayed if the respondent indicated they were currently taking a math course. If the respondent indicated they were not currently taking a math course, "Were" and "in the spring term" displayed.
Variable: S2MDISLIKE
Item Wording: You really dislike math.
1=Yes
0=No
Variable: S2MNOTHSREQ
Item Wording: It is not required for high school graduation.
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1=Yes
0=No

Variable: S2MNOCLGADM
Item Wording: You will not need it to get into college.
1=Yes
0=No

Variable: S2MNOCLGSUCC
Item Wording: You will not need it to succeed in college.
1=Yes
0=No

Variable: S2MNOCAREER
Item Wording: You will not need it for your career.
1=Yes
0=No

Variable: S2MNOCNSLREC
Item Wording: A high school counselor discouraged you from taking a math class.
1=Yes
0=No

Variable: S2MNOTCHRREC
Item Wording: A teacher discouraged you from taking a math class.
1=Yes
0=No

Variable: S2MNOPARREC
Item Wording: Your parents discouraged you from taking a math class.
1=Yes
0=No

Variable: S2MNOFAMREC
Item Wording: Another family member discouraged you from taking a math class.
1=Yes
0=No

Variable: S2MNOEMPREC
Item Wording: Your employer discouraged you from taking a math class.
1=Yes
0=No

Variable: S2MNOFRIEND
Item Wording: Your friends [are/were] not taking a math class.
1=Yes
0=No

Variable: S2MDONTDOWELL
Item Wording: You do not do well in math.
1=Yes
0=No

Variable: S2MNOASSIGN
Item Wording: You were not assigned to a math course.
1=Yes
0=No

Variable: S2MTOOKBEFORE
Item Wording: You took math earlier in the school year.
1=Yes
0=No

Routing: Go to S2 D20.
Administered to: Respondents attending school or being homeschooled who did not take a math course in spring term of 2012.

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Screen: S2 D15
Question Wording: What math course or courses [are you currently taking/were you taking during the spring term of 2012]?
Note: Question and item wording was customized such that "are you currently" displayed if the respondent indicated they were currently taking a math course. If the respondent indicated they were not currently taking a math course, "were you taking during the spring term of 2012" displayed.

Variable: S2PREALGM12
Item Wording: Pre-algebra
0=No
1=Yes

Variable: S2ALG1M12
Item Wording: Algebra I, 1A or 1B
0=No
1=Yes

Variable: S2ALG2M12
Item Wording: Algebra II
0=No
1=Yes

Variable: S2ALG3M12
Item Wording: Algebra III
0=No
1=Yes

Variable: S2GEOM12
Item Wording: Geometry
0=No
1=Yes

Variable: S2ANGEOM12
Item Wording: Analytic Geometry
0=No
1=Yes

Variable: S2TRIGM12
Item Wording: Trigonometry
0=No
~~~~~~

1=Yes

Variable: S2PRECALC12
Item Wording: Pre-calculus or Analysis and Functions
0=No
1=Yes

Variable: S2APCALC12
Item Wording: Advanced Placement (AP) Calculus AB or BC
0=No
1=Yes

Variable: S2CALC12
Item Wording: Other Calculus
0=No
1=Yes

Variable: S2APSTAT12
Item Wording: Advanced Placement (AP) Statistics
0=No
1=Yes

Variable: S2STAT12
Item Wording: Other Statistics or Probability
0=No
1=Yes

Variable: S2INTGM112
Item Wording: Integrated Math I
0=No
1=Yes

Variable: S2INTGM212
Item Wording: Integrated Math II
0=No
1=Yes

Variable: S2INTGM312
Item Wording: Integrated Math III or above
0=No
1=Yes

Variable: S2IBMATHSTD12
Item Wording: International Baccalaureate (IB) mathematics standard level
0=No
1=Yes

Variable: S2IBMATHHI12
Item Wording: International Baccalaureate (IB) mathematics higher level
0=No
1=Yes

Variable: S2REVIEWM12
Item Wording: Business, Consumer, General, Applied, Technical, Functional, or Review math
0=No
1=Yes

Variable: S2OTHM12
Item Wording: Other math course
0=No
1=Yes
Variable: S2OTHM12SP
Item Wording: Please specify:
Routing: If respondent selected more than one course, go to S2 D16; Else if respondent selected one math course, go to S2 D17; Else if respondent selected no math course, go to S2 D20.
Administered to: Respondents who took a math course in spring term of 2012.
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Screen: S2 D16
Question Wording: Of the math courses you [are currently taking/were taking during the spring term of 2012], which [is/was] the most challenging?
Note: Question and item wording was customized such that "are you currently taking" and "is" displayed if the respondent indicated they were currently taking a math course. If the respondent indicated they were not currently taking a math course, "were taking during the spring term of 2012" and "was" displayed.
Variable: S2HIMATH12
1=Pre-Algebra
2=Algebra I, 1A or 1B
3=Algebra II
4=Algebra III
5=Geometry
6=Analytic Geometry
7=Trigonometry
8=Pre-calculus or Analysis and Functions
9=Advanced Placement (AP) Calculus AB or BC
10=Other Calculus
11=Advanced Placement (AP) Statistics or Probability
12=Other Statistics or Probability
13=Integrated Math I
14=Integrated Math II
15=Integrated Math III or above
16=International Baccalaureate (IB) mathematics standard level
17=International Baccalaureate (IB) mathematics higher level
18=Business, Consumer, General, Applied, Technical, Functional, or Review math
19=If S2MCRSE19SP is nonmissing fill [S2MCRSE19SP] else fill Other math course
Routing: Go to S2 D17.
Administered to: Respondents who took more than one math course in spring term of 2012.
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Screen: S2 D17
Question Wording: Why [are/were] you taking [math course title] ? Would you say you [are/were] taking it because…
Note: Question and item wording was customized such that "are" displayed if the respondent indicated they were currently taking a math course. If the respondent indicated they were not currently taking a math course, "were" displayed. If the respondent indicated they took more

than one math course, the most challenging math course selected in S2D16 displayed in place of "math course title," otherwise the math course selected in S2D15 displayed.

Variable: S2MENJOYS
Item Wording: you really enjoy math?
1=Yes
0=No

Variable: S2MCHALLENGE
Item Wording: you like to be challenged?
1=Yes
0=No

Variable: S2MHSREQ
Item Wording: you had no choice, it is a high school requirement?
1=Yes
0=No

Variable: S2MCLGADM
Item Wording: you will need it to get into college?
1=Yes
0=No

Variable: S2MCLGSUCC
Item Wording: you will need it to succeed in college?
1=Yes
0=No

Variable: S2MCAREER
Item Wording: you will need it for your career?
1=Yes
0=No

Variable: S2MCNSLREC
Item Wording: a high school counselor suggested you take it?
1=Yes
0=No

Variable: S2MTCHRREC
Item Wording: a teacher encouraged you to take it?
1=Yes
0=No

Variable: S2MPARREC
Item Wording: your parents encouraged you to take it?
1=Yes
0=No

Variable: S2MFAMREC
Item Wording: another family member encouraged you to take it?
1=Yes
0=No

Variable: S2MEMPREC
Item Wording: your employer encouraged you to take it?
1=Yes
0=No

Variable: S2MFRIEND
Item Wording: your friends were taking it?
1=Yes
0=No
Variable: S2MDOWELL
Item Wording: you do well in math?
1=Yes
0=No
Variable: S2MASSIGNED
Item Wording: it was assigned to you?
1=Yes
0=No

Routing: Go to S2 D18.
Administered to: Respondents who took a math course in spring term of 2012.

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Screen: S2 D18
Question Wording: How much do you agree or disagree with the following statements about your teacher for [math course title]? Remember, none of your teachers or your principal will see any of the answers you provide. Your teacher…
Note: Question wording was customized such that if the respondent indicated they took more than one math course, the most challenging math course selected in S2D16 displayed in place of "math course title," otherwise the math course selected in S2D15 displayed. "Item wording was customized such that the present tense of the words in brackets displayed if the respondent indicated they were currently taking a math course. If the respondent indicated they were not currently taking a math course, the past tense of the words in brackets displayed.
Variable: S2MTCHTREAT
Item Wording: [treats/treated] some kids better than other kids.
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree
Variable: S2MTCHINTRST
Item Wording: [makes/made] math interesting.
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree
Variable: S2MTCHEASY
Item Wording: [makes/made] math easy to understand.
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree
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Variable: S2MTCHTHINK
Item Wording: [wants/wanted] students to think, not just memorize things.
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree
Variable: S2MTCHGIVEUP
Item Wording: [doesn't/didn't] let people give up when the work [gets/got] hard.
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree
Routing: Go to S2 D19.
Administered to: Respondents who took a math course in spring term of 2012.
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Screen: S2 D19
Question Wording: How often [do/did] you do these things in [math course title]?
Note: Question and item wording was customized such that the present tense of the words in brackets displayed if the respondent indicated they were currently taking a math course. If the respondent indicated they were not currently taking a math course, the past tense of the words in brackets displayed. If the respondent indicated they took more than one math course, the most challenging math course selected in S2D16 displayed in place of "math course title," otherwise the math course selected in S2D15 displayed.
Variable: S2MATTENTION
Item Wording: You [pay/paid] attention to the teacher.
1=Never
2=Less than half of the time
3=Half of the time
4=More than half of the time
5=Always
Variable: S2MONTIME
Item Wording: You [turn/turned] in your assignments and projects on time.
1=Never
2=Less than half of the time
3=Half of the time
4=More than half of the time
5=Always
Variable: S2MSTOPTRYING
Item Wording: When an assignment [is/was] very difficult, you [stop/stopped] trying.
1=Never
2=Less than half of the time
3=Half of the time
4=More than half of the time
5=Always
~~~~~~

Variable: S2MGETBY
Item Wording: You [do/did] as little work as possible; you just [want/wanted] to get by.
1=Never
2=Less than half of the time
3=Half of the time
4=More than half of the time
5=Always
Routing: Go to S2 D20.
Administered to: Respondents who took a math course in spring term of 2012.
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Screen: S2 D20
Question Wording: How much do you agree or disagree with the following statements about [math course title]/math]?
Note: Question and item wording was customized such that the present tense of the words in brackets displayed if the respondent indicated they were currently taking a math course. If the respondent indicated they were not currently taking a math course, the past tense of the words in brackets displayed. If the respondent indicated they took more than one math course, the most challenging math course selected in S2D16 displayed in place of "math course title," otherwise the math course selected in S2D15 displayed.
Variable: S2MENJOYING
Item Wording: [You [are enjoying/enjoyed] this class very much./You enjoy math classes very much.]
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree
Variable: S2MTEXTBOOK
Item Wording: [You [are/were] certain that you [can/could] understand the most difficult material presented in the textbook used in this course./ You are certain that you can understand the most difficult material presented in math textbooks.]
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree
Variable: S2MWASTE
Item Wording: [You [think/thought] this class [is/was] a waste of your time. /You think math classes are a waste of your time.]
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree
Variable: S2MSKILLS
Item Wording: [You [are/were] certain that you [can/could] master the skills [being taught/that were taught] in this course./You are certain that you can master math skills.]
1=Strongly agree
2=Agree
~~~~~~

3=Disagree
4=Strongly disagree

Variable: S2MTESTS

Item Wording: [You [are/were] confident that you [can/could] do an excellent job on tests in this course. /You are confident that you can do an excellent job on math tests.]

1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree

Variable: S2MBORING

Item Wording: [You [think/thought] this class [is/was] boring./You think math classes are boring.]

1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree

Variable: S2MASSEXCL

Item Wording: [You [are/were] confident that you [can/could] do an excellent job on assignments in this course. /You are confident that you can do an excellent job on math assignments.]

1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree

Routing: If student, transfer or homeschooler, go to S2 D21
Else, skip to S2 D28
Administered to: Respondents who took a math course in spring term of 2012.

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Screen: S2 D21
Question Wording: [Are you currently taking any science, computer science or technology courses/Were you taking any science, computer science or technology courses during the spring term of 2012?
Note: Question wording was customized such that "Are you currently taking any science, computer science or technology courses" displayed if the respondent indicated they were currently attending school, otherwise "Were you taking any science, computer science or technology courses during the spring term of 2012" displayed.

Variable: S2SSPR12

1=Yes
0=No

Routing: If respondent is/was taking science course, then go to S2 D22; Else if not then go to S2 D24; Else if no response, go to S2 D28
Administered to: Respondents who are currently attending school or being homeschooled.
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Screen: S2 D22
Question Wording: What science, computer science, or engineering course or courses are you currently taking?/What science, computer science or engineering course or courses were you taking during the spring term of 2012?
Note: Question wording was customized such that "What science, computer science, or engineering course or courses are you currently taking?" displayed if the respondent indicated they were currently attending school, otherwise "What science, computer science or engineering course or courses were you taking during the spring term of 2012?' if the respondent was not currently attending school.

Variable: S2LIFES12
Item Wording: Life Science
0=No
1=Yes

Variable: S2BIO1S12
Item Wording: Biology I
0=No
1=Yes

Variable: S2BIO2S12
Item Wording: Biology II
0=No
1=Yes

Variable: S2APBIOS12
Item Wording: Advanced Placement (AP) Biology
0=No
1=Yes

Variable: S2IBIOS12
Item Wording: International Baccalaureate (IB) Biology
0=No
1=Yes

Variable: S2ANATOMYS12
Item Wording: Anatomy or Physiology
0=No
1=Yes

Variable: S2OTHBIOS12
Item Wording: Other biological sciences such as botany, marine biology, or zoology
0=No
1=Yes

Variable: S2CHEM1S12
Item Wording: Chemistry I
0=No
1=Yes

Variable: S2CHEM2S12
Item Wording: Chemistry II
0=No
1=Yes
~~~~~~

Variable: S2APCHEM12
Item Wording: Advanced Placement (AP) Chemistry
0=No
1=Yes
Variable: S2IBCHEM12
Item Wording: International Baccalaureate (IB) Chemistry
0=No
1=Yes
Variable: S2EARTHS12
Item Wording: Earth Science
0=No
1=Yes
Variable: S2APENVS12
Item Wording: Advanced Placement (AP) Environmental Science
0=No
1=Yes
Variable: S2IBENVS12
Item Wording: International Baccalaureate (IB) Environmental Systems and Societies
0=No
1=Yes
Variable: S2OTHENVS12
Item Wording: Other earth or environmental sciences such as ecology, geology, oceanography, or meteorology
0=No
1=Yes
Variable: S2PHYSIC1S12
Item Wording: Physics I
0=No
1=Yes
Variable: S2PHYSIC2S12
Item Wording: Physics II
0=No
1=Yes
Variable: S2APPHYSIC12
Item Wording: Advanced Placement (AP) Physics B or C
0=No
1=Yes
Variable: S2IBPHYSIC12
Item Wording: International Baccalaureate (IB) Physics
0=No
1=Yes
Variable: S2PHYSS12
Item Wording: Physical Science
0=No
1=Yes

Variable: S2TECHS12
Item Wording: Principles of Technology
0=No
1=Yes
Variable: S2OTHPHYS12
Item Wording: Other physical sciences such as astronomy or electronics
0=No
1=Yes
Variable: S2INTGS1S12
Item Wording: Integrated Science I
0=No
1=Yes
Variable: S2INTGS2S12
Item Wording: Integrated Science II or above
0=No
1=Yes
Variable: S2GENS12
Item Wording: General Science
0=No
1=Yes
Variable: S2COMPAPP12
Item Wording: Computer Applications
0=No
1=Yes
Variable: S2COMPPROG12
Item Wording: Computer Programming
0=No
1=Yes
Variable: S2APCOMPSCI12
Item Wording: Advanced Placement (AP) Computer Science
0=No
1=Yes
Variable: S2IBTECH12
Item Wording: International Baccalaureate (IB) Design Technology
0=No
1=Yes
Variable: S2OTHCOMP12
Item Wording: Other computer or information science course
0=No
1=Yes
Variable: S2ENGINEER12
Item Wording: An engineering course such as general engineering, robotics, aeronautical, mechanical or electrical engineering
0=No
1=Yes

Variable: S2OTHS12
Item Wording: Other science, computer science, or engineering course
0=No
1=Yes
Variable: S2OTHS12SP
Item Wording: Please specify:
Routing: If more than one science course selected, go to S2 D23; Else if one science course selected, go to S2 D25; Else if no science course is selected, but a non-science course is selected, go to S2 D24; Else if no courses selected at all, go to S2 D28
Administered to: Respondents taking a science course in spring term of 2012.
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Screen: S2 D23
Question Wording: Of the science courses you [are currently taking/were taking during the spring term of 2012], which [is/was] the most challenging?
Note: Question wording was customized such that "are you currently taking" and "is" displayed if the respondent indicated they were currently attending school, otherwise "were taking during the spring term of 2012" and "was" displayed if the respondent was not currently attending school.
Variable: S2HISCIENCE12
1=Life science
2=Biology I
3=Biology II
4=Advanced Placement (AP) Biology
5=International Baccalaureate (IB) Biology
6=Anatomy or Physiology
7=Other biological sciences such as botany, marine biology, or zoology
8=Chemistry I
9=Chemistry II
10=Advanced Placement (AP) Chemistry
11=International Baccalaureate (IB) Chemistry
12=Earth Science
13=Advanced Placement (AP) Environmental Science
14=International Baccalaureate (IB) Environmental Systems and Societies
15=Other earth or environmental sciences such as ecology, geology, oceanography or meteorology
16=Physics I
17=Physics II
18=Advanced Placement (AP) Physics B or C
19=International Baccalaureate (IB) Physics
20=Physical Science
21=Principles of Technology
22=Other physical sciences such as astronomy or electronics
23=Integrated Science I
24=Integrated Science II and above
25=General Science
~~~~~~

32=If S2SCRSE32SP is nonmissing fill [S2SCRSE32SP] else fill "Other science, technology, engineering, or computer science course"

Routing: Go to S2 D25.

Administered to: Respondents taking more than one science course in spring term of 2012.

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Screen: S2 D24

Question Wording: Why [are/were] you not taking a science course [in the spring term]?

Note: Question wording was customized such that "Are" displayed if the respondent indicated they were currently attending school, otherwise "Were" and "in the spring term" displayed.

Variable: S2SDISLIKE

Item Wording: You really dislike science.

1=Yes
0=No

Variable: S2SNOTHSREQ

Item Wording: It is not required for high school graduation.

1=Yes
0=No

Variable: S2SNOCLGADM

Item Wording: You will not need it to get into college.

1=Yes
0=No

Variable: S2SNOCLGSUCC

Item Wording: You will not need it to succeed in college.

1=Yes
0=No

Variable: S2SNOCAREER

Item Wording: You will not need it for your career.

1=Yes
0=No

Variable: S2SNOCNSLREC

Item Wording: A high school counselor discouraged you from taking a science class.

1=Yes
0=No

Variable: S2SNOTCHRREC

Item Wording: A teacher discouraged you from taking a science class.

1=Yes
0=No

Variable: S2SNOPARREC

Item Wording: Your parents discouraged you from taking a science class.

1=Yes
0=No

Variable: S2SNOFAMREC

Item Wording: Another family member discouraged you from taking a science class.

1=Yes
0=No
~~~~~~

Variable: S2SNOEMPREC
Item Wording: Your employer discouraged you from taking a science class.
1=Yes
0=No
Variable: S2SNOFRIEND
Item Wording: Your friends [are/were] not taking a science class.
1=Yes
0=No
Variable: S2SDONTDOWELL
Item Wording: You do not do well in science.
1=Yes
0=No
Variable: S2SNOASSIGN
Item Wording: You were not assigned to a science course.
1=Yes
0=No
Variable: S2STOOKBEFORE
Item Wording: You took science earlier in the school year.
1=Yes
0=No

Routing: Skip to S2 D28.
Administered to: Respondents who were not taking a science course in spring term of 2012.

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Screen: S2 D25
Question Wording: Why [are/were] you taking [science course title] ? Would you say you [are/were] taking it because…
Note: Question wording was customized such that "are" displayed if the respondent indicated they were currently taking a science course, otherwise "were" displayed if the respondent indicated they took a science course in the spring of 2012. If the respondent indicated they took more than one science course, the most challenging science course selected in S2D24 displayed in place of "science course title," otherwise the science course selected in S2D23 displayed.
Variable: S2SENJOYS
Item Wording: you really enjoy science?
1=Yes
0=No
Variable: S2SCHALLENGE
Item Wording: you like to be challenged?
1=Yes
0=No
Variable: S2SHSREQ
Item Wording: you had no choice, it is a high school requirement?
1=Yes
0=No
~~~~~~

Variable: S2SCLGADM
Item Wording: you will need it to get into college?
1=Yes
0=No
Variable: S2SCLGSUCC
Item Wording: you will need it to succeed in college?
1=Yes
0=No
Variable: S2SCAREER
Item Wording: you will need it for your career?
1=Yes
0=No
Variable: S2SCNSLREC
Item Wording: a high school counselor suggested you take it?
1=Yes
0=No
Variable: S2STCHRREC
Item Wording: a teacher encouraged you to take it?
1=Yes
0=No
Variable: S2SPARREC
Item Wording: your parents encouraged you to take it?
1=Yes
0=No
Variable: S2SFAMREC
Item Wording: another family member encouraged you to take it?
1=Yes
0=No
Variable: S2SEMPREC
Item Wording: your employer encouraged you to take it?
1=Yes
0=No
Variable: S2SFRIEND
Item Wording: your friends were taking it?
1=Yes
0=No
Variable: S2SDOWELL
Item Wording: you do well in science?
1=Yes
0=No
Variable: S2SASSIGNED
Item Wording: it was assigned to you?
1=Yes
0=No

Routing: Go to S2 D26.
Administered to: Respondents taking science in spring term of 2012.

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Screen: S2 D26
Question Wording: How much do you agree or disagree with the following statements about your teacher for [science course title]? Remember, none of your teachers or your principal will see any of the answers you provide. Your teacher…
Note: Question wording was customized such if the respondent indicated they took more than one science course, the most challenging science course selected in S2D24 displayed in place of "science course title," otherwise the science course selected in S2D23 displayed. "In addition, the response item options were customized such that the present tense of the word in brackets displayed if the respondent indicated they were currently taking a science course, otherwise the past tense of the word displayed if the respondent indicated they took a science course in the spring of 2012.

Variable: S2STCHTREAT
Item Wording: [treats/treated] some kids better than other kids.
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree

Variable: S2STCHINTRST
Item Wording: [makes/made] science interesting.
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree

Variable: S2STCHEASY
Item Wording: [makes/made] science easy to understand.
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree

Variable: S2STCHTHINK
Item Wording: [wants/wanted] students to think, not just memorize things.
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree

Variable: S2STCHGIVEUP
Item Wording: [doesn't/didn't] let people give up when the work [gets/got] hard.
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree

Routing: Go to S2 D27.
Administered to: Respondents taking science in spring term of 2012.
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Screen: S2 D27
Question Wording: How often [do/did] you do these things in [science course title]?
Note: Question and response option wording was customized such that the present tense of the word in brackets displayed if the respondent indicated they were currently taking a science course, otherwise the past tense of the word displayed if the respondent indicated they took a science course in the spring of 2012. Question wording was customized such if the respondent indicated they took more than one science course, the most challenging science course selected in S2D24 displayed in place of "science course title," otherwise the science course selected in S2D23 displayed.

Variable: S2SATTENTION
Item Wording: You [pay/paid] attention to the teacher.
1=Never
2=Less than half of the time
3=Half of the time
4=More than half of the time
5=Always

Variable: S2SONTIME
Item Wording: You [turn/turned] in your assignments and projects on time.
1=Never
2=Less than half of the time
3=Half of the time
4=More than half of the time
5=Always

Variable: S2SSTOPTRYING
Item Wording: When an assignment [is/was] very difficult, you [stop/stopped] trying.
1=Never
2=Less than half of the time
3=Half of the time
4=More than half of the time
5=Always

Variable: S2SGETBY
Item Wording: You [do/did] as little work as possible; you just [want/wanted] to get by.
1=Never
2=Less than half of the time
3=Half of the time
4=More than half of the time
5=Always

Routing: Go to S2 D28.
Administered to: Respondents taking science in spring term of 2012.

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Screen: S2 D28
Question Wording: How much do you agree or disagree with the following statements about [science course title/science]?
Note: Question and response option wording was customized such that the present tense of the word in brackets and the first sentence of the response options displayed if the respondent

indicated they were currently taking a science course, otherwise the past tense of the word displayed if the respondent indicated they took a science course in the spring of 2012. If the respondent indicated they had not taken a science course, the second sentence displayed. Question wording was customized such that if the respondent selected a science course in previous questions the science course displayed in place of "science course title" otherwise "science" displayed.

Variable: S2SENJOYING

Item Wording: [You [are enjoying/enjoyed] this class very much./You enjoy science classes very much.]

1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree

Variable: S2STEXTBOOK

Item Wording: [You [are/were] certain that you [can/could] understand the most difficult material presented in the textbook used in this course./ You are certain that you can understand the most difficult material presented in science textbooks.]

1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree

Variable: S2SWASTE

Item Wording: [You [think/thought] this class [is/was] a waste of your time. /You think science classes are a waste of your time.]

1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree

Variable: S2SSKILLS

Item Wording: [You [are/were] certain that you [can/could] master the skills [being taught/that were taught] in this course./You are certain that you can master science skills.]

1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree

Variable: S2STESTS

Item Wording: [You [are/were] confident that you [can/could] do an excellent job on tests in this course. /You are confident that you can do an excellent job on science tests.]

1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree

Variable: S2SBORING
Item Wording: [You [think/thought] this class [is/was] boring./You think science classes are boring.]
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree

Variable: S2SASSEXCL
Item Wording: [You [are/were] confident that you [can/could] do an excellent job on assignments in this course. /You are confident that you can do an excellent job on science assignments.]
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree

Routing: Go to S2 D29.
Administered to: All Respondents.

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Screen: S2 D29
Question Wording: [Has/Did] your school [asked/ask] you to develop a high school graduation, career, or education plan?
Note: Question wording was customized such that "Has" and "asked" displayed if the respondent indicated they were currently attending school, otherwise "Did" and "ask" displayed if the respondent was not currently attending school.

Variable: S2HSPLAN
1=Yes
2=No
3=Don't know

Routing: If respondent was asked to develop plan, go to S2 D30; Else, go to Introduction to Section E.
Administered to: All respondents.

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Screen: S2 D30
Question Wording: [Have you submitted/Did you submit] this plan to your school?
Note: Question wording was customized such that "Have you submitted" displayed if the respondent indicated they were currently attending school, otherwise "Did you submit" displayed if the respondent was not currently attending school.

Variable: S2SUBMITPLAN
1=Yes
2=No
3=Don't know

Routing: Go to S2 D31.
Administered to: Respondents who indicated their high school asked for a graduation, career, or education plan.

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Screen: S2 D31
Question Wording: On average, how often [have you met/did you meet] with an adult in your high school to review or revise this plan?
Note: Question wording was customized such that "have you met" displayed if the respondent indicated they were currently attending school, otherwise "did you meet" displayed if the respondent was not currently attending school.
Variable: S2REVIEWPLAN
1=Never
2=Less than once each school year
3=Once each school year
4=More than once each school year
Routing: Go to Introduction to Section E.
Administered to: Respondents who indicated their high school asked for a graduation, career, or education plan.

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Section E: Attitudes

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Screen: S2EINTRO
Question Wording: Now we are going to ask you some additional questions about your feelings about math, science and school in general.
Routing: Go to S2 E01.

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Screen: S2 E01
Question Wording: How much do you agree or disagree with the following statements?
Variable: S2MPERSON1
Item Wording: You see yourself as a math person.
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree
Variable: S2MPERSON2
Item Wording: Others see you as a math person.
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree
Variable: S2MLEARN
Item Wording: Most people can learn to be good at math.
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree

Variable: S2MBORN
Item Wording: You have to be born with the ability to be good at math.
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree
Routing: Go to S2 E02.
Administered to: All respondents.
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Screen: S2 E02
Question Wording: How much do you agree or disagree with the following statements about math?
Variable: S2MUSELIFE
Item Wording: Math is useful for everyday life.
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree
Variable: S2MUSECLG
Item Wording: Math is useful for college.
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree
Variable: S2MUSEJOB
Item Wording: Math is useful for a future career.
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree
Routing: Go to S2 E03.
Administered to: All respondents
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Screen: S2 E03
Question Wording: How much do you agree or disagree with the following statements?
Variable: S2SPERSON1
Item Wording: You see yourself as a science person.
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree

Variable: S2SPERSON2
Item Wording: Others see you as a science person.
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree

Variable: S2SLEARN
Item Wording: Most people can learn to be good at science.
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree

Variable: S2SBORN
Item Wording: You have to be born with the ability to be good at science.
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree

Routing: Go to S2 E04.
Administered to: All respondents

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Screen: S2 E04
Question Wording: How much do you agree or disagree with the following statements about science?

Variable: S2SUSELIFE
Item Wording: Science is useful for everyday life.
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree

Variable: S2SUSECLG
Item Wording: Science is useful for college.
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree

Variable: S2SUSEJOB
Item Wording: Science is useful for a future career.
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree

Routing: Go to S2 E05.
Administered to: All respondents
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Screen: S2 E05
Question Wording: In general, how would you compare males and females in each of the following subjects?

Variable: S2ENGCOMP
Item Wording: English or language arts
1=Females are much better
2=Females are somewhat better
3=Females and males are the same
4=Males are somewhat better
5=Males are much better

Variable: S2MTHCOMP
Item Wording: Math
1=Females are much better
2=Females are somewhat better
3=Females and males are the same
4=Males are somewhat better
5=Males are much better

Variable: S2SCICOMP
Item Wording: Science
1=Females are much better
2=Females are somewhat better
3=Females and males are the same
4=Males are somewhat better
5=Males are much better

Routing: Go to S2 C06.
Administered to: All respondents

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Screen: S2 E06
Question Wording: How much do you agree or disagree with the following statements?

Variable: S2PAYOFF
Item Wording: Studying in high school rarely pays off later with good jobs.
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree

Variable: S2DOOKAY
Item Wording: People can do okay even if they drop out of high school.
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree

Variable: S2BADGRADES
Item Wording: Students with bad grades often get good jobs after high school.
1=Strongly agree
2=Agree

3=Disagree
4=Strongly disagree

Variable: S2SCHWASTE

Item Wording: High school often is a waste of time.
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree

Variable: S2SCHOLARSHIP

Item Wording: Studying in high school pays off with scholarships for college.
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree

Routing: Go to S2 C07.
Administered to: All respondents

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Screen: S2 E07
Question Wording: How much do you agree or disagree with the following statements?

Variable: S2CANTAFFORD

Item Wording: Even if you get accepted to college, your family cannot afford to send you.
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree

Variable: S2SOMECLG

Item Wording: Regardless of your grades, you will be able to get into some kind of school or college.
1=Strongly agree
2=Agree
3=Disagree
4=Strongly disagree

Routing: If respondent is in rotation group 1, go to Introduction to Section F; Else if respondent is in rotation group 2, go to Introduction to Section G (locating section not delivered).
Note: So as to more evenly distribute item non-response resulting from an inability to complete the student questionnaire within the allotted time, the survey instrument rotated the order in which certain sections of the student questionnaire were administered. Respondents assigned to Rotation group 1 (Y_SGRP=1) were administered the questionnaire sections in the following order: A, B, C, D, E, F, G. Respondents assigned to Rotation group 2 (Y_SGRP=2) were administered the questionnaire sections in the following order: A, B, C, F, D, E, G.
Administered to: All respondents
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Section F: Activities and Family

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Screen: S2FINTRO
Question Wording: Now we are going to ask you some questions about how you spend your time.
Routing: Go to S2 F01.

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Screen: S2 F01
Question Wording: Since the fall of 2009, which of the following activities have you participated in?

Variable: S2MCLUB
Item Wording: Math club
1=Yes
0=No

Variable: S2MCOMPETE
Item Wording: Math competition
1=Yes
0=No

Variable: S2MSUMMERPRG
Item Wording: Math summer program
1=Yes
0=No

Variable: S2MGROUP
Item Wording: Math study group
1=Yes
0=No

Variable: S2MTUTORED
Item Wording: Program where you were tutored in math
1=Yes
0=No

Variable: S2SCLUB
Item Wording: Science club
1=Yes
0=No

Variable: S2SCOMPETE
Item Wording: Science competition
1=Yes
0=No

Variable: S2SSUMMERPRG
Item Wording: Science summer program
1=Yes
0=No
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Variable: S2SGROUP
Item Wording: Science study group
1=Yes
0=No
Variable: S2STUTORED
Item Wording: Program where you were tutored in science
1=Yes
0=No
Variable: S2FFA
Item Wording: Future Farmers of America (FFA)
1=Yes
0=No
Variable: S2HOSA
Item Wording: Health Occupations Students of America (HOSA)
1=Yes
0=No
Routing: Go to S2 F02.
Administered to: All respondents
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Screen: S2 F02
Question Wording: Since the fall of 2009, have you participated in any of the following activities outside of school?
Variable: S2MUSIC
Item Wording: Music or dance
1=Yes
0=No
Variable: S2ART
Item Wording: Art
1=Yes
0=No
Variable: S2DRAMA
Item Wording: Theater or drama
1=Yes
0=No
Variable: S2SPORTS
Item Wording: Organized sports supervised by an adult
1=Yes
0=No
Variable: S2CLUB
Item Wording: Scouting or another group or club activity
1=Yes
0=No
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Variable: S2ACADEMIC
Item Wording: Academic instruction outside of school such as from a Saturday Academy, learning center, personal tutor or summer school program
1=Yes
0=No
Variable: S2CLGCAMP
Item Wording: A college preparation camp
1=Yes
0=No
Routing: Go to S2 F03.
Administered to: All respondents
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Screen: S2 F03
Question Wording: Have you ever participated in any of the following programs?
Variable: S2EVERTALENT
Item Wording: Talent Search
1=Yes
2=No
3=You don’t know what this is
Variable: S2EVERUPWARD
Item Wording: Upward Bound
1=Yes
2=No
3=You don’t know what this is
Variable: S2EVERGEARUP
Item Wording: GEAR UP
1=Yes
2=No
3=You don’t know what this is
Variable: S2EVERAVID
Item Wording: AVID (Advancement in Individual Determination)
1=Yes
2=No
3=You don’t know what this is
Variable: S2EVERMESA
Item Wording: MESA (Mathematics, Engineering, Science Achievement)
1=Yes
2=No
3=You don’t know what this is
Routing: Go to S2 F04.
Administered to: All respondents
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Screen: S2 F04
Question Wording: During a typical school week [during the spring term of 2012/when you were last enrolled in high school], how many hours [do/did] you spend…

Notes: Question wording was customized such that "during the spring term of 2012" and "do" displayed if the respondent indicated they were currently attending school, otherwise "when you were last enrolled in high school" and "did" displayed if the respondent was not attending high school. In addition, the response options were customized such that the first response option "S2MHOMEWRK" did not display if the respondent indicated they were not currently taking a math class, and the second response option "S2SHOMEWRK" did not display if the respondent indicated they were not currently taking a science class.

Variable: S2MHOMEWRK

Item Wording: working on math homework and studying for math class?

0=No time
1=Less than 1/2 hour
2=1/2 to 1 hour
3=1 to 2 hours
4=2 to 3 hours
5=4 to 6 hours
6=7 to 9 hours
7=More than 9 hours

Variable: S2SHOMEWRK

Item Wording: working on science homework and studying for science class?

0=No time
1=Less than 1/2 hour
2=1/2 to 1 hour
3=1 to 2 hours
4=2 to 3 hours
5=4 to 6 hours
6=7 to 9 hours
7=More than 9 hours

Variable: S2OHOMEWRK

Item Wording: working on homework and studying for the rest of your classes?

0=No time
1=Less than 1/2 hour
2=1/2 to 1 hour
3=1 to 2 hours
4=2 to 3 hours
5=4 to 6 hours
6=7 to 9 hours
7=More than 9 hours

Routing: Go to S2 F05.

Administered to: All respondents

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Screen: S2 F05

Question Wording: Do you think you would [earn/have earned] higher grades if you [had] spent more time studying?

Notes: Question wording was customized such that "earned" displayed if the respondent indicated they were currently attending school, otherwise "have earned" and "had" displayed.
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Variable: S2STUDYMORE
1=Yes
0=No

Routing: If respondent thought he/she could earn better grades by studying, then go to S2 F06. Else, if respondent is a regular student, transfer, or homeschooler, then go to S2F07. Else, go to S2 F08.
Administered to: All respondents
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Screen: S2 F06
Question Wording: Which of the following are reasons you [do not/did not] spend more time studying?
Notes: Question and item wording was customized such that the present tense of the word in brackets displayed if the respondent indicated they were currently attending school, otherwise the past tense of the word in brackets displayed.

Variable: S2DONTCARE
Item Wording: You [do not/did not] care about earning higher grades.
1=Yes
0=No

Variable: S2CANTSEND
Item Wording: Even if you [get/got] better grades, your family [cannot afford/could not have afforded] to send you to school or college.
1=Yes
0=No

Variable: S2HIGHGRADES
Item Wording: Your grades [are/were] already high.
1=Yes
0=No

Variable: S2HANGOUT
Item Wording: You [want to /wanted to] hang out with your friends instead.
1=Yes
0=No

Variable: S2CLUBTIME
Item Wording: You [have/had] organized activities such as clubs or sports that [take/took] too much time.
1=Yes
0=No

Variable: S2POPULAR
Item Wording: You would not [be/have been] popular.
1=Yes
0=No

Variable: S2MAKEFUN
Item Wording: People [would make/would have made] fun of you.
1=Yes
0=No
~~~~~~

Variable: S2JOBTIME

Item Wording: You [have/had] a job that [takes/took] too much time.

1=Yes

0=No

Routing: If respondent is a regular student, transfer, or homeschooler, go to S2 F07; Else, skip to S2 F08.

Administered to: Respondents who thought they could earn better grades by spending more time studying.

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Screen: S2 F07

Question Wording: [Are you currently/At the end of the spring term of 2012, were you] working for pay not counting work around the house?

Note: Question wording was customized such that "Are you currently" displayed if the respondent indicated they were currently attending school, otherwise "At the end of the spring term of 2012, were you" displayed.

Variable: S2HSJOBNOW

1=Yes

0=No

Routing: If student working for pay, then go to S2 F09; Else go to S2 F08.

Administered to: Respondents who were in school or being homeschooled.

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Screen: S2 F08

Question Wording: [At any time since starting 9th grade, have you worked/At any time when you were enrolled in high school, did you work] for pay during the school year? Do not count work around the house.

Note: Question wording was customized such that "At any time since starting 9th grade, have you worked" displayed if the respondent indicated they were currently attending high school, otherwise "At any time when you were enrolled in high school, did you work" displayed.

Variable: S2HSJOBEVER

1=Yes

0=No

Routing: If respondent has ever worked then go to S2 F09; Else if respondent is a regular student, transfer, or homeschooler AND in rotation group 1, go to Section G (locating section not delivered); Else if respondent is a regular student, transfer, or homeschooler AND in rotation group 2, go to Section D; Else if respondent is dropout or early grad, skip to S2 F11.

Note: So as to more evenly distribute item non-response resulting from an inability to complete the student questionnaire within the allotted time, the survey instrument rotated the order in which certain sections of the student questionnaire were administered. Respondents assigned to Rotation group 1 (Y_SGRP=1) were administered the questionnaire sections in the following order: A, B, C, D, E, F, G. Respondents assigned to Rotation group 2 (Y_SGRP=2) were administered the questionnaire sections in the following order: A, B, C, F, D, E, G.

Administered to: Respondents who were in school or being homeschooled and were not currently working for pay, and respondents who were dropouts or early graduates

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Screen: S2 F09
Question Wording: How many hours per week [do you/ did you] usually work on your [current/most recent] job [at the end of the spring term/during the school year]?
(Please round to the nearest whole number.)
Note: Question wording was customized such that "How many hours per week do you usually work on your current job during the school year" displayed if the respondent indicated they had a job and were currently in school. Otherwise, "How many hours per week did you usually work on your most recent job during the school year displayed."

Variable: S2HSJOBHR
Item Wording: hours per week

Routing: Go to S2 F10.
Administered to: Respondents who were currently working or had ever worked for pay while in high school

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Screen: S2 F10
Question Wording: [Is/Was] this job related to the job you want to have when you have completed your education? Would you say…
Note: Question wording was customized such that "Is" displayed if the respondent indicated they currently had a job, otherwise "was" displayed if the respondent indicated they did not currently have a job.

Variable: S2HSJOBRELATE
1=Closely related
2=Somewhat related, or
3=Not at all related?

Routing: If respondent is a regular student, transfer, or homeschooler AND in rotation group 1, go to Section G (locating section not delivered); Else if respondent is a regular student, transfer, or homeschooler AND in rotation group 2, go to Section D; Else go to S2 F11.
Note: So as to more evenly distribute item non-response resulting from an inability to complete the student questionnaire within the allotted time, the survey instrument rotated the order in which certain sections of the student questionnaire were administered. Respondents assigned to Rotation group 1 (Y_SGRP=1) were administered the questionnaire sections in the following order: A, B, C, D, E, F, G. Respondents assigned to Rotation group 2 (Y_SGRP=2) were administered the questionnaire sections in the following order: A, B, C, F, D, E, G.
Administered to: Respondents who were currently working or had ever worked for pay while in high school

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Screen: S2 F11
Question Wording: How many jobs have you held since you left high school? Include any jobs you started when you were in high school and continued after you left high school.

Variable: S2NUMJOB
Item Wording: jobs
0=None
1=1
2=2
3=3 or more
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Routing: If respondent has held at least one job since last leaving high school, then go to S2 F12; Else go to S2 F20.
Administered to: Respondents who were dropouts or early graduates

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Screen: S2 F12
Question Wording: The next question is about the first job you held after leaving high school. This may be a job you started while you were in high school. [(If you had more than one job when you left high school, please answer for the job you had the longest.)]
In what month and year did you start working at this job?

Variable: S21STJOBMO
Item Wording: Month:
-9=Select one
1=January
2=February
3=March
4=April
5=May
6=June
7=July
8=August
9=September
10=October
11=November
12=December

Variable: S21STJOBYR
Item Wording: Year:
-9=Select one
2008=2008 or earlier
2009=2009
2010=2010
2011=2011
2012=2012

Routing: Go to S2 F13.
Administered to: Respondents who were dropouts or early graduates and had held at least one job since leaving high school

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Screen: S2 F13
Question Wording: Do you still have this job?

Variable: S21STJOBSTILL
1=Yes
0=No

Routing: If student no longer has this job and had only one job since leaving high school, go to S2 F16; Else, if respondent no longer has this job and had more than once job since leaving high school, go to S2 F14; Else if respondent still has this job, go to S2 F16; Else, go to S2 F14.
Administered to: Respondents who were dropouts or early graduates and had held at least one job since leaving high school

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Screen: S2 F14
Question Wording: Do you currently have a job?
Variable: S2JOBNOW
1=Yes
0=No
Routing: Go to S2 F15.
Administered to: Respondents who were dropouts or early graduates and had held more than one job since leaving high school but were no longer working at the job reported in S21STJOBMO and S21STJOBYR

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Screen: S2 F15
Question Wording: What month and year did you start your [current/most recent] job?
Note: Question wording was customized such that "current" displayed if the respondent indicated they currently had a job, otherwise "most recent" displayed if the respondent indicated they were not currently working but had a job in the past.
Variable: S2JOBMO
Item Wording: Month:
-9=Select one
1=January
2=February
3=March
4=April
5=May
6=June
7=July
8=August
9=September
10=October
11=November
12=December
Variable: S2JOBYR
Item Wording: Year:
-9=Select one
2008=2008 or earlier
2009=2009
2010=2010
2011=2011
2012=2012
Routing: Go to S2 F16.
Administered to: Respondents who were dropouts or early graduates and had held more than one job since leaving high school but were no longer working at the job reported in S21STJOBMO and S21STJOBYR

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Screen: S2 F16
Question Wording: About how many hours per week [do/did] you usually work in your [current/most recent] job? (Please round to the nearest whole number.)
Note: Question wording was customized such that "do" and "current" displayed if the respondent indicated they currently had a job, otherwise "did" and "most recent" displayed if the respondent indicated they were not currently working but had a job in the past.

Variable: S2JOBHR
Item Wording: hours per week

Routing: Go to S2 F17.
Administered to: Respondents who were dropouts or early graduates and held at least one job since leaving high school.

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Screen: S2 F17
Question Wording: [How much do/When you left this job, how much did] you earn before taxes [are/were] taken out?
Note: Question wording was customized such that "How much do" and "are" displayed if the respondent indicated they currently had a job, otherwise "When you left this job, how much did" and "were" displayed if the respondent indicated they were not currently working but had a job in the past.

Variable: S2JOBEARN
Item Wording: $

Variable: S2JOBUNIT
-9=Select one
1=hour
2=day
3=week
4=month
5=year

Routing: Go to S2 F18.
Administered to: Respondents who were dropouts or early graduates and had held at least one job since leaving high school

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Screen: S2 F18
Question Wording: [Is your current/Was your most recent] job related to the job you want to have when you have completed your education? Would you say…
Note: Question wording was customized such that "Is your current" displayed if the respondent indicated they currently had a job, otherwise "Was your most recent" displayed if the respondent indicated they were not currently working but had a job in the past.

Variable: S2JOBRELATE
1=Closely related
2=Somewhat related, or
3=Not at all related?

Routing: If the student has a job, then go to S2 F20. Else, go to S2 F19.
Administered to: Respondents who were dropouts or early graduates and had held at least one job since leaving high school
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Screen: S2 F19
Question Wording: Why are you no longer working in this job? Would you say…
Variable: S2JOBLEFTRSN
1=you left voluntarily or quit
2=you were laid off
3=the company went out of business or plant closed
4=you were discharged or fired
5=your temporary or seasonal job ended
6=you left on disability or
7=for some other reason?
Routing: If interview administered out of school then go to S2 F20; Else skip to S2 F23.
Administered to: Respondents who were dropouts or early graduates (X2SQSTAT<7 and X2ENROLSTAT=5,4) and had held at least one job since leaving high school (S2NUMJOB>0) and were not currently employed (S2JOBNOW<>1)

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Screen: S2 F20
Question Wording: How many children do you have?
Variable: S2NUMCHILD
0=None
1=One
2=More than one
Routing: If respondent has one or more children, go to S2 F21; Else go to S2 F23.
Administered to: Respondents who were dropouts or early graduates

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Screen: S2 F21
Question Wording: In what month and year [was your first child born/was your child born?
Note: Question wording was customized such that "was your first child born" displayed if the respondent indicated they had more than one child, otherwise "was your child born" displayed if the respondent indicated they only had one child.
Variable: S2CHILDBORNMO
Item Wording: Month:
-9=Select one
1=January
2=February
3=March
4=April
5=May
6=June
7=July
8=August
9=September
10=October
11=November
12=December
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Variable: S2CHILDBORNYR
Item Wording: Year:
-9=Select one
2004=2004 or earlier
2005=2005
2006=2006
2007=2007
2008=2008
2009=2009
2010=2010
2011=2011
2012=2012
Routing: Go to S2 F22.
Administered to: Respondents who were dropouts or early graduates and had one or more children
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Screen: S2 F22
Question Wording: [Does your child/Do any of your children/Will your child] live with you?
Note: Question wording was customized such that "does your child" displayed if the respondent indicated they had one child, otherwise "do any of your children" displayed if the respondent indicated they had more than one child. "Will your child" displayed if the respondent indicated they were expecting a child.
Variable: S2LIVECHILD
1=Yes
0=No
Routing: Go to S2 F23.
Administered to: Respondents who were dropouts or early graduates and had one or more children
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Screen: S2 F23
Question Wording: [Besides your child(ren), who else/Who] do you currently live with?
Note: Question wording was customizes such that "Besides your child(ren), who else" displayed if the respondent indicated they had a child, otherwise "Who" displayed.
Variable: S2LIVEPARENT
Item Wording: One or more of your parents
0=No
1=Yes
Variable: S2LIVESIBS
Item Wording: Siblings or other relatives
0=No
1=Yes
Variable: S2LIVESPOUSE
Item Wording: Your spouse
0=No
1=Yes

Variable: S2LIVEPARTNER
Item Wording: Your girlfriend or boyfriend
0=No
1=Yes
Variable: S2LIVEFRIEND
Item Wording: Friends or roommates
0=No
1=Yes
Variable: S2LIVEALONE
Item Wording: No one
0=No
1=Yes
Routing: Go to S2 F24.
Administered to: Respondents who were dropouts or early graduates
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Screen: S2 F24
Question Wording: Are you [or your spouse/partner] currently receiving public assistance such as unemployment insurance, food assistance, or other help?
Note: Question wording was customized such that "or your spouse/partner" displayed only if the respondent indicated they had a spouse or partner.
Variable: S2PUBASSIST
1=Yes
0=No
Routing: If respondent is in rotation group 1, go to Introduction to Section G (locating section not delivered); Else if respondent is in rotation group 2, go to Introduction to Section E.
Note: So as to more evenly distribute item non-response resulting from an inability to complete the student questionnaire within the allotted time, the survey instrument rotated the order in which certain sections of the student questionnaire were administered. Respondents assigned to Rotation group 1 (Y_SGRP=1) were administered the questionnaire sections in the following order: A, B, C, D, E, F, G. Respondents assigned to Rotation group 2 (Y_SGRP=2) were administered the questionnaire sections in the following order: A, B, C, F, D, E, G.
Administered to: Respondents who were dropouts or early graduates
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Parent

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Section A: Family Background

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Screen: P2AINTRO
Question Wording: We will begin with some questions about [Teenager]'s family.
Routing: If teenager's sex is known, then go to P2 A01A. Else go to P2A01B.

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Screen: P2 A01A
Question Wording: Just to confirm, our records indicate that [Teenager] is [male/female]. Is this correct?
Variable: Not delivered on data file
1=Yes
0=No
Routing: Go to P2 A02.
Administered to: Respondents whose teenager's sex was provided in BY

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Screen: P2 A01B
Question Wording: What is [Teenager]'s sex?
Variable: Not delivered on data file
1=Male
2=Female
Routing: Go to P2 A02.
Administered to: Respondents whose teenager's sex is unknown

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Screen: P2 A02
Question Wording: How much of the time does [Teenager] live with you?
Variable: P2HHTIME
1=All of the time
2=More than half of the time
3=Half of the time
4=Less than half of the time or
5=None of the time
Routing: Go to P2 A03.
Administered to: All respondents

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Screen: P2 A03
Question Wording: What is your relationship to [Teenager]? Are you [his/her] biological parent, adoptive parent, stepparent, or someone else?
Note: Item(s) included in the abbreviated paper and pencil questionnaire.
Variable: P2RELSHP
1=Biological mother
2=Biological father
3=Adoptive mother

4=Adoptive father
5=Stepmother
6=Stepfather
7=Foster mother
8=Foster father
9=Female partner of [Teenager]'s parent or guardian
10=Male partner of [Teenager]'s parent or guardian
11=Grandmother
12=Grandfather
13=Other female relative
14=Other male relative
15=Other female guardian
16=Other male guardian

Routing: If the F1 respondent is the same biological parent who responded in BY, then set same respondent indicator to "yes" (P2SAMER=1) and go to P2 A08;
Otherwise, if the F1 respondent's relationship to the teenager is the same as the base year respondent's relationship, then go to P2 A04; Otherwise, if the F1 respondent is a parent (i.e., adoptive, step, foster or partner of parent), then set same respondent indicator to null (P2SAMER=0) and go to P2 A08; Otherwise, if the F1 respondent is a non-parent, then set same respondent indicator to null (P2SAMER=0) and go to P2 A05.
Administered to: All respondents

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Screen: P2 A04
Question Wording: To help us customize your interview, we would like to know if you are the parent or guardian who completed the HSLS:09 parent interview in [Month and Year of base year interview].
Our records indicate that [base year respondent] completed the interview. Are you [base year respondent]?

Variable: P2SAMER

1=Yes
0=No

Routing: If respondent is the same as the base year respondent, set same respondent indicator to "yes" (P2SAMER=1); Else if the respondent is not the same as the base year respondent, set same respondent indicator to "no" (P2SAMER=0); If the respondent is a parent or parent's partner, go to P2 A08; Else if respondent is a grandparent, relative, guardian, or no response, go to P2 A05.
Administered to: Respondents with the same relationship to the teenager as the base year respondent with the exception of biological parents

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Screen: P2 A05
Question Wording: Does [Teenager] have biological, adoptive, step- or foster parents who live in your household?

Variable: P2HHPARENT

1=Yes, one parent in household
2=Yes, two parents in household
3=No parents in household

Routing: If 1 or 2 parents live in the home with the teenager, go to P2 A06; Else if no biological, adoptive, step, or foster parents in home, or no response, go to P2 A08.
Administered to: Non-parent respondents

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Screen: P2 A06
Question Wording: What [is this parent's relationship/are these parents' relationships] to [him/her]?
Note: Question wording was customized in the survey instrument such that the language in the brackets depended on whether they were one or two parents in the household (P2HHPARENT). If there was only one parent in the household, P2HHPARREL2 was not displayed.

Variable: P2HHPARREL1
Item Wording: First Parent
1=Biological mother
2=Biological father
3=Adoptive mother
4=Adoptive father
5=Stepmother
6=Stepfather
7=Foster mother
8=Foster father

Variable: P2HHPARREL2
Item Wording: Second Parent
1=Biological mother
2=Biological father
3=Adoptive mother
4=Adoptive father
5=Stepmother
6=Stepfather
7=Foster mother
8=Foster father

Routing: If the respondent is not the same as the base year interview respondent, then set same parent 2 indicator to null (P2SAMESPS=0) and go to P2 A13; Otherwise, if two parents were in the household in either base year or first follow-up, then set same parent 2 indicator to null (P2SAMESPS=0) and go to P2 A13. Otherwise, if respondent reported one parent in the household in both the base year and the first follow-up, and that parent is the same biological parent in both rounds, then set same parent 2 indicator to yes (P2SAMESPS=1) and go to P2 A13. Otherwise, if year of birth was not reported in base year for parent 2 then set same parent 2 indicator to null (P2SAMESPS=0) and go to P2 A13. Otherwise, go to P2A07
Administered to: Non-parent respondents who had one or two parents in the household

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Screen: P2 A07
Question Wording: To help us customize your interview, we would like to know if this is the same parent you reported on in [Month and Year of base year interview]. At that time, you reported that [Teenager]'s [base year Parent 2] was born in [Birth year of parent 2 in base year]? Is this the same person you are reporting on now?

Variable: P2SAMEPAR
1=Yes
0=No
Routing: Go to P2 A13.
Administered to: Non-parent respondents who were also the base year respondent and reported that there was one non-biological parent in the household in both rounds for whom birth year is known.

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Screen: P2 A08
Question Wording: Do you have a spouse or partner who lives in the same household as you and [Teenager]?
Note: Item(s) included in the abbreviated paper and pencil questionnaire.
Variable: P2SPOUSE
1=Yes, a spouse
2=Yes, a partner
3=No
Routing: If spouse or partner, go to P2 A09; Else, skip to P2 A11.
Administered to: Parent respondents and non-parent respondents without parents in the household

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Screen: P2 A09
Question Wording: What is your [spouse/partner]'s relationship to [Teenager]?
Note: If the respondent was the biological parent, the respondent's relationship was not displayed as a response option. If the respondent was a parent or partner of a parent, response options 11–14 were not displayed. If the respondent was a grandparent, relative, or guardian, response options 1–10 were not displayed. Item(s) included in the abbreviated paper and pencil questionnaire.
Variable: P2SPSREL
1=Biological mother
2=Biological father
3=Adoptive mother
4=Adoptive father
5=Stepmother
6=Stepfather
7=Foster mother
8=Foster father
9=Female partner of [Teenager]'s parent or guardian
10=Male partner of [Teenager]'s parent or guardian
11=Grandmother
12=Grandfather
13=Other female relative
14=Other male relative
15=Other female guardian
16=Other male guardian
Routing: If same respondent indicator is null (P2SAMER=0), then set same Parent 2 indicator to null (P2SAMESPS=0) and go to P2 A13; Otherwise, if spouse/partner is the same biological

parent as the base year spouse/partner (P2SAMER=1), then set same Parent 2 indicator to "yes" (P2SAMESPS=1) and go to P2 A13; Otherwise, if spouse/partner has same relationship to teenager as base year spouse/partner, then go to P2 A10; Otherwise, set same Parent 2 indicator to null (P2SAMESPS=0) and go to P2 A13.
Administered to: Respondents with a spouse or partner in the household

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Screen: P2 A10
Question Wording: To help us customize your interview, we would like to know if this is the same [spouse/partner] you reported on in [Month and Year of base year interview]. At that time, you reported that your [spouse/partner] was born in [Birth year of parent 2 in base year]. Is this the same person you are reporting on now?
Variable: P2SAMESPS
1=Yes
0=No
Routing: If spouse/partner is the same as base year spouse/partner, then set same Parent 2 indicator to "yes" (P2SAMESPS=1) and go to P2 A13; Else set same Parent 2 indicator to null (P2SAMESPS=0) and go to P2 A13.
Administered to: Respondents who are the same as the base year respondent and have a spouse/partner with the same non-biological relationship to the teenager as the spouse/partner in the base year

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Screen: P2 A11
Question Wording: Besides yourself is there another adult in the household who has parental responsibility for [Teenager] such as a grandparent or another relative?
Variable: P2OTHADULT
1=Yes
0=No
Routing: If another adult with parental responsibility, go to P2 A12; Otherwise, if no adult or no response skip to P2 A13.
Administered to: Parent respondents who have no spouse/partner in the household and non-parent respondents who have neither a spouse/partner nor a parent in the household

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Screen: P2 A12
Question Wording: What is that adult's relationship to [Teenager]? If there is more than one, please answer for the one who is most involved in raising [him/her].
Variable: P2OTHREL
11=Grandmother
12=Grandfather
13=Other female relative
14=Other male relative
15=Other female guardian
16=Other male guardian
Routing: Go to P2 A13.
Administered to: Respondents who have another adult in the household who has parental responsibility for the teenager besides a spouse/partner or a parent
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Screen: P2 A13
Question Wording: [What is [your/this parent's] current marital status?/What is the marital relationship of these parents?]
Note: If the respondent was a parent, the question asked about the respondent's marital status; if the respondent was a non-parent and there was one parent in the household, the question asked about parent 1's marital status; and if the respondent was a non-parent and there were two parents in the household, the question asked about the two parents' marital status.

Variable: P2MARSTAT
1=Married
2=Living in a domestic partnership
3=Divorced
4=Separated
5=Single, never married
6=Widowed

Routing: Go to P2 A14.
Administered to: All respondents

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Screen: P2 A14
Question Wording: We would like to know how many people live in your household including yourself [your spouse/ your partner/ [teenager]'s parent/[Teenager's] parents/[Teenager]'s [relationship of other adult with parental responsibility to teenager]] and [Teenager].
How many people living in your household are…
Note: Question wording was customized in the survey instrument such that the language in brackets depended on which adults were in the household.

Variable: P2HHLT18
Item Wording: under the age of 18?

Variable: P2HHGE18
Item Wording: 18 years of age or older?

Routing: Go to P2 A15.
Administered to: All respondents

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Screen: P2 A15
Question Wording: How many brothers and sisters does [Teenager] have? Include adoptive, half-, and step-siblings, regardless of whether they live in the same household.
(Please enter 0 if none.)

Variable: P2SIBNUM
Item Wording: sibling(s)

Routing: If teenager has siblings go to P2 A16. Otherwise, skip to P2 A17.
Administered to: All respondents

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Screen: P2 A16
Question Wording: [Has this sibling/Have any of these siblings]…
Note: Question wording was customized in the survey instrument based on whether the teenager has one or more siblings.

Variable: P2SIBDROPOUT
Item Wording: ever stopped going to high school for a period of 4 weeks or more other than for school breaks, illness, injury, or vacation?
1=Yes
0=No

Variable: P2SIBHSDIP
Item Wording: earned a high school diploma?
1=Yes
0=No

Variable: P2SIBGED
Item Wording: earned a GED?
1=Yes
0=No

Variable: P2SIBAPPLYCLG
Item Wording: applied to college or a school that provides occupational training?
1=Yes
0=No

Variable: P2SIBAPPLYAID
Item Wording: applied for financial aid for college or a school that provides occupational training?
1=Yes
0=No

Variable: P2SIBSTARTCLG
Item Wording: enrolled in a college or a school that provides occupational training?
1=Yes
0=No

Variable: P2SIBCLGGRAD
Item Wording: completed education at a college or a school that provides occupational training?
1=Yes
0=No

Variable: P2SIBENLIST
Item Wording: enlisted in the military?
1=Yes
0=No

Routing: Go to P2 A17.
Administered to: Respondents whose teenager had at least one sibling

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Screen: P2 A17
Question Wording: Since the fall of 2009, which of the following events, if any, occurred in your family?

Variable: P2PARLOSTJOB
Item Wording: One of [Teenager]'s parents or guardians lost a job.
1=Yes
0=No
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Variable: P2FORECLOSED
Item Wording: [Teenager]'s family's home was foreclosed.
1=Yes
0=No

Variable: P2PARDIVORCE
Item Wording: [Teenager]'s parents or guardians separated or divorced.
1=Yes
0=No

Variable: P2PARHEALTH
Item Wording: One of [Teenager]'s parents or guardians had serious health problems or was seriously injured.
1=Yes
0=No

Variable: P2PARDIED
Item Wording: One of [Teenager]'s parents or guardians died.
1=Yes
0=No

Variable: P2TEENHEALTH
Item Wording: [Teenager] had serious health problems or was seriously injured.
1=Yes
0=No

Variable: P2TEENCHILD
Item Wording: [Teenager] had a child.
1=Yes
0=No

Routing: Go to P2BINTRO.
Administered to: All respondents

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Section B: Teenager's Educational Experiences

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Screen: P2BINTRO
Question Wording: Now we have some questions about [Teenager]'s educational experiences.
Routing: Go to P2 B01.

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Screen: P2 B01
Question Wording: What [high school] grades, if any, has [Teenager] repeated [since the fall of 2009]?
Note: Question wording and item display was customized in the survey instrument. If the base year parent interview was completed, "high school" and "since the fall of 2009" were displayed and the Kindergarten through 8th grade items were not.

Variable: P2REPEATGK
Item Wording: Kindergarten
0=No
1=Yes
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Variable: P2REPEATG1
Item Wording: 1st grade
0=No
1=Yes
Variable: P2REPEATG2
Item Wording: 2nd grade
0=No
1=Yes
Variable: P2REPEATG3
Item Wording: 3rd grade
0=No
1=Yes
Variable: P2REPEATG4
Item Wording: 4th grade
0=No
1=Yes
Variable: P2REPEATG5
Item Wording: 5th grade
0=No
1=Yes
Variable: P2REPEATG6
Item Wording: 6th grade
0=No
1=Yes
Variable: P2REPEATG7
Item Wording: 7th grade
0=No
1=Yes
Variable: P2REPEATG8
Item Wording: 8th grade
0=No
1=Yes
Variable: P2REPEATG9
Item Wording: 9th grade
0=No
1=Yes
Variable: P2REPEATG10
Item Wording: 10th grade
0=No
1=Yes
Variable: P2REPEATG11
Item Wording: 11th grade
0=No
1=Yes

Variable: P2REPEATNONE
Item Wording: None of these grades
0=No
1=Yes
Routing: Go to P2 B02.
Administered to: All respondents
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Screen: P2 B02
Question Wording: What [high school] grades, if any, has [Teenager] skipped [since the fall of 2009]?
Note: Question wording and item display was customized in the survey instrument. If the base year parent interview was completed, "high school" and "since the fall of 2009" were displayed and the Kindergarten through 8th grade items were not. 9th grade was not available for selection by respondents.
Variable: P2SKIPGK
Item Wording: Kindergarten
0=No
1=Yes
Variable: P2SKIPG1
Item Wording: 1st grade
0=No
1=Yes
Variable: P2SKIPG2
Item Wording: 2nd grade
0=No
1=Yes
Variable: P2SKIPG3
Item Wording: 3rd grade
0=No
1=Yes
Variable: P2SKIPG4
Item Wording: 4th grade
0=No
1=Yes
Variable: P2SKIPG5
Item Wording: 5th grade
0=No
1=Yes
Variable: P2SKIPG6
Item Wording: 6th grade
0=No
1=Yes
Variable: P2SKIPG7
Item Wording: 7th grade
0=No
1=Yes
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Variable: P2SKIPG8
Item Wording: 8th grade
0=No
1=Yes
Variable: not delivered on data file
Item Wording: 9th grade
0=No
1=Yes
Variable: P2SKIPG10
Item Wording: 10th grade
0=No
1=Yes
Variable: P2SKIPG11
Item Wording: 11th grade
0=No
1=Yes
Variable: P2SKIPNONE
Item Wording: None of these grades
0=No
1=Yes

Routing: Go to P2 B03.
Administered to: All respondents

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Screen: P2 B03
Question Wording: [Is [Teenager] currently/At the end of the spring 2012 term, was [Teenager]] attending high school, not attending high school, or being homeschooled? If [he/she] [is/was] out for school break, illness, injury, or vacation, please consider [him/her] as attending school.
Note: Question wording was customized in the survey instrument such that the language in brackets depended on when the interview was administered (before or after May 26).

Variable: P2ENROLLHS12
1=Attending high school
2=Not attending high school
3=Being homeschooled

Routing: If student was attending school or being homeschooled or no response, go to P2 B05; Else if student was not attending school, go to P2 B04.
Administered to: All respondents

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Screen: P2 B04
Question Wording: [At the end of the spring 2012 term, had/Has] [he/she] earned a regular high school diploma, GED, or alternative high school credential?
Note: Question wording was customized in the survey instrument such that the language in brackets depended on when the interview was administered (before or after May 26).

Variable: P2HSDIPGED

1=Yes, a regular diploma
2=Yes, a GED or alternative high school credential
3=No

Routing: Go to P2 B05.
Administered to: Respondents with teenagers that were not attending high school

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Screen: P2 B05
Question Wording: [Since the fall of 2009, has/Has] [he/she] been suspended or expelled from school? Please include in-school and out-of-school suspensions, but do not count detentions.
Note: Question wording was customized in the survey instrument such that the language in brackets depended on whether or not the base year parent interview was completed.

Variable: P2SUSPEND

1=Yes
0=No

Routing: Go to P2 B06.
Administered to: All respondents

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Screen: P2 B06
Question Wording: [At any time since the fall of 2009, has [Teenager]/Prior to the date [Teenager] last attended high school, had [he/she] ever/Before [Teenager] began homeschooling, had [he/she] ever] stopped going to high school for a period of 4 weeks or more? Do not include school breaks, illness, injury, or vacation. Do include school expulsions or out-of-school suspensions lasting a month or more.
Note: Question wording was customized in the survey instrument such that the language in brackets depended on the enrollment status of the teenager as reported in P2ENROLLHS12.

Variable: P2DROPOUTHS

1=Yes
0=No

Routing: Go to P2 B07.
Administered to: All respondents

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Screen: P2 B07
Question Wording: [Does [teenager] currently/At the end of the spring term of 2012, did [Teenager]/When [Teenager] was last enrolled in school, did [he/she]] receive special education services? Students receiving these services often have an Individualized Education Plan or Program (IEP).
Note: Question wording was customized in the survey instrument such that the language in brackets depended on when the interview was administered (before or after May 26) and the enrollment status of the teenager as reported in P2ENROLLHS12.

Variable: P2SPECIALED

1=Yes
2=No
3=Don’t know

Routing: Go to P2 B08.
Administered to: All respondents
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Screen: P2 B08
Question Wording: [During the 2011–2012 school year/When [Teenager] was last enrolled in school], about how many days in an average week [have/did] you [discussed/discuss] homework with [Teenager]? Would you say…
Note: Question wording was customized in the survey instrument such that the language in brackets depended on when the interview was administered (before or after May 26) and the enrollment status of the teenager as reported in P2ENROLLHS12.

Variable: P2HWOFTEN

1=never
2=less than once a week
3=1 or 2 days a week
4=3 or 4 days a week, or
5=5 or more days a week?

Routing: Go to P2 B09.
Administered to: All respondents

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Screen: P2 B09
Question Wording: [When [Teenager] was last enrolled in school, how/During the 2011–2012 school year, how/How] confident [do/did] you feel about your ability to help [Teenager] with the homework [he/she] [has this school year/had] in each of the following subjects?
Note: Question wording was customized in the survey instrument such that the language in brackets depended on when the interview was administered (before or after May 26) and the enrollment status of the teenager as reported in P2ENROLLHS12.

Variable: P2MTHHWEFF

Item Wording: Math
1=Very confident
2=Somewhat confident
3=Not at all confident

Variable: P2SCIHWEFF

Item Wording: Science
1=Very confident
2=Somewhat confident
3=Not at all confident

Variable: P2ENGHWEFF

Item Wording: English or language arts
1=Very confident
2=Somewhat confident
3=Not at all confident

Routing: Go to P2 B10.
Administered to: All respondents

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Screen: P2 B10
Question Wording: During the last 12 months, which of the following activities have you [or [your spouse/your partner/parent 2]]done with [Teenager]?
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Note: Question wording was customized in the survey instrument such that the language in brackets depended on who was parent 2: the respondent's spouse or partner, a parent in a non-parent respondent household, or another adult with parental responsibility.

Variable: P2MUSEUM
Item Wording: Visited a science-related destination, such as a zoo, planetarium, or natural history museum
1=Yes
0=No

Variable: P2COMPUTER
Item Wording: Worked or played on a computer together
1=Yes
0=No

Variable: P2FIXED
Item Wording: Built or fixed something such as a vehicle or appliance
1=Yes
0=No

Variable: P2SCIPROJ
Item Wording: Helped [Teenager] with a school science fair project
1=Yes
0=No

Variable: P2STEMDISC
Item Wording: Discussed a program or article about science, technology, engineering, or math
1=Yes
0=No

Variable: P2LIBRARY
Item Wording: Visited a library
1=Yes
0=No

Variable: P2SHOW
Item Wording: Gone to a play, concert, or other live show
1=Yes
0=No

Variable: P2ARTEXHIBIT
Item Wording: Gone to an art museum or exhibit
1=Yes
0=No

Variable: P2NATLPARK
Item Wording: Visited a national or state park
1=Yes
0=No

Routing: Go to P2 B11.
Administered to: All respondents

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Screen: P2 B11
Question Wording: During the last 12 months, has [Teenager] participated in a religious youth group or received religious instruction outside of school?
Variable: P2RELIGGRP
1=Yes
0=No
Routing: Go to P2 B12.
Administered to: All respondents

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Screen: P2 B12
Question Wording: How much do you agree or disagree with the following statements?
Variable: P2GOODJOB
Item Wording: Studying in high school rarely pays off later with good jobs.
1=Strongly Agree
2=Agree
3=Disagree
4=Strongly Disagree
Variable: P2DROPOUTOK
Item Wording: People can do okay even if they drop out of high school.
1=Strongly Agree
2=Agree
3=Disagree
4=Strongly Disagree
Variable: P2BADGRADES
Item Wording: Students with bad grades often get good jobs after high school.
1=Strongly Agree
2=Agree
3=Disagree
4=Strongly Disagree
Variable: P2SCHWASTE
Item Wording: High school often is a waste of time.
1=Strongly Agree
2=Agree
3=Disagree
4=Strongly Disagree
Variable: P2SCHOLARSHIP
Item Wording: Studying in high school pays off with scholarships for college.
1=Strongly Agree
2=Agree
3=Disagree
4=Strongly Disagree
Routing: Go to P2 B13.
Administered to: All respondents

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Screen: P2 B13
Question Wording: How much do you agree or disagree with the following statements?
Variable: P2CANTAFFORD
Item Wording: Even if [Teenager] gets accepted to college, [his/her] family cannot afford to send [him/her].
1=Strongly Agree
2=Agree
3=Disagree
4=Strongly Disagree
Variable: P2GETINTOCLG
Item Wording: Regardless of [his/her] grades, [Teenager] will be able to get into some kind of school or college.
1=Strongly Agree
2=Agree
3=Disagree
4=Strongly Disagree
Routing: Go to P2 B14
Administered to: All respondents

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Screen: P2 B14
Question Wording: Since the start of the 2011–2012 school year, about how often have you discussed the following with [Teenager]?
Variable: P2DISCCOURSES
Item Wording: Selecting courses or programs at school
1=Never
2=Once or twice
3=Three or four times
4=More than four times
Variable: P2DISCCLGEXAM
Item Wording: Preparing for college entrance exams such as ACT, SAT, or ASVAB
1=Never
2=Once or twice
3=Three or four times
4=More than four times
Variable: P2DISCCLGAPP
Item Wording: Applying to college or other schools after high school
1=Never
2=Once or twice
3=Three or four times
4=More than four times

Variable: P2DISCCAREER
Item Wording: Careers [he/she] might be interested in
1=Never
2=Once or twice
3=Three or four times
4=More than four times

Variable: P2DISCJOBS
Item Wording: Jobs that [he/she] might want to take after high school
1=Never
2=Once or twice
3=Three or four times
4=More than four times

Variable: P2DISCEVENTS
Item Wording: Community, national, and world events
1=Never
2=Once or twice
3=Three or four times
4=More than four times

Variable: P2DISCTROUBLE
Item Wording: Things that are troubling [him/her]
1=Never
2=Once or twice
3=Three or four times
4=More than four times

Routing: Go to P2 B15.
Administered to: All respondents

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Screen: P2 B15
Question Wording: Since the start of the 2011–2012 school year, how often have you contacted [Teenager]'s school for any reason?

Variable: P2CONTACTSCH
1=Never
2=Once or twice
3=Three or four times
4=More than four times

Routing: Go to P2CINTRO.
Administered to: All respondents

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Section C: Teenager's Future

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Screen: P2CINTRO
Question Wording: Now we are going to ask you some questions about [Teenager]'s plans and preparations for [his/her] future.
Many of these questions relate to decision making about education after high school regardless of whether [Teenager] plans to continue [his/her] education. Please do your best to answer these
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questions even if [he/she] does not expect to continue with school or [he/she] is unsure about [his/her] plans.
For the rest of the interview, the general term "college" refers to 2-year colleges or 4-year colleges. Specifically, the term "2-year college" will refer to community colleges or junior colleges. The term "4-year college" refers to colleges and universities.
Questions in this interview also use the phrase "schools that provide occupational training" to refer to other types of schools, sometimes called technical institutes or trade schools. These schools usually offer programs that take less than 2 years to complete. Examples include c
Routing: Go to P2 C01.
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Screen: P2 C01
Question Wording: Have you done any of the following activities to help [Teenager] prepare for life after high school?

Variable: P2JOBFAIR
Item Wording: Attended a career day or job fair with [Teenager]
1=Yes
0=No

Variable: P2CLGTOUR
Item Wording: Arranged for [Teenager] to attend a program at, or take a tour of a college campus
1=Yes
0=No

Variable: P2CLGCLASS
Item Wording: Arranged for [Teenager] to sit in on or take a college class
1=Yes
0=No

Variable: P2INTERN
Item Wording: Arranged for [Teenager] to participate in an internship or apprenticeship related to [his/her] career goals
1=Yes
0=No

Variable: P2CAREERJOB
Item Wording: Arranged for [Teenager] to work or volunteer in a job related to [his/her] career goals
1=Yes
0=No

Variable: P2CLGSEARCH
Item Wording: Searched the Internet for college options or read college guides
1=Yes
0=No

Variable: P2TALKHSCNSL
Item Wording: Talked with a high school counselor about [his/her] options for life after high school
1=Yes
0=No
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Variable: P2TALKCLGCNSL
Item Wording: Talked about [his/her] options with a counselor hired by your family to help [Teenager] prepare for college admission
1=Yes
0=No
Variable: P2CLGEXAMPREP
Item Wording: Arranged for [Teenager] to take a course to prepare for a college admission exam such as SAT or ACT
1=Yes
0=No
Routing: Go to P2 C02.
Administered to: All respondents
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Screen: P2 C02
Question Wording: In the last 5 years, have you helped another family member complete a college application or have you completed one yourself? Do not include any college applications that [Teenager] may have completed.
Variable: P2HELPCLGAPP
1=Yes
0=No
Routing: Go to P2 C03.
Administered to: All respondents
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Screen: P2 C03
Question Wording: By the summer of 2013, do you think [Teenager] will have met the minimum requirements needed for admission to…
Variable: P2REQOCCTRAIN
Item Wording: a school that provides occupational training, usually less than 2-years?
1=Yes
2=No
3=Don't know
Variable: P2REQ2YR
Item Wording: a 2-year community college?
1=Yes
2=No
3=Don't know
Variable: P2REQTYP4YR
Item Wording: a typical 4-year college?
1=Yes
2=No
3=Don't know
Variable: P2REQSEL4YR
Item Wording: a highly selective 4-year college such as Harvard University?
1=Yes
2=No
3=Don't know

Routing: Go to P2 C04.
Administered to: All respondents

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Screen: P2 C04
Question Wording: If there were no barriers, how far in school would you want [Teenager] to go?

Variable: P2EDUASP

1=Less than high school completion
2=Complete a high school diploma, GED or alternative high school credential
3=Complete a certificate or diploma from a school that provides occupational training
4=Complete an Associate's degree
5=Complete a Bachelor's degree
6=Complete a Master's degree
7=Complete a Ph.D., M.D., law degree, or other high level professional degree
8=You don't know
9=It is [Teenager]'s decision

Routing: Go to P2 C05.
Administered to: All respondents

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Screen: P2 C05
Question Wording: As things stand now, how far in school do you think [he/she] will actually get?

Variable: P2EDUEXP

1=Less than high school completion
2=Complete a high school diploma, GED, or alternative high school credential
3=Start, but not complete a certificate or diploma from a school that provides occupational training
4=Complete a certificate or diploma from a school that provides occupational training
5=Start, but not complete an Associate's degree
6=Complete an Associate's degree
7=Start, but not complete a Bachelor's degree
8=Complete a Bachelor's degree
9=Start, but not complete a Master's degree
10=Complete a Master's degree
11=Start, but not complete a Ph.D., M.D., law degree, or other high level professional degree
12=Complete a Ph.D., M.D., law degree, or other high level professional degree
13=You don't know

Routing: If teenager has earned a regular high school diploma, GED, or alternative high school credential, go to P2 C07. Else, go to P2 C06.
Administered to: All respondents

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Screen: P2 C06
Question Wording: How sure are you that [he/she] will receive a high school diploma?
Variable: P2SUREDIPL
1=Very sure [he/she] will
2=[He/She] probably will
3=[He/She] probably won't
4=Very sure [he/she] won't
Routing: Go to P2 C07.
Administered to: Respondents with teenagers who had not received a high school diploma, GED or alternative high school credential

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Screen: P2 C07
Question Wording: How sure are you that [Teenager] will pursue a Bachelor's degree?
Variable: P2SUREBA
1=Very sure [he/she] will
2=[He/She] probably will
3=[He/She] probably won't
4=Very sure [he/she] won't
Routing: Go to P2 C08.
Administered to: All respondents

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Screen: P2 C08
Question Wording: Whatever [Teenager]'s plans, do you think [he/she] has the ability to complete a Bachelor's degree? Would you say…
Variable: P2ABLEBA
1=definitely
2=probably
3=probably not or
4=definitely not?
Routing: If respondent wanted teenager to complete some level of postsecondary education, go to P2 C09. Otherwise, skip to P2 C19.
Administered to: All respondents

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Screen: P2 C09
Question Wording: If [Teenager] attends school in the fall of 2013, will [he/she] be most likely to attend a school that provides occupational training, a 2-year college, a 4-year college, high school, or have you not thought about this yet?
Variable: P2TYPEPS2013
1=A school that provides occupational training (usually less than 2 years)
2=2-year college
3=4-year college
4=High school
5=You haven't thought about this yet
Routing: If teenager mostly likely to attend high school, the respondent hasn't thought about it or no answer, skip to P2 C17; Else, go to P2 C10.

Administered to: Respondents who wanted teenager to complete some level of postsecondary education (P2EDUASP <> 1,2)

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Screen: P2 C10
Question Wording: Will [he/she] be more likely to attend a public or private [4-year college/2-year college/school that provides occupational training], or have you not thought about this yet?
Note: Question wording was customized in the survey instrument such that the language in brackets depended on which type of postsecondary institution teenager was most likely to attend.

Variable: P2PUBPRV2013

1=Public
2=Private
3=You haven't thought about this yet

Routing: Go to P2 C11.
Administered to: Respondents with teenager who is likely to attend a postsecondary institution

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Screen: P2 C11
Question Wording: Will [he/she] be more likely to attend an in-state or out-of-state [4-year college/2-year college/school that provides occupational training], or have you not thought about this yet?
Note: Question wording was customized in the survey instrument such that the language in brackets depended on which type of postsecondary institution teenager was most likely to attend.

Variable: P2INOUTST2013

1=In-state
2=Out-of-state
3=You haven't thought about this yet

Routing: Go to P2 C12.
Administered to: Respondents with teenager who is likely to attend a postsecondary institution

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Screen: P2 C12
Question Wording: Do you know what [school that provides occupational training/2-year college/4-year college/school or college] [he/she] is most likely to attend?
Note: Question wording was customized in the survey instrument such that the language in brackets depended on which type of postsecondary institution teenager was most likely to attend.

Variable: P2KNOWCLG

1=Yes
0=No

Routing: If yes, go to P2 C13; Else, go to P2 C17.
Administered to: Respondents with teenager who is likely to attend a postsecondary institution

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Screen: P2 C13
Question Wording: What [school that provides occupational training/2-year college/4-year college/school or college] is [he/she] most likely to attend?
(Please type in the full name. Do not use abbreviations.)
Note: Question wording was customized in the survey instrument such that the language in brackets depended on which type of postsecondary institution teenager was most likely to attend.

Variable: P2LIKELYCLG

Variable: P2LIKELYCLGID
Variable: P2LIKELYCLGCT
Variable: P2LIKELYCLGST
Variable: P2LIKELYCLGLV
Variable: P2LIKELYCLGTYP
Routing: If respondent provides a college name, go to P2 C14. If unanswered, go to P2 C17.
Administered to: Respondents who provided the name of the postsecondary institution their teenager was most likely to attend

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Screen: P2 C14
Question Wording: How certain are you that [he/she] will attend [school named in P2 C13]?
Variable: P2CERTAINCLG
1=Very certain
2=Fairly certain
3=Not certain
Routing: Go to P2 C15.
Administered to: Respondents who provided the name of the postsecondary institution their teenager was most likely to attend

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Screen: P2 C15
Question Wording: If cost were not a consideration, would [school named in P2 C13] be your first choice for a school or college for [Teenager]?
Variable: P2FIRSTCHOICE
1=Yes
2=No
3=Don't know
Routing: If school named in P2 C13 is not first choice, then go to P2 C16. Else, go to P2 C17.
Administered to: Respondents who provided the name of the postsecondary institution their teenager was most likely to attend

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Screen: P2 C16
Question Wording: If cost were not a consideration, what school or college would be your first choice for [Teenager]? (Please type in the full name. Do not use abbreviations.)
Variable: P2CHOICE1CLG
Variable: P2CHOICECLGID
Variable: P2CHOICECLGCT
Variable: P2CHOICECLGST
Variable: P2CHOICECLGLV
Variable: P2CHOICECLGTYP
Routing: Go to P2 C17.
Administered to: Respondents who provided the name of the postsecondary institution their teenager was most likely to attend and this institution was not their first choice

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Screen: P2 C17
Question Wording: How important to you will each of the following characteristics be when choosing a school or college for [Teenager] to attend after high school?

Variable: P2REPUTATION
Item Wording: Academic quality or reputation
1=Very important
2=Somewhat important
3=Not at all important
Variable: P2COSTATTEND
Item Wording: Cost of attendance
1=Very important
2=Somewhat important
3=Not at all important
Variable: P2JOBPLC
Item Wording: A good record of placing graduates in jobs
1=Very important
2=Somewhat important
3=Not at all important
Variable: P2GRADSCHPLC
Item Wording: A good record of placing graduates in graduate or professional schools
1=Very important
2=Somewhat important
3=Not at all important
Variable: P2PLAYSPORTS
Item Wording: Opportunity to play sports
1=Very important
2=Somewhat important
3=Not at all important
Variable: P2FAMREC
Item Wording: Recommended by family or friends
1=Very important
2=Somewhat important
3=Not at all important
Variable: P2CLOSEHOME
Item Wording: Close to home
1=Very important
2=Somewhat important
3=Not at all important
Variable: P2FARHOME
Item Wording: Far away from home
1=Very important
2=Somewhat important
3=Not at all important
Variable: P2OFFERSPGRM
Item Wording: Offers a particular program of study
1=Very important
2=Somewhat important
3=Not at all important

Variable: P2SOCIALLIFE
Item Wording: Good social life
1=Very important
2=Somewhat important
3=Not at all important
Variable: P2SPIRIT
Item Wording: Good sports teams or school spirit
1=Very important
2=Somewhat important
3=Not at all important
Variable: P2FAMILYWENT
Item Wording: A family member went there
1=Very important
2=Somewhat important
3=Not at all important
Routing: Go to P2 C18.
Administered to: Respondents who wanted teenager to complete some level of postsecondary education
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Screen: P2 C18
Question Wording: How will your family decide which college or school [Teenager] will attend? Would you say…
Variable: P2DECIDECLG
1=[Teenager]'s parent(s) will decide alone
2=[Teenager]'s parent(s) will decide after discussing it with [Teenager]
3=[Teenager]'s parent(s) and [Teenager] will decide together after discussion
4=[Teenager] will decide after discussing it with [his/her] parent(s) or
5=[Teenager] will decide on [his/her] own?
Routing: Go to P2 C19.
Administered to: Respondents who wanted teenager to complete some level of postsecondary education
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Screen: P2 C19
Question Wording: In this next series of questions, we will ask you to estimate the cost of one year's tuition and required fees at different types of colleges. For each of your estimates, please include the cost of courses and required fees such as student activity fees and student health fees. Do not include optional expenses such as room and board.
What is your best estimate of the cost of one year's tuition and required fees at a public 2-year community college in your state?
Variable: P2COST2YPUB
Item Wording: $ per year
Variable: not delivered on data file as a separate variable, but incorporated into P2COST2YPUB
Item Wording: (Check here if you don't know.)
0=No
1=Yes

Routing: If an answer is provided, go to P2 C20. Else, go to P2 C21.
Administered to: All respondents

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Screen: P2 C20
Question Wording: How confident are you in the accuracy of your estimate of the cost of one year's tuition and required fees at a public 2-year community college in your state? Would you say…

Variable: P2CONF2YPUB
1=very confident
2=somewhat confident or
3=not at all confident?

Routing: Go to P2 C21.
Administered to: Respondents who gave an estimate of the cost of tuition at an in-state public 2-year community college

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Screen: P2 C21
Question Wording: What is your best estimate of the cost of one year's tuition and required fees at a public 4-year college in your state?
(Please include the cost of courses and required fees such as student activity fees and student health fees. Do not include optional expenses such as room and board.)

Variable: P2COST4YPUB
Item Wording: $ per year

Variable: not delivered on data file as a separate variable, but incorporated into P2COST4YPUB
Item Wording: (Check here if you don't know.)
0=No
1=Yes

Routing: If an answer is provided, go to P2 C22. Else, go to P2 C23.
Administered to: All respondents

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Screen: P2 C22
Question Wording: How confident are you in the accuracy of your estimate of the cost of one year's tuition and required fees at a public 4-year college in your state? Would you say…

Variable: P2CONF4YPUB
1=very confident
2=somewhat confident or
3=not at all confident?

Routing: Go to P2 C23.
Administered to: Respondents who gave an estimate of the cost of tuition at an in-state public 4-year college

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Screen: P2 C23
Question Wording: What is your best estimate of the cost of one year's tuition and required fees at a typical private 4-year college?
(Please include the cost of courses and required fees such as student activity fees and student health fees. Do not include optional expenses such as room and board.)

Variable: P2COST4YPRV
Item Wording: $ per year
Variable: not delivered on data file as a separate variable, but incorporated into P2COST4YPRV
Item Wording: (Check here if you don't know.)
0=No
1=Yes
Routing: If an answer is provided, go to P2CONF4YPRV. Else, go to P2 C25.
Administered to: All respondents

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Screen: P2 C24
Question Wording: How confident are you in the accuracy of your estimate of the cost of one year's tuition and required fees at a typical 4-year private college? Would you say…
Variable: P2CONF4YPRV
1=very confident
2=somewhat confident or
3=not at all confident?
Routing: Go to P2 C25.
Administered to: Respondents who gave an estimate of the cost of tuition at a typical private 4-year college

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Screen: P2 C25
Question Wording: Have you gotten information on financial aid in any of the following ways?
Variable: P2AIDFAMILY
Item Wording: Personal experience with financial aid for one of [Teenager]'s siblings, for another family member, or for yourself
1=Yes
0=No
Variable: P2AIDPARENT
Item Wording: Talked to other parents, family or friends
1=Yes
0=No
Variable: P2AIDOFFICE
Item Wording: Talked with financial aid office staff at a college or school that provides occupational training
1=Yes
0=No
Variable: P2AIDSCHSTAFF
Item Wording: Talked with staff at [Teenager]'s high school
1=Yes
0=No
Variable: P2AIDINTERNET
Item Wording: Researched financial aid options on the Internet
1=Yes
0=No

Variable: P2AIDMEETING
Item Wording: Went to an informational meeting or open house held by the high school
1=Yes
0=No

Routing: Go to P2 C26.
Administered to: All respondents

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Screen: P2 C26
Question Wording: For which types of financial aid do you think [Teenager] will qualify?

Variable: P2QUALNEED
Item Wording: Financial aid based on financial need
1=Yes
2=No
3=Don't know

Variable: P2QUALACHIEVE
Item Wording: Financial aid based on academic achievement such as good grades or college admission test scores
1=Yes
2=No
3=Don't know

Variable: P2QUALATHLETE
Item Wording: Financial aid through an athletic scholarship
1=Yes
2=No
3=Don't know

Variable: P2QUALGOVLOAN
Item Wording: Federal or state loans
1=Yes
2=No
3=Don't know

Variable: P2QUALPRVLOAN
Item Wording: Private loans
1=Yes
2=No
3=Don't know

Routing: If respondent answers "yes" to any type of financial aid, then go to P2 C28; Otherwise, if respondent answers "no" or "don't know" to any type of financial aid, then go to P2 C27; Else, go to P2 C28
Administered to: All respondents

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Screen: P2 C27
Question Wording: Why do you think [Teenager] will not qualify for any kind of financial aid? Is it because…

Variable: P2NOQUALFAM
Item Wording: another family member did not qualify?
1=Yes
0=No
Variable: P2NOQUALCRED
Item Wording: you have concerns about a credit score?
1=Yes
0=No
Variable: P2NOQUALINC
Item Wording: your family's income is too high?
1=Yes
0=No
Variable: P2NOQUALTEST
Item Wording: [Teenager]'s grades or test scores will be too low?
1=Yes
0=No
Variable: P2NOQUALPT
Item Wording: [Teenager] will attend school or college part-time?
1=Yes
0=No

Routing: Go to P2 C28.
Administered to: Respondents who did not think teenager would qualify for financial aid

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Screen: P2 C28
Question Wording: In the last 5 years have you completed a FAFSA (Free Application for Federal Student Aid) for another family member or have you completed one yourself? Do not include a FAFSA you may have completed for [Teenager].
Variable: P2FAFSA5YR
1=Yes
2=No

Routing: Go to P2 C29.
Administered to: All respondents

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Screen: P2 C29
Question Wording: If [Teenager] continues [his/her] education after high school, will you complete a FAFSA to apply for financial aid for [his/her] education?
Variable: P2APPLYAID
1=Yes
2=No
3=You don't know what a FAFSA is
4=You haven't thought about this yet
5=You don't know if you will apply

Routing: If respondent will not complete a FAFSA or does not know if he/she will, go to P2 C30; Else go to P2 C31.
Administered to: All respondents

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Screen: P2 C30
Question Wording: What are the reasons you [will/may] not apply for financial aid?
Note: Question wording was customized in the survey instrument such that the language in brackets depended on whether the respondent would not or did not know if they would complete a FAFSA.

Variable: P2INELIGIBLE
Item Wording: You think [Teenager] may be ineligible or may not qualify.
1=Yes
0=No

Variable: P2CANAFFORD
Item Wording: You can afford school or college without financial aid.
1=Yes
0=No

Variable: P2DKHOWAPP
Item Wording: You do not know how to apply for financial aid.
1=Yes
0=No

Variable: P2NODEBT
Item Wording: Your family does not want to take on debt.
1=Yes
0=No

Variable: P2FORMSDIFF
Item Wording: You think the application forms are too difficult.
1=Yes
0=No

Variable: P2NOPLANS
Item Wording: [Teenager] does not plan to continue [his/her] education after high school.
1=Yes
0=No

Routing: Go to P2 C31.
Administered to: Respondents who would not or did not know if they would complete a FAFSA

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Screen: P2 C31
Question Wording: If [Teenager] continues [his/her] education after high school, will you or anyone in [Teenager]'s family help [him/her] pay for it?

Variable: P2HELPPAY
1=Yes
2=No
3=You have not thought about this yet

Routing: Go to P2 C32.
Administered to: All respondents

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Screen: P2 C32
Question Wording: About how much money have you set aside for [his/her] future educational needs?

Variable: P2SAVEDPAY

1=None
2=$2,000 or less
3=$2,001–$5,000
4=$5,001–$10,000
5=$10,001–$15,000
6=$15,001–$25,000
7=$25,001–$35,000
8=$35,001–$60,000
9=More than $60,000

Routing: Go to P2 C33.
Administered to: All respondents

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Screen: P2 C33
Question Wording: Have you or anyone in your family opened any type of account to save for [Teenager]'s education after high school, for example, a 529 plan, a Coverdell Education Savings Account or Education IRA, or a prepaid tuition account?

Variable: P2ACCTPAY

1=Yes
0=No

Routing: Go to P2 C34.
Administered to: All respondents

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Screen: P2 C34
Question Wording: What is the maximum amount [Teenager]'s family will be willing to borrow per year to help [him/her] pay for school or college?

Variable: P2MAXBORROW

1=None
2=$1–$500
3=$501–$1000
4=$1,001–$2,000
5=$2,001–$5,000
6=$5,001–$10,000
7=$10,001–$15,000
8=$15,001–$25,000
9=$25,001–$35,000
10=More than $35,000
11=Don't know

Routing: Go to P2 C35.
Administered to: All respondents
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Screen: P2 C35
Question Wording: Considering all sources of funds including scholarships, grants, loans and savings, do you think your family will be able to afford to send [Teenager] to …

Variable: P2AFFOCCTRN
Item Wording: a school that provides occupational training?
1=Yes
2=No
3=Don't know

Variable: P2AFF2YPUB
Item Wording: a 2-year community college?
1=Yes
2=No
3=Don't know

Variable: P2AFF4YIN
Item Wording: a 4-year public college in your state?
1=Yes
2=No
3=Don't know

Variable: P2AFF4YOUT
Item Wording: a 4-year public college out of state?
1=Yes
2=No
3=Don't know

Variable: P2AFF4YPRV
Item Wording: a typical 4-year private college?
1=Yes
2=No
3=Don't know

Variable: P2AFF4YSEL
Item Wording: a highly selective 4-year private college such as Harvard?
1=Yes
2=No
3=Don't know

Routing: Go to P2 C36.
Administered to: All respondents

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Screen: P2 C36
Question Wording: If at any point in time [Teenager] continues [his/her] education after high school, how do you expect to pay for tuition, room, and board?

Variable: P2NEVERCLG
Item Wording: (Check here if you are sure [Teenager] will never continue [his/her] education after high school.)
0=No
1=Yes

Variable: P2TEENSAVING
Item Wording: [Teenager]'s own earnings and savings
1=Yes
2=No
3=Don't know

Variable: P2PARSAVING
Item Wording: [Teenager]'s parents' or relatives' earnings and savings including a pre-paid tuition account or 529 plan
1=Yes
2=No
3=Don't know

Variable: P2GRANTS
Item Wording: Scholarships or grants that do not have to be repaid
1=Yes
2=No
3=Don't know

Variable: P2GOVLOAN
Item Wording: Federal or state loans
1=Yes
2=No
3=Don't know

Variable: P2TEENPRVLOAN
Item Wording: Private loan in [Teenager]'s name
1=Yes
2=No
3=Don't know

Variable: P2PARPRVLOAN
Item Wording: Private loan in [Teenager]'s parents' or relatives' names
1=Yes
2=No
3=Don't know

Routing: If teenager's earnings or savings will be used, go to P2 C37. Otherwise, go to P2 C39.
Administered to: All respondents

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Screen: P2 C37
Question Wording: Will [Teenager]'s earnings and savings for [his/her] education after high school come from [his/her]…
Note: Item wording was customized in the survey instrument such that the language in brackets depended on the teenager's enrollment status as reported in P2ENROLLHS12.

Variable: P2SCHYRWORK
Item Wording: evening or weekend work during the high school year[when [he/she] was still attending]?
1=Yes
2=No
3=Don't know
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Variable: P2SUMMERWORK
Item Wording: summer work [while in high school/when [he/she] was in high school]?
1=Yes
2=No
3=Don't know
Variable: P2BTWNWORK
Item Wording: work between high school and the start of [Teenager]'s further education?
1=Yes
2=No
3=Don't know
Variable: P2CLGWORK
Item Wording: work while attending college including work-study?
1=Yes
2=No
3=Don't know
Routing: If will work during college, go to P2 C38; Else go to P2 C39.
Administered to: Respondents who would use teenager's earnings and savings to pay for tuition, room, and board
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Screen: P2 C38
Question Wording: Will [Teenager] work full-time or part-time while attending college?
Variable: P2CLGWORKFT
1=Full-time
2=Part-time
3=Don't know
Routing: Go to P2 C39.
Administered to: Respondents whose teenager's earnings and savings from work while attending college will be used to pay for tuition, room, and board
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Screen: P2 C39
Question Wording: How many children or other family members who you financially support are currently attending college or a school that provides occupational training? Include yourself if you are currently attending.
(Please enter 0 if none.)
Variable: P2INCLGNOW
Item Wording: children or other family members who you financially support
Routing: Go to P2 C40.
Administered to: All respondents
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Screen: P2 C40
Question Wording: How many children or other family members who you financially support will be attending college or a school that provides occupational training in the fall of 2013? Include [Teenager] and yourself if applicable.
(Please enter 0 if none.)
Variable: P2INCLG2013
Item Wording: children or other family members who you financially support
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Routing: Go to P2 C41.
Administered to: All respondents

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Screen: P2 C41
Question Wording: What do you think [Teenager]'s starting pre-tax income would be in [his/her] first job after… (Please specify pay periods for your answers.)

Variable: P2EARNNOHS
Item Wording: leaving high school without completing a high school diploma?

Variable: P2EARNNOHSUN
Item Wording: per
1=hour
2=day
3=week
4=month
5=year

Variable: P2EARNHS
Item Wording: completing a regular high school diploma?

Variable: P2EARNHSUN
Item Wording: per
1=hour
2=day
3=week
4=month
5=year

Variable: P2EARNOCC
Item Wording: completing a certificate or diploma from a school that provides occupational training?

Variable: P2EARNOCCUN
Item Wording: per
1=hour
2=day
3=week
4=month
5=year

Variable: P2EARN2YPUB
Item Wording: completing a 2-year community college degree?

Variable: P2EARN2YPUBUN
Item Wording: per
1=hour
2=day
3=week
4=month
5=year

Variable: P2EARN4Y
Item Wording: completing a 4-year college degree?
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Variable: P2EARN4YUN
Item Wording: per
1=hour
2=day
3=week
4=month
5=year
Routing: Go to P2DINTRO.
Administered to: All respondents

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Section D: Family Education and Occupation

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Screen: P2DINTRO
Question Wording: Next we would like some information about your family's educational background and occupations.
Routing: If same respondent indicator is null (P2SAMER=0), then go to P2D01**.** Else if the respondent's highest level of education in the base year was less than high school, a high school diploma or GED, an Associate's degree, a Bachelor's degree, or a Master's degree, then go to P2 D01; Else if the respondent's level of education in the base year was a PhD, a law degree, an MD, or other high level degree but the major for that degree was not provided in the base year, then skip to P2 D02; Else if the respondent's level of education in the base year was a PhD, a law degree, an MD, or other high level degree and the major for that degree was provided in the base year, then skip to P2 D04; Else, go to P2 D01.

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Screen: P2 D01
Question Wording:
In [Month and Year of base year interview], you indicated you had completed [parent 1's highest degree in base year]. Since that time, have you completed a higher level of education beyond [parent 1's highest degree in base year]?
OR
In [Month and Year of base year interview], you indicated you had not completed high school. Since that time, have you completed high school or a higher level of education beyond high school?
OR
What is the highest level of education [you/parent 1] [have/has] completed?
Note: The first version of the question was displayed if the first follow-up respondent was the same as the base year respondent and he/she had completed high school or a higher level of education in the base year. The second version of the question was displayed if the first follow-up respondent was the same as the base year respondent and he/she had not completed high school in the base year. The third version of the question was displayed under 3 conditions: 1) if a parent questionnaire was not completed in the base year, 2) if the first follow-up respondent was not identified as the same person as the base year respondent, or 3) if the respondents were the same but the highest level of education was not collected in the base year. The conditional language in brackets (you/parent 1) depended on whether parent 1 was the respondent or another parent or guardian in the household. See the Data File Documentation section X.X.X for a definition of parent 1. If the education level for parent 1 was provided in base year, the lower
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level education options were not displayed. Item(s) included in the abbreviated paper and pencil questionnaire.

Variable: P2HIDEG1

0=No, [you/parent 1] [have/has] not completed any other degree
1=Less than high school completion
2=Completed a high school diploma, GED, or alternative high school credential
3=Completed a certificate or diploma from a school that provides occupational training
4=Completed an Associate's degree
5=Completed a Bachelor's degree
6=Completed a Master's degree
7=Completed a Ph.D., M.D., law degree, or other high level professional degree

Routing: If certificate or diploma from a school that provides occupational training (P2HIDEG1 > 2), go to P2 D02; Else if has not completed any other degree (P2HIDEG1=0) and base year degree was Associate's or higher and major was not provided in base year then go to P2 D02; Else if has not completed any other degree (P2HIDEG1=0) and base year degree was Ph.D., M.D., law degree, or other high level professional degree and major was provided in base year then go to P2 D04; Else, skip to P2 D03.

Administered to: Base year questionnaire non-respondents; first follow-up respondents who are not the same as the base year respondent; first follow-up respondents who were also base year respondents and reported a highest level of education in the base year less than a PhD, MD, law degree or other high level professional degree; first follow-up respondents who were also base year respondents and did not report their highest level of education in the base year

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Screen: P2 D02

Question Wording: What was the major field of study for [your/his/her] [parent 1's highest degree in first follow-up]?

Note: Question wording was customized in the survey instrument such that the language in brackets depended on whether the parent 1 was the respondent or another parent or guardian in the household. See the Data File Documentation section X.X.X for a definition of parent 1. If the respondent was a base year respondent and had not completed any other degree, the highest level of education reported in the base year was displayed in place of "parent 1's highest degree in first follow-up." If the respondent was a base year respondent who had completed a Ph.D., M.D., law degree, or other high level professional degree in the base year, that degree was displayed in place of "parent 1's highest degree in first follow-up." Otherwise, the highest level of education reported in P2HIDEG1 was displayed in place of "parent 1's highest degree in first follow-up."

Variable: P2HIMAJV1
Variable: P2HIMAJ21
Variable: P2HIMAJ61

Routing: If highest degree is less than a PhD, MD, law degree, or other high level professional degree, then go to P2 D03; Otherwise, go to P2 D04.

Administered to: Base year non-respondents who completed some postsecondary education; first follow-up respondents who were the same as the base year respondent, who completed a higher level of postsecondary education since the base year
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Screen: P2 D03
Question Wording: [Have/Has] [you/parent 1] started, but not completed, any work on a degree beyond [a/an] [parent 1's highest degree in first follow-up]? (If [you/parent 1] [have/has] started more than one of the degrees listed below, please select the higher degree.)
Note: Question/response wording was customized in the survey instrument such that the language in brackets depended on whether the parent 1 was the respondent or another parent or guardian in the household. See the Data File Documentation section X.X.X for a definition of parent 1. If the respondent was a base year respondent and had not completed any other degree, the highest level of education reported in the base year was displayed in place of "parent 1's highest degree in first follow-up." Otherwise, the highest level of education reported in P2HIDEG1 was displayed. Only response options representing levels of education higher than the highest degree in the first follow-up were displayed.

Variable: P2STARTDEG1

1=No, [you/parent 1] [have/has] not started any other degree
2=Yes, a certificate or diploma from a school that provides occupational training
3=Yes, an Associate's degree
4=Yes, a Bachelor's degree
5=Yes, a Master's degree
6=Yes, a Ph.D., M.D., law degree, or other high level professional degree

Routing: Go to P2 D04.
Administered to: Respondents who had not completed a PhD, MD, law degree or other high level professional degree

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Screen: P2 D04
Question Wording: [Do/Does] [you/parent 1] currently hold a job for pay?
Note: Question wording was customized in the survey instrument such that the language in brackets depended on whether the parent 1 was the respondent or another parent or guardian in the household. See the Data File Documentation section X.X.X for a definition of parent 1.

Variable: P2JOBNOW1

1=Yes
0=No

Routing: If respondent is the same as the base year respondent (P2SAMER=1) and he/she provided his/her occupation in the base year, skip to P2 D06; Else, if parent 1 currently holds a job for pay, skip to P2 D07; Else, go to P2 D05.
Administered to: All respondents

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Screen: P2 D05
Question Wording: [Have/Has] [you/he/she] ever held a job for pay?
Note: Question wording was customized in the survey instrument such that the language in brackets depended on whether the parent 1 was the respondent or another parent or guardian in the household. See the Data File Documentation section X.X.X for a definition of parent 1

Variable: P2JOBEVER1

1=Yes
0=No
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Routing: If parent 1 has worked, then skip to P2 D07; Else, if there is no parent 2, skip to P2 D17; Else if respondent is the same as the base year respondent (P2SAMER=1) and parent 2 is the same as the base year parent 2 (P2SAMESPS=1) then do: -If parent 2's level of education in the base year was less than a high school, a high school diploma or GED, an Associate's degree, a Bachelor's degree, or a Master's degree, then go to P2 D09.-If parent 2's level of education in the base year was a PhD, a law degree, an MD, or some other high level degree but the major for that degree was not provided in the base year, then skip to P2 D10; -If parent 2's level of education in the base year was a PhD, a law degree, an MD, or some other high level degree and the major for that degree was provided in the base year, then skip to P2 D12; Else, skip to P2 D09.
Administered to: Respondents who were not currently holding a job for pay and were different from the base year respondent.
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Screen: P2 D06
Question Wording: In [Month and Year of base year interview] you indicated that your job title was: [parent 1's job title in base year]. Is that your [current/most recent] occupation?
Note: Question wording was customized in the survey instrument such that the language in brackets depended on whether the parent 1 was the respondent or another parent or guardian in the household and parent 1's current employment status. See the Data File Documentation section X.X.X for a definition of parent 1.Current was displayed in place of "current/most recent" if parent 1 was currently holding a job; otherwise, most recent was displayed.
Variable: P2SAMEJOB1
1=Yes
0=No
Routing: If base year job is parent 1's current or most recent job, skip to P2 D08. Else go to P2 D07.
Administered to: Respondents who are the same as the base year respondent and who provided an occupation for parent 1 in the base year
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Screen: P2 D07
Question Wording: [What is/In [your/her/his] most recent job, what was] [your/her/his] job title? If [you/he/she] [have/has/had] more than one job, describe the one at which [you/he/she] [work/works/worked] the most hours. What [do/does/did] [you/he/she] actually do in that job? That is, what [are/were] [your/her/his] main activities or duties?
Note: Question wording was customized in the survey instrument such that the language in brackets depended on whether the parent 1 was the respondent or another parent or guardian in the household and parent 1's current job status. See the Data File Documentation section 2.2.2 for a definition of parent 1. If parent 1 was currently holding a job, the question asked about that job; otherwise, the question asked about parent 1's most recent job. Item(s) included in the abbreviated paper and pencil questionnaire.
Variable: P2JOB2ONET1
Variable: P2JOB6ONET1
Variable: P2JOBDV1
Variable: P2JOBTV1
Routing: Go to P2 D08.

Administered to: All respondents except those who have never held a job for pay and those who are the same as the base year respondent and hold the same job as reported in the base year

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Screen: P2 D08

Question Wording: About how many total hours per week [do/does/did] [you/he/she] usually work for pay, counting all jobs?

Note: Question wording was customized in the survey instrument such that the language in brackets depended on whether the parent 1 was the respondent or another parent or guardian in the household and parent 1's current employment status. See the Data File Documentation section 2.2.2 for a definition of parent 1. If parent 1 was currently holding a job, the question asked about that job; otherwise, the question asked about parent 1's most recent job.

Variable: P2HOURS1

Item Wording: hours per week

Routing: If there is no parent 2, skip to P2 D17; Else if respondent is the same as the base year respondent (P2SAMER=1) and parent 2 is the same as the base year parent 2 (P2SAMESPS=1) then do: -If parent 2's level of education in the base year was less than a high school, a high school diploma or GED, an Associate's degree, a Bachelor's degree, or a Master's degree, then go to P2 D09.-If parent 2's level of education in the base year was a PhD, a law degree, an MD, or some other high level degree but the major for that degree was not provided in the base year, then skip to P2 D10; -If parent 2's level of education in the base year was a PhD, a law degree, an MD, or some other high level degree and the major for that degree was provided in the base year, then skip to P2 D12;Else, skip to P2 D09.

Administered to: Respondents who currently hold or had ever held a job

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Screen: P2 D09

Question Wording: In [Month and Year of base year interview] you indicated [your spouse/your partner/parent 2] had completed [parent 2's highest degree in base year]. Since that time, has [he/she] completed a higher level of education beyond [parent 2's highest degree in base year]?

OR

In [Month and Year of base year interview] you indicated [your spouse/your partner/parent 2] had not completed high school. Since that time, has [he/she] completed high school or a higher level of education beyond high school?

OR

What is the highest level of education [your spouse/your partner/parent 2] has completed?

Note: The first version of the question was displayed if the first follow-up parent 2 was the same as the base year parent 2 and he/she had completed high school or a higher level of education in the base year. The second version of the question was displayed if the first follow-up parent 2 was the same as the base year parent 2 and he/she had not completed high school in the base year. The third version of the question was displayed under 3 conditions: 1) if a parent questionnaire was not completed in the base year, 2) if the first follow-up parent 2 was not identified as the same as the base year parent 2, or 3) if the parent 2s were the same but the highest level of education was not collected in the base year. The conditional language in brackets (your spouse/your partner/parent 2) depended on whether parent 2 was the respondent's spouse or partner or another parent or guardian in the household. See the Data File Documentation section X.X.X for a definition of parent 2. If the education level for parent 2

was provided in base year, the lower level education options were not displayed. Item(s) included in the abbreviated paper and pencil questionnaire.

Variable: P2HIDEG2

0=No, [your spouse/your partner/parent 2] has not completed any other degree
1=Less than high school completion
2=Completed a high school diploma, GED, or alternative high school credential
3=Completed a certificate or diploma from a school that provides occupational training
4=Completed an Associate's degree
5=Completed a Bachelor's degree
6=Completed a Master's degree
7=Completed a Ph.D., M.D., law degree, or other high level professional degree

Routing: If certificate or diploma from a school that provides occupational training (P2HIDEG2 > 2), go to P2 D10;Else if has not completed any other degree (P2HIDEG2=0) and base year degree was Associate's or higher and major was not provided in base year then go to P2 D10; Else if has not completed any other degree (P2HIDEG2=0) and base year degree was Ph.D., M.D., law degree, or other high level professional degree and major was provided in base year then go to P2 D12; Else, skip to P2 D11.

Administered to: Base year questionnaire non-respondents with a parent 2; first follow-up respondents who are not the same as the base year respondent and have a parent 2; first follow-up respondents who were also base year respondents, who have a parent 2 who is not the same as the base year parent 2; first follow-up respondents who were also base year respondents, whose parent 2 is the same as the base year parent 2 and reported a highest level of education for parent 2 in the base year less than a PhD, MD, law degree or other high level professional degree.

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Screen: P2 D10

Question Wording: What was the major field of study for [his/her/parent 2's] [parent 2's highest degree in first follow-up]?

Note: Question wording was customized in the survey instrument such that the language in brackets (his/her/parent 2) depended on whether the parent 2 was the respondent's spouse or partner or another parent or guardian in the household. See the Data File Documentation section X.X.X for a definition of parent 2.

Variable: P2HIMAJV2
Variable: P2HIMAJ22
Variable: P2HIMAJ62

Routing: If highest degree is less than a PhD, MD, law degree, or other high level professional degree, then go to P2 D11; Otherwise, go to P2 D12.

Administered to: All respondents with a parent 2 who has completed a postsecondary degree for which a major field of study was not reported in the base year.

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Screen: P2 D11

Question Wording: Has [your spouse/your partner/parent 2] started, but not completed, any work on a degree beyond [a/an] [parent 2's highest degree in first follow-up]?
(If [he/she] has started more than one of the degrees listed below, please select the higher degree.)

Note: Question/response wording was customized in the survey instrument such that the language in brackets (your spouse/your partner/parent 2) depended on whether the parent 2 was

the respondent's spouse or partner or another parent or guardian in the household. See the Data File Documentation section X.X.X for a definition of parent 2. If the respondent was the same as the base year respondent and parent 2 was the same as the base year parent 2, and parent 2 had not completed any other degree, the highest level of education reported in the base year was displayed in place of "parent 2's highest degree in first follow-up." Otherwise, the highest level of education reported in P2HIDEG2 was displayed. Only response options representing levels of education higher than the highest degree in the first follow-up were displayed.

Variable: P2STARTDEG2

1=No, [he/she] has not started any other degree
2=Yes, a certificate or diploma from a school that provides occupational training
3=Yes, an Associate's degree
4=Yes, a Bachelor's degree
5=Yes, a Master's degree
6=Yes, a Ph.D., M.D., law degree, or other high level professional degree

Routing: Go to P2 D12

Administered to: Respondents with a parent 2 who had not completed a PhD, MD, law degree or other high level professional degree

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Screen: P2 D12

Question Wording: Does [your spouse/your partner/parent 2] currently hold a job for pay?

Note: Question wording was customized in the survey instrument such that the language in brackets (your spouse/your partner/parent 2) depended on whether the parent 2 was the respondent's spouse or partner or another parent or guardian in the household. See the Data File Documentation section X.X.X for a definition of parent 2.

Variable: P2JOBNOW2

1=Yes
0=No

Routing: If respondent is the same as the base year respondent (P2SAMER=1) and parent 2 is the same as base year parent 2 (P2SAMESPS=1) and parent 2's base year occupation was provided, skip to P2 D14; Else if parent 2 currently holds a job for pay, skip to P2 D15; Else, go to P2 D13.

Administered to: Respondents with a parent 2

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Screen: P2 D13

Question Wording: Has [he/she] ever held a job for pay?

Variable: P2JOBEVER2

1=Yes
0=No

Routing: If parent 2 has ever held a job for pay, then skip to P2 D15; Else skip to P2 D17.

Administered to: Respondents with a parent 2 who was not currently holding a job for pay and either were not the same as the base year respondent, or parent 2 was not the same as the base year parent 2.

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Screen: P2 D14
Question Wording: In [Month and Year of base year interview] you indicated that [your spouse's/your partner's/parent 2's] job title was: [parent 2's job title in base year]. Is that [his/her/parent 2's] [current/most recent] occupation?
Note: Question wording was customized in the survey instrument such that the language in brackets (your spouse/your partner/parent 2) depended on whether the parent 2 was the respondent's spouse or partner or another parent or guardian in the household. See the Data File Documentation section X.X.X for a definition of parent 2. Current was displayed in place of "current/most recent" if parent 2 was currently holding a job; otherwise, most recent was displayed.

Variable: P2SAMEJOB2
1=Yes
0=No

Routing: If base year job is parent 2's current or most recent job, skip to P2 D16. Otherwise, go to P2 D15.
Administered to: Respondents who are the same as the base year respondent, who have a parent 2 who is the same as the base year parent 2, and who provided an occupation for parent 2 in the base year

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Screen: P2 D15
Question Wording: [What is/In [his/her/parent 2's] most recent job, what was] [his/her/parent 2's] job title? If [he/she/parent 2] [has/had] more than one job, describe the one at which [he/she/parent 2] [works/worked] the most hours.
What [does/did] [he/she/parent 2] do in that job? That is, what [are/were] [his/her/parent 2's] main activities or duties?
Note: Question wording was customized in the survey instrument such that the language in brackets depended on whether the parent 2 was the respondent's spouse or partner or another parent or guardian in the household and parent 2's current job status. See the Data File Documentation section 2.2.2 for a definition of parent 2. If parent 2 was currently holding a job, the question asked about that job; otherwise, the question asked about parent 2's most recent job. Item(s) included in the abbreviated paper and pencil questionnaire.

Variable: P2JOB2ONET2
Variable: P2JOB6ONET2
Variable: P2JOBDV2
Variable: P2JOBTV2

Routing: Go to P2 D16.
Administered to: All respondents with a parent 2 except those whose parent 2 has never held a job for pay (or no response provided in P2JOBEVER2) or whose parent 2 is the same as the base year parent 2 and holds the same job reported in the base year.

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Screen: P2 D16
Question Wording: About how many total hours per week [does/did] [he/she/parent 2] usually work for pay, counting all jobs?
Note: Question wording was customized in the survey instrument such that the language in brackets depended on whether the parent 2 was the respondent's spouse or partner or another
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parent or guardian in the household and parent 2's current job status. See the Data File Documentation section X.X.X for a definition of parent 2. If parent 2 was currently holding a job, the question asked about that job; otherwise, the question asked about parent 2's most recent job.

Variable: P2HOURS2

Item Wording: hours per week

Routing: Go to P2 D17.

Administered to: Respondents with a parent 2 who was currently holding a job or had ever held a job

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Screen: P2 D17

Question Wording: An important part of this study is understanding how family finances affect teenagers' ability to continue their education after high school. We would like to remind you that the answers you provide will be kept completely confidential.

What was your total household income from all sources prior to taxes and deductions in calendar year 2011? Please include all income such as income from work, investments and alimony.

Variable: P2INCOME

Item Wording: $ (Please enter whole numbers only.)

Routing: If P2 D17 is missing, go to P2 D18; Else skip to P2 D19.

Administered to: All respondents

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Screen: P2 D18

Question Wording: We understand that you may not be able to provide an exact number for your family's income.

However, it would be extremely helpful if you would indicate which of the following ranges best estimates your total household income from all sources prior to taxes and deductions in calendar year 2011. Please include all income such as income from work, investments and alimony.

Note: Item(s) included in the abbreviated paper and pencil questionnaire.

Variable: P2INCOMECAT

1=$15,000 or less
2=$15,001–$35,000
3=$35,001–$55,000
4=$55,001–$75,000
5=$75,001–$95,000
6=$95,001–$115,000
7=$115,001–$135,000
8=$135,001–$155,000
9=$155,001–$175,000
10=$175,001–$195,000
11=$195,001–$215,000
12=$215,001–$235,000
13=More than $235,000

Routing: Go to P2 D19.

Administered to: Respondents who did not provide a household income in P2 D17

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Screen: P2 D19
Question Wording: How many people depend on you[and [your spouse/your partner/parent 2]/ and [you/parent 1] and [your spouse/your partner/parent 2]] for more than half of their financial support? Include dependents who do not live with you.
Note: Question wording was customized in the survey instrument such that the language in brackets depended on which adults were in the household.
Variable: P2DEPENDNUM
Item Wording: dependents
Routing: Go to P2 D20.
Administered to: All respondents

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Screen: P2 D20
Question Wording: Do you…
Variable: P2OWNHOME
1=pay mortgage towards or own your home
2=rent your home or
3=have some other arrangement?
Routing: Go to P2EINTRO
Administered to: All respondents

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Section E: Family's Origin and Language Use

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Screen: P2EINTRO
Question Wording: Now we would like to learn about your family's origin and languages spoken in [Teenager]'s home.
[Many of the questions in this section of the interview are repeated from the fall 2009 survey. We will skip any questions you answered at that time so your interview will be shorter.]
Note: Question wording was customized in the survey instrument such that the language in brackets was displayed if the respondent was the same as the base year respondent.
Routing: If respondent is the same as the base year respondent (P2SAMER=1) and his/her Hispanicity was collected in the base year, skip to P2 E03. Otherwise, go to P2 E01.

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Screen: P2 E01
Question Wording: [Are/Is] [you/parent 1] Hispanic or [Latino/Latina]?
Note: Question wording was customized in the survey instrument such that the language in brackets depended on whether the parent 1 was the respondent or another parent or guardian in the household. See the Data File Documentation section X.X.X for a definition of parent 1.
Variable: P2HISP1
1=Yes
0=No
Routing: If parent 1 is Hispanic, go to P2 E02; Else if parent 1 is not Hispanic, or no response, go to P2 E03.
Administered to: All respondents except those who were the same as the base year respondent and provided Hispanicity for parent 1 in the base year
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Screen: P2 E02
Question Wording: [Are/Is] [you/he/she]…
Note: Question wording was customized in the survey instrument such that the language in brackets depended on whether the parent 1 was the respondent or another parent or guardian in the household. See the Data File Documentation section 2.2.2 for a definition of parent 1.

Variable: P2HISPOR1

1=Mexican, Mexican-American or [Chicano/Chicana]
2=Cuban
3=Dominican
4=Puerto Rican
5=Central American such as Guatemalan, Salvadoran, Nicaraguan, Costa Rican, Panamanian, or Honduran
6=South American such as Colombian, Argentinian, or Peruvian or
7=Other Hispanic or [Latino/Latina]?

Routing: Go to P2 E03.
Administered to: Respondents who reported Hispanicity in P2HISP1

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Screen: P2 E03
Pre-Routing: If respondent is the same as the base year respondent (P2SAMER=1) and race data were provided in the base year for parent 1, then skip to P2 E05.
Question Wording: [In addition to learning about [your/parent 1's] Hispanic background, we would also like to know about [your/his/her] racial background.]
What is [your/parent 1's] race?
Note: Question wording was customized in the survey instrument such that the language in brackets depended on whether the parent 1 was the respondent or another parent or guardian in the household. See the Data File Documentation section X.X.X for a definition of parent 1. If the respondent answered yes to P2HISP1, the first sentence was displayed; otherwise, the first sentence was not displayed.

Variable: P2WHITE1
Item Wording: White
0=No
1=Yes

Variable: P2BLACK1
Item Wording: Black or African American
0=No
1=Yes

Variable: P2ASIAN1
Item Wording: Asian
0=No
1=Yes

Variable: P2PACISLE1
Item Wording: Native Hawaiian or other Pacific Islander
0=No
1=Yes

Variable: P2AMINDIAN1
Item Wording: American Indian or Alaska Native
0=No
1=Yes
Routing: If parent 1 is Asian, go to P2 E04; Otherwise skip to P2 E05.
Administered to: All respondents except those who are the same as the base year respondent and provided race data for parent 1 in the base year
~~~~~~
Screen: P2 E04
Question Wording: [Are/Is] [you/he/she]…
Note: Question wording was customized in the survey instrument such that the language in brackets depended on whether the parent 1 was the respondent or another parent or guardian in the household. See the Data File Documentation section X.X.X for a definition of parent 1.
Variable: P2ASIANOR1
1=Chinese
2=Filipino
3=Southeast Asian such as Vietnamese or Thai
4=South Asian such as Asian Indian or Sri Lankan, or
5=Other Asian such as Korean or Japanese?
Routing: Go to P2 E05.
Administered to: Respondents who reported Asian ethnicity in P2ASIAN1
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Screen: P2 E05
Pre-Routing: If respondent is the same as the base year respondent (P2SAMER=1) and birth year was provided in the base year for parent 1, then skip to P2 E06.
Question Wording: In what year [were/was] [you/parent 1] born?
Note: Question wording was customized in the survey instrument such that the language in brackets depended on whether the parent 1 was the respondent or another parent or guardian in the household. See the Data File Documentation section X.X.X for a definition of parent 1.
Variable: P2YRBORN1
Item Wording: (Please enter your answer in this format: 19XX)
Routing: Go to P2 E06
Administered to: All respondents except those who are the same as the base year respondent and provided birth year for parent 1 in the base year
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Screen: P2 E06
Pre-Routing: If respondent is the same as the base year respondent (P2SAMER=1) and place of birth was provided in the base year for parent 1 then -If there is a parent 2 then skip to P2 E08**;** -Else skip to P2 E15
Question Wording: [Were/Was] [you/he/she] born in the United States, in Puerto Rico or another U.S. territory, or in another country?
Note: Question wording was customized in the survey instrument such that the language in brackets depended on whether the parent 1 was the respondent or another parent or guardian in the household. See the Data File Documentation section X.X.X for a definition of parent 1.
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Variable: P2USBORN1
1=United States
2=Puerto Rico or another U.S. territory
3=Another country

Routing: If parent 1 was born in Puerto Rico or another U.S. territory or in another country, go to P2 E07; Else if there is a parent 2, go to P2 E08; Otherwise skip to P2 E15.
Administered to: All respondents except those who are the same as the base year respondent and provided place of birth for parent 1 in the base year

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Screen: P2 E07
Question Wording: In what year did [you/he/she] come to the [continental] United States to stay permanently?
Note: Question wording was customized in the survey instrument such that the language in brackets depended on whether the parent 1 was the respondent or another parent or guardian in the household. See the Data File Documentation section X.X.X for a definition of parent 1. If the respondent answered Puerto Rico or another US territory to P2USBORN1, "continental" was displayed.

Variable: P2USYR1
Item Wording: (Please enter your answer in the following format: 19XX or 20XX)

Variable: not delivered on data file as a separate variable, but incorporated into P2USYR1
Item Wording: (Check here if [you/he/she] [are/is] not in the United States to stay.)
0=No
1=Yes

Routing: If there is a parent 2, go to P2 E08; Otherwise skip to P2 E15.
Administered to: Respondents who reported parent 1 was born in Puerto Rico or another country in P2USBORN1

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Screen: P2 E08
Pre-Routing: If respondent is the same as the base year respondent (P2SAMER=1) and parent 2 is the same as the base year parent 2 (P2SAMESPS=1) and Hispanicity for parent 2 was collected in the base year, skip to P2 E10. Otherwise, go to P2 E09.
Question Wording: Is [your spouse/your partner/parent 2] Hispanic or [Latino/Latina]?
Note: Question wording was customized in the survey instrument such that the language in brackets (your spouse/your partner/parent 2) depended on whether the parent 2 was the respondent's spouse or partner or another parent or guardian in the household. See the Data File Documentation section X.X.X for a definition of parent 2.

Variable: P2HISP2
1=Yes
0=No

Routing: If parent 2 is Hispanic, then go to P2 E09; Else go to P2 E10.
Administered to: All respondents except those who are the same as the base year respondent, whose parent 2 is the same as the base year parent 2, and who provided Hispanicity for parent 2 in the base year

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Screen: P2 E09
Question Wording: Is [he/she/parent 2]…
Note: Question wording was customized in the survey instrument such that the language in brackets (he/she/parent 2) depended on whether the parent 2 was the respondent's spouse or partner or another parent or guardian in the household. See the Data File Documentation section X.X.X for a definition of parent 2

Variable: P2HISPOR2

1=Mexican, Mexican-American or [Chicano/Chicana]
2=Cuban
3=Dominican
4=Puerto Rican
5=Central American such as Guatemalan, Salvadoran, Nicaraguan, Costa Rican, Panamanian, or Honduran
6=South American such as Colombian, Argentinian, or Peruvian or
7=Other Hispanic or [Latino/Latina]?

Routing: Go to P2 E10
Administered to: Respondents who reported Hispanicity in P2HISP2

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Screen: P2 E10
Pre-Routing: If respondent is the same as the base year respondent (P2SAMER=1), and parent 2 is the same as the base year parent 2 (P2SAMESPS=1), and race data were provided in the base year for parent 2, then skip to P2 E12.
Question Wording: [In addition to learning about [your spouse's/your partner's/parent 2's] Hispanic background, we would also like to know about [his/her/your spouse's/your partner's/parent 1's] racial background.]
What is [your spouse's/your partner's/parent 2's] race?
Note: Question wording was customized in the survey instrument such that the language in brackets (your spouse/your partner/parent 2) depended on whether the parent 2 was the respondent's spouse or partner or another parent or guardian in the household. See the Data File Documentation section X.X.X for a definition of parent 2. If the respondent answered yes to P2HISP2, the first sentence of the question was displayed; otherwise, the first sentence was not displayed.

Variable: P2WHITE2
Item Wording: White
0=No
1=Yes

Variable: P2BLACK2
Item Wording: Black or African American
0=No
1=Yes

Variable: P2ASIAN2
Item Wording: Asian
0=No
1=Yes

Variable: P2PACISLE2
Item Wording: Native Hawaiian or other Pacific Islander
0=No
1=Yes
Variable: P2AMINDIAN2
Item Wording: American Indian or Alaska Native
0=No
1=Yes
Routing: If Asian, go to P2 E11; Otherwise, skip to P2 E12.
Administered to: All respondents except those who are the same as the base year respondent, have the same parent 2 as the base year parent 2, and provided race data for parent 2 in the base year
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Screen: P2 E11
Question Wording: Is [he/she/parent 2]…
Note: Question wording was customized in the survey instrument such that the language in brackets (he/she/parent 2) depended on whether the parent 2 was the respondent's spouse or partner or another parent or guardian in the household. See the Data File Documentation section 2.2.2 for a definition of parent 2.
Variable: P2ASIANOR2
1=Chinese
2=Filipino
3=Southeast Asian such as Vietnamese or Thai
4=South Asian such as Asian Indian or Sri Lankan, or
5=Other Asian such as Korean or Japanese?
Routing: Go to P2 E12.
Administered to: Respondents who reported Asian ethnicity in P2ASIAN2
~~~~~~
Screen: P2 E12
Pre-Routing: If respondent is the same as the base year respondent (P2SAMER=1), and parent 2 is the same as the base year parent 2 (P2SAMESPS=1), and birth year was provided in the base year for parent 2, then skip to P2 E13.
Question Wording: In what year was [your spouse/your partner/parent 2] born?
Note: Question wording was customized in the survey instrument such that the language in brackets (your spouse/your partner/parent 2) depended on whether the parent 2 was the respondent's spouse or partner or another parent or guardian in the household. See the Data File Documentation section X.X.X for a definition of parent 2.
Variable: P2YRBORN2
Item Wording: (Please enter your answer in this format: 19XX)
Routing: Go to P2 E13.
Administered to: All respondents except those who are the same as the base year respondent, have the same parent 2 as the base year parent 2, and provided birth year for parent 2 in the base year

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Screen: P2 E13
Pre-Routing: If respondent is the same as the base year respondent (P2SAMER=1), and parent 2 is the same as the base year parent 2 (P2SAMESPS=1), and place of birth was provided in the base year for parent 2, then skip to P2 E15.
Question Wording: Was [your spouse/your partner/parent 2] born in the United States, in Puerto Rico or another U.S. territory, or in another country?
Note: Question wording was customized in the survey instrument such that the language in brackets (your spouse/your partner/parent 2) depended on whether the parent 2 was the respondent's spouse or partner or another parent or guardian in the household. See the Data File Documentation section X.X.X for a definition of parent 2.

Variable: P2USBORN2
1=United States
2=Puerto Rico or another U.S. territory
3=Another country

Routing: If parent 2 was born in Puerto Rico or another country, go to P2 E14; Otherwise, skip to P2 E15.
Administered to: All respondents except those who are the same as the base year respondent, have the same parent 2 as the base year parent 2, and provided place of birth for parent 2 in the base year

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Screen: P2 E14
Question Wording: In what year did [he/she/parent 2] come to the [continental] United States to stay permanently?
Note: Question wording was customized in the survey instrument such that the language in brackets (he/she/parent 2) depended on whether the parent 2 was the respondent's spouse or partner or another parent or guardian in the household. See the Data File Documentation section X.X.X for a definition of parent 2. If the respondent answered Puerto Rico or another US territory to P2USBORN2, "continental" was displayed.

Variable: P2USYR2
Item Wording: (Please enter your answer in the following format: 19XX or 20XX)

Variable: not delivered on data file as a separate variable, but incorporated into P2USYR2
Item Wording: (Check here if [he/she/parent 2] is not in the United States to stay.)
0=No
1=Yes

Routing: Go to P2 E15.
Administered to: Respondents who reported parent 2 was born in Puerto Rico or another country in P2USBORN2

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Screen: P2 E15
Pre-Routing: If the teenager's place of birth was collected in the base year, then skip to P2 E19
Question Wording: Now we have a question about [Teenager].
Was [he/she] born in the United States, in Puerto Rico or another U.S. territory, or in another country?
~~~~~~

Variable: P2USBORNT
1=United States
2=Puerto Rico or another U.S. territory
3=Another country

Routing: If student born in another country, go to P2 E16; If student born in Puerto Rico or another U.S. territory, go to P2 E17; Otherwise, skip to P2 E19.
Administered to: All respondents except those for whom their teenager's place of birth was reported in the base year

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Screen: P2 E16
Question Wording: In which country was [he/she] born?
Variable: P2COUNTRYT
Routing: Go to P2 E17.
Administered to: Respondents who reported the teenager was born in another country in P2USBORNT

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Screen: P2 E17
Question Wording: In what year did [he/she] come to the [continental] United States to stay permanently?
Note: Question wording was customized in the survey instrument such that "continental" displayed if the respondent answered Puerto Rico or another US territory to P2USBORNT.
Variable: P2USYRT
Item Wording: (Please enter your answer in the following format: 19XX or 20XX)
Variable: not delivered, but incorporated into P2USYRT
Item Wording: (Check here if [Teenager] is not in the United States to stay permanently.)
0=No
1=Yes

Routing: Go to P2 E18.
Administered to: Respondents with teenagers born in Puerto Rico, another U.S. territory, or another country outside the United States

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Screen: P2 E18
Question Wording: In what grade was [Teenager] placed when [he/she] started school in the United States?
Variable: P2USGRADE
1=Prekindergarten
2=Kindergarten
3=1st grade
4=2nd grade
5=3rd grade
6=4th grade
7=5th grade
8=6th grade
9=7th grade
10=8th grade
11=9th grade
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Routing: Go to P2 E19.
Administered to: Respondents with teenagers born in Puerto Rico, another U.S. territory, or another country outside the United States

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Screen: P2 E19
Question Wording: Is any language other than English regularly spoken in your home?
Variable: P2HOMELANG
1=Yes
0=No
Routing: If another language is spoken, go to P2 E20; If only English is spoken, skip to P2FINTRO.
Administered to: All respondents

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Screen: P2 E20
Question Wording: What languages other than English are regularly spoken in your home?
Variable: P2SPANISH
Item Wording: Spanish
0=No
1=Yes
Variable: P2EUROLANG
Item Wording: A European language other than Spanish such as French, German or Russian
0=No
1=Yes
Variable: P2CHINESE
Item Wording: A Chinese language
0=No
1=Yes
Variable: P2FILIPINO
Item Wording: A Filipino language
0=No
1=Yes
Variable: P2SEASIAN
Item Wording: A Southeast Asian language such as Vietnamese, Thai or Cambodian
0=No
1=Yes
Variable: P2SASIAN
Item Wording: A South Asian language such as Hindi or Tamil
0=No
1=Yes
Variable: P2OTHRASIAN
Item Wording: Another Asian language such as Japanese or Korean
0=No
1=Yes

Variable: P2MIDEAST
Item Wording: A Middle Eastern language such as Arabic or Farsi
0=No
1=Yes
Variable: P2OTHRLANG
Item Wording: Another language
0=No
1=Yes
Routing: Go to P2 E21.
Administered to: Respondents who have languages other than English regularly spoken in their home

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Screen: P2 E21
Question Wording: Is English also regularly spoken in your home?
Variable: P2ENGLISH
1=Yes
0=No
Routing: If more than one language is spoken in the home, then go to P2 E22; Otherwise, skip to P2FINTRO.
Administered to: Respondents who have languages other than English regularly spoken in their home

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Screen: P2 E22
Question Wording: What language do you usually speak to [Teenager] in your home?
Note: Only the languages that the respondent reported being spoken in the home were displayed as response options.
Variable: P2RSPLANG
0=English
1=Spanish
2=A European language other than Spanish (such as French, German or Russian)
3=A Chinese language
4=A Filipino language
5=A Southeast Asian language (such as Vietnamese, Thai, or Cambodian)
6=A South Asian language (such as Hindi or Tamil)
7=An Asian language (such as Japanese or Korean)
8=A Middle Eastern language (such as Arabic or Farsi)
9=Another language
Routing: Go to P2 E23.
Administered to: Respondents who have more than one language regularly spoken in their home

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Screen: P2 E23
Question Wording: What language does [he/she] usually speak to you in your home?
Note: Only the languages that the respondent reported being spoken in the home were displayed as response options.
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Variable: P2LANGTEEN
0=English
1=Spanish
2=A European language other than Spanish (such as French, German or Russian)
3=A Chinese language
4=A Filipino language
5=A Southeast Asian language (such as Vietnamese, Thai, or Cambodian)
6=A South Asian language (such as Hindi or Tamil)
7=An Asian language (such as Japanese or Korean)
8=A Middle Eastern language (such as Arabic or Farsi)
9=Another language

Routing: Go to P2FINTRO.
Administered to: Respondents who have more than one language regularly spoken in their home

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Section F: Locating Information

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Screen: P2FINTRO
Question Wording: Now in the last part of the interview we will ask you for information that will make it possible for us to locate you and [Teenager] more easily in the future for the HSLS:09 study.
This information will be kept in secure and protected data files separate from the responses you've already provided in your interview.
Routing: Collect locating information and then go to P2 F01

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Screen: P2 F01
Question Wording: [Besides me,] did anyone help you complete this questionnaire?
Note: Question wording was customized in the survey instrument such that the language in brackets was displayed if the interview was completed over the phone.

Variable: P2QHELP
1=Yes
0=No

Routing: If anyone helped parent complete questionnaire, go to P2 F02; Else, go to END.
Administered to: All respondents

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Screen: P2 F02
Question Wording: Who helped you complete this questionnaire?

Variable: P2QHELP1
Item Wording: [Teenager]
0=No
1=Yes

Variable: P2QHELP2
Item Wording: Another family member
0=No
1=Yes

Variable: P2QHELP3
Item Wording: One of your friends
0=No
1=Yes
Variable: P2QHELP4
Item Wording: Another person
0=No
1=Yes
Administered to: Respondents who received help completing the questionnaire

Administrator

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Section A: School Characteristics

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Screen: A2AINTRO
Question Wording: First we have a few questions about [school name]'s characteristics. [Unless otherwise noted, please answer all questions based on the 2011–2012 school year, that is, last school year.]
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "name school."
Routing: Go to A2 A01.
Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 A01
Question Wording: Which of the following best describes [school name]?
Note: This item was included in the abbreviated instrument. Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name," and the first item included instructions for respondents from public schools to exclude charter schools. Private schools did not see the second option.

Variable: A2SCHTYPE

1=A regular school
2=A charter school (a school that has been granted a charter exempting it from selected state or local rules and regulations)
3=A special program school, such as a science or math school, performing arts school, talented or gifted school, or a foreign language immersion school
4=A career, technical or vocational school
5=An alternative school (a school that offers a curriculum designed to provide nontraditional education to students, for example, to students at risk of school failure or dropout in a traditional setting)

Routing: If school is private, skip to A2 A07. Else to go A2 A02.
Administered to: All first follow-up respondents.

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Screen: A2 A02
Question Wording: Does this school have a magnet program?
(A magnet program offers enhancements such as special curricular themes or methods of instruction to attract students from outside their normal attendance area.)

Variable: A2MAGNET

1=Yes, a school-wide magnet program in which all students in this school participate in the program
2=Yes, a magnet program in which some students in this school participate in the program
3=No

Routing: If school has a magnet program, go to A2 A03. Else go to A2 A05.
Administered to: First follow-up respondents in base-year, public schools.

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Screen: A2 A03
Question Wording: Is [school name]'s magnet program or special focus on…
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: A2STEMFOCUS

1=Science, Technology, Engineering, or Math or
2=something else such as performing arts, education for talented or gifted students, or foreign language immersion?

Routing: Go to A2 A05.
Administered to: First follow-up respondents in base-year schools that have a magnet program.

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Screen: A2 A05
Question Wording: Does [school name] participate in a public school choice program? School choice programs are those aimed at giving families the opportunity to choose the school their children will attend, such as magnet schools, charter schools, and school vouchers. Do not include public school choice that is mandatory due to Adequate Yearly Progress requirements.
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: A2CHOICE

1=Yes
0=No

Routing: If school participates in a school choice program, go to A2 A06. Else, go to A2 A07.
Administered to: First follow-up respondents in base-year, public schools.

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Screen: A2 A06
Question Wording: In which of the following types of public school choice programs does [school name] participate?
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: A2CHOICEIN

Item Wording: Students assigned to [school name] can choose to enroll in [school name] or another school within the district.

1=Yes
0=No

Variable: A2CHOICEOUT

Item Wording: Students can enroll in a public school in another district at no tuition cost to themselves or their families.

1=Yes
0=No

Variable: A2CHOICESCH

Item Wording: Students from other districts can enroll in [school name] at no tuition cost to themselves or their families.

1=Yes
0=No
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Variable: A2CHOICEPRIV
Item Wording: Students assigned to [school name] can choose to enroll in a private school using state or district funds.
1=Yes
0=No

Routing: Go to A2 A07.
Administered to: First follow-up respondents in base-year schools that participate in a public school choice program.

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Screen: A2 A07
Question Wording: Is [school name] a year round school?
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: A2YRROUND
1=Yes
0=No

Routing: Go to A2 A08.
Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 A08
Question Wording: What kind of academic calendar does [school name] have for grades 9 through 12?
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: A2CALENDAR
1=Semester calendar
2=Trimester calendar
3=Quarter calendar
4=Other calendar

Routing: Go to A2 A09.
Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 A09
Question Wording: On average, how many hours of instruction per day do students in grades 9 through 12 receive at [school name]? Please exclude study hall and lunch. Report both hours and minutes, such as 6 hours and 0 minutes or 5 hours and 45 minutes.
Note: This item was included in the abbreviated instrument. Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: A2CLASSHRS
Item Wording: hours and

Variable: A2HRSINSMIN
Item Wording: minutes

Routing: Go to A2 A10.
Administered to: All first follow-up respondents.
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Screen: A2 A10
Question Wording: How are courses scheduled in [school name] for grades 9 through 12?
Note: This item was included in the abbreviated instrument. Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: A2SCHEDULE
1=Traditional scheduling only (no block scheduling)
2=Block scheduling only (such as 4x4 or A/B)
3=Both traditional and block scheduling

Routing: Go to A2 A11.
Administered to: All first follow-up respondents.

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Screen: A2 A11
Question Wording: What percentage of your high school students attend a shared-time area or regional career and technical school?
(Please round to the nearest whole number, and enter '0' if none.)

Variable: A2CTESHSCH
Item Wording: percent

Routing: Go to A2BINTRO
Administered to: All first follow-up respondents in base-year schools.

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Section B: Programs, Policies, and Statistics

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Screen: A2BINTRO
Question Wording: Now we would like to ask you some questions about [school name]'s programs and policies. We will also be asking you to provide us with some statistics for [school name]. [Unless otherwise noted, please answer all questions in this section based on the 2011–2012 school year, that is, last school year.] Some questions may request information that is time-consuming to report with exact numbers. For those questions, informed estimates are acceptable.
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."
Routing: Go to A2 B01.
Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 B01
Question Wording: As of the first of October 2011, how many students in grades 9–12 were enrolled in this school?
Note: This item was included in the abbreviated instrument.

Variable: A2HSSIZE
Item Wording: students

Routing: Go A2 B02.
Administered to: All first follow-up respondents.
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Screen: A2 B02
Question Wording: What is [school name]'s current enrollment for grades 9 through 12 expressed as a percentage of capacity, such as 90 percent filled or 105 percent filled?
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: A2CAPACITY
Item Wording: % (Please round to the nearest whole number.)

Routing: Go to A2 B03.
Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 B03
Question Wording: What percentage of students in grades 9 through 12 in [school name]… (Please round to the nearest whole number, and enter '0' if none.)
Note: This item was included in the abbreviated instrument. Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: A2FREELUNCH
Item Wording: receive free or reduced-price lunch? %

Variable: A2ELL
Item Wording: are English Language Learners/have limited English proficiency? %

Variable: A2SPECIALED
Item Wording: receive special education services for students with disabilities? %

Routing: Go to A2 B04.
Administered to: All first follow-up respondents.

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Screen: A2 B04
Question Wording: In terms of a percentage, what was the average daily attendance (ADA) for students in the following grades in your school last year?
(Please round to the nearest whole number.)

Variable: A2ADA9
Item Wording: 9th grade

Variable: A2ADA10
Item Wording: 10th grade

Variable: A2ADA11
Item Wording: 11th grade

Variable: A2ADA12
Item Wording: 12th grade

Routing: Go to A2 B05.
Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 B05
Question Wording: Which of the following can occur when high school students are absent without an excuse?

Variable: A2NOTIFY
Item Wording: Parents are notified.
1=Yes
0=No
Variable: A2DETENTION
Item Wording: Students receive detentions.
1=Yes
0=No
Variable: A2INSUSPEND
Item Wording: Students receive in-school suspensions.
1=Yes
0=No
Variable: A2OUTSUSPEND
Item Wording: Students receive out-of-school suspensions.
1=Yes
0=No

Routing: Go to A2B06.
Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 B06
Question Wording: Does [school name] have a course failure policy that is tied to absenteeism?
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."
Variable: A2ABSENTFAIL
1=Yes
0=No

Routing: Go to A2 B07.
Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 B07
Question Wording: Are high school students at [school name] required to earn a certain number or type of credits to be academically promoted to the next grade?
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."
Variable: A2PROMCRED
1=Yes
0=No

Routing: If school does require a certain number or type of credits for academic promotion, go to A2 B08. Otherwise, go to A2 B09.
Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 B08
Question Wording: In the 2010–2011 school year, what percentage of [school name]'s 11th grade class did not accumulate enough credits to be promoted to 12th grade academic status for the 2011–2012 school year?
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Variable: A2REPEATG11
Item Wording: % (Please round to the nearest whole number.)
Routing: Go to A2 B09.
Administered to: First follow-up respondents in base-year schools that require high school students to earn a certain number or type of credits to be academically promoted to the next year.
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Screen: A2 B09
Question Wording: Does your high school offer any of the following programs to assist students who are struggling academically?
Variable: A2RECOVERY
Item Wording: Credit recovery program targeted at standards in which students were deficient. Programs may be offered by computer software, online instruction (such as a virtual school), or teacher-guided instruction
1=Yes
0=No
Variable: A2SUMRSCH
Item Wording: Summer programs that provides supplemental instruction
1=Yes
0=No
Variable: A2LRNCMNITY
Item Wording: Small learning communities for over-aged students who have not met criteria for promotion to the next grade
1=Yes
0=No
Variable: A2CATCHUP
Item Wording: Catch-up courses
1=Yes
0=No
Variable: A2DOUBLEDOSE
Item Wording: “Double-dosing” of classes
1=Yes
0=No
Variable: A2STUDYCLASS
Item Wording: Classes in study skills
1=Yes
0=No
Variable: A2G11TEACHER
Item Wording: Specific professional development, coaches, or technical assistance for teachers working with struggling students
1=Yes
0=No
Variable: A2TUTORSTRG
Item Wording: Tutoring
1=Yes
0=No
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Routing: If school has any credit recovery programs, then go to A2 B10. Otherwise, skip to A2 B12.
Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 B10
Question Wording: Is the credit recovery program offered…
Variable: A2RECOVONSITE
Item Wording: on-site, such as teacher-guided instruction or program software in a classroom?
1=Yes
0=No
Variable: A2RECOVONLINE
Item Wording: online, such as a state virtual school?
1=Yes
0=No
Routing: If school offers either onsite or online credit recovery, then go to A2 B11. Otherwise go to A2 B12.
Administered to: First follow-up respondents in base-year schools that offer programs to assist students who are struggling academically through a credit recovery program.

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Screen: A2 B11
Question Wording: During the 2010–2011 school year, approximately what percentage of 11th and 12th grade students participated in these credit recovery programs?
Variable: A2PCTRECOVERY
1=5 percent or less
2=6 to 10 percent
3=11 to 24 percent
4=25 to 49 percent
5=50 percent or more
Routing: Go to A2 B12.
Administered to: First follow-up respondents in base year schools that offer programs to assist students who are struggling academically through an onsite or online credit recovery program.

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Screen: A2 B12
Question Wording: What percentage of your high school's September 2010 11th-graders returned in September of 2011, regardless of grade level?
Variable: A2RETURN11
Item Wording: % (Please round to the nearest whole number.)
Routing: If school is an alternative school, then go to A2 B14. Otherwise go to A2 B13.
Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 B13
Question Wording: What percentage of students attending [school name] in the 2010–2011 school year were transferred to an alternative program or school, such as one with a program, curriculum, or teaching approach that helps students who are at risk of dropping out?

Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: A2TRANSFRALT

Item Wording: % (Please round to the nearest whole number. Enter '0' if none.)

Routing: Go to A2 B14.

Administered to: First follow-up respondents in base-year schools except those in alternative schools.

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Screen: A2 B14

Question Wording: Which of the following programs or courses does [school name] offer to help students at risk of dropping out of high school?

Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: A2DOPRVON

Item Wording: Dropout prevention program on-site

1=Yes

0=No

Variable: A2DOPRVOFF

Item Wording: Dropout prevention program off-site

1=Yes

0=No

Variable: A2STUDYPRGON

Item Wording: Programs to develop student study skills (such as AVID or GEAR UP) on-site

1=Yes

0=No

Variable: A2STUDYPRGOFF

Item Wording: Programs to develop student study skills (such as AVID or GEAR UP) off-site

1=Yes

0=No

Variable: A2CHILDCAREON

Item Wording: Childcare services on-site

1=Yes

0=No

Variable: A2CHILDCAREOFF

Item Wording: Childcare services off-site

1=Yes

0=No

Routing: If the school has onsite or offsite dropout prevention programs, then go to A2 B15; Else skip to A2 B16.

Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 B15

Question Wording: What percentage of [school name]'s students in grades 9 through 12 are currently enrolled in a dropout prevention program, either on-site at [school name] or off-site?

(Please round to the nearest whole number, and enter '0' if none.)
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: A2PCTDOPRVON
Item Wording: On-site %

Variable: A2PCTDOPRVOFF
Item Wording: Off-site %

Routing: Go to A2 B16.
Administered to: First follow-up respondents whose schools offer onsite or offsite dropout prevention programs.

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Screen: A2 B16
Question Wording: Does your school do any of the following to raise high school students' interest and achievement in math or science?

Variable: A2MTHSCIFAIR
Item Wording: Hold school-wide math or science fairs, workshops, or competitions
1=Yes
0=No

Variable: A2MSSUMMER
Item Wording: Partner with community colleges or universities that offer math or science summer programs or camps for high school students
1=Yes
0=No

Variable: A2MSMENTOR
Item Wording: Pair students with mentors in math or science
1=Yes
0=No

Variable: A2MSSPEAKER
Item Wording: Bring in guest speakers to talk to students about math or science
1=Yes
0=No

Variable: A2MSFLDTRIP
Item Wording: Take students on math- or science-relevant field trips
1=Yes
0=No

Variable: A2MSPRGMS
Item Wording: Tell students about math or science contests, web sites, blogs, or programs (such as the Intel Student Research Contest or Girls Incorporated Operation SMART)
1=Yes
0=No

Variable: A2MSPDLEARN
Item Wording: Require teacher professional development in how students learn math or science
1=Yes
0=No
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Variable: A2MSPDINTRST
Item Wording: Require teacher professional development in increasing student interest in math or science
1=Yes
0=No

Routing: Go to A2 B17.
Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 B17
Question Wording: In each of the following subjects, how many years of coursework are required to meet high school graduation requirements in [school name]? Please answer with the graduating class of 2013 in mind.
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: A2ENGREQHS
Item Wording: English
1=Not required
2=Less than 1 year
3=1 to less than 2 years
4=2 to less than 3 years
5=3 to less than 4 years
6=4 years

Variable: A2MTHREQHS
Item Wording: Mathematics
1=Not required
2=Less than 1 year
3=1 to less than 2 years
4=2 to less than 3 years
5=3 to less than 4 years
6=4 years

Variable: A2SCIREQHS
Item Wording: Science
1=Not required
2=Less than 1 year
3=1 to less than 2 years
4=2 to less than 3 years
5=3 to less than 4 years
6=4 years

Variable: A2HISTREQHS
Item Wording: History or social studies
1=Not required
2=Less than 1 year
3=1 to less than 2 years
4=2 to less than 3 years
5=3 to less than 4 years
6=4 years
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Variable: A2LANGREQHS
Item Wording: Foreign language
1=Not required
2=Less than 1 year
3=1 to less than 2 years
4=2 to less than 3 years
5=3 to less than 4 years
6=4 years

Routing: Go to A2 B18.
Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 B18
Question Wording: For a high school diploma, are [school name]'s requirements for graduation less than, equal to, or more than the requirements for entry into a public, 4-year college in your state? Please answer with the graduating class of 2013 in mind.
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: A2ENGREQ4YR
Item Wording: English
1=Less than
2=Equal to
3=More than
4=Do not know

Variable: A2MTHREQ4YR
Item Wording: Mathematics
1=Less than
2=Equal to
3=More than
4=Do not know

Variable: A2SCIREQ4YR
Item Wording: Science
1=Less than
2=Equal to
3=More than
4=Do not know

Variable: A2HISTREQ4YR
Item Wording: History or social studies
1=Less than
2=Equal to
3=More than
4=Do not know
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Variable: A2LANGREQ4YR
Item Wording: Foreign language
1=Less than
2=Equal to
3=More than
4=Do not know
Routing: Go to A2 B19.
Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 B19
Question Wording: What percentage of the 2010–2011 12th grade class…
(Please round your answers to whole numbers, and answer '0' if there are no students in a category.)
Note: This item was included in the abbreviated instrument.
Variable: A2HIGHERED
Item Wording: entered higher education programs (such as a 4-year college, 2-year community college, or school that provides occupational training)?
Variable: A2WORK
Item Wording: entered the labor market?
Variable: A2MILITARY
Item Wording: joined the military?
Routing: Go to A2CINTRO.
Administered to: All first follow-up respondents.

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Section C: Teachers

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Screen: A2CINTRO
Question Wording: Now we would like to ask you some questions about [school name]'s teachers for grades 9 through 12. [Unless otherwise noted, please answer all questions in this section based on the 2011–2012 school year, that is, last school year.]
Some questions may request information that is time-consuming to report with exact numbers. For those questions, informed estimates are acceptable.
Note: This item was included in the abbreviated instrument.
Routing: Go to A2 C01.
Administered to: All first follow-up respondents.

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Screen: A2 C01
Question Wording: As of the first of October 2011, about how many high school teachers held full-time or part-time positions or assignments at [school name]? Include regular classroom teachers; special area or resource teachers such as teachers of special education, Title I, art, music, physical education; and long-term substitute teachers. Include as PART-TIME teachers, itinerant teachers who teach part-time at this school. Do not include student teachers, short-term substitute teachers, or teachers who teach only postsecondary or adult education.
(Please use whole numbers, and enter '0' if none.)

Note: This item was included in the abbreviated instrument. Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: A2FTTCHRS
Item Wording: full-time teachers

Variable: A2PTTCHRS
Item Wording: part-time teachers

Routing: Go to A2 C02.
Administered to: All first follow-up respondents.

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Screen: A2 C02
Question Wording: Of the [X] full-time [and [X] part-time] teachers who instruct high school students at [school name], how many teach in each of the following subject areas?
Please give your best estimate. [If a teacher works full-time in your high school, but divides his or her time between subject areas, count that teacher as part-time in each subject area.]
(Please use whole numbers, and enter '0' if none.)
Note: This item was included in the abbreviated instrument. Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name," and the total number of full-time/part-time teachers was filled based on respondent's previous responses, where applicable. Number of part-time teachers, in brackets, was not included if no part-time teachers were reported in previous response.

Variable: A2FTMTCHRS
Item Wording: Math (full-time)

Variable: A2PTMTCHRS
Item Wording: Math (part-time)

Variable: A2FTSTCHRS
Item Wording: Science (full-time)

Variable: A2PTSTCHRS
Item Wording: Science (part-time)

Variable: A2FTOTHTCHRS
Item Wording: All other subjects (full-time)

Variable: A2PTOTHTCHRS
Item Wording: All other subjects (part-time)

Variable: A2PTALLTCHRS
Item Wording: Part-time

Variable: A2FTALLTCHRS
Item Wording: Full-time

Routing: Go to A2 C03.
Administered to: All first follow-up respondents.

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Screen: A2 C03
Question Wording: How many of [school name]'s teachers are currently collecting a pension from a teacher retirement system or drawing money from a school or system sponsored 401(k) or 403(b) plan?
(Please use whole numbers, and enter '0' if none.)

Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: A2PENSION

Item Wording: teachers

Routing: Go to A2 C04

Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 C04

Question Wording: How many full-time high school math teachers who taught in [school name] last year (2010–11), did not return to teach high school math at [school name] this year (2011–12)?

(Please use whole numbers, and enter '0' if all math teachers returned this school year.)

Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: A2MTNORETURN

Item Wording: math teachers

Routing: Go to A2 C05

Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 C05

Question Wording: How many full-time high school science teachers who taught in [school name] last year (2010–11), did not return to teach high school science students at [school name] this year (2011–12)?

(Please use whole numbers, and enter '0' if all science teachers returned this school year.)

Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: A2STNORETURN

Item Wording: science teachers

Routing: Go to A2 C06

Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 C06

Question Wording: What percentage of [school name]'s high school teachers are absent on an average day?

(Please round to the nearest whole number.)

Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: A2ABSENTTCHR

Item Wording: %

Routing: Go to A2 C07

Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 C07

Question Wording: Which of the following kinds of support does your school provide to high school math and science teachers who are new to the profession?

Variable: A2MSINDUCTION
Item Wording: Formal new teacher induction program
1=Yes
2=No
3=Don't know

Variable: A2MSREDUCETCH
Item Wording: Reduced teaching schedule or increased number of preparations
1=Yes
2=No
3=Don't know

Variable: A2MSPLANNING
Item Wording: Common planning time with other math and science teachers
1=Yes
2=No
3=Don't know

Variable: A2MSRELEASE
Item Wording: Release time for professional development or to observe other teachers
1=Yes
2=No
3=Don't know

Variable: A2MSSEMINAR
Item Wording: Seminars or classes for beginning teachers
1=Yes
2=No
3=Don't know

Variable: A2MSMENTORMS
Item Wording: Ongoing guidance or feedback from a master or mentor teacher in the same subject area
1=Yes
2=No
3=Don't know

Variable: A2MSMENTOROTH
Item Wording: Ongoing guidance or feedback from a master or mentor teacher in a different subject area
1=Yes
2=No
3=Don't know

Variable: A2MSPROFDEVMS
Item Wording: Opportunities to attend subject-specific professional development
1=Yes
2=No
3=Don't know

Variable: A2MSPROFDEVOTH
Item Wording: Opportunities to attend non-subject-specific professional development
1=Yes
2=No
3=Don't know

Variable: A2MSPLC
Item Wording: Opportunities to join a teacher study group, sometimes called a professional learning community (PLC)
1=Yes
2=No
3=Don't know

Routing: Go to A2DINTRO.
Administered to: All first follow-up respondents in base-year schools.

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SECTION D. OPINIONS AND BACKGROUND

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Screen: A2DINTRO
Question Wording: THIS SECTION SHOULD ONLY BE COMPLETED BY THE SCHOOL PRINCIPAL. This section of the interview asks about your opinions and background.
Routing: Go to A2 D01
Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 D01
Question Wording: We would like to ask you a couple of questions about your school's counseling program. Which one of the following goals does your school's counseling program emphasize the most?

Variable: A2GOAL1
1=Helping students plan and prepare for their work roles after high school
2=Helping students with personal growth and development
3=Helping students plan and prepare for postsecondary schooling
4=Helping students improve their achievement in high school

Routing: If respondent answers the question, then go to A2 D02; Else go to A2 D04.
Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 D02
Question Wording: Of the three goals remaining, which one does your school's counseling program emphasize most?

Variable: A2GOAL2
1=Helping students plan and prepare for their work roles after high school
2=Helping students with personal growth and development
3=Helping students plan and prepare for postsecondary schooling
4=Helping students improve their achievement in high school

Routing: If respondent answers the question, then go to A2 D03; Else go to A2 D04.
Administered to: First follow-up respondents in base-year schools who answered A2GOAL1.

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Screen: A2 D03
Question Wording: Of the two goals remaining, which one does your school's counseling program emphasize more?

Variable: A2GOAL3

1=Helping students plan and prepare for their work roles after high school
2=Helping students with personal growth and development
3=Helping students plan and prepare for postsecondary schooling
4=Helping students improve their achievement in high school

Routing: Go to A2 D04.
Administered to: First follow-up respondents in base-year schools who answered A2GOAL2.

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Screen: A2 D04
Question Wording: For the 2011–12 school year, how easy or difficult was it to fill the teaching vacancies in the high school mathematics department in [school name]?
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: A2FILLMTH

1=Easy
2=Somewhat difficult
3=Very difficult
4=You could not fill the vacancies in the math department
5=There were no vacancies in the math department

Routing: Go to A2 D05.
Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 D05
Question Wording: How easy or difficult was it to fill the high school teaching vacancies in the high school science department in [school name]?
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: A2FILLSCI

1=Easy
2=Somewhat difficult
3=Very difficult
4=You could not fill the vacancies in the science department
5=There were no vacancies in the science department

Routing: Go to A2 D06.
Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 D06
Question Wording: Does your school or district offer signing bonuses or incentives such as monetary bonuses, tuition aid, or tuition tax credits to attract qualified full-time high school math and science teachers?

Variable: A2MSINCENTIVE
1=Yes
0=No

Routing: Go to A2 D07.
Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 D07
Question Wording: To what degree is each of the following a problem at [school name]?
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: A2TARDY
Item Wording: Student tardiness
1=Not a problem
2=Minor problem
3=Moderate problem
4=Serious problem

Variable: A2STUABSENT
Item Wording: Student absenteeism
1=Not a problem
2=Minor problem
3=Moderate problem
4=Serious problem

Variable: A2CUT
Item Wording: Student class cutting
1=Not a problem
2=Minor problem
3=Moderate problem
4=Serious problem

Variable: A2DROPOUT
Item Wording: Students dropping out
1=Not a problem
2=Minor problem
3=Moderate problem
4=Serious problem

Variable: A2APATHY
Item Wording: Student apathy
1=Not a problem
2=Minor problem
3=Moderate problem
4=Serious problem

Variable: A2PRNTINV
Item Wording: Lack of parental involvement
1=Not a problem
2=Minor problem
3=Moderate problem
4=Serious problem
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Variable: A2UNPREP
Item Wording: Students coming to school unprepared to learn
1=Not a problem
2=Minor problem
3=Moderate problem
4=Serious problem

Variable: A2HEALTH
Item Wording: Poor student health
1=Not a problem
2=Minor problem
3=Moderate problem
4=Serious problem

Variable: A2RESOURCES
Item Wording: Lack of resources and materials for teachers
1=Not a problem
2=Minor problem
3=Moderate problem
4=Serious problem

Routing: Go to A2 D08.
Administered to: All first follow-up respondents in base-year schools.
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Screen: A2 D08
Question Wording: To the best of your knowledge, how often do the following types of problems occur at [school name]?
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: A2CONFLICT
Item Wording: Physical conflicts among students
1=Daily
2=At least once a week
3=At least once a month
4=On occasion
5=Never happens

Variable: A2ROBBERY
Item Wording: Robbery or theft
1=Daily
2=At least once a week
3=At least once a month
4=On occasion
5=Never happens
~~~~~~

Variable: A2VANDALISM
Item Wording: Vandalism
1=Daily
2=At least once a week
3=At least once a month
4=On occasion
5=Never happens

Variable: A2DRUGUSE
Item Wording: Student use of illegal drugs while at school
1=Daily
2=At least once a week
3=At least once a month
4=On occasion
5=Never happens

Variable: A2ALCOHOL
Item Wording: Student use of alcohol while at school
1=Daily
2=At least once a week
3=At least once a month
4=On occasion
5=Never happens

Variable: A2DRUGSALE
Item Wording: The sale of drugs on the way to or from school or on school grounds
1=Daily
2=At least once a week
3=At least once a month
4=On occasion
5=Never happens

Routing: Go to A2 D09.
Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 D09
Question Wording: To the best of your knowledge, how often do the following types of problems occur at [school name]?
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: A2WEAPONS
Item Wording: Student possession of weapons
1=Daily
2=At least once a week
3=At least once a month
4=On occasion
5=Never happens
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Variable: A2PHYSABUSE
Item Wording: Physical abuse of teachers
1=Daily
2=At least once a week
3=At least once a month
4=On occasion
5=Never happens

Variable: A2TENSION
Item Wording: Student racial tensions
1=Daily
2=At least once a week
3=At least once a month
4=On occasion
5=Never happens

Variable: A2CYBERBULLY
Item Wording: Cyber-bullying
1=Daily
2=At least once a week
3=At least once a month
4=On occasion
5=Never happens

Variable: A2OTHERBULLY
Item Wording: Other types of student bullying
1=Daily
2=At least once a week
3=At least once a month
4=On occasion
5=Never happens

Variable: A2VERBAL
Item Wording: Student verbal abuse of teachers
1=Daily
2=At least once a week
3=At least once a month
4=On occasion
5=Never happens

Variable: A2MISBEHAVE
Item Wording: Student in-class misbehavior
1=Daily
2=At least once a week
3=At least once a month
4=On occasion
5=Never happens

Variable: A2DISRESPECT
Item Wording: Student acts of disrespect for teachers
1=Daily
2=At least once a week
3=At least once a month
4=On occasion
5=Never happens

Variable: A2GANG
Item Wording: Student gang activities
1=Daily
2=At least once a week
3=At least once a month
4=On occasion
5=Never happens

Routing: Go to A2 D10.
Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 D10
Question Wording: What is your sex?

Variable: A2SEX
1=Male
2=Female

Routing: Go to A2 D11.
Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 D11
Question Wording: Are you of Hispanic or [Latino/Latina] origin?

Variable: A2HISP
1=Yes
0=No

Routing: Go to A2 D12.
Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 D12
Question Wording: [In addition to learning about your Hispanic background, we would also like to know about your racial background.]
What is your race?
Note: Question wording was customized in survey instrument such that if respondent indicated they were of Hispanic/Latino origin, then bracketed text above was displayed.

Variable: A2WHITE
Item Wording: White
0=No
1=Yes
~~~~~~

Variable: A2BLACK
Item Wording: Black or African American
0=No
1=Yes
Variable: A2ASIAN
Item Wording: Asian
0=No
1=Yes
Variable: A2PACISLE
Item Wording: Native Hawaiian or other Pacific Islander
0=No
1=Yes
Variable: A2AMINDIAN
Item Wording: American Indian or Alaska Native
0=No
1=Yes

Routing: Go to A2 D13.
Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 D13
Question Wording: What is the highest degree you have earned?
Variable: A2HIDEG
1=You do not have a degree
2=Associate's degree
3=Bachelor's degree
4=Master's degree
5=Educational Specialist diploma
6=Ph.D., EdD, MD, law degree, or other high level professional degree

Routing: If principal has a postsecondary degree, go to A2 D14. Otherwise, if no response, skip to A2 D15. Otherwise, skip to A2 D16.
Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 D14
Question Wording: What was your major field of study for your [highest degree]?
(Please type your major in the space below and click on 'Search for major.' Do not enter abbreviations.)
Note: Question wording was customized in survey instrument such that the respondent's actual highest degree earned appeared in place of "highest degree earned."
Variable: A2HIMAJV
Variable: A2HIMAJ6
Variable: A2HIMAJ2

Routing: If principal has a Master's degree or higher go to A2 D15. Otherwise, skip to A2 D16.
Administered to: First follow-up respondents in base-year schools who earned a postsecondary degree.

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Screen: A2 D15
Question Wording: What was your major field of study for your Bachelor's degree? (Please type your major in the space below and click on 'Search for Major.' Do not enter abbreviations.)
Variable: A2BAMAJV
Variable: A2BAMAJ6
Variable: A2BAMAJ2
Routing: Go to A2 D16.
Administered to: First follow-up respondents in base-year schools who earned a Master's degree or higher.

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Screen: A2 D16
Question Wording: Before you became a principal, did you have any management experience outside of the field of education?
Variable: A2MANAGEMENT
1=Yes
0=No
Routing: Go to A2 D17.
Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 D17
Question Wording: How much training, if any, have you received in each of the following areas? If you have received training in more than one way in a particular area, please choose the type of training that required the most hours.
Variable: A2SCHLAW
Item Wording: School law
1=No training
2=Topic of a workshop or seminar
3=Part of a college course
4=An entire college course
5=Two or more college courses
Variable: A2FISCAL
Item Wording: Fiscal management
1=No training
2=Topic of a workshop or seminar
3=Part of a college course
4=An entire college course
5=Two or more college courses
Variable: A2LTPLANS
Item Wording: Long-range planning
1=No training
2=Topic of a workshop or seminar
3=Part of a college course
4=An entire college course
5=Two or more college courses
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Variable: A2PHYSPLANT
Item Wording: Physical plant management
1=No training
2=Topic of a workshop or seminar
3=Part of a college course
4=An entire college course
5=Two or more college courses

Variable: A2PERSMGMT
Item Wording: Personnel management
1=No training
2=Topic of a workshop or seminar
3=Part of a college course
4=An entire college course
5=Two or more college courses

Variable: A2INSTLDRS
Item Wording: Instructional leadership
1=No training
2=Topic of a workshop or seminar
3=Part of a college course
4=An entire college course
5=Two or more college courses

Variable: A2DATADEC
Item Wording: Data-driven decision making
1=No training
2=Topic of a workshop or seminar
3=Part of a college course
4=An entire college course
5=Two or more college courses

Routing: Go to A2 D18.
Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 D18
Question Wording: Did you become a principal through an alternative principal preparation program, such as New Leaders for New Schools?

Variable: A2ALTPREP
1=Yes
0=No

Routing: Go to A2 D19.
Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 D19
Question Wording: Are you currently certified as a principal in your state?

Variable: A2CERTIFIED
1=Yes
0=No

Routing: Go to A2 D20.

Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 D20

Question Wording: Including this school year, how many years have you served as the principal of [school name] or any other school?

(Please use whole numbers.)

Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: A2YRSADMIN

Item Wording: years

Routing: If principal has one year of teaching experience, skip to A2 D22; Otherwise go to A2 D21.

Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 D21

Question Wording: [Including this school year/Not including the 2012–2013 school year], how many years [has the current school administrator/have you] served as the principal of [school name]?

(If this is your first year as school administrator, please report for last year's administrator. Please use whole numbers.)

Note: This item was included in the abbreviated instrument. Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name," the respondent was referred to in the third person if designee answered this item, and "not including the 2012–2013 school year" was used if the survey date was after September 1, 2012.

Variable: A2YRSHSLSSCH

Item Wording: years

Routing: Go to A2 D22.

Administered to: First follow-up respondents with at least one year of experience as a principal.

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Screen: A2 D22

Question Wording: In addition to serving as principal, are you currently teaching at [school name]?

Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: A2TEACHING

1=Yes

0=No

Routing: Go to A2 D23.

Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 D23

Question Wording: [Including this school year, how /How] many years of middle school and high school teaching experience do you have?

(Please use whole numbers, and enter '0' if you have no teaching experience at a level.)

Note: Question wording was customized in the survey instrument such that respondents were asked to include "this school year" if before September 1, 2012.

Variable: A2YRSMSTCHR

Item Wording: Middle school (grades 6–8) years

Variable: A2YRSHSTCHR

Item Wording: High school (grades 9–12) years

Routing: If principal has experience teaching at the middle school or high school level, go to A2 D24. Otherwise go to END.

Administered to: All first follow-up respondents in base-year schools.

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Screen: A2 D24

Question Wording: What is the main subject that you [teach/taught]?

Note: Question wording was customized in the survey instrument based on the response to A2 D22 about current teaching.

Variable: A2TCHSUBJ

1=English
2=Math
3=History or social science
4=Natural or physical sciences
5=Foreign languages
6=Physical education
7=Career, technical or vocational education
8=Business
9=Other subject

Variable: A2TCHSUBJO

Item Wording: Please specify

Routing: End administrator interview.

Administered to: First follow-up respondents in base-year schools with at least one year of middle school or high school teaching experience.

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Counselor

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Section A: Staffing and Practices

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Screen: C2AINTRO
Question Wording: First, we have some questions about staffing and common practices in the counseling department of [school name]. Unless otherwise noted, please answer all questions based on the 2011–2012 school year [that is, last school year].
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name." If after September 1, 2012, the phrase "that is, last school year."
Routing: Go to C2 A01.
Administered to: All first follow-up respondents.

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Screen: C2 A01
Question Wording: Including yourself, how many full-time and how many part-time counselors work with high school students at [school name]?
(If you share a counselor with another school, please count that counselor as part-time. If you have no full-time counselors, or have no part-time counselors, please enter '0' in the appropriate box. Please use whole numbers.)
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."
Variable: C2FTCNSL
Item Wording: full-time counselor(s)
Variable: C2PTCNSL
Item Wording: part-time counselor(s)
Routing: Go to C2 A02.
Administered to: All first follow-up respondents.

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Screen: C2 A02
Question Wording: On average, what is the caseload for a counselor in your school?
(Please enter whole numbers only. Do not enter decimals.)
Variable: C2CASELOAD
Item Wording: students per counselor
Routing: Go to C2 A03.
Administered to: All first follow-up respondents.

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Screen: C2 A03
Question Wording: Which of the following describe how counselors are assigned to students at your school? Would you say counselors are assigned…
Variable: C2ASSIGNALL
Item Wording: to all students at this school?
1=Yes
0=No
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Variable: C2ASSIGNGRADE
Item Wording: to a specific grade level such as a 11th grade counselor?
1=Yes
0=No
Variable: C2ASSIGNCLASS
Item Wording: to an incoming class of 9th graders and remain with them throughout their high school years such as a counselor for the class of 2015?
1=Yes
0=No
Variable: C2ASSIGNNAMES
Item Wording: to a group of students whose last names fall within a slice of the alphabet such as all students with last names from "A to D"?
1=Yes
0=No
Variable: C2ASSIGNLC
Item Wording: to small learning communities such as schools-within-a-school, pods, and houses?
1=Yes
0=No

Routing: Go to C2 A04
Administered to: All first follow-up respondents.

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Screen: C2 A04
Question Wording: [Last school year (2010–2011)/During the 2010–2011 school year], what percentage of work hours did your school's counseling staff spend delivering the following services to high school students?
Note: Question wording was customized in the survey instrument such that the 2010–11 school year was referred to as "last school year" if before September 1, 2012.

Variable: C2HRSSCHED
Item Wording: Choice and scheduling of high school courses
1=5% or less
2=6%–10%
3=11%–20%
4=21%–50%
5=More than 50%
Variable: C2HRSCOLLEGE
Item Wording: Assisting students with college readiness, selection, and applications
1=5% or less
2=6%–10%
3=11%–20%
4=21%–50%
5=More than 50%
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Variable: C2HRSPERSONAL
Item Wording: Personal development
1=5% or less
2=6%–10%
3=11%–20%
4=21%–50%
5=More than 50%

Variable: C2HRSSOCIAL
Item Wording: Social development
1=5% or less
2=6%–10%
3=11%–20%
4=21%–50%
5=More than 50%

Variable: C2HRSACADEMIC
Item Wording: Academic development
1=5% or less
2=6%–10%
3=11%–20%
4=21%–50%
5=More than 50%

Variable: C2HRSCAREER
Item Wording: Occupational choice and career planning
1=5% or less
2=6%–10%
3=11%–20%
4=21%–50%
5=More than 50%

Variable: C2HRSJOBSKLL
Item Wording: Job placement and employability skill development
1=5% or less
2=6%–10%
3=11%–20%
4=21%–50%
5=More than 50%

Variable: C2HRSPROBLEM
Item Wording: Students' attendance, discipline, and other school and personal problems
1=5% or less
2=6%–10%
3=11%–20%
4=21%–50%
5=More than 50%

Variable: C2HRSTESTING
Item Wording: Academic testing
1=5% or less
2=6%–10%
3=11%–20%
4=21%–50%
5=More than 50%

Variable: C2HRSNONCNSL
Item Wording: Non-counseling activities such as hall or lunch duty, substitute teaching, or bus duty
1=5% or less
2=6%–10%
3=11%–20%
4=21%–50%
5=More than 50%

Routing: Go to C2 A05
Administered to: All first follow-up respondents.

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Screen: C2 A05
Question Wording: Does your school have one or more counselors whose primary responsibility is assisting students with…

Variable: C2SELECTCLASS
Item Wording: selecting courses and programs?
1=Yes
0=No

Variable: C2SELECTCLG
Item Wording: college selection?
1=Yes
0=No

Variable: C2CLGAPP
Item Wording: college applications?
1=Yes
0=No

Variable: C2PREPJOB
Item Wording: preparation for the workforce?
1=Yes
0=No

Variable: C2GETJOB
Item Wording: placement into the workforce?
1=Yes
0=No

Routing: Go to C2BINTRO
Administered to: All first follow-up respondents.
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Section B: Programs and Support

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Screen: C2BINTRO
Question Wording: Now we have some questions about programs and support offered by your school during the 2011–2012 school year [, that is, last school year].
Note: Question wording was customized in the survey instrument such the 2011–12 school year was referred to as "last school year" if after September 1, 2012.
Routing: Go to C2 B01.
Administered to: All first follow-up respondents.

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Screen: C2 B01
Question Wording: Are students in your high school required to have a high school graduation, career or education plan?
Variable: C2PSPLAN
1=Yes
0=No
Routing: If high school students are required to have career/educational plan, go to C2 B02; Else go to C2 B06.
Administered to: All first follow-up respondents.

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Screen: C2 B02
Question Wording: What does this plan include?
Variable: C2GRADPLAN
Item Wording: A graduation plan
1=Yes
0=No
Variable: C2CAREERPLAN
Item Wording: A career plan
1=Yes
0=No
Variable: C2EDPLAN
Item Wording: An education plan
1=Yes
0=No
Routing: Go to C2 B03.
Administered to: First follow-up respondents whose high schools require a graduation, career or education plan.

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Screen: C2 B03
Question Wording: Which of the following best describes the graduation, career, or education plans of students in your school?
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Variable: C2CUSTOMPLAN
1=Students create personalized plans.
2=Students choose one of several plans offered by the school.
3=Students are assigned one of several plans offered by the school.
4=Students are all assigned to a single plan offered by the school.
Routing: Go to C2 B04.
Administered to: First follow-up respondents whose high schools require a graduation, career or education plan.

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Screen: C2 B04
Question Wording: Are students' plans shared with their parents or guardians?
Variable: C2PLANPARENT
1=Yes
0=No
Routing: Go to C2 B05.
Administered to: First follow-up respondents whose high schools require a graduation, career or education plan.

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Screen: C2 B05
Question Wording: On average, how often do students meet with an adult in your high school to review or revise these written plans?
Variable: C2REVIEWPLAN
1=More than once each school year
2=Once each school year
3=Less than once each school year
4=Never
Routing: Go to C2 B06.
Administered to: First follow-up respondents whose high schools require a graduation, career or education plan.

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Screen: C2 B06
Question Wording: Does your school offer a dual or concurrent enrollment program? A dual or concurrent enrollment program is an organized system with special guidelines that allows high school students to take college level courses, which may be taught on the campus of a postsecondary institution, through distance education, or on your high school campus. Please do not include Advanced Placement (AP) and International Baccalaureate (IB) programs.
Variable: C2DUALPROG
1=Yes
0=No
Routing: If school offers dual or concurrent enrollment, go to C2 B07; Else go to C2 B10.
Administered to: All first follow-up respondents.

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Screen: C2 B07
Question Wording: What type of dual or concurrent enrollment program does your school offer?

Variable: C2DUALCLGCRED
Item Wording: Students can earn college credits.
1=Yes
0=No
Variable: C2DUALCERT
Item Wording: Students can complete the requirements for a certificate program such as nursing assistant or computer network administrator.
1=Yes
0=No
Variable: C2DUALAA
Item Wording: Students can complete the requirements for an Associate's degree.
1=Yes
0=No
Variable: C2DUALCLGACC
Item Wording: Students are automatically accepted into a partner college upon high school graduation.
1=Yes
0=No

Routing: Go to C2 B08.
Administered to: First follow-up respondents whose schools offer a dual or concurrent enrollment program.

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Screen: C2 B08
Question Wording: During the 2010–2011 school year, what was the total number of high school students enrolled in courses for dual or concurrent credit? An individual high school student may be counted more than once, and should be counted for each course in which he/she was enrolled for dual credit.
Variable: C2DUALENRACA
Item Wording: Academic course focus: students
Variable: C2DUALENRCTE
Item Wording: Career and technical/vocational course focus: students

Routing: Go to C2 B09.
Administered to: First follow-up respondents whose schools offer a dual or concurrent enrollment program.

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Screen: C2 B09
Question Wording: How many students graduated with a dual or concurrent enrollment designation on their diploma at the end of the 2010–2011 school year? A designation could include a stamp, sticker, seal, or text on a high school diploma that indicates completion of a dual or concurrent enrollment program.
(Please use whole numbers.)
Variable: C2DUALGRAD
Item Wording: students

Routing: Go to C2 B10.
Administered to: First follow-up respondents whose schools offer a dual or concurrent enrollment program.

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Screen: C2 B10
Question Wording: In which of the following ways does [school name] support high-achieving students?
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: C2HACHTECH
Item Wording: Technology and software to support curriculum specifically to meet the needs of the high-achieving students
1=Yes
0=No

Variable: C2HAGIFTED
Item Wording: Gifted students receive pull-out instruction during the regular school day
1=Yes
0=No

Variable: C2HACHENRICH
Item Wording: Enrichment experiences such as Odyssey of the Mind, Science Olympiad, Academic Decathlon, math or science clubs, math or science teams
1=Yes
0=No

Variable: C2HAAPCRS
Item Wording: Advanced Placement (AP) courses
1=Yes
0=No

Variable: C2HAIBPRGM
Item Wording: International Baccalaureate (IB) program
1=Yes
0=No

Variable: C2HASCHSHP
Item Wording: Scholarships for students to attend special events, programs, or classes
1=Yes
0=No

Variable: C2HAPERFREW
Item Wording: Special incentives or rewards tied to academic performance
1=Yes
0=No

Variable: C2HAMENTOR
Item Wording: A school-arranged match with an adult mentor
1=Yes
0=No

Variable: C2HASUMMER
Item Wording: Summer activities or programs appropriate for high-achieving students
1=Yes
0=No
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Variable: C2HAONLINE
Item Wording: Access to high school courses offered online
1=Yes
0=No
Variable: C2HAAWRDS
Item Wording: Special recognitions such as Honor Roll, Honor Society, or department awards
1=Yes
0=No
Routing: Go to C2 B11.
Administered to: All first follow-up respondents.

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Screen: C2 B11
Question Wording: Does [school name] offer…
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."
Variable: C2GETAHEAD
Item Wording: summer school enrichment courses that allow students to progress academically?
1=Yes
0=No
Variable: C2REMEDIATION
Item Wording: summer school remediation courses that support students who are struggling academically or do not have enough credits to graduate?
1=Yes
0=No
Routing: If offer summer school enrichment courses, go to C2 B12; Else go to C2 B13.
Administered to: All first follow-up respondents.

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Screen: C2 B12
Question Wording: To whom does your school offer these summer school enrichment courses?
Variable: C2HASUMEN
Item Wording: High-achieving students
1=Yes
0=No
Variable: C2AVGSUMEN
Item Wording: Average students
1=Yes
0=No
Variable: C2STRGSUMEN
Item Wording: Struggling students
1=Yes
0=No
Routing: Go to C2 B13.
Administered to: First follow-up respondents whose schools offer summer school enrichment or remediation courses.

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Screen: C2 B13
Question Wording: Does [school name] have any formal programs or systematic efforts to…
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: C2ENCSTEM
Item Wording: encourage underrepresented students to pursue mathematics, science, engineering, or technology?
1=Yes
0=No

Variable: C2INFSTEM
Item Wording: inform parents or guardians about mathematics, science, engineering, or technology higher education or career opportunities?
1=Yes
0=No

Variable: C2ENCCLG
Item Wording: encourage students who might not be considering college to do so?
1=Yes
0=No

Variable: C2UPBOUND
Item Wording: help students plan or prepare for college such as Upward Bound, GEAR UP, AVID, or MESA?
1=Yes
0=No

Variable: C2RESUME
Item Wording: share relevant employment information such as resumes or transcripts with local employers?
1=Yes
0=No

Variable: C2GUARANTEE
Item Wording: guarantee student skills to local employers?
1=Yes
0=No

Routing: Go to C2 B14.
Administered to: All first follow-up respondents.

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Screen: C2 B14
Question Wording: Are students in your school able to take a course for high school credit if it is not offered by your school?

Variable: C2NOTOFFERED
1=Yes
0=No

Routing: If students are able to take a course for credit if not offered by school, go to C2 B15; Else go to C2 B16.
Administered to: All first follow-up respondents.

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Screen: C2 B15
Question Wording: Approximately what percentage of students in grades 9 to 12 take courses for credit in each of the following ways? An individual high school student may be counted more than once and should be counted for each of the ways in which he/she took courses for credit.

Variable: C2INDSTD
Item Wording: Independent study
1=Not offered
2=5% or less
3=6–10%
4=11–24%
5=25–49%
6=50–74%
7=75–100%

Variable: C2DISTANCE
Item Wording: On-line or distance learning courses
1=Not offered
2=5% or less
3=6–10%
4=11–24%
5=25–49%
6=50–74%
7=75–100%

Variable: C2OTHHS
Item Wording: Courses at another traditional high school in the district
1=Not offered
2=5% or less
3=6–10%
4=11–24%
5=25–49%
6=50–74%
7=75–100%

Variable: C2TECHSC
Item Wording: Courses at a local career or technical school
1=Not offered
2=5% or less
3=6–10%
4=11–24%
5=25–49%
6=50–74%
7=75–100%

Variable: C2COMCOL
Item Wording: Courses at a local community college
1=Not offered
2=5% or less
3=6–10%
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4=11–24%
5=25–49%
6=50–74%
7=75–100%

Variable: C24YRCOL

Item Wording: Courses at a nearby 4-year college or university

1=Not offered
2=5% or less
3=6–10%
4=11–24%
5=25–49%
6=50–74%
7=75–100%

Routing: Go to C2 B16.

Administered to: First follow-up respondents whose students are able to take a course for high school credit if it is not offered by the school.

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Screen: C2 B16

Question Wording: Which of the following steps does your school take for high school students who need extra assistance?

Variable: C2TUTORIN

Item Wording: Tutoring during the regular school day by an adult

1=Yes
0=No

Variable: C2TUTOROUT

Item Wording: Before- or after-school tutoring by an adult

1=Yes
0=No

Variable: C2TUTORPEER

Item Wording: Peer tutoring

1=Yes
0=No

Variable: C2STAFF

Item Wording: School staff work with classroom teachers to provide extra assistance to the student

1=Yes
0=No

Variable: C2PULLOUT

Item Wording: Pull-out instruction during the regular school day

1=Yes
0=No

Variable: C2HOMEWORK

Item Wording: Homework assistance program

1=Yes
0=No
~~~~~~

Variable: C2XTRAREWARD
Item Wording: Special incentives or rewards tied to academic performance
1=Yes
0=No
Variable: C2XTRAMENTOR
Item Wording: A school-arranged match with an adult mentor
1=Yes
0=No
Variable: C2HSBEP
Item Wording: Positive behavior interventions and supports such as HS-BEP (high school behavior education program)
1=Yes
0=No
Variable: C2SUPPORTOUT
Item Wording: Additional support outside the regular school day such as special programs, weekend programs, or summer school programs
1=Yes
0=No

Routing: Go to C2 B17.
Administered to: All first follow-up respondents.

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Screen: C2 B17
Question Wording: Does your school have a formal dropout prevention program for students in high school? This may be a whole-school restructuring program or a targeted program that operates on a smaller scale within the school or with community organization(s).
Variable: C2DROPOUT
1=Yes
0=No

Routing: If school has formal dropout prevention program, go to C2 B18; Else go to C2 B20.
Administered to: All first follow-up respondents.

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Screen: C2 B18
Question Wording: Are all students at risk of dropping out of [school name] required to participate in your dropout prevention program?
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."
Variable: C2ATRISKREQ
1=Yes
0=No

Routing: Go to C2 B19.
Administered to: First follow-up respondents whose school has a formal dropout prevention program.

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Screen: C2 B19
Question Wording: Which of the following services does your dropout prevention program offer?
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Variable: C2DOOCCCOURSE
Item Wording: Occupationally focused courses
1=Yes
0=No
Variable: C2DOTUTOR
Item Wording: Tutoring
1=Yes
0=No
Variable: C2DOINCENTIVE
Item Wording: Incentives for better attendance or classroom performance
1=Yes
0=No
Variable: C2DOCHILDCARE
Item Wording: Childcare for children of students
1=Yes
0=No
Variable: C2DOGRADCNSL
Item Wording: Graduation counseling
1=Yes
0=No
Variable: C2DOJOBCNSL
Item Wording: Job counseling
1=Yes
0=No

Routing: Go to C2 B20.
Administered to: First follow-up respondents whose school has a formal dropout prevention program.

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Screen: C2 B20
Question Wording: Does your school have a formal program on-site that prepares students for the General Education Development (GED) Test?
Variable: C2GEDPREP
1=Yes
0=No

Routing: Go to C2 B21.
Administered to: All first follow-up respondents.

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Screen: C2 B21
Question Wording: In which of the following ways does [school name] assist students with college entrance exams such as the SAT and ACT?
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: C2CLGEXAMINFO
Item Wording: Providing access to information about when and where exams are offered such as websites, flyers, or pamphlets
1=Yes
0=No

Variable: C2CLGEXAMREG
Item Wording: Providing assistance with exam registration such as providing copies of registration forms or assistance completing the exam registration forms
1=Yes
0=No

Variable: C2CLGEXAMFEE
Item Wording: Providing assistance with exam registration fees such as providing information about fee waivers or paying exam registration fees
1=Yes
0=No

Variable: C2CLGEXAMPREP
Item Wording: Providing assistance with exam preparation such as offering test-preparation classes or providing study materials
1=Yes
0=No

Routing: If respondent says yes to any items, then go to C2 B22; Else, go to C2 B23.
Administered to: All first follow-up respondents.

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Screen: C2 B22
Question Wording: During the 2011–2012 school year, approximately what percentage of students in grades 11 and 12 take advantage of each of these college entrance exam services offered by your school?
Note: Item wording was customized in the survey instrument such that only those programs offered by the school that the respondent reported in the previous question were displayed.

Variable: C2PCTEXAMINFO
Item Wording: Providing access to information about when and where exams are offered
1=5% or less
2=6–10%
3=11–24%
4=25–49%
5=50–74%
6=75–100%

Variable: C2PCTEXAMREG
Item Wording: Providing assistance with exam registration such as providing copies registration forms or assistance completing the exam registration forms
1=5% or less
2=6–10%
3=11–24%
4=25–49%
5=50–74%
6=75–100%
~~~~~~

Variable: C2PCTEXAMFEE
Item Wording: Providing assistance with exam registration fees such as providing information about fee waivers or paying exam registration fees
1=5% or less
2=6–10%
3=11–24%
4=25–49%
5=50–74%
6=75–100%
Variable: C2PCTEXAMPREP
Item Wording: Providing assistance with exam preparation such as offering test-preparation classes or providing study materials
1=5% or less
2=6–10%
3=11–24%
4=25–49%
5=50–74%
6=75–100%
Routing: Go to C2 B23.
Administered to: First follow-up respondents whose schools assist students with college entrance exams.
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Screen: C2 B23
Question Wording: In which of the following ways does [school name] assist students with identifying and applying to colleges, universities, or schools that provide occupational training?
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."
Variable: C2CLGFAIR
Item Wording: Holding or participating in college fairs
1=Yes
0=No
Variable: C2INFOSESSN
Item Wording: Holding information sessions for students and parents
1=Yes
0=No
Variable: C2CLGAPPS
Item Wording: Assisting students with completing college or university applications
1=Yes
0=No
Variable: C2CLGINFO
Item Wording: Providing access to information about colleges or universities
1=Yes
0=No
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Variable: C2CLGSELECT
Item Wording: Helping students identify criteria for selecting colleges to which to apply such as majors offered, cost, or entry requirements
1=Yes
0=No

Routing: If respondent answers yet to any items, go to C2 B24; Else go to C2 B25.
Administered to: All first follow-up respondents.

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Screen: C2 B24
Question Wording: During the 2011–2012 school year, approximately what percentage of students in grades 11 and 12 take advantage of each of these college identification and application services offered by [school name]?
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name," and for item wording, only the assistance to students offered by the school that the respondent reported in the previous question was displayed.

Variable: C2PCTFAIR
Item Wording: Holding or participating in college fairs
1=5% or less
2=6–10%
3=11–24%
4=25–49%
5=50–74%
6=75–100%

Variable: C2PCTSESSN
Item Wording: Holding information sessions for students and parents
1=5% or less
2=6–10%
3=11–24%
4=25–49%
5=50–74%
6=75–100%

Variable: C2PCTAPPS
Item Wording: Assisting students with completing college or university applications
1=5% or less
2=6–10%
3=11–24%
4=25–49%
5=50–74%
6=75–100%

Variable: C2PCTINFO
Item Wording: Providing access to information about colleges or universities
1=5% or less
2=6–10%
3=11–24%
4=25–49%
~~~~~~

5=50–74%
6=75–100%
Variable: C2PCTSELECT
Item Wording: Helping students identify criteria for selecting colleges to apply to (such as majors offered, cost, entry requirements)
1=5% or less
2=6–10%
3=11–24%
4=25–49%
5=50–74%
6=75–100%
Routing: Go to C2 B25.
Administered to: First follow-up respondents whose schools assist students with identifying and applying to colleges, universities, or schools that provide occupational training.
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Screen: C2 B25
Question Wording: In which of the following ways does your school assist with college financial aid preparation?
Variable: C2AIDPROCESS
Item Wording: Offering informational meetings about the FAFSA (Free Application for Financial Student Aid) process
1=Yes
0=No
Variable: C2AIDFAFSA
Item Wording: Assisting students and families with completing the FAFSA
1=Yes
0=No
Variable: C2AIDCOMPUTER
Item Wording: Providing computer access for completing the FAFSA
1=Yes
0=No
Variable: C2AIDDEADLINE
Item Wording: Sending out reminders of FAFSA deadlines
1=Yes
0=No
Variable: C2AIDOTHAPP
Item Wording: Assisting with completing financial aid applications other than the FAFSA such as scholarships, loans, or grants
1=Yes
0=No
Variable: C2AIDSOURCE
Item Wording: Offering informational meetings on sources of financial aid such as scholarships, loans, or grants
1=Yes
0=No
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Variable: C2AIDCNSL
Item Wording: Offering individual counseling sessions to help students identify possible sources of financial aid
1=Yes
0=No
Variable: C2AIDFLYER
Item Wording: Making information about financial aid available for students to explore on their own, such as flyers and pamphlets
1=Yes
0=No
Routing: If respondent answers yet to any items, go to C2 B26; Else go to C2 B27.
Administered to: All first follow-up respondents.
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Screen: C2 B26
Question Wording: During the 2011–2012 school year, approximately what percentage of students in grades 11 and 12 take advantage of each of these financial aid preparation services offered by your school?
Note: Item wording was customized in the survey instrument such that only those ways the school assists that the respondent reported in the previous question were displayed.
Variable: C2PCTPROCESS
Item Wording: Offering informational meetings about the FAFSA (Free Application for Financial Student Aid) process
1=5% or less
2=6–10%
3=11–24%
4=25–49%
5=50–74%
6=75–100%
Variable: C2PCTFAFSA
Item Wording: Assisting students and families with completing the FAFSA
1=5% or less
2=6–10%
3=11–24%
4=25–49%
5=50–74%
6=75–100%
Variable: C2PCTCOMPUTER
Item Wording: Providing computer access for completing the FAFSA
1=5% or less
2=6–10%
3=11–24%
4=25–49%
5=50–74%
6=75–100%
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Variable: C2PCTDEADLINE
Item Wording: Sending out reminders of FAFSA deadlines
1=5% or less
2=6–10%
3=11–24%
4=25–49%
5=50–74%
6=75–100%

Variable: C2PCTOTHAPP
Item Wording: Assisting with completing financial aid applications other than the FAFSA such as scholarships, loans, or grants
1=5% or less
2=6–10%
3=11–24%
4=25–49%
5=50–74%
6=75–100%

Variable: C2PCTSOURCE
Item Wording: Offering informational meetings on sources of financial aid such as scholarships, loans, or grants
1=5% or less
2=6–10%
3=11–24%
4=25–49%
5=50–74%
6=75–100%

Variable: C2PCTCNSL
Item Wording: Offering individual counseling sessions to help students identify possible sources of financial aid
1=5% or less
2=6–10%
3=11–24%
4=25–49%
5=50–74%
6=75–100%

Variable: C2PCTFLYER
Item Wording: Making information about financial aid available for students to explore on their own, such as flyers and pamphlets
1=5% or less
2=6–10%
3=11–24%
4=25–49%
5=50–74%
6=75–100%

Routing: Go to C2 B27.

Administered to: First follow-up respondents whose schools assist with financial aid preparation.

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Screen: C2 B27

Question Wording: What percentage of students who enroll in college after graduation from [school name] persist past their first year in college?

Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: C2PERSISTYR1

1=5% or less
2=6–10%
3=11–24%
4=25–49%
5=50–74%
6=75–100%
7=Your school does not collect this information

Routing: Go to C2 B28.

Administered to: All first follow-up respondents.

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Screen: C2 B28

Question Wording: Which of the following steps is your school taking during the 2011–2012 school year to assist students with the transition from high school to work?

Variable: C2JOBCAREER

Item Wording: Providing information about careers such as career awareness activities, job fairs, career nights, or career mentors

1=Yes
0=No

Variable: C2JOBAPTITUDE

Item Wording: Providing information about career aptitude such as career interest inventories, vocational aptitude tests, or skills assessments

1=Yes
0=No

Variable: C2JOBEXP

Item Wording: Providing work experience opportunities such as internships, work study, job site visits, job shadowing, or school based enterprises

1=Yes
0=No

Variable: C2JOBSEEK

Item Wording: Providing training in job seeking or interviewing skills

1=Yes
0=No

Routing: If respondent answers yes to any item, go to C2 B29; Else go to C2 B30.

Administered to: All first follow-up respondents.

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Screen: C2 B29
Question Wording: During the 2011–2012 school year, approximately what percentage of students in grades 11 and 12 take advantage of each of these work preparation services offered by your school?
Note: Item wording was customized in the survey instrument such that only those steps taken by the school that the respondent reported in the previous question were displayed.

Variable: C2PCTCAREER
Item Wording: Providing information about careers such as career awareness activities, job fairs, career nights, or career mentors
1=5% or less
2=6–10%
3=11–24%
4=25–49%
5=50–74%
6=75–100%

Variable: C2PCTAPTITUDE
Item Wording: Providing information about career aptitude such as career interest inventories, vocational aptitude tests, or skills assessments
1=5% or less
2=6–10%
3=11–24%
4=25–49%
5=50–74%
6=75–100%

Variable: C2PCTEXP
Item Wording: Providing work experience opportunities such as internships, work study, job site visits, job shadowing, school based enterprises
1=5% or less
2=6–10%
3=11–24%
4=25–49%
5=50–74%
6=75–100%

Variable: C2PCTSEEK
Item Wording: Providing training in job seeking or interviewing skills
1=5% or less
2=6–10%
3=11–24%
4=25–49%
5=50–74%
6=75–100%

Routing: Go to C2 B30.
Administered to: First follow-up respondents whose schools assist students with the transition from high school to work.
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Screen: C2 B30
Question Wording: Does your school have formal or informal linkages with local employers to aid in student preparation for the transition to work?

Variable: C2EMPLINKS

1=Yes
0=No

Routing: Go to C2CINTRO.
Administered to: All first follow-up respondents.

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Section C: Math and Science Placement

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Screen: C2CINTRO
Question Wording: Now we have some questions about factors associated with students' mathematics and science course placement. Unless otherwise noted, please answer all questions based on the 2011–2012 school year[, that is, last school year].
Note: Question wording was customized in the survey instrument such the 2011–12 school year was referred to as "last school year" if after September 1, 2012.
Routing: Go to C2 C01.
Administered to: All first follow-up respondents.

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Screen: C2 C01
Question Wording: After 9th grade, are all high school students within the same grade placed in the same mathematics course sequence? If all students within a grade (10, 11, or 12) are placed in the same math course, but with different teachers or different class periods, please answer "yes."

Variable: C2UPMSAME

1=Yes
0=No

Routing: If same mathematics course sequence, go to C2 C03; Else go to C2 C02.
Administered to: All first follow-up respondents.

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Screen: C2 C02
Question Wording: How important is each of the following factors in placing typical 10th through 12th grade students in mathematics courses?

Variable: C2UPMGRD

Item Wording: Prior grades including grades from a prerequisite class

1=Not at all important
2=Somewhat important
3=Very important
4=Not applicable
~~~~~~

Variable: C2UPMEOGEXAM
Item Wording: Results of district or state end-of-year or end-of-course exams
1=Not at all important
2=Somewhat important
3=Very important
4=Not applicable

Variable: C2UPMTEST
Item Wording: Results of placement tests
1=Not at all important
2=Somewhat important
3=Very important
4=Not applicable

Variable: C2UPMPSAT
Item Wording: Results of PSAT scores
1=Not at all important
2=Somewhat important
3=Very important
4=Not applicable

Variable: C2UPMTEACHER
Item Wording: Previous year's teacher recommendation
1=Not at all important
2=Somewhat important
3=Very important
4=Not applicable

Variable: C2UPMSTUPAR
Item Wording: Student, parent, or guardian selection
1=Not at all important
2=Somewhat important
3=Very important
4=Not applicable

Variable: C2UPMEDPLAN
Item Wording: Student written graduation, career, or education plan
1=Not at all important
2=Somewhat important
3=Very important
4=Not applicable

Variable: C2UPMSCHEDULE
Item Wording: Master schedule considerations
1=Not at all important
2=Somewhat important
3=Very important
4=Not applicable

Variable: C2UPMGRADREQ
Item Wording: High school graduation requirements
1=Not at all important
2=Somewhat important
3=Very important
4=Not applicable

Variable: C2UPMCLGREQ
Item Wording: College entrance requirements
1=Not at all important
2=Somewhat important
3=Very important
4=Not applicable

Routing: Go to C2 C03.
Administered to: First follow-up respondents whose high school students within the same grade are not all placed in the same mathematics course sequence after 9th grade.

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Screen: C2 C03
Question Wording: After 9th grade, are all high school students within the same grade placed in the same science course sequence? If all students within a grade (10, 11, or 12) are placed in the same science course, but with different teachers or different class periods, please answer "yes."

Variable: C2UPSSAME
1=Yes
0=No

Routing: If same science course sequence, then go to C2 C05; Else go to C2 C04.
Administered to: All first follow-up respondents.

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Screen: C2 C04
Question Wording: How important is each of the following factors in placing typical 10th through 12th grade students in science courses?

Variable: C2UPSGRD
Item Wording: Prior grades including grades from a prerequisite class
1=Not at all important
2=Somewhat important
3=Very important
4=Not applicable

Variable: C2UPSEOGEXAM
Item Wording: Results of district or state end-of-year or end-of-course exams
1=Not at all important
2=Somewhat important
3=Very important
4=Not applicable

Variable: C2UPSTEST
Item Wording: Results of placement tests
1=Not at all important
2=Somewhat important
3=Very important
4=Not applicable

Variable: C2UPSPSAT
Item Wording: Results of PSAT scores
1=Not at all important
2=Somewhat important
3=Very important
4=Not applicable

Variable: C2UPSTEACHER
Item Wording: Previous year's teacher recommendation
1=Not at all important
2=Somewhat important
3=Very important
4=Not applicable

Variable: C2UPSSTUPAR
Item Wording: Student, parent, or guardian selection
1=Not at all important
2=Somewhat important
3=Very important
4=Not applicable

Variable: C2UPSEDPLAN
Item Wording: Student written graduation, career, and/or education plan
1=Not at all important
2=Somewhat important
3=Very important
4=Not applicable

Variable: C2UPSSCHEDULE
Item Wording: Master schedule considerations
1=Not at all important
2=Somewhat important
3=Very important
4=Not applicable

Variable: C2UPSGRADREQ
Item Wording: High school graduation requirements
1=Not at all important
2=Somewhat important
3=Very important
4=Not applicable

Variable: C2UPSCLGREQ
Item Wording: College entrance requirements
1=Not at all important
2=Somewhat important
3=Very important
4=Not applicable

Routing: Go to C2 C05.
Administered to: First follow-up respondents whose high school students within the same grade are not all placed in the same science course sequence after 9th grade.

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Screen: C2 C05
Question Wording: Which of the following courses are offered to students enrolled in your high school?

Variable: C2CALCONSITE
Item Wording: Calculus, not including pre-calculus, is offered on-site at your high school.
1=Yes
0=No

Variable: C2CALCOFFSITE
Item Wording: Calculus, not including pre-calculus, is offered off-site at your high school such as at an area career/technical school or online.
1=Yes
0=No

Variable: C2PHYSONSITE
Item Wording: Physics is offered on-site at your high school.
1=Yes
0=No

Variable: C2PHYSOFFSITE
Item Wording: Physics is offered off-site at your high school such as at an area career/technical school or online.
1=Yes
0=No

Routing: Go to C2 C06.
Administered to: All first follow-up respondents.

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Screen: C2 C06
Question Wording: What percentage of the current 12th-graders in [school name] will have taken the following courses by the end of the 2011–2012 school year?
(Please use whole numbers.)
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: C2PCTCALC
Item Wording: Calculus, not including pre-calculus %

Variable: C2PCTPHYS
Item Wording: Physics

Routing: If school offers AP courses, go to C2 C207; Else if school offers IB program, go to C2 C13; Else, go to C2 C19

Administered to: All first follow-up respondents.

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Screen: C2 C07
Question Wording: During the 2011–2012 school year, how many different AP courses are offered at your school across all subjects? (Count multiple sections of the same course as one course.)
Variable: C2NUMAP
Item Wording: courses
Routing: If school offers zero AP courses, but offers an IB program, go to C2 C13; Else if school offers zero AP courses and no IB program, go to C2 C19; Else, go to C2 C208.
Administered to: First follow-up respondents whose schools offer Advance Placement (AP) courses.

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Screen: C2 C08
Question Wording: During the 2011–2012 school year, how many different AP science, mathematics, and computer science courses are offered at your school?
(Count multiple sections of the same course as one course.)
Variable: C2NUMAPSCI
Item Wording: AP science courses
Variable: C2NUMAPMATH
Item Wording: AP mathematics courses
Variable: C2NUMAPCOMP
Item Wording: AP computer science courses
Routing: Go to C2 C09.
Administered to: First follow-up respondents whose schools offered Advance Placement (AP) courses in science, mathematics, or computer science in the 2011–12 school year.

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Screen: C2 C09
Question Wording: What percentage of 12th-graders in [high school] have taken or are currently enrolled in at least one Advanced Placement (AP) course?
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."
Variable: C2PCTAP
Item Wording: %
Routing: Go to C2 C10.
Administered to: First follow-up respondents whose schools offered Advance Placement (AP) courses in science, mathematics, or computer science in the 2011–12 school year (C2HAAPCRS<>0).

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Screen: C2 C10
Question Wording: How many AP exams were taken during the 2010–2011 school year by students in grades 9–12 in [school name]? A student may take multiple exams, and would be counted as many times as the number of exams taken.
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: C2NUMAPEXAM
Item Wording: exams
Routing: If zero AP exams were taken by students in 2010–11 and school offers IB program, go to C2 C13; If zero AP exams were taken by students in 2010–11 and school does not offer IB program, go to C2 C19; Else, go to C2 C11
Administered to: First follow-up respondents whose schools offered Advance Placement (AP) courses in science, mathematics, or computer science in the 2011–12 school year (C2HAAPCRS<>0).

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Screen: C2 C11
Question Wording: Of the AP exams taken during the 2010–2011 school year by the students in grades 9–12 in [school name], how many exams received a score of 3 or higher?
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."
Variable: C2NUMAP3PLUS
Item Wording: exams
Routing: Go to C2 C12.
Administered to: First follow-up respondents whose schools had student(s) take Advance Placement (AP) exams in science, mathematics, or computer science in the 2011–12 school year.

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Screen: C2 C12
Question Wording: What is your 2010–2011 school "Equity and Excellence" percentage? This can be found after "Graduating Class Summary" on the summary page of your AP grade report.
Variable: C2PCTEQUITY
Item Wording: %
Variable: C2NOAPREPORT
Item Wording: My school did not receive an AP grade report
0=No
1=Yes
Routing: If school offers an IB program, go to C2 C13; Else go to C2 C19.
Administered to: First follow-up respondents whose schools had student(s) take Advance Placement (AP) exams in science, mathematics, or computer science in the 2011–12 school year.

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Screen: C2 C13
Question Wording: During the 2011–2012 school year, how many different Higher Level IB courses are offered at your school across all subjects? (Count multiple sections of the same course as one course. Do not count Standard Level IB courses.)
Variable: C2NUMIB
Item Wording: IB courses
Routing: If school does not offer any higher level IB courses, go to C2 C15; Else go to C2 C14.
Administered to: First follow-up respondents whose schools offer the International Baccalaureate (IB) program (C2HAIBPRGM<>0).
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Screen: C2 C14
Question Wording: During the 2011–2012 school year, how many different Higher Level IB science and mathematics courses are offered at your school? (Count multiple sections of the same course as one course. Do not count Standard Level IB courses.)

Variable: C2NUMIBSCI
Item Wording: IB science courses

Variable: C2NUMIBMATH
Item Wording: IB mathematics courses

Routing: Go to C2 C15.
Administered to: First follow-up respondents whose schools offered Higher Level International Baccalaureate (IB) courses in the 2011–12 school year.

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Screen: C2 C15
Question Wording: What percentage of 12th-graders in [school name] are [currently] enrolled in an International Baccalaureate (IB) program?
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name," and if before September 1, 2012, the word "currently" appeared in the question.

Variable: C2PCTIB
Item Wording: %

Routing: Go to C2 C16.
Administered to: First follow-up respondents whose schools offer the International Baccalaureate (IB) program (C2HAIBPRGM<>0).

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Screen: C2 C16
Question Wording: How many IB exams were taken during the 2010–2011 school year by the students in grades 9–12 in [school name]? Do not count IB theory of knowledge (TOK) or extended essay grades. A student may take multiple exams, and would be counted as many times as the number of exams taken.
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: C2NUMIBEXAM
Item Wording: exams

Routing: If zero IB exams were taken during the 2010–11 school year, go to C2 C19; Else go to C2 C17.
Administered to: First follow-up respondents whose schools offer the International Baccalaureate (IB) program (C2HAIBPRGM<>0).

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Screen: C2 C17
Question Wording: Of the IB exams taken during the 2010–2011 school year by the students in grades 9–12 in [school name], how many exams received a score of 4 or higher?
Note: Question wording was customized in the survey instrument such that the respondent's school name appeared in place of "school name."

Variable: C2NUMIB4PLUS
Item Wording: exams

Routing: If school supports high-achieving students by offering AP courses and offers IB program, go to C2 C18; Else, go to C2 C19.
Administered to: First follow-up respondents whose schools offer the International Baccalaureate (IB) program and had students in grades 9–12 take IB exams in the 2010–11 school year.

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Screen: C2 C18
Question Wording: During the 2010–2011 school year, how many students in grades 9–12 took both an AP exam and an IB exam in the same subject?
Variable: C2NUMAPANDIB
Item Wording: students
Routing: Go to C2 C19.
Administered to: First follow-up respondents whose schools offer Advanced Placement (AP) courses and the International Baccalaureate (IB) program, and had students in grades 9–12 take IB exams in the 2010–11 school year.

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Screen: C2 C19
Question Wording: How many seniors graduated from your school in May or June of 2011? Do not count certificates of completion.
Variable: C2NUMGRADS
Item Wording: graduates
Routing: Go to C2 C20.
Administered to: All first follow-up respondents.

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Screen: C2 C20
Question Wording: What were the overall mean SAT scores for your school's class of 2011? (This information can be found in the College Board College-Bound Seniors report sent to your school. The SAT Program uses the 200 to 800 point scale. If none of the students in this class took the SAT exam, please check the box. Please round to the nearest whole number.)
Variable: C2AVGSATREAD
Item Wording: Critical reading:
Variable: C2AVGSATMATH
Item Wording: Mathematics:
Variable: C2AVGSATWRIT
Item Wording: Writing:
Variable: C2AVGSATNONE
Item Wording: None of the students in this class took the SAT exam.
0=No
1=Yes
Routing: Go to C2 C21.
Administered to: All first follow-up respondents.

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Screen: C2 C21
Question Wording: What was the average ACT score for your school's class of 2011?

(This information can be found on the ACT College Readiness Letter sent to your school. Scores range from 1 to 36. If none of the students in this class took the ACT exam, please check the box. Please round to the nearest whole number.)

Variable: C2AVGACTENG
Item Wording: English:
Variable: C2AVGACTMATH
Item Wording: Mathematics:
Variable: C2AVGACTREAD
Item Wording: Reading:
Variable: C2AVGACTSCI
Item Wording: Science:
Variable: C2AVGACTCOMP
Item Wording: Composite score:
Variable: C2AVGACTNONE
Item Wording: None of the students in this class took the ACT exam.
0=No
1=Yes

Routing: Go to C2DINTRO.
Administered to: All first follow-up respondents.

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Section D: School Analysis and Feedback

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Screen: C2DINTRO
Question Wording: Now we have some questions about the types of data analyzed by your school and feedback received. Unless otherwise noted, please answer all questions based on the 2011–2012 school year [, that is, last school year].
Routing: Go to C2 D01.
Administered to: All first follow-up respondents.
Note: Question wording was customized in the survey instrument such the 2011–12 school year was referred to as "last school year" if after September 1, 2012.

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Screen: C2 D01
Question Wording: Does your school use the following information sources to determine what students do after high school?

Variable: C2STUSURVEY
Item Wording: Student or alumni survey
1=Yes
0=No
Variable: C2DATABASE
Item Wording: A state or national database, such as the Statewide Longitudinal Data System or National Student Clearinghouse
1=Yes
0=No

Routing: Go to C2 D02.
Administered to: All first follow-up respondents.
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Screen: C2 D02
Question Wording: To what extent does your school receive feedback from schools that provide occupational training, 2-year community college, or 4-year college attended by your graduates in each of the following areas?

Variable: C2FBREMEDIAL
Item Wording: Student need for remediation
1=Not at all
2=Occasionally, but not systematically
3=Systematically

Variable: C2FB1STYR
Item Wording: Student persistence past the first year
1=Not at all
2=Occasionally, but not systematically
3=Systematically

Variable: C2FBGRAD
Item Wording: Student persistence to graduation
1=Not at all
2=Occasionally, but not systematically
3=Systematically

Routing: End counselor interview.
Administered to: All first follow-up respondents.
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Appendix B.
HSLS:09 First Follow-up Mathematics Assessment Item Characteristics

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Table B-1. Item forms, item parameters and their standard errors of the HSLS:09 First Follow-up mathematics assessment items: 2012

Item name	Form	a	s.e.	b	s.e.	c	s.e.
Q037	Router	0.50	0.00	-0.56	0.00	0.00	0.00
Q063	Router	1.07	0.00	1.68	0.00	0.10	0.00
Q088	Router	0.68	0.00	0.44	0.01	0.33	0.00
Q090	Router	2.01	0.01	1.78	0.00	0.09	0.00
Q101	Router	1.35	0.01	3.39	0.00	0.11	0.00
Q114	Router	0.51	0.00	-0.13	0.01	0.13	0.00
Q155	Router	1.62	0.01	1.64	0.00	0.29	0.00
Q181	Router	1.61	0.01	2.49	0.00	0.19	0.00
Q237	Router	0.44	0.00	1.07	0.01	0.19	0.00
Q247	Router	1.01	0.00	1.55	0.00	0.30	0.00
Q297	Router	1.17	0.00	0.62	0.00	0.31	0.00
Q329	Router	1.45	0.00	-0.06	0.00	0.18	0.00
Q036	Low Stage 2	0.35	0.00	-0.82	0.01	0.01	0.00
Q086	Low Stage 2	2.62	0.03	0.35	0.00	0.26	0.00
Q108	Low Stage 2	0.96	0.01	-0.82	0.01	0.07	0.01
Q167	Low Stage 2	1.44	0.02	0.37	0.00	0.25	0.00
Q251	Low Stage 2	1.20	0.01	0.27	0.00	0.32	0.00
Q286	Low Stage 2	0.66	0.00	-0.62	0.00	0.00	0.00
Q310	Low Stage 2	0.62	0.01	-0.01	0.01	0.14	0.01
Q377	Low Stage 2	0.55	0.00	-0.99	0.01	0.00	0.00
Q382	Low Stage 2	1.80	0.02	-0.07	0.00	0.34	0.00
Q385	Low Stage 2	2.17	0.02	0.29	0.00	0.18	0.00
Q391	Low Stage 2	1.59	0.01	-0.37	0.00	0.26	0.00
Q392	Low Stage 2	1.93	0.04	0.76	0.01	0.35	0.00
Q399	Low Stage 2	1.37	0.01	-1.04	0.01	0.02	0.00
Q024	Low and Moderate Stage 2	1.78	0.01	1.56	0.00	0.33	0.00
Q041	Low and Moderate Stage 2	1.44	0.01	0.95	0.00	0.30	0.00
Q075	Low and Moderate Stage 2	2.64	0.04	1.91	0.00	0.33	0.00
Q124	Low and Moderate Stage 2	1.65	0.01	1.22	0.00	0.23	0.00
Q162	Low and Moderate Stage 2	1.84	0.01	1.17	0.00	0.37	0.00
Q245	Low and Moderate Stage 2	0.60	0.00	0.27	0.01	0.37	0.00
Q252	Low and Moderate Stage 2	0.80	0.01	1.55	0.00	0.27	0.00
Q254	Low and Moderate Stage 2	1.36	0.01	1.17	0.00	0.22	0.00
Q271	Low and Moderate Stage 2	2.62	0.02	1.83	0.00	0.11	0.00
Q290	Low and Moderate Stage 2	1.69	0.01	0.91	0.00	0.36	0.00
Q313	Low and Moderate Stage 2	1.74	0.01	1.71	0.00	0.27	0.00
Q333	Low and Moderate Stage 2	1.44	0.01	0.42	0.00	0.33	0.00

See notes at end of table.

Table B-1. Item forms, item parameters and their standard errors of the HSLS:09 First Follow-up mathematics assessment items: 2012—Continued

Item name	Form	a	s.e.	b	s.e.	c	s.e.
Q054	Moderate Stage 2	1.23	0.02	1.77	0.00	0.26	0.00
Q267	Moderate Stage 2	1.23	0.12	3.28	0.14	0.23	0.00
Q314	Moderate Stage 2	2.34	0.03	1.64	0.00	0.34	0.00
Q354	Moderate Stage 2	1.19	0.02	1.38	0.00	0.43	0.00
Q357	Moderate Stage 2	1.52	0.05	2.31	0.02	0.42	0.00
Q393	Moderate Stage 2	0.99	0.01	1.26	0.00	0.15	0.00
Q437	Moderate Stage 2	1.36	0.01	0.87	0.00	0.18	0.00
Q073	Moderate and High Stage 2	1.72	0.01	2.69	0.00	0.14	0.00
Q110	Moderate and High Stage 2	1.25	0.01	2.56	0.00	0.28	0.00
Q185	Moderate and High Stage 2	1.37	0.01	3.58	0.01	0.35	0.00
Q190	Moderate and High Stage 2	3.15	0.04	3.38	0.00	0.22	0.00
Q444	Moderate and High Stage 2	1.40	0.01	2.69	0.00	0.11	0.00
Q056	High Stage 2	1.36	0.02	3.51	0.01	0.19	0.00
Q057	High Stage 2	1.67	0.11	4.73	0.05	0.28	0.00
Q059	High Stage 2	0.46	0.00	3.04	0.01	0.00	0.00
Q062	High Stage 2	1.18	0.01	2.02	0.02	0.24	0.01
Q097	High Stage 2	0.81	0.01	2.77	0.01	0.08	0.01
Q126	High Stage 2	0.94	0.01	3.47	0.01	0.15	0.00
Q129	High Stage 2	0.92	0.02	3.48	0.01	0.19	0.00
Q169	High Stage 2	0.95	0.01	3.31	0.01	0.02	0.00
Q248	High Stage 2	1.10	0.01	2.20	0.01	0.17	0.01
Q256	High Stage 2	1.28	0.01	2.70	0.01	0.26	0.00
Q269	High Stage 2	1.52	0.02	2.94	0.01	0.36	0.00
Q343	High Stage 2	1.76	0.02	3.29	0.00	0.18	0.00
Q345	High Stage 2	0.74	0.01	3.10	0.01	0.14	0.01
Q346	High Stage 2	0.46	0.00	3.24	0.01	0.00	0.00
Q356	High Stage 2	1.66	0.02	3.19	0.00	0.29	0.00
Q404	High Stage 2	1.07	0.01	2.94	0.01	0.03	0.00
Q443	High Stage 2	1.52	0.02	3.04	0.00	0.29	0.00
Q449	High Stage 2	0.72	0.00	2.53	0.01	0.01	0.00
Q452	High Stage 2	0.54	0.00	3.06	0.01	0.00	0.00
Q453	High Stage 2	1.30	0.01	3.18	0.00	0.08	0.00

NOTE: a = discrimination parameter. b = difficulty parameter. c = guessing parameter .s.e. = standard error.

Administered items that were dropped are not included in the tables.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) Base Year.

Table B-2. Proportion correct for each of the HSLS:09 First Follow-up mathematics assessment items: 2012

Item name	Proportion correct unweighted	Proportion correct weighted
Q024	0.409	0.397
Q036	0.522	0.521
Q037	0.723	0.690
Q041	0.522	0.489
Q054	0.371	0.370
Q056	0.278	0.269
Q057	0.292	0.284
Q059	0.371	0.361
Q062	0.679	0.686
Q063	0.351	0.313
Q073	0.232	0.215
Q075	0.351	0.347
Q086	0.344	0.329
Q088	0.701	0.688
Q090	0.298	0.256
Q097	0.424	0.399
Q101	0.135	0.128
Q108	0.597	0.576
Q110	0.392	0.373
Q114	0.694	0.673
Q124	0.384	0.368
Q126	0.308	0.284
Q129	0.311	0.317
Q155	0.467	0.443
Q162	0.506	0.485
Q167	0.380	0.362
Q169	0.216	0.202
Q181	0.274	0.259
Q185	0.374	0.366
Q190	0.237	0.230
Q237	0.563	0.534
Q245	0.690	0.677
Q247	0.503	0.486
Q248	0.602	0.600
Q251	0.455	0.448
Q252	0.434	0.411
Q254	0.421	0.387
Q256	0.501	0.492
Q267	0.236	0.233
Q269	0.512	0.496
Q271	0.139	0.134
Q286	0.497	0.483

See notes at end of table.

Table B-2. Proportion correct for each of the HSLS:09 First Follow-up mathematics assessment items: 2012 —Continued

Item name	Proportion correct unweighted	Proportion correct weighted
Q290	0.561	0.537
Q297	0.683	0.650
Q310	0.451	0.441
Q313	0.338	0.322
Q314	0.406	0.409
Q329	0.707	0.734
Q333	0.659	0.628
Q343	0.287	0.270
Q345	0.393	0.378
Q346	0.336	0.325
Q354	0.587	0.575
Q356	0.404	0.382
Q357	0.444	0.442
Q377	0.580	0.563
Q382	0.544	0.508
Q385	0.287	0.279
Q391	0.565	0.539
Q392	0.383	0.386
Q393	0.448	0.420
Q399	0.672	0.644
Q404	0.323	0.288
Q437	0.548	0.534
Q443	0.423	0.418
Q444	0.221	0.197
Q449	0.444	0.429
Q452	0.341	0.334
Q453	0.249	0.236

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Appendix C.
Glossary of Terms

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Accommodations (in testing): In HSLS:09, both in the base year and the first follow-up, certain accommodations were offered to students with barriers to participation, who otherwise may not have been able to participate. Several such accommodations focused on the assessment. In this context, an accommodation is a change in how a test is presented, in how a test is administered, or in how the test taker is allowed to respond. This term generally refers to changes that do not substantially alter what the test measures. The proper use of accommodations does not substantially change academic level or performance criteria. Appropriate accommodations were made to provide equal opportunity to demonstrate knowledge. Examples of test accommodations used in HSLS:09 include allowing extra time or conveying instructions in American Sign Language. Cases in which accommodations were implemented in HSLS:09 are specially flagged.

Accommodations (in questionnaire administration): Special accommodations were provided to base-year and first follow-up students who could not otherwise participate in the study by completing a questionnaire. For example, students with learning disabilities or a visual impairment could have someone read the questionnaire aloud to them. Students were given extra time on the questionnaire, the assessment, or both, if they had an Individualized Education Program that made such a stipulation.

Adaptive testing: In HSLS:09, both in the base year and first follow-up test administrations, three test forms of varying levels of difficulty were assigned based on the examinee's score (or more specifically, IRT-based pattern of responses) on a routing test. Thus, the specific form or set of questions that each student answered was tailored to that student's ability level. An advantage of adaptive tests is that reliability per unit of testing time is greater than in a nonadaptive test. Adaptive procedures help to minimize floor and ceiling effects, and by tailoring test items to ability level, minimize examinee frustration that could result when confronted with items far beyond the bounds of the examinee's ability. (See also *Ceiling effect* and *Floor effect.*)

Administrator questionnaire: This questionnaire was completed by the school principal, sometimes in part with a knowledgeable designee, at all participating base-year schools. It inquired about school characteristics, student body, faculty, curriculum, and principal background and perception of school problems. An abbreviated version was administered to principals of refusal schools, to better monitor and adjust for nonresponse bias. The questionnaire was revised and readministered to principals in base-year schools in the first follow-up, An abbreviated version was administered to principals in "transfer" schools, that is, schools to which ninth-grade cohort members had dispersed by spring term of 2012.

American Indian or Alaska Native: An American Indian or Alaska Native is a person who has origins in any of the original peoples of North and South America (including Central America) and who maintains tribal affiliation or community attachment. The primary source of race/ethnicity categorization in HSLS:09 was respondent self-identification.

Analytic weights: Analytic weights are sometimes called nonresponse-adjusted weights, adjusted (base) weights, or final analytic weights. The analytic weights are constructed by adjusting the base weights for factors such as subsampling of sample units, one or more nonresponse mechanisms (e.g., parent refusal of student participation and student refusal), and calibration (i.e., benchmarked) to population counts. (See also *Base weights* and *Calibration weight adjustment*.)

Asian: An Asian is a person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent, including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam. The primary source of race/ethnicity categorization in HSLS:09 was respondent self-identification.

Balanced repeated replication (BRR): BRR weights can be used in HSLS:09 for variance estimation. BRR weights are based on a set of procedures that use a balanced set of pseudo-replicates. The BRR variance estimation process involves modeling the design as if it were a two-primary sampling unit (PSU) per stratum design. Variances are then calculated using a random group type of variance estimation procedure, with a balanced set of replicates as the groups. Balancing is done by creating replicates using an orthogonal matrix. An alternative variance estimation method available from the HSLS:09 data set is the Taylor series linearization. (See also *Taylor series linearization*.)

Base weights: Base weights compensate for unequal probabilities of selection into the study sample. A base weight is calculated as the inverse probability of selection and includes all stages of sample design (e.g., two design stages are used for HSLS:09). Base weights are also called raw weights, design weights, unadjusted weights, or sampling weights throughout the survey literature. Estimates using base weights may be contrasted with the corresponding estimates using weights adjusted for nonresponse.). Base weights are calculated for all sample members, respondents and nonrespondents alike. However, the base weights do not appear on the HSLS:09 data files, although they are used to generate response rates reported in the Data File Documentation. (See also *Analytic weights, Nonresponse bias,* and *Nonresponse bias analysis*.)

Bias: Bias is the difference between the reported value and the true value. An estimate of bias is calculated as the difference between the expected value of a sample estimate (e.g., estimated mean) and the corresponding true value for the population. The true values are generally not known and must also be estimated from the data. *Response bias* is the difference between respondent reports and their true behavior or characteristics. *Nonresponse bias* is defined as the (statistically significant) difference in an estimate calculated from the respondent and nonrespondent subsets of the sample. *Undercoverage bias*, a type of sampling bias, arises because some critical portion of the target population is omitted from the sampling frame. For example, if the set of schools from which a school sample is drawn is incomplete or inaccurate (owing, for example, to the birth of new schools subsequent to the time the set of schools was

identified, school undercoverage may occur. (See also *Nonresponse bias* and *Nonresponse bias analysis.*)

Black or African American: A Black or African American person is one having origins in any of the black racial groups of Africa. The primary source of race/ethnicity categorization in HSLS:09 was respondent self-identification.

Burden: Formally, burden is the aggregate hours realistically required for data providers to participate in a data collection. Burden also has a subjective or psychological dimension: the degree to which providing information is regarded as onerous may depend on the salience to the respondent of the questions that are being posed and on other factors, such as competing time demands and complexity of the information being requested.

Calibration weight adjustment: This is a weight adjustment that forces survey estimates to match independent population totals for specified characteristics. Poststratification is a specific type of weight calibration that uses the cross-classification of a set of variables to form poststrata (adjustment cells). Calibration adjustments for HSLS:09 were created through a model that included individual variables and a set of interaction terms (Folsom and Singh 2000).

Ceiling effect: Ceiling effect is the result of a test having insufficient numbers of the more difficult items. In a longitudinal study, ceiling effects in the follow-up can cause change scores to be artificially constrained for high-ability examinees. The measurement problems related to floor and ceiling effects in combination with regression effects found at the extreme score ranges seriously hamper the accuracy of change measures in longitudinal studies. More information (i.e., smaller error of measurement) is obtained with respect to ability level if high-ability individuals receive relatively harder items (and if low-ability individuals receive proportionately easier items). The matching of item difficulty to a person's ability level yields increased reliability at the extremes of the score distribution, where it is most needed for studies of longitudinal change. A strategy employed in HSLS:09 to minimize ceiling (and floor) effects is to use an array of three distinct test forms that are "adaptive" to the ability level of the examinee, as demonstrated in a first-stage test form common to all examinees. Multilevel tests—with second stage test assignment that is based on the first stage (router) performance—minimize the possibility that ceiling effects might bias the estimates of the score gains. To further protect against ceiling effects, additional items were added to the first follow-up assessment that represented the highest levels of difficulty. (See also *Floor effect* and *Adaptive testing*.)

Classical test theory: Classical test theory postulates that a test score can be decomposed into two parts—a true score and an error component; that the error component is random with a mean of zero and is uncorrelated with true scores; and that true scores, observed scores, and error components are linearly related.

Closed-ended question: A closed-ended question is a type of question in which the data provider's responses are limited to a given set of options (as opposed to an open-ended question). (See also *Open-ended question*.)

Cluster: A cluster is a group of sample members (or units) that is selected as one group in an early design stage. Sample members (or subsequent clusters of sample members) are then randomly selected from within the clusters chosen in the previous stage. For example, HSLS:09 clusters are schools and the sample members within the clusters are students. Examples of clusters in other studies include school districts, counties, and residential blocks. (See also *Primary sampling unit*.)

Cluster size: The cluster size is the number of HSLS:09 sample members attending a particular study-eligible school.

Codebook: A codebook is a document that contains a detailed description of each variable measured in HSLS:09 or derived from HSLS:09 variables. The description includes the variable name, values used to define each variable, unweighted frequencies, and unweighted and weighted percentages.

Coefficient of Variation (CV): The CV is calculated as the ratio of the estimated population standard deviation over the estimated population quantity (e.g., mean). Both estimates are calculated using the final analysis weights and software that appropriately accounts for the complex, two-stage sample design of HSLS:09. This quantity differs from the *relative standard error* (*relSE*), sometimes referred to as the (estimated) CV. The *relSE* is calculated as the estimated population standard error divided by the estimated population quantity.

Cohort: A cohort is a group of individuals who have a statistical factor in common such as, for example, year of birth, grade in school, year of retirement, or year of high school graduation. The HSLS:09 cohort consists of ninth-grade high school students as of the fall term of the 2009–10 school year. Since no freshening was instituted for 11th grade, the 9th-grade cohort is the sole cohort in HSLS:09, unlike prior multi-cohort studies such as *NELS:88* and *ELS:2002*.

Common Core of Data (CCD): The CCD consists of data annually collected from all public schools in the United States by NCES. Study-eligible public schools were identified from the CCD to form the public school portion of the sampling frame for the HSLS:09 base year.

Composite variable: A composite variable is one that is constructed through either the combination of two or more variables (poverty status, for example, combines household size with family income) or through a mathematical function or statistical transformation (e.g., conversion of raw test scores to quintiles). A composite variable is also referred to as a derived, created, or constructed variable.

Computer-assisted telephone interviewing (CATI): CATI is a mode of data collection administered in HSLS:09 where an electronic questionnaire is administered to a sample member through a telephone interview.

Confidence interval: A confidence interval is a sample-based estimate expressed as an interval or range of values that is expected to contain the true population value given a specified degree of confidence.

Confidentiality protections: NCES is required by law to protect individually identifiable data from unauthorized disclosure. To this end, HSLS:09 data have been subject to a disclosure risk analysis to determine which records require masking to produce the public-use data file from the restricted-use data file. Disclosure coarsening techniques (such as recoding of continuous variables into categorical, top and bottom coding, and so on), suppression of variables, and data perturbation techniques (e.g., data swapping) have been used to provide disclosure protection to HSLS:09 data. (See also *Data swapping* and *Disclosure risk analysis*.)

Consent, active (explicit): One variety of informed consent is called active or explicit consent. Typically, in active consent, a signed agreement to participate in a study must be obtained. In HSLS:09, permission of parents was required before students could be surveyed. Some schools required active parental consent (i.e., that a signed permission form be obtained).

Consent, passive (implied): Another variety of informed consent is called passive or implied consent. In more recent terminology, this consent type is called Opt-out Notification. In this model, a permission form is sent to the relevant party (in HSLS:09, the parent or guardian of the sampled student), who has the opportunity to return the form to indicate denial of permission. If the form is not returned, it is assumed that the individual has no objection to survey participation. In the HSLS:09 base year, about 80 percent of participating schools allowed passive parental consent for their ninth-grader's participation in the study. (See also *Opt-out notification*.)

Construct: A construct is an abstract image, idea, or theory, formed from a number of simpler observable elements (e.g., socioeconomic status, or science self-efficacy). Constructs help summarize phenomena that are hypothesized to be in some important way(s) related.

Contextual data: In HSLS:09, the primary unit of analysis is the student. Survey information collected from other study participants, referred to as contextual data, should be viewed as extensions of the student data. For example, responses provided in the school administrator, teacher, counselor, and parent questionnaires on the student's school learning environment or home situation are classified as contextual data.

Counselor questionnaire: The base-year counselor questionnaire was designed to be completed by the most knowledgeable ninth-grade school counselor at the base-year school. The lead or senior-most ninth-grade counselor was targeted as the preferred respondent. The base-year questionnaire contains items that elicit school-level data concerning counseling practices and resources, and services provided to facilitate the transition of ninth-graders into high school. For the base-year schools in which HSLS:09 students were still enrolled, the counselor questionnaire was repeated in the HSLS:09 first follow-up, with new items appropriate to

ascertaining school policies that might affect the transition from secondary to postsecondary education.

Coverage rate: Coverage refers to the extent to which all elements on a sampling frame are members of the population, and to which every element in a population appears uniquely on the frame. *Coverage error* refers to the discrepancy between statistics calculated on the frame population and the same statistics calculated on the target population. *Undercoverage error can* occur if target population units are excluded from the sampling frame. *Overcoverage errors* occur either when eligible target population units are listed more than once on the frame, or sampling frame units are erroneously classified as eligible for sampling. (See also *Bias*.)

Critical items: Critical items are a subset of the questionnaire variables that are deemed to be of special importance. Owing to their importance, they are given a special role, so that their coverage and hence impact can be maximized. For example, critical items are overrepresented in abbreviated questionnaires, and critical item completion is used as a prime criterion for defining completed cases when only a partial interview is obtained. In addition, when a critical item is omitted in the interview, the respondent receives a special prompt, noting the importance of the item and asking the respondent to answer the question if at all possible.

Criterion-referenced measure**:** A criterion-referenced measure allows its user to measure how well a student or groups of students have learned a specific body of knowledge and skills. This measure estimates what students can do and what they know on a continuum where all examinees could in theory obtain a perfect score. The HSLS:09 IRT-estimated number-correct scores are an example of a criterion-referenced measure of status at a point in time. For this example, the criterion is the knowledge and set of skills defined by the algebraic reasoning assessment framework and represented by the assessment item pool. In contrast, the purpose of norm-referenced tests is to rank or compare students. (See also Norm-referenced test.)

Cross-cohort (or intercohort) comparison and analysis: The HSLS:09 base-year survey is not precisely comparable in timing or grade cohort definition to the prior studies, which involved spring data collections for 8th-, 10th-, or 12th-grade students. HSLS:09 cohort definition is based on a single grade (ninth grade) at a single point in time (autumn term of 2009). Although the transcripts will capture four years of high school coursetaking, because HSLS:09 has no 12th grade freshening, HSLS:09 transcripts cannot be compared to the NELS:88, ELS:2002, and NAEP high school transcript studies. Some longitudinal intercohort comparison is possible at a higher level of generality, however—that is, not based on a specific comparison grade—that encompasses modeling the transition from high school to postsecondary education and the workforce that is the subject of all of the secondary longitudinal studies.

Cross-sectional analysis: A cross-sectional design represents events and statuses at a single point in time. For example, a cross-sectional survey may measure the cumulative educational attainment (achievements, attitudes, statuses) of students at a particular stage of schooling, such as the beginning of ninth grade. Cross-sectional analysis in HSLS:09 can only be

conducted for the base year (either at the student level or the school level). In contrast, a longitudinal study (or repeated measurement of the same sample units) measures the change or growth in educational attainments that occurs over a particular period of schooling. (See also *Longitudinal or panel survey* and *Cross-cohort comparison and analysis*.)

Data swapping: Data swapping is defined in the *NCES Statistical Standards* (Seastrom 2003) as a perturbation disclosure limitation technique that results in a "confidentiality" edit. An example of a need for data swapping would be to assume that a data file has two variables which in combination constitute a disclosure risk, for example, sex and age. If a sample case needs disclosure protection, it is paired with another sampled case so that each element of the pair has the same age, but different sexes. The data on these two records are then swapped. After the swapping, anyone thinking they have identified either one of the paired cases gets the data of the other case, so they have not made an accurate match and the data have been protected. (See also *Confidentiality protections*.)

Design effect: The design effect (*deff*) is a measure of sample efficiency and is the variance of an estimate accounting for the complex nature of a survey design divided by the variance of the estimate that would have occurred if a sample of the same size had been selected using simple random sampling. Historically, the *deff* was used to adjust a variance estimate calculated with software that could not properly account for the sample design. More recently, the *deff* calculated for a set of study characteristics is used to compare the sample efficiency across surveys. Sometimes it is more useful to work with standard errors than with variances. The root design effect (*deft*) expresses the relation between the actual standard error of an estimate and the standard error of the corresponding estimates from a simple random sample. (See also *Effective sample size*.)

Differential item functioning (DIF): DIF exists when examinees of equal ability differ on an item solely because of their membership in a particular group (e.g., if an item favors males over females, or one racial or ethnic group over another, and cannot be explained by relevant factors such as differential coursetaking). DIF for HSLS:09 mathematics assessment items was examined in the base-year and first follow-up field tests. Items with DIF problems were revised or deleted. In both rounds, a DIF analysis was also conducted with main study data, to confirm that there were no DIF problems (none were identified).

Disability: A disability is a physical or mental impairment that substantially limits one or more of the major life activities (Title 42 U.S.C. Section 12102).

Disclosure risk analysis: This involves investigation of study data to evaluate and minimize the risk of identification of individual sample units to preserve the confidentiality of the data. HSLS:09 data have been subjected to a disclosure risk analysis to protect confidential information about individual respondents. For a more detailed account of disclosure risk analysis, and of means of altering data (including masking, data perturbation, and data swapping)

to prevent disclosure, see the current NCES Statistical Standards document. (See also *Confidentiality protections, Data swapping,* and *Public-use data file*.)

Domain: A domain, also called a subpopulation, refers to a defined universe of knowledge, skills, abilities, attitudes, interests, or other human characteristics. For example, certain estimates in the Data File Documentation are reported for the public-school domain and for the two domains within sex.

Education Longitudinal Study of 2002 (ELS:2002): ELS:2002 is the immediate predecessor study to HSLS:09 within the series of NCES Secondary Longitudinal Studies. It began with spring high school sophomores in 2002, with follow-up studies in 2004 (with freshening to create a senior cohort), 2006, and 2012. In addition to interview data, postsecondary transcripts also are being collected (and high school transcripts were collected) for the ELS:2002 cohorts. URL: http://nces.ed.gov/surveys/els2002/.

Effective sample size: Effective sample size is defined as the ratio of the (unweighted) sample size divided by the design effect. In essence, the effective sample size is the sample size under a simple random sample design that has the same level of precision as obtained from the complex sample design. (See also *Design effect*.)

English language learner (ELL): ELL is a term used to describe students who are in the process of acquiring English language skills and knowledge. However, some schools use the older term "limited English proficiency" (LEP) to refer to such students. (See also *Limited English proficiency*.)

File: This refers to a data file containing a set of related computerized records.

Floor effect: Floor effect is the result of a cognitive test being too difficult for some examinees, causing low-ability examinees to receive chance scores on the first testing, and on subsequent testings if the test remains too difficult. Floor effects result in an inability to discriminate among low-ability individuals at time one or time two, and there will be no reliable discrimination among examinees with respect to amounts of change. One solution, used in HSLS:09, is to develop test forms that are "adaptive" to the ability level of the examinee, which tends to minimize the possibility of floor effects biasing the estimates of the score gains. (See also *Adaptive testing* and *Ceiling effect*.)

High School and Beyond (HS&B): HS&B is the second in the series of longitudinal high school cohort studies sponsored by NCES. The HS&B base-year study surveyed sophomore and senior students in 1980. The sophomore cohort was last interviewed in 1992 and their postsecondary transcripts collected in 1993. The senior cohort was last interviewed in 1986. URL: http://nces.ed.gov/surveys/hsb/.

Hispanic or Latino: A Hispanic or Latino/Latina is a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture, origin, or ethnicity regardless of race. The primary source of race/ethnicity categorization in HSLS:09 was respondent self-

identification. Race/ethnicity was obtained for sampling purposes from administrative records provided by the *School Coordinator*.

Hold sample: In the base year school sample, the hold sample is the additional sample of schools randomly selected for the study to guard against lower than anticipated school eligibility and response rates. These schools were included in the complete sample from which the release pools were formed. In the first follow-up, in which parents were subsampled, a hold sample was also selected for the parent survey. (See also *Release pool*.)

Imputation: Imputation involves substituting values for missing or inconsistent data in a data set. Prediction of a missing value is typically based on a procedure that uses a mathematical model in combination with available information. Model covariates are identified from a set of variables known to be statistically and substantively related to the variable requiring imputation and the pattern of item nonresponse. Missing data for key items in HSLS:09 have been imputed.

Individualized Education Program (IEP): An IEP is a written statement or plan for each individual with a disability that is developed, reviewed, and revised in accordance with Title 42 U.S.C. Section 1414(d).

Individually identifiable data: These are data from any record, response form, completed survey, or aggregation about an individual or individuals from which the identity of a particular individual (or set of individuals) may be revealed.

Institutional Contactor (IC): An IC is a staff member who worked in the recruitment of schools for realization of the HSLS:09 sample.

Item nonresponse: Item nonresponse is defined as a missing response to a particular question item on an instrument when a valid response was expected. For example, a participant did not wish to provide income information and therefore left the question item unanswered (blank). Item nonresponse is generally limited to the set of sample members who have been classified as respondents by providing, for example, responses to key questionnaire items required for analysis. (See also *Nonresponse bias analysis* and *Unit nonresponse*.)

Item response theory **(IRT):** IRT is a method of estimating achievement level by considering the pattern of right, wrong, and omitted responses on all items administered to an individual student. IRT postulates that the probability of correct responses to a set of test questions is a function of true proficiency and of one or more parameters specific to each test question. Rather than merely counting right and wrong responses, the IRT procedure also considers characteristics of each of the test items, such as their difficulty and the likelihood that they could be guessed correctly by low-ability individuals. IRT scores are less likely than simple number-right or formula scores to be distorted by correct guesses on difficult items if a student's response vector also contains incorrect answers to easier questions. Another attribute of IRT that makes it useful for HSLS:09 is the calibration of item parameters for all items administered to all students. This makes it possible to obtain scores on the same scale for students who took harder

or easier forms of the test. IRT will also permit vertical scaling of the two points in time (fall term 9th grade in 2009–10, and two and a half years later in 2012). (See also *Classical test theory*.)

Keyfitz procedure: This is a statistical procedure for efficiently maximizing sample overlap. A Keyfitz procedure was used to augment the HSLS:09 nationally representative sample for state-level public school estimation in a subset of the states.

Limited English proficiency (LEP): LEP is a concept developed to assist in identifying those language-minority students (individuals from non-English language backgrounds) who need language assistance services, in their own language or in English, in the schools. (See also *English language learner*.)

Locale codes: In earlier NCES secondary longitudinal studies, locale codes have been referred to as metropolitan status or urbanicity codes (for example, urbanicity trichotomized into three values—urban, suburban, or rural). The former codes were metro-centric (that is, based on metropolitan statistical areas). The HSLS:09 locale codes, however, use NCES's new urban-centric codes. The new urban-centric locale codes follow the same logic as the older locale codes, but incorporate an approach that prioritizes population size and proximity to an urbanized area in assigning locale. The highest level (four terms) of the new locale code system was used in HSLS:09 school sampling to create substrata (with geography as superstrata). The four major categories are city (large or mid-size city), suburban (urban fringe of large or mid-size city), town (large or small), and rural (outside or inside a Core-Based Statistical Area). Although HSLS:09 uses only the four major or highest categories, each of the four categories is further subdivided in the NCES geocode scheme (for example, "town" comprises three statuses in relation to an urbanized area: fringe, distant, or remote from an urbanized area).

Longitudinal or panel study: In a longitudinal design, similar measurements—of the same sample of individuals, institutions, households, or of some other defined unit—are taken at multiple time points. HSLS:09 employs a longitudinal design that follows the same individuals over time and permits the analysis of individual-level change. (See also *Cross-sectional analysis*.)

Microdata (microrecords): These are observations of individual sample members, such as those contained on the HSLS:09 public use and restricted use data files.

Mode effects**:** Mode of administration effects can sometimes present difficulties for surveys. Typically the HSLS:09 questionnaires were administered in two modes: self-administration (via web) and interviewer administration (via web-based computer-assisted telephone interview [CATI] or laptop-based computer-assisted personal interview [CAPI]). (Although the mode of administration differs, the instruments are identical.) The concern is that sometimes (and in particular when perceived social desirability of questionnaire responses is a salient consideration and the item is administered by an interviewer) respondents may respond differently to the different stimuli provided by differing administration modes. However, format

differences also can lead to mode effects, as when a question benefits from visual cues that cannot be duplicated in a telephone interview. For this reason, every effort was made in HSLS:09 to adapt questions so that differences between modes would be minimized.

National Assessment of Educational Progress (NAEP): NAEP is a cross-sectional assessment program that measures achievement at the group level for students in 4th, 8th, and 12th grades and provides a time series for measuring trends in academic progress of 9-, 13-, and 17-year-olds. The HSLS:09 assessment differs from but complements those of NAEP by providing a basis for measuring individual-level achievement growth between fall of 9th and spring of (modal)11th grade in mathematics (with a focus on algebraic reasoning) and relating cognitive gains in this subject to the individual, school, and family factors and processes that are measured in the various HSLS:09 questionnaires. NAEP also conducts high school transcript studies however, the NAEP transcript collections are based on high school seniors, the HSLS:09 transcript study will be based on fall term 2009 9^{th} graders in schools with both a 9^{th} and 11^{th} grade. URL: http://nces.ed.gov/nationsreportcard/.

National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education (NCES): This governmental agency is the sponsor of such current studies as HSLS:09 and ELS:2002, and is also the sponsoring agency for (among other studies) the National Assessment of Educational Progress, and the following completed secondary longitudinal studies: National Education Longitudinal Study of 1988, the High School and Beyond longitudinal study, and the National Longitudinal Study of the High School Class of 1972.

National Education Longitudinal Study of 1988 (NELS:88): NELS:88 was the third in the series of longitudinal high school cohort studies sponsored by NCES. The study represents three cohorts: the eighth-grade class of 1988, the sophomore class of 1990, and the senior class of 1992. The study collected questionnaire and test data in 1988, 1990, and 1992 on students' school experiences, and background information from school administrators, teachers, parents (in the base year and second follow-up only), and school records. Data on postsecondary and out-of-school experiences were collected in interviews conducted in 1994 and 2000 and through a postsecondary education transcripts study in 2000–01. URL: http://nces.ed.gov/surveys/nels88/.

National Longitudinal Study of the High School Class of 1972 (NLS:72): This project was the first in the series of longitudinal high school cohort studies sponsored by NCES. The final round of data collection took place in 1986. URL: http://nces.ed.gov/surveys/nls72/.

National Science Foundation (NSF): NSF has collaborated with NCES in support of HSLS:09, particularly in matters that reflect state-level samples and records systems.

Native Hawaiian or Other Pacific Islander: A Native Hawaiian or Other Pacific Islander is any person having origins in any of the original peoples of Hawaii, Guam, Samoa, or

other Pacific Islands. The primary source of race/ethnicity categorization in HSLS:09 was respondent self-identification.

Ninth-grade cohort (HSLS:09): To be eligible for HSLS:09, a student had to be a fall-term ninth-grader in a U.S. school with both grades 9 and 11. Given this definition, HSLS:09 does not represent all ninth-grade students, since schools with grade spans such as K–9, 6–9, 7–9, 8–9, and so on, were ineligible for the study.

Noncoverage: Noncoverage is defined as target population members that have been excluded from the sampling frame population. (See also *Coverage rate*.)

Nonresponse bias: Nonresponse bias may occur as a result of not obtaining 100 percent response from the selected cases. More specifically, nonresponse bias occurs when the population parameter estimated from the respondent data deviates from the population parameter. The potential magnitude of nonresponse bias is estimated as the product of the nonresponse rate and the difference in values of a characteristic between respondents and nonrespondents. (See also *Nonresponse bias analysis*.)

Nonresponse bias analysis: Nonresponse bias analysis compares the characteristics of respondents and nonrespondents. Both unit nonresponse (school and student) and item nonresponse on questionnaires were subject to bias analyses in HSLS:09. For example, certain key data items were obtained in the base year for both responding and nonresponding schools, so that a school nonresponse bias analysis could be conducted, and bias in school-level estimates quantified and tested.

Nonsampling error: This is an error in sample estimates that cannot be attributed to sampling fluctuations. Such errors may arise from many sources including unit or item nonresponse across subgroups or errors in the respondent data such as through a student's keying error.

Norm-referenced test**:** A norm-referenced test is used to rank or compare students or groups of students relative to each other. It is interpreted based on comparison of an examinee's performance relative to the performance of others in a specified reference population, or by a comparison of a group to other groups. The base-year weighted quintile score and the theta scores are examples of norm-referenced scores in the HSLS:09 mathematics assessment. (See also Criterion-referenced measure.)

Occupational Information Network (O*NET)**:** O*NET is the primary industry and occupation coding scheme used in HSLS:09. The O*NET database was developed for the U.S. Department of Labor and represents an extensive set of worker attributes and job characteristics. O*NET provides a nested coding structure: 23 general-level categories expand to 96 mid-level categories that can be expanded further to 821 specific-level categories.

Office of Management and Budget, U.S. Executive Branch (OMB): OMB is a federal agency with the responsibility for reviewing all studies funded by executive branch agencies.

OMB reviewed, commented on, and approved the HSLS:09 questionnaires, and all study components including the sample design.

Open-ended question: This is a type of question in which the data provider's responses are not limited to given alternatives.

Opt-out notification: Opt-out notification is more commonly known as passive consent or as implied consent. In HSLS:09 base year, about four-fifths of schools agreed to "opt-out notification" in which parents or guardians were required to sign and return a form only if they refused to permit their child to participate in the study. Written parent permission—sometimes known as active or explicit consent—was required by other schools. In this case, no student could participate in the research who lacked a signed parental consent form.

Oversampling: Oversampling is the deliberate sampling of a group (subpopulation) within the target population at a higher rate than the proportion exhibited in the population. For example, Catholic schools and other private schools were oversampled. Asian ninth-grade students were oversampled within schools to ensure sufficient sample to conduct analysis.

Parent/guardian questionnaire: The base-year HSLS:09 parent component sought to collect information from parents/guardians of all base-year student sample members. Unlike the base year, the first follow-up HSLS:09 parent component comprised a subsample of parents. For both base year and first follow-up, the parent or guardian most knowledgeable about his or her student's educational experience was asked to complete the questionnaire.

Population variance: This is a measure of dispersion defined as the average of the squared deviations between the population values and the mean of those population values.

Precision: Precision is calculated in terms of the sampling error (or standard error) of an estimate. Theoretically, precision is the deviation among estimates for a set of samples.

Primary sampling unit (PSU): The PSU is the unit chosen at the first stage of a sample design and is typically reserved for clusters of units selected at a subsequent stage of sampling in a multistage design. The HSLS:09 PSU is the base-year school that represents a cluster of students used to select the second-stage sample. In other studies, geographical units such as a county or metropolitan statistical area (MSA) may serve as the PSU.

Private School Universe Survey (PSS): The PSS is an NCES universe survey conducted every two years, encompassing the nation's private schools. Study-eligible private schools were identified from the PSS to form the private school sampling frame for the HSLS:09 base-year study.

Probability sample: A probability sample is a subset of the target population selected by a random mechanism using a fixed and predetermined probability of selection for each unit (i.e., each population unit has a known, nonzero chance of being included).

Proficiency score: Proficiency scores (or criterion-referenced mastery scores) are based on clusters of items that are of similar content and difficulty. Mathematics proficiency scores are reported in HSLS:09 and reflect such skills as, for example, understanding proportions or demonstrating an understanding of linear functions.

Public-use data file: A public-use file includes data that have been coded, aggregated, or otherwise altered to mask individually identifiable information. This file is available to the public through NCES. Unique identifiers, geographic detail, and other variables that cannot be suitably altered are suppressed in public-use data files. Public-use edits are based on an assumption that the public may have access to both individual respondent records and secondary data sources that include data that could be used to identify respondents. For this reason, the editing process is relatively extensive. When determining an appropriate masking process, the public-use edit takes into account and guards against matches on common variables from all known files that could be matched to the public-use file. The analysis used to determine which records require masking is called a disclosure risk analysis. (See also *Restricted-use data fil*e and *Disclosure risk analysis*.)

Questionnaire-incapable students: It was determined that, as in past surveys, some students could not be validly assessed or surveyed (even with accommodations) owing to severe physical, mental, or emotional limitations, or because of language barriers. These students were classified as "questionnaire-incapable" students but they were not deemed ineligible for the study. Contextual information was collected for these students including responses from some but not all parents, school administrators, teachers, and counselors, and they were given positive weights as applicable (student, parent, teacher, etc.). These students' status was reviewed in the first follow-up and those whose situation had changed (for example, a student had become proficient in English over the ensuing two and a half years) were invited to participate.

Range check: A range check is a determination of whether responses fall within a predetermined set of acceptable values.

Record format: This is the layout of the information contained in a data record and includes the name, type, and size of each field in the record.

Relative bias: Relative bias is the bias of the estimate divided by the estimate. This measure identifies the magnitude of the bias relative to the point estimate.

Release pool: A release pool is a randomly chosen subgroup of sample units formed within the design strata). For HSLS:09 base year, school release pools were formed by randomly subsampling schools from the complete sample. These pools were released only when additional schools were needed for recruitment based on a combination of study goals, projected response rates, and preliminary nonresponse bias analysis. In the first follow-up, a release pool was formed for the parent survey (a survey that was based on subsampling.) (See also *Hold sample* and *Stratification*.)

Reliability: Reliability is the consistency in results of a test or measurement including the tendency of the test or measurement to produce the same results when applied twice to some entity or attribute believed not to have changed in the interval between measurements.

Reserve(d) code: Certain codes have been reserved to stand for a number of situations in which missing data occur in response frequencies. In HSLS:09, the reserve code conventions are as follows:

- −1 = Don't Know (legitimate response)
- −5 = "Data Suppressed"—indicates values that are available on the restricted-use data but suppressed on the public-use data.
- −7 = "Item legitimate skip/NA"—indicates items that are programmatically skipped based on rules in the questionnaire and are not applicable to those respondents.
- −8 = "Nonrespondent/component N/A"—indicates that data are not available because of nonresponse or the interview component did not apply (e.g., student has no math class, thus the math teacher interview does not apply).
- −9 = "Missing"—question may apply to the respondent but it is not answered

−2, −3, −4, and −6 are reserved for subsequent rounds where new reserve code values may apply.

Response rate (weighted): In general, *unit response rates* are calculated as the ratio of the weighted number of completed instruments to the weighted number of eligible (in-scope) sample units, using the sample base weight (the inverse of the probability of selection). In multistage samples such as HSLS:09, overall student-level response is the product of both stages (although for many purposes, the stages are reported separately). *Item response rates* are calculated as the weighted ratio of the number of respondents for whom an in-scope response was obtained to the number of respondents who are asked to answer a given item. More detailed information can be found by consulting NCES Standard 1-3 in the NCES 2002 Statistical Standards document (Seastrom 2003). Bias analyses conducted when response rates are below targets help to assess any possible limitations to the generalizability of survey estimates. (See also *Nonresponse bias analysis*.)

Restricted-use data file: A restricted-use file includes individually identifiable information that is confidential and protected by law. The basic strategy for HSLS:09 public- versus restricted-use file construction was to include the variables with limited disclosure treatment on the restricted-use file, and to modify or suppress values for these same variables on the public-use version. Use of the restricted data requires the researcher to obtain a special license from NCES. (See also *Public-use data file* and *Disclosure risk analysis*.)

RTI International (RTI): RTI is a nonprofit university-affiliated research organization with headquarters in Research Triangle Park, North Carolina. RTI conducted the HSLS:09 base-year study and is currently conducting the first follow-up study on behalf of NCES. RTI International is a trade name of Research Triangle Institute. URL: http://www.rti.org/.

Sampling error: Sampling error is the difference between a value for an entire population and an estimate of that value derived from a probability sample (i.e., subset of the population).

Sampling frame: A sampling frame is a list of all of the sampling units for the target population associated with a particular stage of the sample design. The Common Core of Data and Private School Universe Survey were the basis of the HSLS:09 school (first-stage) sampling frame. The student sampling frame was equivalent to the ninth-grade enrollment lists (rosters) provided by the HSLS:09 sampled schools. The *sampling frame population* is the set of elements associated with this list. As with every survey, the sampling frame is constructed in an attempt to enumerate every member of the target population. Differences between the sampling frame and target populations are linked to coverage errors. (See also *Bias, Coverage rate,* and *Target population.*)

Sampling variance: Sampling variance is the variation associated with the set of estimates generated from (theoretical) repeated implementation of the essential survey conditions (sample design, frame, sample size, instrument, data collection methodology, etc.). The square root of the sampling variance is the standard error. These statistics are estimated using the sample data from a single survey and the final analytic weights.

Scaling: Scaling refers to the process of assigning a scale score based on the pattern of responses. (See also *Item response theory.*)

School Administrator questionnaire: This questionnaire was completed by the base-year school administrator (e.g., principal) or someone designated by the administrator, and the first follow-up school administrator (or designee). This instrument contains questions on basic information about school policies and teacher and student characteristics. The school questionnaire was completed primarily in a web-survey self-administered mode. In the first follow-up, an administrator questionnaire targeted base-year schools where student sample members remained, and, in abbreviated form, included questions also for administrators of schools transferred to by the ninth-grade cohort.

School climate: The school climate is defined as the social system and ethos or culture of the school, including the organizational structure of the school and values and expectations within it.

School Coordinator (SC): The SC is a person designated in each school to act as a contact person between the school and RTI. This individual assisted with establishing a Survey Day in the school and preparing for the survey.

Section 504: Section 504 of the Rehabilitation Act of 1973, as amended (Title 29 U.S.C. 794 Section 504), prohibits discrimination on the basis of disability in federally assisted programs and activities.

Selection probability: The selection probability, also referred to as the inclusion probability, is the random chance that a particular sampling unit has of being selected into the sample. These values are greater than zero and, in general, less than or equal to one. Selection probabilities equal to zero are only (theoretically) associated with ineligible sampling frame units.

Serpentine sorting: Serpentine sorting is a method of sorting in which records are ordered in an alternating ascending and descending pattern, so that any two consecutive records in the sorted file are more similar with respect to their values on the sort variables than in traditional sorting. This method was used in various HSLS:09 statistical procedures such as with the weighted hot-deck imputation methodology.

Session Administrator (SA): The SA is a member of the field staff in charge of conducting in-school data collection sessions, including proctoring of the assessment. (See also *Survey Day*.)

Session Administrator Assistant (SAA): The SAA is a member of the field staff working under the direction of a session administrator to conduct in-school data collection sessions.

Simple random sampling (SRS): SRS uses equal probability sampling with no strata or clusters. The HSLS:09 sample is stratified and clustered. Standard statistical analysis software assumes SRS and independently distributed errors. For studies such as HSLS:09, special variance estimation software (such as SUDAAN, WesVar, AM, Stata, or R) is required to compute (Taylor Series) linearization or replication variance estimates. The HSLS:09 restricted-use data files contain linearization weights and balanced repeated replication weights) are available on all files. (See also *Analytic weights* and *Balanced repeated replication.*)

Socioeconomic status (SES): A socioeconomic status variable has been created for subpopulation definition and as an independent or control variable. SES is a social status construct represented by an index in HSLS:09 that takes account of the student's home background as represented by parent's education, parent's occupation, and family income. Two SES measures are available on the data files, both in continuous form as well as weighted quintiles. The first HSLS:09 SES index is similar to measures employed in *NELS:88* and *ELS:2002.* A second version of the SES index was created for HSLS:09 that includes a covariate adjustment based on school urbanicity (city, suburban, town, or rural locale). In this alternative version of the SES composite, urbanicity is accorded a role as a factor that differentially affects the impact of education, occupation, and income on relative social position.

Sojourn: The HSLS:09 base year and first follow-up included a computerized assessment of students conducted on school computers when possible. When school computers were not compatible with RTI's computerized assessment, RTI-provided laptops were used in their place. When school computers were compatible and a computer lab at the school was available, RTI used a custom Linux distribution called Sojourn to launch the survey and math-assessment software. Using Sojourn allows for a high degree of interoperability with hardware based on i486-compatible processors, creates a controlled testing environment, and secures the computer against key loggers, viruses, or other malicious code. This ensures that any sensitive information entered by the student is not compromised.

Speededness: One dimension of the assessments involves the question of whether the test was speeded. A common two-part rule of thumb (Rock and Pollack, 1991) for determining whether a test is speeded is as follows. A test is considered to be unspeeded if nearly all test-takers reached the three-quarters point of the test, and at least 80 percent of the students answered the last item (in the test or in their form). While in principle the HSLS:09 assessments need not be time-limited, in practice, for practical reasons time constraints were imposed for almost test administrations and therefore the question of speededness is a legitimate one.

Standard deviation: This is the square root of the population (unit) variance used in, for example, the calculation of the standardized theta score in the mathematics assessment.

Standard error: This is the square root of the population sampling variance. It is a measure of the dispersion of the sampling distribution of a statistic. Standard errors are used to establish confidence intervals for the statistics being analyzed and are constructed using the final analysis weights and software that accounts for the complex HSLS:09 sample design.

Standard error of measurement (sem) for theta (or standard error of estimation): For the assessment, the standard error of measurement (*sem*) for each student's theta score is calculated from the sum of item information functions for all items answered by that student. The standard error of measurement is a transformation of the test information function. The precision of parameter estimates can be computed as a function of the reciprocal of the measurement error, or the variability of repeated estimates of the value of the parameter. More specifically, the standard error of measurement is computed from the reciprocal of the square root of the test information function. (See also *Test information function*.)

Statistical significance: Statistical significance is the finding (based on a derived probability, rather than a certitude) that, for example, two or more estimates are truly different from one another and not a merely apparent difference reflecting chance variation.

Stratification: Stratification is the division of a population into distinct, mutually exclusive and exhaustive subgroups (strata). Strata are generally defined to include relatively homogeneous units on characteristics that are of interest to the study. Stratification is used to reduce sampling error. In HSLS:09, the first-stage strata were formed and schools were selected

independently within each stratum. Students were independently selected within strata defined by race/ethnicity.

Student questionnaire: This is one of the two parts of the HSLS:09 base-year and first follow-up student survey (the other part is the algebraic reasoning assessment). The student questionnaire contained a locator section for tracing sample members for future waves of HSLS:09 and a series of questions about school and home environments, time use, attitudes, values, expectations, and aspirations. In the first follow-up, the branching of the student questionnaire accommodated out-of-school statuses such as dropping out or change to a homeschooling environment, as well as in-school (base-year school or transfer school) statuses.

Study-eligible school: Base-year study-eligible schools are generally defined as U.S. schools (public or private) that provide educational instruction to 9th- and 11th-grade students and distribute high school diplomas based on a preset list of criteria. Note that schools with a grade span that did not include 11th grade were excluded from the eligibility pool, and that the base year therefore does not represent all 9th-grade schools or all 9th-grade students. (See also *Target population*.)

Study-eligible student: All ninth-grade students enrolled in study-eligible schools on the Survey Day in the fall semester of the 2009–10 school year were classified as study eligible This set includes students identified as questionnaire incapable and students who were able to complete all components of the study. All foreign exchange students were excluded from the study. (See also *Survey Day*.)

Survey Day: This is a day chosen by the school coordinator during the data collection period when a session administrator and assistant oversaw the computerized administration of the survey to the school's sample of students. Make-up days were normally offered for students who missed Survey Day.

Target population: Target population is defined as the elements identified for a particular study. The weighted results tabulated from the HSLS:09 data provide estimates for target populations and population domains. In HSLS:09, the base-year target population was fall-term 9th-graders in all regular public and private schools with 9th and 11th grades in the 50 states and the District of Columbia.

Taylor series linearization: The Taylor series variance estimation procedure is used to estimate the variance of linear statistics (e.g., estimated totals) and nonlinear statistics (e.g., proportions or ratios). For nonlinear statistics, the procedure takes the first-order Taylor series approximation of the nonlinear statistics and then substitutes the linear representation into the appropriate variance formula based on the sample design. Because HSLS:09 is a stratified multistage survey, the Taylor series procedure requires analytic strata and analytic primary sampling units, defined from the sampling strata and primary sampling units (HSLS:09 schools). (See also *Balanced repeated replication*.)

Teacher (contextual) sample: In the HSLS:09 base year, as applicable, two teacher reports were sought for each student, one from the student's fall-term mathematics teacher and one from the student's fall-term science teacher. However, some students were not enrolled in the target subjects, or were not enrolled at the time of the survey (owing to block scheduling or other special arrangements). There was no teacher survey in the first follow-up.

Teacher questionnaire: In the base year, mathematics and science teachers of HSLS:09 sampled students were asked to complete a teacher questionnaire. This instrument was used to collect data on school and teacher characteristics (including teacher qualifications and experience) and some classroom-level information. Unlike the *NELS:88* and *ELS:2002* teacher surveys, no direct teacher ratings or evaluations of specific sampled students were sought and the names of the sampled students were kept anonymous.

Technical Review Panel (TRP): A TRP is a specially appointed, independent group of substantive, methodological, and technical experts who offer advice to the study contractor on issues of study design and content. TRP members are nominated by RTI and approved by NCES. Typically TRPs are convened prior to and subsequent to a field test.

Test information function**:** The test information function provides a visual representation of the measurement accuracy of the theta estimates across the range of ability levels. A transformation of the test information function provides the standard error of measurement (*sem*) of the ability estimate (*theta*).

Unit nonresponse: Unit nonresponse is the failure of a survey unit (e.g., at the institutional level, a school, or at the individual level, a respondent, such as a student or a teacher) to cooperate or complete a survey instrument. *Overall unit nonresponse* reflects a combination of unit nonresponse across two or more levels of data collection, where participation at the second stage of data collection is conditional upon participation in the first stage of data collection. In HSLS:09, overall nonresponse is the product of school-level nonresponse times student nonresponse. *Total item nonresponse* reflects a combination of the overall unit nonresponse and item nonresponse. (See also *Item nonresponse* and *Nonresponse bias*.)

Validity: Validity is the capacity of an item or instrument to measure what it was designed to measure, stated most often in terms of the correlation between scores in the instrument and measures of performance on some external criterion. It is the extent to which a test or set of operations measures what it is supposed to measure. Reliability, on the other hand, refers to consistency of measurement over time. (See also *Reliability*.)

Variance estimation: Variance estimation is the measure of the variability of a statistic and includes the standard error and error variance. Two procedures for estimating variances of survey statistics in HSLS:09 are the BRR (balanced repeated replication) and Taylor series. BRR (available on both the public-use and restricted-use files) is recommended for HSLS:09 data. (See also *Balanced repeated replication* and *Taylor series linearization*.)

Wave: A wave is a single implementation of the survey within the larger longitudinal survey (e.g., the base year and each successive follow-up are each waves of data collection).

Weighted estimates: Weighted estimates (are survey estimates generated from survey data that have been statistically weighted (multiplied) by factors reflecting the sample design. The general purpose of weighting is to compensate for unequal probabilities of selection into the sample and to adjust for the fact that not all schools or individuals selected into the sample actually participated. (See also A*nalytic weights*.)

White: A White person is one having origins in any of the original peoples of Europe, the Middle East, or North Africa. The primary source of race/ethnicity categorization in HSLS:09 was respondent self-identification.

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Appendix D.
Data Collection Materials:
Contacting and Permission Forms

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District Notification Letter

January 21, 2011

Dear Superintendent,

During the 2009-2010 school year, one or more schools in your district graciously participated in the High School Longitudinal Study of 2009 (HSLS:09). I am writing to thank you for the district's continued support and to inform you that we will soon be contacting your school(s) to discuss plans for the first follow-up data collection activities which will be conducted in the spring of 2012.

HSLS:09 is a comprehensive longitudinal study that focuses on understanding students' trajectories from the beginning of high school into higher education or the workforce and beyond. What students decide to pursue when, why, and how are crucial questions for HSLS:09, especially, but not solely, in regard to science, technology, engineering, and math (STEM) courses, majors, and careers. HSLS:09 is sponsored by the National Center for Education Statistics (NCES) in the U.S. Department of Education's Institute for Education Sciences and is being conducted by RTI International. The U.S. Department of Education is authorized by federal law (Public Law 107-279) to conduct HSLS:09. Data will be used only for statistical purposes and may not be disclosed or used in identifiable form for any other purpose except as required by law (Public Law 107-279, Section 183).

In the next few days, an RTI HSLS:09 study representative will be contacting the school(s) to discuss the upcoming HSLS:09 data collection activities, including:

- Verifying the enrollment status of the students at your school who were selected to participate in the study in the fall of 2009,
- Confirming the parent contact information for those same students, and
- Discussing the details regarding data collection scheduled to begin in January of 2012.

Data collection will comprise a 90-minute student survey and assessment, web surveys by principals and counselors, and a collection of your school's course catalogs to facilitate the transcript collection that will occur during the 2013-2014 school year. As with the base year study, students will be asked to complete the data collection in the school's computer lab, or using laptop computers provided by RTI. Participating students will receive a $10 incentive for their participation.

As a thank you for your school's continued support of this important research, participating schools will be asked to select from a list of token incentives, such as a one-year subscription to a scientific periodical. Schools will also receive a copy of the NCES report "Coursetaking at the End of High School", a sample of the kind of research that will be generated from HSLS:09. A copy of the HSLS:09 First Look Report will be sent to schools later this spring. For more reports and results from similar studies, please visit http://nces.ed.gov/pubsearch/.

Enclosed you will find a HSLS:09 brochure to offer further explanation of the study. For additional study details please visit the HSLS:09 study website: https://surveys.nces.ed.gov/hsls.

Should you have any questions, please call the HSLS:09 toll-free information number, 866-253-1063, or send an e-mail to hsls@rti.org

Your continued support in this endeavor is important to advance the quality of education for our country's secondary students. We look forward to working with your school(s) to make HSLS:09 a success.

Sincerely,

Laura LoGerfo
NCES Project Officer

Dan Pratt
RTI Project Director

Enclosures

School Recruitment Letter

<DATE>

<NAME>
<SCHOOL NAME>
<ADDRESS>
<CITY, STATE, ZIP>

Dear <NAME>:

During the 2009-2010 school year, <SCHOOL NAME> participated in the High School Longitudinal Study of 2009 (HSLS:09). I am writing to thank you and your staff who have contributed to the success of HSLS:09, and to request your help to obtain information needed for the first follow-up round of the study (HSLS:09).

HSLS:09 is a comprehensive longitudinal study that focuses on understanding students' trajectories from the beginning of high school into higher education or the workforce and beyond. What students decide to pursue when, why, and how are crucial questions for HSLS:09, especially, but not solely, in regard to science, technology, engineering, and math (STEM) courses, majors, and careers. HSLS:09 is sponsored by the National Center for Education Statistics (NCES) in the U.S. Department of Education's Institute for Education Sciences and is being conducted by RTI International. The U.S. Department of Education is authorized by federal law (Public Law 107-279) to conduct HSLS:09. Data will be used only for statistical purposes and may not be disclosed or used in identifiable form for any other purpose except as required by law (Public Law 107-279, Section 183).

In the next few days, an RTI HSLS:09 study representative will contact you to discuss the upcoming HSLS:09 data collection activities, including:

- Verifying the enrollment status of the students at your school who were selected to participate in the study in the fall of 2009,
- Confirming the parent contact information for those same students, and
- Discussing the details regarding data collection scheduled to begin in January of 2012.

Data collection will comprise a 90-minute student survey and assessment, web surveys by principals and counselors, and a collection of your school's course catalogs to facilitate the transcript collection that will occur during the 2013-2014 school year.

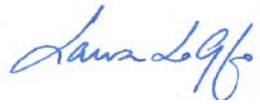
We greatly appreciate your continued and gracious participation in HSLS:09. Participating students will receive a $10 incentive for their participation. As a thank you for your school's continued support of this important research, your school will be asked to select from a list of token incentives, such as a one-year subscription to a scientific periodical. We also are including a copy of the NCES report "Coursetaking at the End of High School", a sample of the kind of research that will be generated from HSLS:09. A copy of the HSLS:09 First Look Report <IF THE SCHOOL QUALIFIES ADD: and your school's base year results> will be sent to you later

this spring. For more reports and results from similar studies, please visit http://nces.ed.gov/pubsearch/.

Enclosed you will find a brochure describing the study. For additional study details please visit the HSLS:09 study website: https://surveys.nces.ed.gov/hsls. Should you have any questions, please call the HSLS:09 toll-free information number, 866-253-1063, or send an e-mail to hsls@rti.org.

Your participation in this endeavor is important to advance the quality of education for our country's secondary students. We look forward to working with your school to make HSLS:09 a success. Thank you again for your support.

Sincerely,



Laura LoGerfo
NCES Project Officer

Dan Pratt
RTI Project Director

Enclosures

HSLS:09 Brochure Text

High School Longitudinal Study of 2009 First Follow-Up Study (HSLS:09/12); NCES logo

Conducted for: National Center for Education Statistics of the U.S. Department of Education

Conducted by: RTI International

What is HSLS:09/12?

HSLS:09/12 is the High School Longitudinal Study of 2009, a nationally representative, longitudinal study of more than 21,000 students who will be surveyed periodically through their secondary and postsecondary years.

What is the focus of the study?

The focus of the study is to understand the impact of the high school experience on students' learning and their education and career choices, and also to explore the transitions students make from high school to postsecondary education, the labor force, and adult roles. One distinctive feature of HSLS:09/12 is that the same students will be followed over time, regardless of the path they take (for example, those who have left school, those who go directly into the military or work force after high school, and those who are college-bound). The other distinctive feature is that in addition to surveying and testing students, information will be gathered from parents, school administrators, and counselors to better understand the many home, school, peer, and community influences on students' development and choices. While all education and career choices are of interest, additional information will be collected about science, technology, engineering, and mathematics (STEM) coursetaking and career preparation.

When is the study being conducted?

The initial data collection occurred in the fall of 2009. The first follow-up data collection with students and school personnel will take place in the spring of 2012.

How will HSLS:09/12 data be used?

HSLS:09/12 data will allow researchers, educators, and policymakers to examine motivation, achievement, and persistence in high school coursetaking and entry into careers (either directly or by way of postsecondary education). More generally, HSLS:09/12 data will allow researchers to examine changes in young people's lives and the influence of communities, schools, teachers, families, parents, and friends on student transitions, progress, and outcomes.

Why is participation important?

HSLS:09/12 will build upon and extend a series of longitudinal high school studies that have been conducted each decade since 1972. The study will measure achievement and various influences on both learning and the decisionmaking of high school students. Information collected from students, parents, counselors, and school administrators will help influence

educational policy for years to come, shaping efforts to improve the quality of the high school experience and the quality of math and science education in America.

How many schools and students will be involved?

Over 21,000 students from over 900 schools have participated in the study to date. An average of 30 students per school were selected to participate. The students who were selected as 9th graders in 2009 will be asked to participate in the follow-up.

What is involved for students?

Sampled students will complete a mathematics assessment and a questionnaire. The in-school sessions will take about 90 minutes. The assessments and questionnaires will be completed on school computers, if available, or laptop computers will be brought to the school for students to use. Participating students will receive $10 as a token of our appreciation for their time. High school transcripts of coursework and grades will be collected during the 2013-2014 school year. Students also will participate in follow-ups after high school.

What is involved for school staff?

A school administrator will be asked to complete a questionnaire about the school and its environment. A school counselor will be asked to complete a questionnaire about school counseling practices. Each questionnaire will take approximately 30 minutes to complete.

What is involved for parents?

Parents of sampled students will be asked to complete a 30-minute questionnaire.

Who will be responsible for data collection?

Trained HSLS:09/12 staff will administer assessments and questionnaires and provide all required materials. Schools will be asked to designate a school contact to assist HSLS:09/12 staff with in-school arrangements.

Do students, staff or parents have to participate?

Participation is voluntary, but is important to ensure the completeness and accuracy of the results.

Will names of participants and their responses be kept confidential?

Student, parent, and staff answers may be used only for statistical purposes and may not be disclosed or used, in identifiable form for any other purpose except as required by law (Public Law 107-279, Section 183). The data collected will be used in analyses to understand students' coursetaking behaviors, motivation and achievement, and how students decide what to do after high school.

Who do I contact for further information about HSLS:09/12?

For additional information, email hsls@rti.org, call (866) 253-1063, or contact:

RTI Project Director:
Mr. Dan Pratt
(919) 541-6615

RTI Principal Investigator:
Dr. Steven Ingels
(202) 974-7834

NCES Project Officer:
Dr. Laura LoGerfo
(202) 502-7402

Organizations endorsing HSLS:09/12:

American Association of School Administrators

American Counseling Association

American Federation of Teachers

Council of Chief State School Officers

National Association of Secondary School Principals

National Catholic Educational Association, Department of Secondary Schools

National Center for Improving Science Education/WestED

National Council of Teachers of Mathematics

National Education Association

National Parent Teacher Association

National School Boards Association

National Science Teachers Association

Explicit (Written) Parental Permission Form for Students Who Participated in the Base Year Study

Dear parent/guardian:

About two years ago, your teenager participated in the High School Longitudinal Study of 2009 (HSLS:09), a national longitudinal research study that began with ninth graders in 2009. I am writing to ask for your help with the HSLS:09 first follow-up study.

The purpose of HSLS:09 is to understand the impact of the high school experience on students' learning and their education and career choices and to explore the transitions students make from high school to further education, the labor force, and adulthood. HSLS:09 is sponsored by the National Center for Education Statistics in the U.S. Department of Education's Institute of Education Sciences. The study is being conducted under contract by RTI International, a nonprofit research organization based in North Carolina.

In a few weeks, your teenager will be asked to spend approximately 90 minutes completing a computerized questionnaire and a math assessment in school. Over 21,000 students from over 900 high schools across the country have taken part in this study to date. We will also ask a school administrator and a school counselor to each complete a questionnaire which will provide information about programs and practices at the school. In addition, we may ask you to complete a parent questionnaire that will provide important background information.

An important feature of HSLS:09 is that it is longitudinal, meaning it follows the same students as they progress through school and eventually enter the workforce and/or go to college. We plan to contact your teenager or you in about one year to discuss plans after high school and for another follow-up about two years later, so we will ask for his/her address and telephone number and those of a relative or close friend. High school transcripts will also be collected from the school in the 2013-2014 school year.

The U.S. Department of Education is authorized by federal law to conduct HSLS:09. All information provided will be used for statistical purposes only and may not be disclosed or used in identifiable form for any other purpose, except as required by law (Public Law 107-279, Section 183). Participation is voluntary, and there is no penalty if your teenager decides not to participate. Your teenager may choose not to answer any question. The data will be collected and analyzed to understand students' coursetaking patterns, students' motivation and achievement, and how students decide what to do after high school.

Please take a moment to fill out the enclosed form and return it to your teenager's school in the envelope provided. We cannot allow your teenager to participate without your written consent. As a token of our appreciation for your teenager's participation, he or she will receive $10.

The enclosed brochure provides more information about HSLS:09. If you have questions about the study, please call Mr. Dan Pratt at RTI, toll-free, at 1-866-253-1063, between 9 AM and 5 PM Eastern Time, Monday through Friday. If you have questions about your rights as a study participant, you may call RTI's Office for Research Protection, toll-free, at 1-866-214-2043. Both Mr. Pratt and staff from the Office for Research Protection can be reached at: RTI, P.O. Box 12194, Research Triangle Park, NC 27709.

We thank you in advance for your cooperation in this important research.

Sincerely,

Laura LoGerfo, Project Officer
National Center for Education Statistics
Institute of Education Sciences, U.S. Department of Education

High School Longitudinal Study of 2009 (HSLS:09) First Follow-Up

PARENT PERMISSION FORM

Please check only one option below to indicate your decision about your teenager's participation in the study. Then sign the form, providing your telephone number; and print the student name and school name, where indicated.

Please return this form to your teenager's school as soon as possible. We have enclosed an envelope addressed to the person coordinating the study at your teenager's school.

Please check one:

☐ **I GIVE PERMISSION** for my teenager, _____, to participate in the study. (print student name)

☐ **I DO NOT GIVE PERMISSION** for my teenager, _____, to participate in the study. (print student name)

_____
(Signature of parent or guardian)

AND

Print parent/guardian name:
_____

Date of signature: _____

(_____)_____
Area code Telephone number

_____
Email address

PLEASE PRINT:

Student name: _____

School name: _____

FOR OFFICE USE ONLY:

Student ID: _____

Explicit (Written) Parental Permission Form for Base Year Nonparticipants

Dear parent/guardian:

About two years ago, your teenager was selected to participate in the High School Longitudinal Study of 2009 (HSLS:09), a national longitudinal research study that began with ninth graders in 2009. I am writing to ask for your help with the HSLS:09 first follow-up study.

The purpose of HSLS:09 is to understand the impact of the high school experience on students' learning and their education and career choices and to explore the transitions students make from high school to further education, the labor force, and adulthood. HSLS:09 is sponsored by the National Center for Education Statistics in the U.S. Department of Education's Institute of Education Sciences. The study is being conducted under contract by RTI International, a nonprofit research organization based in North Carolina.

In a few weeks, your teenager will be asked to spend approximately 90 minutes completing a computerized questionnaire and a math assessment in school. Over 21,000 students from over 900 high schools across the country have taken part in this study to date. We will also ask a school administrator and a school counselor to each complete a questionnaire which will provide information about programs and practices at the school. In addition, we may ask you to complete a parent questionnaire that will provide important background information.

An important feature of HSLS:09 is that it is longitudinal, meaning it follows the same students as they progress through school and eventually enter the workforce and/or go to college. We plan to contact your teenager or you in about one year to discuss plans after high school and for another follow-up about two years later, so we will ask for his/her address and telephone number and those of a relative or close friend. High school transcripts will also be collected from the school in the 2013-2014 school year.

The U.S. Department of Education is authorized by federal law to conduct HSLS:09. All information provided will be used for statistical purposes only and may not be disclosed or used in identifiable form for any other purpose, except as required by law (Public Law 107-279, Section 183). Participation is voluntary, and there is no penalty if your teenager decides not to participate. Your teenager may choose not to answer any question. The data will be collected and analyzed to understand students' coursetaking patterns, students' motivation and achievement, and how students decide what to do after high school.

Please take a moment to fill out the enclosed form and return it to your teenager's school in the envelope provided. We cannot allow your teenager to participate without your written consent. As a token of our appreciation for your teenager's participation in the study, he or she will receive $10.

The enclosed brochure provides more information about HSLS:09. If you have questions about the study, please call Mr. Dan Pratt at RTI, toll-free, at 1-866-253-1063, between 9 AM and 5 PM Eastern Standard Time, Monday through Friday. If you have questions about your rights as a study participant, you may call RTI's Office for Research Protection, toll-free, at 1-866-214-2043. Both Mr. Pratt and staff from the Office for Research Protection can be reached at: RTI, P.O. Box 12194, Research Triangle Park, NC 27709.

We thank you in advance for your cooperation in this important research.

Sincerely,

Laura LoGerfo, Project Officer
National Center for Education Statistics
Institute of Education Sciences, U.S. Department of Education

High School Longitudinal Study of 2009 (HSLS:09) First Follow-Up

PARENT PERMISSION FORM

Please check only one option below to indicate your decision about your teenager's participation in the study. Then sign the form, providing your telephone number; and print the student name and school name, where indicated.

Please return this form to your teenager's school as soon as possible. We have enclosed an envelope addressed to the person coordinating the study at your teenager's school.

Please check one:

☐ I GIVE PERMISSION for my teenager, _____, to participate in the study. (print student name)

☐ I DO NOT GIVE PERMISSION for my teenager, _____, to participate in the study. (print student name)

_____
(Signature of parent or guardian)

AND

Print parent/guardian name:
_____

Date of signature: _____

(_____)_____
Area code Telephone number

_____
Email address

PLEASE PRINT:

Student name: _____

School name: _____

FOR OFFICE USE ONLY:

Student ID: _____

Implicit (Passive) Parental Permission Form for Students Who Participated in the Base Year Study

Dear parent/guardian:

About two years ago, your teenager participated in the High School Longitudinal Study of 2009 (HSLS:09), a national longitudinal research study that began with ninth graders in 2009. I am writing to ask for your help with the HSLS:09 first follow-up study.

The purpose of HSLS:09 is to understand the impact of the high school experience on students' learning and their education and career choices and to explore the transitions students make from high school to further education, the labor force, and adulthood. HSLS:09 is sponsored by the National Center for Education Statistics in the U.S. Department of Education's Institute of Education Sciences. The study is being conducted under contract by RTI International, a nonprofit research organization based in North Carolina.

In a few weeks, your teenager will be asked to spend approximately 90 minutes completing a computerized questionnaire and a math assessment in school. Over 21,000 students from over 900 high schools across the country have taken part in this study to date. We will also ask a school administrator and a school counselor to each complete a questionnaire which will provide information about programs and practices at the school. In addition, we may ask you to complete a parent questionnaire that will provide important background information. You will be contacted separately to complete the parent questionnaire.

An important feature of HSLS:09 is that it is longitudinal, meaning it follows the same students as they progress through school and eventually enter the workforce and/or go to college. We plan to contact your teenager or you in about one year to discuss plans after high school and for another follow-up about two years later, so we will ask for his/her address and telephone number and those of a relative or close friend. High school transcripts will also be collected from the school in the 2013-2014 school year.

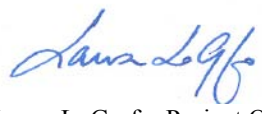
The U.S. Department of Education is authorized by federal law to conduct HSLS:09. All information provided will be used for statistical purposes only and may not be disclosed or used in identifiable form for any other purpose, except as required by law (Public Law 107-279, Section 183). Participation is voluntary, and there is no penalty if your teenager decides not to participate. Your teenager may choose not to answer any question. The data will be collected and analyzed to understand students' coursetaking patterns, students' motivation and achievement, and how students decide what to do after high school.

If you allow your teenager to participate, you do <u>not</u> need to return this form. If for any reason you object to his or her participation, please fill out the enclosed form and return it to his/her school as soon as possible. As a token of our appreciation for your teenager's participation, he or she will receive $10.

The enclosed brochure provides more information about HSLS:09. If you have questions about the study, please call Mr. Dan Pratt at RTI, toll-free, at 1-866-253-1063, between 9 AM and 5 PM Eastern Standard Time, Monday through Friday. If you have questions about your rights as a study participant, you may call RTI's Office for Research Protection, toll-free, at 1-866-214-2043. Both Mr. Pratt and staff from the Office for Research Protection can be reached at: RTI, P.O. Box 12194, Research Triangle Park, NC 27709.

We thank you for your cooperation in this important research.

Sincerely,



Laura LoGerfo, Project Officer
National Center for Education Statistics
Institute of Education Sciences, U.S. Department of Education

High School Longitudinal Study of 2009 (HSLS:09) First Follow-Up

PARENT PERMISSION FORM

IF YOU GRANT YOUR PERMISSION FOR YOUR TEENAGER TO PARTICIPATE IN THE STUDY, YOU DO NOT NEED TO RETURN THIS FORM.

IF YOU DO NOT CONSENT TO YOUR TEENAGER'S PARTICIPATION IN HSLS:09, PLEASE COMPLETE AND RETURN THIS FORM TO YOUR TEENAGER'S SCHOOL AS SOON AS POSSIBLE.

I DO NOT GRANT PERMISSION for my teenager, _____, to participate in the High School Longitudinal Study. (print student name)

Please sign and return only if you do not grant permission for your teenager to participate.

_____
(Signature of parent or guardian)

AND

Print parent/guardian name: _____

Date of signature: _____

(_____)_____
Area code Telephone number

_____
Email address

PLEASE PRINT:

Student name: _____

School name: _____

FOR OFFICE USE ONLY:

Student ID: _____

Explicit (Written) Parental Permission Form for Base Year Nonparticipants

Dear Parent/Guardian:

About two years ago, your teenager was selected to participate in the High School Longitudinal Study of 2009 (HSLS:09), a national longitudinal research study that began with ninth graders in 2009. I am writing to ask for your help with the HSLS:09 first follow-up study.

The purpose of HSLS:09 is to understand the impact of the high school experience on students' learning and their education and career choices and to explore the transitions students make from high school to further education, the labor force, and adulthood. HSLS:09 is sponsored by the National Center for Education Statistics in the U.S. Department of Education's Institute of Education Sciences. The study is being conducted under contract by RTI International, a nonprofit research organization based in North Carolina.

In a few weeks, your teenager will be asked to spend approximately 90 minutes completing a computerized questionnaire and a math assessment in school. Over 21,000 students from over 900 high schools across the country have taken part in this study to date. We will also ask a school administrator and a school counselor to each complete a questionnaire which will provide information about programs and practices at the school. In addition, we may ask you to complete a parent questionnaire that will provide important background information.

An important feature of HSLS:09 is that it is longitudinal, meaning it follows the same students as they progress through school and eventually enter the workforce and/or go to college. We plan to contact your teenager or you in about one year to discuss plans after high school and for another follow-up about two years later, so we will ask for his/her address and telephone number and those of a relative or close friend. High school transcripts will also be collected from the school in the 2013-2014 school year.

The U.S. Department of Education is authorized by federal law to conduct HSLS:09. All information provided will be used for statistical purposes only and may not be disclosed or used in identifiable form for any other purpose, except as required by law (Public Law 107-279, Section 183). Participation is voluntary, and there is no penalty if your teenager decides not to participate. Your teenager may choose not to answer any question. The data will be collected and analyzed to understand students' coursetaking patterns, students' motivation and achievement, and how students decide what to do after high school.

If you allow your teenager to participate, you do <u>not</u> need to return this form. If for any reason you object to his or her participation, please fill out the enclosed form and return it to his/her school as soon as possible. As a token of our appreciation for your teenager's participation, he or she will receive $10.

The enclosed brochure provides more information about HSLS:09. If you have questions about the study, please call Mr. Dan Pratt at RTI, toll-free, at 1-866-253-1063, between 9 AM and 5 PM Eastern Standard Time, Monday through Friday. If you have questions about your rights as a study participant, you may call RTI's Office for Research Protection, toll-free, at 1-866-214-2043. Both Mr. Pratt and staff from the Office for Research Protection can be reached at: RTI, P.O. Box 12194, Research Triangle Park, NC 27709.

We thank you in advance for your cooperation in this important research.

Sincerely,

Laura LoGerfo, Project Officer
National Center for Education Statistics
Institute of Education Sciences, U.S. Department of Education

High School Longitudinal Study of 2009 (HSLS:09) First Follow-Up

PARENT PERMISSION FORM

IF YOU GRANT YOUR PERMISSION FOR YOUR TEENAGER TO PARTICIPATE IN THE STUDY, YOU DO NOT NEED TO RETURN THIS FORM.

IF YOU DO NOT CONSENT TO YOUR TEENAGER'S PARTICIPATION IN HSLS:09, PLEASE COMPLETE AND RETURN THIS FORM TO YOUR TEENAGER'S SCHOOL AS SOON AS POSSIBLE.

I DO NOT GRANT PERMISSION for my teenager, _____, to participate in the High School Longitudinal Study. (print student name)

Please sign and return only if you do not grant permission for your teenager to participate.

_____
(Signature of parent or guardian)

AND

Print parent/guardian name:
_____

Date of signature: _____

(_____)_____
Area code Telephone number

_____
Email address

PLEASE PRINT:

Student name: _____

School name: _____

FOR OFFICE USE ONLY:

Student ID: _____

Enrollment Status Update Letter to SC

[DATE]

«sch_coord_name»
«sch_entity_name»
«sch_address»
«sch_citystzip»

Web Address: www.xxx.xxx.gov
Your USER ID: <XXXXXXX>
Your PASSWORD: <XXXXXXX>

Dear «sch_coord_name»,

We are looking forward to working with you and your school this school year on the first follow-up to the High School Longitudinal Study of 2009 (HSLS:09). As the designated School Coordinator for HSLS:09, you play a critical and invaluable role in assisting us with study preparations. We really appreciate your assistance, particularly given the many demands on your time.

At this point in the data collection process, we ask that you verify the enrollment status of the students at your school who were selected to participate in the study in the fall of 2009 and confirm the parent contact information for those same students.

Instructions for completing this task are included with this letter, with information about accessing our website at the top of this letter. This task is critically important for data collection and we would appreciate your help in completing this task via our study website within three weeks of receipt of this letter.

A HSLS:09 study representative will contact you to answer questions about this task and to begin discussing data collection logistics. In-school data collection is scheduled to begin in January 2012. The student data collection will include a student survey and a mathematics assessment administered on school computers, if possible, or using laptops supplied by HSLS:09 staff. The student component will take about 90 minutes. We will also be requesting a copy of your school's course catalog to facilitate the transcript collection that will occur in 2013-2014.

<<At the conclusion of data collection at your school, you will be offered a <<$100>> honorarium as a token for your assistance, <<with the opportunity to earn up to an additional $50 based on student response rates.>> If your IT coordinator assists with the student data collection, he/she will receive a <<$50>> honorarium. >> RTI will provide a trained Session Administrator (SA) to conduct the student sessions and to assist with the consent form process. A school administrator, a school counselor, and parents of sampled students will also be asked to complete a 30-minute questionnaire. Each will be contacted separately, and their data will be collected through a web-based application or telephone interview.

HSLS:09 is sponsored by the U.S. Department of Education's National Center for Education Statistics (NCES) and conducted by RTI International (RTI). All information provided will be used for statistical purposes only and may not be disclosed or used in identifiable form for any other purpose except as required by law. (Public Law 107-279, Section 183). The data collected

will be used in analyses to understand students' coursetaking patterns, motivation and achievement, and how students decide what to do after high school.

We sincerely appreciate your help in preparing for the session at your school and in ensuring that HSLS:09 is a success. Information collected from students, parents, counselors, and school administrators will help to create policies and programs designed to improve the quality of math and science education in the U.S, increase our global competitiveness in math and science-related fields, and improve the overall high school experience. Each school's participation is critical to the success of the study, and reports will not identify participating districts, schools, students, or individual staff.

If you have any questions, please contact us at RTI at (866) 253-1063 or by email at hsls@rti.org.

Thank you for your support of education through participating in HSLS:09.

Sincerely,

Dan Pratt

Dan Pratt
Project Director, High School Longitudinal Study of 2009

HSLS:09 First Follow-Up Study Student Script For In-School Data Collection

INSTRUCTION TO SA: READ THE FOLLOWING SCRIPT VERBATIM TO THE STUDENTS PRIOR TO STARTING THE STUDENT ASSESSMENT.

Good morning/afternoon. I would like to thank you for participating in the first follow-up of the High School Longitudinal Study of 2009 — HSLS:09 for short. My name is _____ and I represent RTI, a non-profit research organization that has been hired to administer the study by the National Center for Education Statistics from the U.S. Department of Education.

We think the best way to learn about students' school-related experiences, decisions, and plans for the future—is by asking the students themselves! Therefore we're asking you to complete a computerized questionnaire which will help educators and policy makers understand your needs and interests better.

We're also assessing the level of academic achievement of students in the United States so that effective programs and services for future high school students can be developed—so we'll be asking you to complete a computerized mathematics assessment too! You'll complete the student questionnaire first and then fill out the mathematics assessment—it will take no more than 90 minutes total.

All of the information you give us will be strictly protected and your teachers, school, and parents will never know how you answered. The math assessment will not affect your grades—in fact, no one at the school will ever see your scores!

[DO NOT READ IF STUDENTS ARE NOT ALLOWED TO RECEIVE THE $10]

When you have finished both the assessment and questionnaire, [IF INCENTIVE PERMITTED, USE APPLICABLE PHRASING: I will give you $10/I will give you a $10 gift card/your school will receive $10 for each participating student] as a thank you for your participation.

Your participation in HSLS:09 is voluntary, and you don't have to answer any questions you don't want to. Your answers will be used for statistical purposes only and will be combined with other students' responses for things like statistical reports to Congress. Your answers won't be disclosed, or used, in identifiable form for any purpose unless otherwise compelled by law (Public Law 107-279, Section 183).

We are also asking your principal, school counselor and one parent or guardian to complete a questionnaire. This will help provide contextual information such as school programs and practices.

In about a year, you will be contacted again about participating in another follow-up to this study. Therefore we'll be asking you to provide contact information today so that we will be able to get in touch with you then.

When you first log in, you will be asked to complete a questionnaire. When you finish the questionnaire or after 35-minutes, you will see a series of instructions for the math assessment which are also printed on the scratch paper that you received. This test contains 40 multiple-choice mathematics items separated into two parts. You will have 15 minutes for part 1 and 25 minutes for part 2. For each item:

- Read the item carefully and try your best to identify the correct answer from among the four choices. If you can eliminate at least one answer, you are encouraged to guess the answer. You will not lose any credit for guessing when you aren't completely sure of the answer.
- Use scratch paper if necessary.
- To answer a question, click on the answer you think is correct.
- Then click on the **Next** button to move on to the next item.
- You may use a scientific calculator for any item on this test. If you do not have a calculator of your own, you may use the online calculator by clicking on the **Show Calculator** button.
- If time permits, you will be able to return to the questions that you have skipped or marked for review at the end of each section.

You each received a card with a unique user ID and password to log into the questionnaire and math test. Please enter that now. [Wait here: Assist students that have trouble entering their passwords] This will take you to the "Welcome" screen where you will see instructions for completing the questionnaire. If you need help, raise your hand and I will assist you.

You may now begin.

School Administrator Lead Letter

[Date]

«adminname»
«schoolname»
«addr1» «addr2»
«citystzip»

Web Address: https://surveys.nces.ed.gov/hsls/
(Click on "Admin login")
Your Study ID: «caseID»
Your Password: «passwd»m

Dear «adminname»:

<< PARTICIPATING SCHOOL: The first follow-up to the High School Longitudinal Study of 2009 (HSLS:09) is now underway and we thank you for your school's continued participation in this important research.>> <<NONPARTICIPATING SCHOOL: <SAMPLED SCHOOL NAME> participated in the U.S. Department of Education's High School Longitudinal Study (HSLS:09) in the fall of 2009. We understand that your school is unable to participate in the student component of the first follow-up study and we respect your decision. However, it is important that we collect follow-up data from each of the schools that participated in 2009. For that reason, we ask that you complete an administrator questionnaire. >> HSLS:09 seeks to understand the impact of the high school experience on students' learning and their education and career choices, and explores the transitions students make from high school to further education, the labor force, and adulthood. HSLS:09 is being conducted by RTI International for the U.S. Department of Education's National Center for Education Statistics (NCES).

We are asking you to complete a 30-minute questionnaire to provide your insight into the administration and policies at your school. To access the questionnaire, the web address and your unique study ID and password are provided above. The questionnaire's first three sections mainly request factual information about your school and its programs and can be answered by you or a designee who is able to provide this information. The final section asks for subjective reports on the school climate, and we ask that this section be completed by the principal only. If someone other than you completes the initial portion of the questionnaire, please let us know so that we can give that person their own log-in credentials.

Data collected are used **only for statistical purposes and may not be disclosed or used, in identifiable form for any other purpose except as required by law** (Public Law 107-279, Section 183). **The data collected will be used by researchers, educators, and policymakers to understand students' coursetaking behaviors, motivation and achievement, and how students decide what pathways to follow during and after high school.** Information collected from students, parents, teachers, counselors, and school administrators will help to inform and shape efforts to improve the quality of the high school experience, including math and science education in America.

HSLS:09 is endorsed by the National Association of Secondary School Principals, the American Association of School Administrators, the National Education Association and the National School Boards Association, among others. The enclosed brochure provides more information about HSLS:09. If you have any questions about your participation in the survey, please call Ms.

Jane Griffin at RTI, toll-free at 1-877-292-HSLS (1-877-292-4757). If you have questions about your rights as a study participant, you may call RTI's Office for Research Protection at 919-316-3358 in Durham, NC or toll-free at 1-866-214-2043.

We thank you in advance for your cooperation in this important research.

Sincerely,

Jack Buckley
Commissioner
National Center for Education Statistics
Institute of Education Sciences
U.S. Department of Education

Enclosure:HSLS:09 Brochure

NCES is authorized to conduct HSLS:09 under the Education Sciences Reform Act of 2002 (Public Law 107-279, Section 153). According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number of this information collection is 1850-0852, and the study is completely voluntary. The time required to complete this information collection is estimated to average 30 minutes per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate or suggestions for improving the interview, please write to: U.S. Department of Education, 400 Maryland Avenue SW, Washington, DC 20202. If you have any comments or concerns regarding the status of your individual submission of this survey, write directly to: High School Longitudinal Study of 2009 (HSLS:09), National Center for Education Statistics, 1990 K Street NW, Washington, DC 20006.

Transfer School Administrator Questionnaire

June 1, 2012

«adminname»
«schoolname»
«addr1» «addr2»
«citystzip»

Web Address: https://surveys.nces.ed.gov/hsls/
Study ID: «caseID»
Password: «passwd»m

Dear «adminname»:

The first follow-up to the High School Longitudinal Study of 2009 (HSLS:09) is now underway and we understand that at least one student selected for HSLS:09 is currently enrolled at your school. HSLS:09 seeks to understand the impact of the high school experience on students' learning and their education and career choices, and explores the transitions students make from high school to postsecondary education, the labor force, and adulthood. HSLS:09 is being conducted by RTI International for the U.S. Department of Education's National Center for Education Statistics (NCES).

We are asking you to complete a 10-minute questionnaire to provide your insight into the administration and policies at your school. To access the questionnaire, the web address and your unique study ID and password are provided above. You may also call us toll-free at 1-877-292-4757 to complete the interview with one of our professional telephone interviewers.

Data collected are used **only for statistical purposes and may not be disclosed or used, in identifiable form for any other purpose except as required by law** (Public Law 107-279, Section 183). **The data collected will be used by researchers, educators, and policymakers to understand students' coursetaking behaviors, motivation and achievement, and how students decide what pathways to follow during and after high school.** Information collected from students, parents, teachers, counselors, and school administrators will help to inform and shape efforts to improve the quality of the high school experience, including math and science education in America.

HSLS:09 is endorsed by the National Association of Secondary School Principals, the American Association of School Administrators, the National Education Association and the National School Boards Association, among others. The enclosed brochure provides detailed information about HSLS:09. If you have any questions about your participation in the survey, please call Ms. Jane Griffin at RTI, toll-free at 1-877-292-HSLS (1-877-292-4757). If you have questions about your rights as a study participant, you may call RTI's Office for Research Protection at 919-316-3358 in Durham, NC or toll-free at 1-866-214-2043.

We thank you in advance for your cooperation in this important research.

Sincerely,

Jack Buckley
Commissioner
National Center for Education Statistics
Institute of Education Sciences
U.S. Department of Education

Enclosure:HSLS:09 Brochure

NCES is authorized to conduct HSLS:09 under the Education Sciences Reform Act of 2002 (Public Law 107-279, Section 153). According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number of this information collection is 1850-0852, and it is completely voluntary. The time required to complete this information collection is estimated to average 30 minutes per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate or suggestions for improving the interview, please write to: U.S. Department of Education, 400 Maryland Avenue SW, Washington, DC 20202. If you have any comments or concerns regarding the status of your individual submission of this survey, write directly to: High School Longitudinal Study of 2009 (HSLS:09), National Center for Education Statistics, 1990 K Street NW, Washington, DC 20006.

School Counselor Lead Letter

[Date]

«counselorname»
«schoolname»
«addr1» «addr2»
«citystzip»

Web Address: https://surveys.nces.ed.gov/hsls/
(Click on "Counselor login")
Your Study ID: «caseID»
Your Password: «passwd»m

Dear «counselorname»:

Two years ago, «schoolname» participated in the High School Longitudinal Study of 2009 (HSLS:09), sponsored by the National Center for Education Statistics (NCES) in the U.S. Department of Education. Data collection has begun for the next round of the study and we need your unique perspective as a school counselor to make the study as successful as possible. The purpose of HSLS:09 is to understand the impact of the high school experience on students' learning and educational and career choices and to explore the transitions from high school to further education, the work force, and adulthood. Students, counselors, and administrators from over 900 schools have participated in HSLS:09.

Your participation is voluntary; however, as a counselor at «schoolname», your understanding of the influence of the school's academic policies and programs on the overall learning environment is crucial to the study. Therefore, we are asking that you complete an online questionnaire, which will take approximately 30 minutes to complete. To begin the questionnaire, please log in using the web link and unique study ID and password provided above.

Data collected are used **only for statistical purposes and may not be disclosed or used, in identifiable form for any other purpose except as required by law** (Public Law 107-279, Section 183). Information collected from students, parents, counselors, and school administrators will help to inform and shape efforts to improve the quality of the high school experience, including math and science education in America.

HSLS:09 is endorsed by the National Association of Secondary School Principals, the American Association of School Administrators, the National Education Association and the National School Boards Association, among others. The enclosed brochure provides more information about HSLS:09. If you have any questions about your participation in the survey, please call Ms. Jane Griffin at RTI, toll-free at 1-877-292-HSLS (1-877-292-4757). If you have questions about your rights as a study participant, you may call RTI's Office for Research Protection at 919-316-3358 in Durham, NC or toll-free at 1-866-214-2043.

We thank you in advance for your cooperation in this important research.

Sincerely,

Jack Buckley
Commissioner
National Center for Education Statistics
Institute of Education Sciences
U.S. Department of Education

Enclosure: HSLS:09 Brochure

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Parent Lead Letter

[DATE]

<PARENT NAME>
<ADDR1>
<ADDR2>
<CITY STATE ZIP>

Web Address: surveys.nces.ed.gov/hsls
Your Study ID: <XXXXXXX>
Your Password: <XXXXXXXX><PW_ind>

Dear <Parent or Guardian Name>:

About two-and-a-half years ago, <STUDENT NAME> < "participated" / "was selected to participate"> in the High School Longitudinal Study of 2009 (HSLS:09), sponsored by the National Center for Education Statistics (NCES) in the U.S. Department of Education's Institute of Education Sciences. A follow-up survey to the HSLS:09 is now underway, and we would like you to complete an interview. On average, the interview will take about 30 minutes to complete.

Your participation is voluntary, but as a parent of a sampled student your input is extremely important and provides a unique source of information. With more than 21,000 students in the study, HSLS:09 will inform policymakers on how the experience of high school impacts learning, as well as future educational and career pathways. Even large educational organizations have endorsed HSLS:09, such as the National Parent Teacher Association (National PTA), the National Education Association (NEA), and the American Federation of Teachers (AFT). To complete the online survey, please log in using the web address, study ID, and password provided at the top right of this page.

HSLS:09 is conducted by RTI International under contract with NCES. Data collected are used **only for statistical purposes and may not be disclosed or used, in identifiable form for any other purpose except as required by law** (Public Law 107-279, Section 183). The enclosed brochure provides more information about HSLS:09 and RTI. In addition, results from prior studies are available on the HSLS:09 website given above. If you have questions about the study, please call Randy Ottem toll-free at 1-877-282-4757. If you have questions about your rights as a study participant, you may call RTI's Office for Research Protection toll-free at 1-866-214-2043.

We thank you in advance for your cooperation in this important research.

Sincerely,

Jack Buckley, Commissioner
National Center for Education Statistics
Institute of Education Sciences
U.S. Department of Education

Enclosure: HSLS:09 Brochure

NCES is authorized to conduct HSLS:09 under the Education Sciences Reform Act of 2002 (Public Law 107-279, Section 153). According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number of this information collection is 1850-0852, and the study is completely voluntary. The time required to complete this information collection is estimated to average 30 minutes per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate or suggestions for improving the interview, please write to: U.S. Department of Education, 400 Maryland Avenue SW, Washington, DC 20006.

Out-of-School Student Lead Letter

[DATE]

<STUDENT NAME>
<ADDR1>
<ADDR2>
<CITY STATE ZIP>

Web Address: surveys.nces.ed.gov/hsls
Student Study ID: <XXXXXXXX>
Student Password: <XXXXXXXX><PW_ind>

Dear <Student Name>:

About two-and-a-half years ago, you < "participated" / "were selected to participate"> in the High School Longitudinal Study of 2009 (HSLS:09), sponsored by the Institute of Education Science's National Center for Education Statistics (NCES), which is the statistical agency of the U.S. Department of Education. As you may remember, HSLS:09 will follow a group of high school students through high school and beyond, such as college and the labor force, to understand how the experiences of high school impact student learning and decisions about education and careers. Along with 21,000 students from across the United States, your answers could contribute to research and influence policymakers' decisions about high school education in the U.S.

Your participation is voluntary but extremely important to the success of this study. The study will include a 35-minute questionnaire and a 40-minute mathematics assessment. Your answers will never be shared with your parents, teachers, or school staff. We will send you a check for $<int_inc> after you complete the interview, and another $10 after you complete the math assessment. You may access the interview and the assessment by using the web link and the unique student study ID and password provided above.

HSLS:09 is conducted by RTI International under contract with NCES. Data collected are used **only for statistical purposes and may not be disclosed or used, in identifiable form for any other purpose except as required by law** (Public Law 107-279, Section 183). The enclosed brochure provides more information about HSLS:09 and RTI. In addition, results from the first round of the study are available on the HSLS website given above. If you have questions about the study, please call Randy Ottem toll-free at 1-877-282-4757. If you have questions about your rights as a study participant, you may call RTI's Office for Research Protection toll-free at 1-866-214-2043We thank you in advance for your cooperation in this important research.

Sincerely,

Jack Buckley
Commissioner
National Center for Education Statistics
Institute of Education Sciences
U.S. Department of Education

Enclosure: HSLS:09 Brochure

NCES is authorized to conduct HSLS:09 under the Education Sciences Reform Act of 2002 (Public Law 107-279, Section 153). According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number of this information collection is 1850-0852, and the study is completely voluntary. The time required to complete the information collection for students is estimated to average 75 minutes per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate or suggestions for improving the interview, please write to: U.S. Department of Education, 400 Maryland Avenue SW, Washington, DC 20006.

Appendix E.
Documentation for Composite Variables

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A number of composite variables have been constructed in order to enhance substantive analysis. These constructed variables are listed below. Readers should note that not all of the composite variables are available on the public-use file. Examples of restricted-use composites unavailable on the public-use file include (among many others) X2NCESID, X2AMINDIAN, X2HISPTYPE, X2NATIVELANG, and X2FREELUNCH. In addition, other variables have been coarsened through recoding (X2STDOB is an example of such a recoded variable). For a comparison of variables in the public and restricted files, with indication of how variables have been altered or suppressed for the public use file, see Appendix J of this document. The High School Longitudinal Study of 2009 (HSLS:09) first follow-up composites are listed immediately below.

X2NCESID

X2NCESID stores the 12-character National Center for Education Statistics (NCES) ID of the sample member's current or last attended school (2011–12 school year). The NCES ID is the school identifier used to link to the Common Core of Data (CCD) file and the Private School Survey (PSS) file. The source of the NCES ID was the 2011–12 CCD and 2011–12 PSS.

X2UNIV1

Indicates simultaneously the base-year and first follow-up status of sample members. This variable has valid values that account for every pattern encountered by HSLS:2009 sample members.

X2UNIV2A

Indicates the base-year status (respondent, nonrespondent, questionnaire ineligible) for base-year sample members.

X2UNIV2B

Indicates first follow-up status of sample member (i.e., in school, in 11th grade; in school, not in 11th grade; dropout; homeschooled; early graduate; out of scope; first follow-up nonrespondent).

X2ENROLSTAT

Enrollment status reported by the student, and if missing, by the school for the spring term, 2012.

X2ENRSTATSCH

Enrollment status reported by the school for the spring term, 2012.

X2DROPOUT

Dropout status indicator for the spring term, 2012

X2EVERDROP

Ever dropped out of school as of the spring term, 2012.

X2SEX

X2SEX is the sample member's sex. The composite is based on data from the base-year student questionnaire, parent questionnaire, or school-provided sampling roster, and then updated when missing with data from the first follow-up student questionnaire.

X2RACE

X2RACE characterizes the sample member's race/ethnicity by summarizing the following six dichotomous race/ethnicity composites: X2HISPANIC, X2WHITE, X2BLACK, X2ASIAN, X2PACISLE, and X2AMINDIAN. Each of these dichotomous composites is pulled from the base-year composite when not imputed, otherwise it is based on data from the first follow-up student questionnaire; if still missing, they are based on the presence of the race/ethnicity from the first follow-up parent questionnaire (if parent questionnaire data includes race/ethnicity information for biological parents). X2RACE is derived from the six dichotomous race/ethnicity variables listed above (although the imputed values of X2WHITE, X2BLACK, X2ASIAN, X2PACISLE, and X2AMINDIAN are not stored on the data file). If any of these input variables are imputed, then the imputation flag for X2RACE (X2RACE _IM) is set (1 = imputed in base year, 2 = imputed in first follow-up).

X2HISPANIC

The sample member's race/ethnicity is characterized by a series of six dichotomous composite variables (the student is/is not white, the student is/is not black, etc.). The six dichotomous composite race/ethnicity variables are X2HISPANIC, X2WHITE, X2BLACK, X2ASIAN, X2PACISLE, and X2AMINDIAN. Each of these dichotomous composites is pulled from the base-year composite when not imputed, otherwise it is based on data from the first follow-up student questionnaire; if still missing, they are based on the presence of the race/ethnicity from the first follow-up parent questionnaire (if parent questionnaire data includes race/ethnicity information for biological parents). The six dichotomous race/ethnicity composites are then used in conjunction to produce the summary race/ethnicity composite X2RACE.

X2WHITE

The sample member's race/ethnicity is characterized by a series of six dichotomous composite variables (the student is/is not white, the student is/is not black, etc.). The six dichotomous composite race/ethnicity variables are X2HISPANIC, X2WHITE, X2BLACK, X2ASIAN, X2PACISLE, and X2AMINDIAN. Each of these dichotomous composites is pulled from the base-year composite when not imputed, otherwise it is based on data from the first follow-up student questionnaire; if still missing, they are based on the presence of the race/ethnicity from the first follow-up parent questionnaire (if parent questionnaire data includes race/ethnicity information for biological parents). The six dichotomous

race/ethnicity composites are then used in conjunction to produce the summary race/ethnicity composite X2RACE.

X2BLACK

The sample member's race/ethnicity is characterized by a series of six dichotomous composite variables (the student is/is not white, the student is/is not black, etc.). The six dichotomous composite race/ethnicity variables are X2HISPANIC, X2WHITE, X2BLACK, X2ASIAN, X2PACISLE, and X2AMINDIAN. Each of these dichotomous composites is pulled from the base-year composite when not imputed, otherwise it is based on data from the first follow-up student questionnaire; if still missing, they are based on the presence of the race/ethnicity from the first follow-up parent questionnaire (if parent questionnaire data includes race/ethnicity information for biological parents). The six dichotomous race/ethnicity composites are then used in conjunction to produce the summary race/ethnicity composite X2RACE.

X2ASIAN

The sample member's race/ethnicity is characterized by a series of six dichotomous composite variables (the student is/is not white, the student is/is not black, etc.). The six dichotomous composite race/ethnicity variables are X2HISPANIC, X2WHITE, X2BLACK, X2ASIAN, X2PACISLE, and X2AMINDIAN. Each of these dichotomous composites is pulled from the base-year composite when not imputed, otherwise it is based on data from the first follow-up student questionnaire; if still missing, they are based on the presence of the race/ethnicity from the first follow-up parent questionnaire (if parent questionnaire data includes race/ethnicity information for biological parents). The six dichotomous race/ethnicity composites are then used in conjunction to produce the summary race/ethnicity composite X2RACE.

X2PACISLE

The sample member's race/ethnicity is characterized by a series of six dichotomous composite variables (the student is/is not white, the student is/is not black, etc.). The six dichotomous composite race/ethnicity variables are X2HISPANIC, X2WHITE, X2BLACK, X2ASIAN, X2PACISLE, and X2AMINDIAN. Each of these dichotomous composites is pulled from the base-year composite when not imputed, otherwise it is based on data from the first follow-up student questionnaire; if still missing, they are based on the presence of the race/ethnicity from the first follow-up parent questionnaire (if parent questionnaire data includes race/ethnicity information for biological parents). The six dichotomous race/ethnicity composites are then used in conjunction to produce the summary race/ethnicity composite X2RACE.

X2AMINDIAN

The sample member's race/ethnicity is characterized by a series of six dichotomous composite variables (the student is/is not white, the student is/is not black, etc.). The six dichotomous composite race/ethnicity variables are X2HISPANIC, X2WHITE, X2BLACK, X2ASIAN, X2PACISLE, and X2AMINDIAN. Each of these dichotomous composites is pulled from the base-year composite when not imputed, otherwise it is based on data from the first follow-up student questionnaire; if still missing, they are based on the presence of the race/ethnicity from the first follow-up parent questionnaire (if parent questionnaire data includes race/ethnicity information for biological parents). The six dichotomous race/ethnicity composites are then used in conjunction to produce the summary race/ethnicity composite X2RACE.

X2HISPTYPE

X2HISPTYPE indicates the sample member's Hispanic subgroup, where applicable. Information on Hispanic subgroup is pulled from the base-year composite (X1HISPTYPE) except when updated by the student in the first follow-up student questionnaire. If missing, the data are pulled from the first follow-up parent questionnaire (when the parent questionnaire includes information about a particular Hispanic subgroup for both biological parents or one of the biological parents if the other biological parent is not Hispanic or is missing).

X2ASIANTYPE

X2ASIANTYPE indicates the sample member's Asian subgroup, where applicable. Information on Asian subgroup is pulled from the base-year composite (X1ASIANTYPE) except when updated by the student in the first follow-up student questionnaire. If missing, the data are pulled from the first follow-up parent questionnaire (when the parent questionnaire includes information about a particular Asian subgroup for both biological parents or one of the biological parents if the other biological parent is not Asian or is missing).

X2NATIVELANG

Indicates the language the sample member first learned to speak. X2NATIVELANG is first pulled from the base-year composite (X1NATIVELANG) when not imputed. Otherwise the source is the first follow-up student questionnaire (i.e., S2LANG1ST—whether sample member first learned to speak English, Spanish, or another language—and S2LANG1STOS—non-English language sample member first learned to speak); if missing in first follow-up student questionnaire, X2NATIVELANG is taken from the first follow-up parent questionnaire (i.e., P2HOMELANG—whether a language other than English is spoken in the home—and P2RSPLANG—language parent respondent usually speaks to sample member). If missing from all sources, X2NATIVELANG is pulled from the imputed version of X1NATIVELANG, and if still missing statistically imputed for first follow-up

student survey respondents (imputed values in X2NATIVELANG can be identified using X2NATIVEL_IM). For sample members who first learned both English and a non-English language, X2NATIVELANG is coded with the applicable non-English language (see also X2DUALLANG).

X2DUALLANG

Indicates whether the language the sample member first learned to speak was English only, a non-English language only, or English and a non-English language equally. This variable is pulled from the base-year composite (X1DUALLANG) when not imputed. Otherwise the source is the first follow-up student questionnaire (S2LANG1ST). See also X2NATIVELANG for further specificity of non-English languages.

X2STDOB

Indicates the sample member's birth year and month; X2STDOB is taken from the base-year student questionnaire, and, if missing from the first follow-up student questionnaire. In cases where the birth date does not come from the base-year or first follow-up student questionnaire, only the birth year is provided from the sampling roster, and X2STDOB is filled with YYYY00.

X2SAMEPAR1

Indicates whether the first follow-up parent 1 is the same parent 1 as in the base year.

X2SAMEPAR2

Indicates whether the first follow-up parent 2 is the same parent 2 as in the base year.

X2NUMHS

Indicates the total number of high schools the sample member has attended

X2TXMTH

The math theta score represents the student's ability level on a continuous scale. The theta score provides a norm-referenced measurement of achievement, that is, an estimate of achievement relative to the population (fall 2009 9th-graders) as a whole. It provides information on status compared to peers (as distinguished from the IRT-estimated scale score which represents status with respect to achievement on a particular criterion set of test items). When the score is not available, X2TXMTH1-5 are created as the multiple imputation values for X2TXMTH. X2TXMTH is the mean of X2TXMTH1-5. The standard error of measurement for the theta score is X2TXMSEM. The standardized form of the mathematics theta score is X2TXMTSCOR. See chapter 2 of the HSLS:09 First Follow-up Data File Documentation (NCES 2014-361) for more information on the derivation of the math theta score.

X2TXMSEM

The standard error of measurement (SEM) for the theta score indicates the precision in the ability estimate. It is calculated from the sum of item information functions for each item answered by each student. Unlike the classical standard error of measurement, which is a constant, the IRT standard error varies across the scale-score continuum. It is typically smaller for students whose theta score falls toward the center of the distribution because more students answered the items with average difficulty. However, students whose theta scores fall at the extremes of the distribution tend to have a higher SEM because their scores are based on items answered by fewer students overall. When the score is not available, X2TXMSEM1-5 are created as the multiple imputation values for X2TXMSEM. X2TXMSEM is he mean of X2TXMSEM1-5. See chapter 2 of the HSLS:09 First Follow-up Data File Documentation (NCES 2014-361) for more information on the derivation of the math theta SEM.

X2TXMSCR

The math IRT-estimated number correct is a criterion-referenced measure at the time of the first follow-up assessment. The criterion is the set of skills defined by both the HSLS:09 base-year and first follow-up framework and represented by the 118 items used to score HSLS:09 first follow-up math assessment. The estimated number correct for math is an estimate of the number of items students would have answered correctly had they responded to all 118 items in the item pool. The ability estimates (thetas) from the first follow-up and item parameters derived from the IRT calibration were used to calculate each student's probability of a correct answer for each of the items in the pool. These probabilities are summed to produce the IRT-estimated number-correct scale score. See chapter 2 of the HSLS:09 First Follow-up Data File Documentation (NCES 2014-361) for more information on the derivation of the math estimate number correct.

X2X1TXMSCR

The math IRT-estimated number correct is a criterion-referenced measure of achievement at the time of the base-year assessment. The criterion is the set of skills defined by both the HSLS:09 base-year and first follow-up framework and represented by the 118 items used to score the HSLS:09 first follow-up mathematics assessment. The estimated number correct for math is an estimate of the number of items students would have answered correctly had they responded to all 118 items in the item pool. The ability estimates (thetas) from the base year and item parameters derived from the IRT calibration were used to calculate each student's probability of a correct answer for each of the items in the pool. These probabilities are summed to produce the IRT-estimated number-correct scale score. See chapter 2 of the HSLS:09 First Follow-up Data File Documentation (NCES 2014-361) for more information on the derivation of the math estimated number correct.

X2TXMTSCOR

The math standardized T score provides a norm-referenced measurement of achievement, that is, an estimate of achievement relative to the population (fall 2009 9th-graders) as a whole. It provides information on status compared to peers (as distinguished from the IRT-estimated percent-correct score which represents status with respect to achievement on a particular criterion set of test items). The standardized T score is a transformation of the IRT theta (ability) estimate, rescaled to a mean of 50 and standard deviation of 10. An advantage of the standardized score over the raw theta score is that it facilitates comparisons in standard deviation units. See chapter 2 of the HSLS:09 First Follow-up Data File Documentation (NCES 2014-361) for more information on the derivation of the math T score.

X2TXMQUINT

The math quintile score is a norm-referenced measure of achievement. The quintile score divides the weighted (population estimate) achievement distributions into five equal groups, based on math score (X2TXMTSCOR). Quintile 1 corresponds to the lowest achieving one-fifth of the population, quintile 5 the highest. To determine the quintile cut-points, the weighted distribution of the standardized scores was divided at the 20th, 40th, 60th, and 80th percentiles. See chapter 2 of the HSLS:09 First Follow-up Data File Documentation (NCES 2014-361) for more information on the derivation of the math quintile score.

X2TXMPROF1

The math proficiency probability scores are criterion-referenced and are based on clusters of items that mark seven levels on the mathematics scale developed in the HSLS:09 first follow-up. The levels are hierarchical in the sense that mastery of a higher level typically implies proficiency at the lower levels. The HSLS:09 first follow-up proficiency probabilities were computed using IRT-estimated item parameters. Each proficiency probability represents the probability that a student would pass a given proficiency level. Clusters of four items were identified that marked mathematics level 1: algebraic expressions. Students able to answer questions such as these have an understanding of algebraic basics including evaluating simple algebraic expressions and translating between verbal and symbolic representations of expressions. See chapter 2 of the HSLS:09 First Follow-up Data File Documentation (NCES 2014-361) for more information on the derivation of the math proficiency probability score.

X2TXMPROF2

The math proficiency probability scores are criterion-referenced and are based on clusters of items that mark seven levels on the mathematics scale developed in the HSLS:09 first follow-up. The levels are hierarchical in the sense that mastery of a higher level typically implies proficiency at the lower levels. The HSLS:09 first follow-up proficiency probabilities were computed using IRT-estimated item parameters. Each proficiency probability represents the probability that a student would pass a given proficiency level. Clusters of four items were identified that marked mathematics level 2: multiplicative and proportional thinking.

Students able to answer questions such as these have an understanding of proportions and multiplicative situations and can solve proportional situation word problems, find the percent of a number, and identify equivalent algebraic expressions for multiplicative situations. See chapter 2 of the HSLS:09 First Follow-up Data File Documentation (NCES 2014-361) for more information on the derivation of the math proficiency probability scores.

X2TXMPROF3

The math proficiency probability scores are criterion-referenced and are based on clusters of items that mark seven levels on the mathematics scale developed in the HSLS:09 first follow-up. The levels are hierarchical in the sense that mastery of a higher level typically implies proficiency at the lower levels. The HSLS:09 first follow-up proficiency probabilities were computed using IRT-estimated item parameters. Each proficiency probability represents the probability that a student would pass a given proficiency level. Clusters of four items were identified that marked mathematics level 3: algebraic equivalents. Students able to answer questions such as these have an understanding of algebraic equivalents and can link equivalent tabular and symbolic representations of linear equations, identify equivalent lines and find the sum of variable expressions. See chapter 2 of the HSLS:09 First Follow-up Data File Documentation (NCES 2014-361) for more information on the derivation of the math proficiency probability scores.

X2TXMPROF4

The math proficiency probability scores are criterion-referenced and are based on clusters of items that mark seven levels on the mathematics scale developed in the HSLS:09 first follow-up. The levels are hierarchical in the sense that mastery of a higher level typically implies proficiency at the lower levels. The HSLS:09 first follow-up proficiency probabilities were computed using IRT-estimated item parameters. Each proficiency probability represents the probability that a student would pass a given proficiency level. Clusters of four items were identified that marked mathematics level 4: systems of equations. Students able to answer questions such as these have an understanding of systems of linear equations and can solve such systems algebraically and graphically and characterize the lines (parallel, intersecting, collinear) represented by a system of linear equations. See chapter 2 of the HSLS:09 First Follow-up Data File Documentation (NCES 2014-361) for more information on the derivation of the math proficiency probability scores.

X2TXMPROF5

The math proficiency probability scores are criterion-referenced and are based on clusters of items that mark seven levels on the mathematics scale developed in the HSLS:09 first follow-up. The levels are hierarchical in the sense that mastery of a higher level typically implies proficiency at the lower levels. The HSLS:09 first follow-up proficiency probabilities were computed using IRT-estimated item parameters. Each proficiency probability represents the probability that a student would pass a given proficiency level. Clusters of four items were

identified that marked mathematics level 5: linear functions. Students able to answer questions such as these have an understanding of linear functions and can find and use slopes and intercepts of lines, and use functional notation. See chapter 2 of the HSLS:09 First Follow-up Data File Documentation (NCES 2014-361) for more information on the derivation of the math proficiency probability scores.

X2TXMPROF6

The math proficiency probability scores are criterion-referenced and are based on clusters of items that mark seven levels on the mathematics scale developed in the HSLS:09 first follow-up. The levels are hierarchical in the sense that mastery of a higher level typically implies proficiency at the lower levels. The HSLS:09 first follow-up proficiency probabilities were computed using IRT-estimated item parameters. Each proficiency probability represents the probability that a student would pass a given proficiency level. Clusters of four items were identified that marked mathematics level 6: quadratic functions. Students able to answer questions such as these have an understanding of quadratic functions and can solve quadratic equations and inequalities and understand the relationship between roots and the discriminant. See chapter 2 of the HSLS:09 First Follow-up Data File Documentation (NCES 2014-361) for more information on the derivation of the math proficiency probability scores.

X2TXMPROF7

The math proficiency probability scores are criterion-referenced and are based on clusters of items that mark seven levels on the mathematics scale developed in the HSLS:09 first follow-up. The levels are hierarchical in the sense that mastery of a higher level typically implies proficiency at the lower levels. The HSLS:09 first follow-up proficiency probabilities were computed using IRT-estimated item parameters. Each proficiency probability represents the probability that a student would pass a given proficiency level. Clusters of four items were identified that marked mathematics level 7: log and exponential functions. Students able to answer questions such as these have an understanding of exponential and log functions, including geometric sequences and can identify inverses of log and exponential functions and when geometric sequences converge. See chapter 2 of the HSLS:09 First Follow-up Data File Documentation (NCES 2014-361) for more information on the derivation of the math proficiency probability scores.

X2MACC

Whether accommodation(s) were provided for assessment administration to students with special needs—either identified in an IEP or specified by a school official at the time of test administration—no accommodation needed; extra time for test or other special test accommodations needed (e.g., use of calculator, tests read to student). X2MACC was set to 1 if special test accommodations or extra time were needed. Those taking a test but not requiring test accommodations had X2MACC = 0. X2MACC = -8 for those who did not take the test.

X2PARRESP

Indicates whether the parent questionnaire respondent is "parent 1"; that is, the parent to whom all "parent 1" variables (e.g., X2P1RELATION, X2PAR1EMP, P2YRBORN1, P2USYR1) refer. The parent questionnaire respondent is always "parent 1" except in cases where (1) the respondent is a grandparent, other adult relative, or other nonparent guardian, and (2) there are two biological, adoptive, step, or foster parents in the home. In such cases (i.e., where P2RELSHP > 8 and P2HHPARENT = 2), "parent 1" and "parent 2" are the parents identified in P2HHPARREL1 and P2HHPARREL2.

X2P1RELATION

Indicates the relationship of the first parent to the sample member; that is, the parent to whom all "parent 1" variables (e.g., X2P1RELATION, X2PAR1EMP, P2YRBORN1, P2USYR1) refer. X2P1RELATION is pulled from the first follow-up parent questionnaire, and if missing it is imputed from the base-year parent questionnaire and the first follow-up student questionnaire. X2P1RELATION is statistically imputed for first follow-up student sample members when all sources of parent data are missing (imputed values in X2P1RELATION can be identified using X2P1RELAT_IM = 2).

X2PAR1EDU

Indicates the highest level of education achieved by parent 1. X2PAR1EDU is pulled from the first follow-up parent questionnaire, and if missing it is imputed from the base-year parent questionnaire and the first follow-up student questionnaire. X2PAR1EDU is statistically imputed for first follow-up student sample members when all sources of parent data are missing (imputed values in X2PAR1EDU can be identified using X2PAR1EDU_IM = 2).

X2PAR1EMP

Indicates the employment status of parent 1. X2PAR1EMP is pulled from the first follow-up parent questionnaire, and if missing it is imputed from the base-year parent questionnaire and the first follow-up student questionnaire. X2PAR1EMP is statistically imputed for first follow-up student sample members when all sources of parent data are missing (imputed values in X2PAR1EMP can be identified using X2PAR1EMP_IM = 2).

X2PAR1OCC2

X2PAR1OCC2 stores the 2-digit Occupational Information Network (O*NET) code of parent 1's current (or most recent) job. Use X2PAR1EMP to distinguish whether the code stored in X2PAR1OCC2 refers to a current or most recent job. X2PAR1OCC2 is pulled from the first follow-up parent questionnaire, and if missing or uncodeable it is imputed from the base-year parent questionnaire and the first follow-up student questionnaire. X2PAR1OCC2 is statistically imputed for first follow-up student sample members when all sources of parent data are missing (imputed values in X2PAR1OCC2 can be identified using

X2PAR1OCC_IM = 2). See also http://www.onetcenter.org for further information on the O*NET taxonomy.

X2PAR1OCC6

X2PAR1OCC6 stores the 6-digit O*NET code of parent 1's current (or most recent) job. Use X2PAR1EMP to distinguish whether the code stored in X2PAR1OCC6 refers to a current or most recent job. See also http://www.onetcenter.org for further information on the O*NET taxonomy. Please note that if the value of X2PAR1OCC2 was imputed to a value of "XX," X2PAR1OCC6 is imputed to a value of "XX0000" (as opposed to a more specifically imputed value of "XXXXXX"). Imputed values in these variables can be identified by using the variable X2PAR1OCC_IM.

X2PAR1RACE

Characterizes the race/ethnicity of parent 1. X2PAR1RACE summarizes the following six dichotomous race/ethnicity variables drawn from the parent questionnaire: P2HISP1, P2WHITE1, P2BLACK1, P2ASIAN1, P2PACISLE1, and P2AMINDIAN1.

X2P2RELATION

Indicates the relationship of the second parent to the sample member; that is, the parent to whom all "parent 2" variables (e.g., X2P2RELATION, X2PAR2EMP, P2YRBORN1, P2USYR1) refer. X2P2RELATION is pulled from the first follow-up parent questionnaire, and if missing it is imputed from the base-year parent questionnaire and the first follow-up student questionnaire. X2P2RELATION is statistically imputed for first follow-up student sample members when all sources of parent data are missing (imputed values in X2P2RELATION can be identified using X2P2RELAT_IM = 2).

X2PAR2EDU

Indicates the highest level of education achieved by parent 2. X2PAR2EDU is pulled from the first follow-up parent questionnaire, and if missing it is imputed from the base-year parent questionnaire and the first follow-up student questionnaire. X2PAR2EDU is statistically imputed for first follow-up student sample members when all sources of parent data are missing (imputed values in X2PAR2EDU can be identified using X2PAR2EDU_IM = 2).

X2PAR2EMP

Indicates the employment status of parent 2. X2PAR2EMP is pulled from the first follow-up parent questionnaire, and if missing it is imputed from the base-year parent questionnaire and the first follow-up student questionnaire. X2PAR2EMP is statistically imputed for first follow-up student sample members when all sources of parent data are missing (imputed values in X2PAR2EMP can be identified using X2PAR2EMP_IM = 2).

X2PAR2OCC2

X2PAR2OCC2 stores the 2-digit O*NET code of parent 2's current (or most recent) job. Use X2PAR2EMP to distinguish whether the code stored in X2PAR2OCC2 refers to a current or most recent job. X2PAR2OCC2 is pulled from the first follow-up parent questionnaire, and if missing or uncodeable it is imputed from the base-year parent questionnaire and the first follow-up student questionnaire. X2PAR2OCC2 is statistically imputed for first follow-up student sample members when all sources of parent data are missing (imputed values in X2PAR2OCC2 can be identified using X2PAR2OCC_IM=2). See also http://www.onetcenter.org for further information on the O*NET taxonomy.

X2PAR2OCC6

X2PAR2OCC6 stores the 6-digit O*NET code of parent 2's current (or most recent) job. Use X2PAR2EMP to distinguish whether the code stored in X2PAR2OCC6 refers to a current or most recent job. See also http://www.onetcenter.org for further information on the O*NET taxonomy. Please note that if the value of X2PAR2OCC2 was imputed to a value of "XX," X2PAR2OCC6 is imputed to a value of "XX0000" (as opposed to a more specifically imputed value of "XXXXXX"). Imputed values in these variables can be identified by using the variable X2PAR2OCC_IM = 2.

X2PAR2RACE

Characterizes the race/ethnicity of parent 2. X2PAR2RACE summarizes the following six dichotomous race/ethnicity variables drawn from the parent questionnaire: P2HISP2, P2WHITE2, P2BLACK2, P2ASIAN2, P2PACISLE2, and P2AMINDIAN2.

X2PAREDU

Indicates the highest level of education achieved by either parent 1 or parent 2. X2PAREDU is constructed from two composite variables (X2PAR1EDU and X2PAR2EDU) which can contain imputed values; if either of these two input variables are imputed and the highest level of education could not be inferred from nonimputed data, then the imputation flag for X2PAREDU (X2PAREDU_IM) is set to 2.

X2PARPATTERN

This variable indicates (1) whether there are one or two parents in sample member's home, (2) the relationship of those parent(s) to the sample member, and (3) if there are two parents in the home, the relationship of those parents to each other. This variable was derived from two composite variables (X2P1RELATION and X2P2RELATION) which contain imputed values, as well as one parent questionnaire variable (P2HHTIME) which was imputed, when missing, for the purposes of constructing X2PARPATTERN (although the imputed values of P2HHTIME are not delivered).

Note: Combined "Bio/adoptive mother and non-partner guardian" with "Bio/adoptive mother and non-bio/adoptive partner" into "Bio/adoptive mother and other guardian" and combined

"Bio/adoptive father and non-partner guardian" with "Bio/adoptive father and non-bio/adoptive partner" into "Bio/adoptive father and other guardian" on the public use file. ("Other guardian" includes stepparent, foster parent, partner, grandparent, and other relative, as well as other guardian.)

X2MOMRESP

Indicates whether the first follow-up parent questionnaire respondent is a biological, adoptive, or stepmother. X2MOMRESP is derived from three composite variables (X2P1RELATION, X2P2RELATION, and X2PARRESP).

X2MOMREL

Indicates whether there is a biological, adoptive, or stepmother in the sample member's household identified in the first follow-up parent questionnaire. X2MOMREL is derived from two composite variables (X2P1RELATION and X2P2RELATION) which can contain imputed values; if either of these two input variables is imputed and the presence of a mother in the household could not be determined from unimputed data, then the imputation flag for X2MOMREL (X2MOMREL_IM) is set to 2.

X2MOMEDU

For sample members who have a biological, adoptive, or stepmother living in their household, X2MOMEDU indicates the highest level of education achieved by that biological, adoptive, or stepmother identified in the first follow-up parent questionnaire. X2MOMEDU is derived from four composite variables (X2P1RELATION, X2P2RELATION, X2PAR1EDU, and X2PAR2EDU) which can contain imputed values; if any of these four input variables are imputed, then the imputation flag for X2MOMEDU (X2MOMEDU_IM) is set to 2.

X2MOMEMP

For sample members who have a biological, adoptive, or stepmother living in their household, X2MOMEMP indicates the employment status of that biological, adoptive, or stepmother identified in the first follow-up parent questionnaire. X2MOMEMP is derived from four composite variables (X2P1RELATION, X2P2RELATION, X2PAR1EMP, and X2PAR2EMP) which can contain imputed values; if any of these four input variables are imputed and the mother's employment could not be determined from unimputed data, then the imputation flag for X2MOMEMP (X2MOMEMP_IM) is set to 2.

X2MOMOCC2

For sample members who have a biological, adoptive, or stepmother living in their household, X2MOMOCC2 stores the 2-digit O*NET code for that biological, adoptive, or stepmother's current (or most recent) job identified in the first follow-up parent questionnaire. Use X2MOMEMP to distinguish whether the code stored in X2MOMOCC2 refers to a current job or most recent job. X2MOMOCC2 is derived from four composite

variables (X2P1RELATION, X2P2RELATION, X2PAR1OCC2, and X2PAR2OCC2) which can contain imputed values; if any of these four input variables are imputed and the mother's occupation could not be determined from unimputed data, then the imputation flag for mother's occupation (X2MOMOCC_IM) is set to 2. See also http://www.onetcenter.org/ for further information on the O*NET taxonomy.

X2MOMOCC6

For sample members who have a biological, adoptive, or stepmother living in their household, X2MOMOCC6 stores the 6-digit O*NET code for that biological, adoptive, or stepmother's current (or most recent) job identified in the first follow-up parent questionnaire. Use X2MOMEMP to distinguish whether the code stored in X2MOMOCC6 refers to a current job or most recent job. X2MOMOCC6 is derived from four composite variables (X2P1RELATION, X2P2RELATION, X2PAR1OCC6, and X2PAR2OCC6), all of which can contain imputed values; if any of these input variables are imputed and the mother's occupation could not be determined from unimputed data, then the imputation flag for Mother's occupation (X2MOMOCC_IM) is set to 2. See also http://www.onetcenter.org/ for further information on the O*NET taxonomy.

X2MOMRACE

For sample members who have a biological, adoptive, or stepmother living in their household, X2MOMRACE characterizes the race/ethnicity of that biological, adoptive, or stepmother identified in the first follow-up parent questionnaire. X2MOMRACE is derived from four composite variables (X2P1RELATION, X2P2RELATION, X2PAR1RACE, and X2PAR2RACE).

X2DADRESP

Indicates whether the parent questionnaire respondent is a biological, adoptive, or stepfather identified in the first follow-up parent questionnaire. X2DADRESP is derived from three composite variables (X2P1RELATION, X2P2RELATION, and X2PARRESP).

X2DADREL

Indicates whether there is a biological, adoptive, or stepfather in the sample member's household identified in the first follow-up parent questionnaire. X2DADREL is derived from two composite variables (X2P1RELATION and X2P2RELATION) which can contain imputed values; if either of these two input variables is imputed and the presence of a father in the household could not be determined from unimputed data, then the imputation flag for X2DADREL (X2DADREL_IM) is set to 2.

X2DADEDU

For sample members who have a biological, adoptive, or stepfather living in their household, X2DADEDU indicates the highest level of education achieved by that biological, adoptive, or stepfather identified in the first follow-up parent questionnaire. X2DADEDU is derived

from four composite variables (X2P1RELATION, X2P2RELATION, X2PAR1EDU, and X2PAR2EDU) which contain imputed values; if any of these four input variables are imputed, then the imputation flag for X2DADEDU (X2DADEDU_IM) is set to 2.

X2DADEMP

For sample members who have a biological, adoptive, or stepfather living in their household, X2DADEMP indicates the employment status of that biological, adoptive, or stepfather identified in the first follow-up parent questionnaire. X2DADEMP is derived from four composite variables (X2P1RELATION, X2P2RELATION, X2PAR1EMP, and X2PAR2EMP) which contain imputed values; if any of these four input variables are imputed and the father's employment could not be determined from unimputed data, then the imputation flag for X2DADEMP (X2DADEMP_IM) is set to 2.

X2DADOCC2

For sample members who have a biological, adoptive, or stepfather living in their household, X2DADOCC2 stores the 2-digit O*NET code for that biological, adoptive, or stepfather's current (or most recent) job identified in the first follow-up parent questionnaire. Use X2DADEMP to distinguish whether the code stored in X2DADOCC2 refers to a current job or most recent job. X2DADOCC2 is derived from four composite variables (X2P1RELATION, X2P2RELATION, X2PAR1OCC2, and X2PAR2OCC2) which contain imputed values; if any of these four input variables are imputed, then the imputation flag for father's occupation (X2DADOCC_IM) is set to 2. See also http://www.onetcenter.org/ for further information on the O*NET taxonomy.

X2DADOCC6

For sample members who have a biological, adoptive, or stepfather living in their household, X2DADOCC6 stores the 6-digit O*NET code for that biological, adoptive, or stepfather's current (or most recent) job identified in the first follow-up parent questionnaire. Use X2DADEMP to distinguish whether the code stored in X2DADOCC6 refers to a current job or most recent job. X2DADOCC6 is derived from four composite variables (X2P1RELATION, X2P2RELATION, X2PAR1OCC6, and X2PAR2OCC6), all of which contain imputed values; if any of these input variables are imputed, then the imputation flag for father's occupation (X2DADOCC6_IM) is set to 2. See also http://www.onetcenter.org/ for further information on the O*NET taxonomy.

X2DADRACE

For sample members who have a biological, adoptive, or stepfather living in their household, X2DADRACE characterizes the race/ethnicity of that biological, adoptive, or stepfather identified in the first follow-up parent questionnaire. X2DADRACE is derived from four composite variables (X2P1RELATION, X2P2RELATION, X2PAR1RACE, and X2PAR2RACE).

X2HHNUMBER

Indicates the total number of people living in the sample member's household, as reported by the parent questionnaire respondent. X2HHNUMBER is the sum of P2HHLT18 (number of household members less than 18 years of age) and P2HHGE18 (number of household members 18 years or older), both of which are based on questions from the base-year parent questionnaire which accepted only single-digit responses (i.e., the two input variables for this composite are essentially top-coded at 9). If either of these two input variables stores a value of 9, X2HHNUMBER will store a value (98 or 99) indicating that one or both of the input variables was top-coded; X2HHNUMBER values of 98 and 99 therefore refer to households where the exact number of household members cannot be determined, but can be safely assumed to be 9 or greater. The two input variables for this composite were imputed for the purposes of constructing X2HHNUMBER (though the imputed values of P2HHLT18 and P2HHGE18 are not delivered). If either of these two inputs is imputed, then the imputation flag for X2HHNUMBER (X2HHNUMB_IM) is set to 2.

X2FAMINCOME

X2FAMINCOME is a categorical variable which indicates the sample member's family income from all sources in 2011, as reported by the parent questionnaire respondent. If missing from the parent questionnaire, X2FAMINCOME is statistically imputed (imputed values in X2FAMINCOME can be identified by using X2FAMINC_IM = 2).

X2POVERTY

X2POVERTY indicates whether the sample member's family was at/above or below the 2011 poverty threshold, as set forth by the U.S. Census Bureau. Both family income and household size are considered when calculating whether a family is at/above or below the poverty threshold. If X2FAMINCOME or X2HHNUMBER are imputed, then the imputation flag for the poverty variables (X2POVERTY_IM) is set to 2. See http://www.census.gov/hhes/www/poverty/data/threshld/ for further detail on 2011 poverty thresholds.

X2POVERTY130

X2POVERTY130 indicates whether the sample member's family was at/above or below 130% of the 2011 poverty threshold, as set forth by the U.S. Census Bureau. Both family income and household size are considered when calculating whether a family is at/above or below 130% of the poverty threshold. If X2FAMINCOME or X2HHNUMBER are imputed, then the imputation flag for the poverty variables (X2POVERTY_IM) is set to 2. See http://www.census.gov/hhes/www/poverty/data/threshld/ for further detail on 2011 poverty thresholds.

X2POVERTY185

X2POVERTY185 indicates whether the sample member's family was at/above or below 185% of the 2011 poverty threshold, as set forth by the U.S. Census Bureau. Both family

income and household size are considered when calculating whether a family is at/above or below 185% of the poverty threshold. If X2FAMINCOME or X2HHNUMBER are imputed, then the imputation flag for the poverty variables (X2POVERTY_IM) is set to 1. See http://www.census.gov/hhes/www/poverty/data/threshld/ for further detail on 2011 poverty thresholds.

X2SES

This composite variable is used to measure a construct for socioeconomic status. X2SES is calculated using parent/guardians' education (X2PAR1EDU and X2PAR2EDU), occupation (X2PAR1OCC2 and X2PAR2OCC2), and family income (X2FAMINCOME). For cases with nonresponding parent/guardians, five imputed values are generated (X2SES1–X2SES5), X2SES is computed as the average of the five imputed values, and the imputation flag is set as X2SES_IM = 3 (values for parent/guardian education, occupation, and income are set to -8). When education, occupation, or family income are imputed using other information provided by the responding parent/guardian, X2SES is constructed from the combination of actual and imputed parent/guardian values. For these cases, the values of X2SES1–X2SES5 are equivalent to X2SES and X2SES_IM = 2. Otherwise, the responding parent/guardian provided responses for all input variables so that the values of X2SES1–X2SES5 are again equivalent to X2SES and X2SES_IM = 0. For more information on this variable, please refer to section 7.3.2.2 and appendix k of the HSLS:09 First Follow-up Data File Documentation (NCES 2014-361).

X2SESQ5

This variable is the quintile of X2SES, weighted using the student weight (W2STUDENT). For more information on this variable, please refer to section 7.3.2.2 of the HSLS:09 First Follow-up Data File Documentation (NCES 2014-361).

X2SES_U

This composite variable is used to measure a construct for socioeconomic status. X2SES_U is calculated using parent/guardians' education (X2PAR1EDU and X2PAR2EDU), occupation (X2PAR1OCC2 and X2PAR2OCC2), family income (X2FAMINCOME), and school urbanicity (X2LOCALE). For cases with nonresponding parent/guardians, five imputed values of are generated (X2SES1_U–X2SES5_U), X2SES_U is computed as the average of the five imputed values, and the imputation flag is set as X2SES_IM = 3 (values for parent/guardian education, occupation, and income are set to -8). When education, occupation, or family income are imputed using other information provided by the responding parent/guardian, X2SES_U is constructed from the combination of actual and imputed parent/guardian values. For these cases, the values of X2SES1_U–X2SES5_U are equivalent to X2SES_U and X2SES_IM = 2. Otherwise, the responding parent/guardian provided responses for all input variables so that the values of X2SES1_U–X2SES5_U are again equivalent to X2SES_U and X2SES_IM = 0. For more information on this variable,

please refer to section 7.3.2.2 and appendix k of the HSLS:09 First Follow-up Data File Documentation (NCES 2014-361).

X2SESQ5_U

This variable is the quintile of X2SES_U, weighted using the student weight (W2STUDENT). For more information on this variable, please refer to section 7.3.2.2 of the HSLS:09 First Follow-up Data File Documentation (NCES 2014-361).

X2REPEATG11

Categorized version of the continuous administrator variable A2REPEAT11. This variable indicates the percentage of the 2010–11 11th-grade class that did not accumulate enough credits to be promoted to 12th grade for the 2011–012 school year.

X2RETURNG11

Categorized version of the continuous administrator variable A2RETURN11. This variable indicates the percentage of September 2010 11th-graders who returned in September 2011, regardless of grade level.

X2BEHAVEIN

This variable is a scale of the students answers about in-school behavior within the last 6 months. Higher values represent more positive assessments of the school's problems. The variable was created through principal components factor analysis and standardized to a mean of 0 and standard deviation of 1. The inputs to this scale were S2LATESCH, S2SKIPCLASS, S2INSCHSUSP, S2ABSENT, S2WOHWDN, S2WOPAPER, and S2WOBOOK.

X2MEFFORT

This variable is a scale of the student's answers about math effort. Higher values represent more positive assessments of the school's problems. The variable was created through principal components factor analysis and standardized to a mean of 0 and standard deviation of 1. The inputs to this scale were S2MATTENTION, S2MONTIME, S2MSTOPTRYING, and S2MGETBY.

X2SEFFORT

This variable is a scale of the student's answers about science effort. Higher values represent more positive assessments of the school's problems. The variable was created through principal components factor analysis and standardized to a mean of 0 and standard deviation of 1. The inputs to this scale were S2SATTENTION, S2SONTIME, S2SSTOPTRYING, and S2SGETBY.

X2PROBLEM

This variable is a scale of the administrator's assessment of his or her school's problems. Higher values represent more positive assessments of the school's problems. The variable

was created through principal components factor analysis and standardized to a mean of 0 and standard deviation of 1. The inputs to this scale were A2TARDY, A2STUABSENT, A2CUT, A2DROPOUT, A2APATHY, A2PRNTINV, A2RESOURCES, A2UNPREP, and A2HEALTH.

X2MTHID

This variable is a scale of the sample member's math identity. Sample members who tend to agree with the statements "You see yourself as a math person" or "Others see me as a math person" will have higher values for X2MTHID. This variable was created through principal components factor analysis (weighted by W2STUDENT) and standardized to a mean of 0 and standard deviation of 1. The inputs to this scale were S2MPERSON1 and S2MPERSON2. Only respondents who provided a full set of responses were assigned a scale value. The coefficient of reliability (alpha) for the scale is .65. For more information on this scale score, please see chapter 5 of the HSLS:09 First Follow-up Data File Documentation (NCES 2014-361).

X2MTHUTI

This variable is a scale of the sample member's perception of the utility of mathematics; higher values represent perceptions of greater mathematics utility. The variable was created through principal components factor analysis (weighted by W2STUDENT) and standardized to a mean of 0 and standard deviation of 1. The inputs to this scale were S2MUSELIFE, S2MUSECLG, and S2MUSEJOB. Only respondents who provided a full set of responses were assigned a scale value. If the student indicated that he or she was not taking a fall math class, this variable is set to -7. The coefficient of reliability (alpha) for the scale is .65. For more information on this scale score, please see chapter 5 of the HSLS:09 First Follow-up Data File Documentation (NCES 2014-361).

X2MTHEFF

This variable is a scale of the sample member's math self-efficacy; higher X2MTHEFF values represent higher math self-efficacy. The variable was created through principal components factor analysis (weighted by W2STUDENT) and standardized to a mean of 0 and standard deviation of 1. The inputs to this scale were S2MTESTS, S2MTEXTBOOK, S2MSKILLS, and S2MASSEXCL. Only respondents who provided a full set of responses were assigned a scale value. If the student indicated that he or she was not taking a fall math class, this variable is set to -7. The coefficient of reliability (alpha) for the scale is .65. For more information on this scale score, please see chapter 5 of the HSLS:09 First Follow-up Data File Documentation (NCES 2014-361).

X2MTHINT

This variable is a scale of the sample member's interest in his or her base-year math course; higher values represent greater interest in the base-year math course. The variable was

created through principal components factor analysis (weighted by W2STUDENT) and standardized to a mean of 0 and standard deviation of 1. The inputs to this scale were S2MENJOYING, S2MWASTE, S2MBORING, S2FAVSUBJ, S2LEASTSUBJ, and S2MENJOYS. Only respondents who provided a full set of responses were assigned a scale value. If the student indicated that he or she was not taking a fall math class, this variable is set to -7. The coefficient of reliability (alpha) for the scale is .65. For more information on this scale score, please see chapter 5 of the HSLS:09 First Follow-up Data File Documentation (NCES 2014-361).

X2SCIID

This variable is a scale of the sample member's science identity. Sample members who tend to agree with the statements "You see yourself as a science person" or "Others see me as a science person" will have higher values for X2SCIID. The variable was created through principal components factor analysis (weighted by W2STUDENT) and standardized to a mean of 0 and standard deviation of 1. The inputs to this scale were S2SPERSON1 and S2SPERSON2. Only respondents who provided a full set of responses were assigned a scale value. The coefficient of reliability (alpha) for the scale is .65. For more information on this scale score, please see chapter 5 of the HSLS:09 First Follow-up Data File Documentation (NCES 2014-361).

X2SCIUTI

This variable is a scale of the sample member's perception of the utility of science; higher values represent perceptions of greater science utility. The variable was created through principal components factor analysis (weighted by W2STUDENT) and standardized to a mean of 0 and standard deviation of 1. The inputs to this scale were S2SUSELIFE, S2SUSECLG, and S2SUSEJOB. Only respondents who provided a full set of responses were assigned a scale value. If the student indicated that he or she was not taking a fall science class, this variable is set to -7. The coefficient of reliability (alpha) for the scale is .65. For more information on this scale score, please see chapter 5 of the HSLS:09 First Follow-up Data File Documentation (NCES 2014-361).

X2SCIEFF

This variable is a scale of the sample member's science self-efficacy; higher X2SCIEFF values represent higher science self-efficacy. The variable was created through principal components factor analysis (weighted by W2STUDENT) and standardized to a mean of 0 and standard deviation of 1. The inputs to this scale were S2STESTS, S2STEXTBOOK, S2SSKILLS, and S2SASSEXCL. Only respondents who provided a full set of responses were assigned a scale value. If the student indicated that he or she was not taking a fall science class, this variable is set to -7. The coefficient of reliability (alpha) for the scale is .65. For more information on this scale score, please see chapter 5 of the HSLS:09 First Follow-up Data File Documentation (NCES 2014-361).

X2SCIINT

This variable is a scale of the sample member's interest in his or her base-year science course; higher values represent greater interest in the base-year science course. The variable was created through principal components factor analysis (weighted by W2STUDENT) and standardized to a mean of 0 and standard deviation of 1. The inputs to this scale were S2SENJOYING, S2SWASTE, S2SBORING, S2FAVSUBJ, S2LEASTSUBJ, and S2SENJOYS. Only respondents who provided a full set of responses were assigned a scale value. If the student indicated that he or she was not taking a fall science class, this variable is set to -7. The coefficient of reliability (alpha) for the scale is .65. For more information on this scale score, please see chapter 5 of the HSLS:09 First Follow-up Data File Documentation (NCES 2014-361).

X2STU30OCC6

X2STU30OCC6 stores the 6-digit O*NET code of the job the sample member expects or plans to have at age 30. The occupation text is stored in S2OCC30 and X2STU30OCC6 (6-digit code) and X2STU30OCC2 (2-digit code) are the coded versions of that occupation text. If an occupation cannot be coded to the 6-digit level but can be coded to the 2-digit level, the 2 digit code is also stored in X2STU30OCC6 with a value of "XX0000." See http://www.onetcenter.org/ for further information on the O*NET taxonomy.

X2STU30OCC2

X2STU30OCC2 stores the 2-digit O*NET code of the job the sample member expects or plans to have at age 30. The occupation text is stored in S2OCC30 and X2STU30OCC6 (6-digit code) and X2STU30OCC2 (2-digit code) are the coded versions of that occupation text. If an occupation cannot be coded to the 6-digit level but can be coded to the 2-digit level, the 2 digit code is also stored in X2STU30OCC6 with a value of "XX0000." See http://www.onetcenter.org/ for further information on the O*NET taxonomy.

X2PAREDEXPCT

X2PAREDEXPCT indicates the highest level of education the parent questionnaire respondent expects the sample member to achieve. X2PAREDEXPCT is taken from the base-year parent questionnaire; if missing from the base-year parent questionnaire, X2PAREDEXPCT is statistically imputed (imputed values in X2PAREDEXPCT can be identified using X2PAREDEX_IM = 2).

X2S2EARNNOHS

Earnings, standardized as an annual wage, that the student thinks his or her starting pre-tax income would be in first job having not earned a high school diploma.

X2S2EARNHS

Earnings, standardized as an annual wage, that the student thinks his or her starting pre-tax income would be in first job having earned a high school diploma.

X2S2EARNOCC

Earnings, standardized as an annual wage, that the student thinks his or her starting pre-tax income would be in first job having earned a certificate or diploma from a school that provides occupational training.

X2S2EARN2YPUB

Earnings, standardized as an annual wage, that the student thinks his or her starting pre-tax income would be in first job having earned a 2-year community college diploma.

X2S2EARN4Y

Earnings, standardized as an annual wage, that the student thinks his or her starting pre-tax income would be in first job having earned a 4-year college diploma.

X2PEARNNOHS

Earnings, standardized as an annual wage, that the parent respondent thinks the sample member's starting pre-tax income would be in first job having not earned a high school diploma.

X2PEARNHS

Earnings, standardized as an annual wage, that the parent respondent thinks the sample member's starting pre-tax income would be in first job having earned a high school diploma.

X2PEARNOCC

Earnings, standardized as an annual wage, that the parent respondent thinks the sample member's starting pre-tax income would be in first job having earned a certificate or diploma from a school that provides occupational training.

X2PEARN2YPUB

Earnings, standardized as an annual wage, that the parent respondent thinks the sample member's starting pre-tax income would be in first job having earned a 2-year community college diploma.

X2PEARN4Y

Earnings, standardized as an annual wage, that the parent respondent thinks the sample member's starting pre-tax income would be in first job having earned a 4-year college diploma.

X2TESTSTAT

X2TESTSTAT indicates whether first follow-up HSLS:09 mathematics assessment data are available on the data file for any given sample member.

X2TESTDATE

Month and year the sample member completed the first follow-up HSLS:09 mathematics assessment.

X2SQSTAT

X2SQSTAT indicates whether a complete first follow-up student interview is available on the data file; X2SQSTAT also indicates the mode of the first follow-up student interview, and whether the student responded in-school or out-of-school. For an explanation of a responding case, please see chapter 2 of the HSLS:09 First Follow-up Data File Documentation (NCES 2014-361).

X2SQDATE

Month and year the sample member responded to the first follow-up student interview.

X2SQINCAPABL

Indicates whether the sample member was questionnaire incapable for the first follow-up interview, and if so, the reason for being assigned a status of questionnaire incapable.

X2PQSTAT

X2PQSTAT indicates whether a complete first follow-up parent interview is available on the data file; it also indicates the mode of the first follow-up parent interview, and whether the parent responded to a full-length or abbreviated interview. For an explanation of a responding case, please see chapter 2 of the HSLS:09 First Follow-up Data File Documentation (NCES 2014-361).

X2PQDATE

Month and year the sample member's parent responded to the first follow-up parent questionnaire.

X2PQLANG

Indicates whether the parent respondent completed an English or Spanish first follow-up parent questionnaire.

X2CONTROL

X2CONTROL identifies the sample member's first follow-up school as being a Public, Catholic, or Other Private School, as indicated in the source data for sampling: the CCD 2011–2012 and the PSS 2011–2012.

X2LOCALE

X2LOCALE characterizes the locale (urbanicity) of the sample member's first follow-up school as either City, Suburb, Town, or Rural, as indicated in the source data for sampling: the CCD 2011–2012 and the PSS 2011–2012.

X2REGION

X2REGION identifies the geographic region of the sample member's first follow-up school, as indicated in the source data for sampling: the CCD 2011–2012 and the PSS 2011–2012.

X2CENDIV

X2CENDIV identifies the census geographic division of the sample member's first follow-up school, as indicated in the source data for sampling: the CCD 2011–2012 and the PSS 2011–2012.

X2STATE

X2STATE is the FIPS code for the first follow-up school state.

X2FREELUNCH

Categorized version of the continuous administrator questionnaire variable A2FREELUNCH. This variable indicates the percentage of students enrolled in the school in 2011 who receive free or reduced-price lunch.

S2CURCONTROL

S2CURCONTROL identifies the sample member's current school as being a Public, Catholic, or Other Private School, as indicated in the student questionnaire: the CCD 2011–2012 and the PSS 2011–2012.

S2CURLOCALE

S2CURLOCALE characterizes the locale (urbanicity) of the sample member's current school as either City, Suburb, Town, or Rural, as indicated in the student questionnaire: the CCD 2011–2012 and the PSS 2011–2012.

S2CURREGION

S2CURREGION identifies the geographic region of the sample member's current school, as indicated in the student questionnaire: the CCD 2011–2012 and the PSS 2011–2012.

S2CURCENDIV

S2CURCENDIV identifies the census geographic division of the sample member's current school, as indicated in the student questionnaire: the CCD 2011–2012 and the PSS 2011–2012.

S2CURSTATE

S2CURSTATE is the FIPS code for the current school state.

S2LASTCONTROL

S2LASTCONTROL identifies the sample member's last school as being a Public, Catholic, or Other Private School, as indicated in the student questionnaire: the CCD 2011–2012 and the PSS 2011–2012.

S2LASTLOCALE

S2LASTLOCALE characterizes the locale (urbanicity) of the sample member's last school as either City, Suburb, Town, or Rural, as indicated in the student questionnaire: the CCD 2011–2012 and the PSS 2011–2012.

S2LASTREGION

S2LASTREGION identifies the geographic region of the sample member's last school, as indicated in the student questionnaire: the CCD 2011–2012 and the PSS 2011–2012.

S2LASTCENDIV

S2LASTCENDIV identifies the census geographic division of the sample member's last school, as indicated in the student questionnaire: the CCD 2011–2012 and the PSS 2011–2012.

S2LASTSTATE

S2LASTSTATE is the FIPS code for the last school state.

S2OTH1CONTROL

S2OTH1CONTROL identifies the sample member's first other school as being a Public, Catholic, or Other Private School, as indicated in the student questionnaire: the CCD 2011–2012 and the PSS 2011–2012.

S2OTH1LOCALE

S2OTH1LOCALE characterizes the locale (urbanicity) of the sample member's first other school as either City, Suburb, Town, or Rural, as indicated in the student questionnaire: the CCD 2011–2012 and the PSS 2011–2012.

S2OTH1REGION

S2OTH1REGION identifies the geographic region of the sample member's first other school, as indicated in the student questionnaire: the CCD 2011–2012 and the PSS 2011–2012.

S2OTH1CENDIV

S2OTH1CENDIV identifies the census geographic division of the sample member's first other school, as indicated in the student questionnaire: the CCD 2011–2012 and the PSS 2011–2012.

S2OTH1STATE

S2OTH1STATE is the FIPS code for the first other school state.

S2OTH2CONTROL

S2OTH2CONTROL identifies the sample member's second other school as being a Public, Catholic, or Other Private School, as indicated in the student questionnaire: the CCD 2011–2012 and the PSS 2011–2012.

S2OTH2LOCALE

S2OTH2LOCALE characterizes the locale (urbanicity) of the sample member's second other school as either City, Suburb, Town, or Rural, as indicated in the student questionnaire: the CCD 2011–2012 and the PSS 2011–2012.

S2OTH2REGION

S2OTH2REGION identifies the geographic region of the sample member's second other school, as indicated in the student questionnaire: the CCD 2011–2012 and the PSS 2011–2012.

S2OTH2CENDIV

S2OTH2CENDIV identifies the census geographic division of the sample member's second other school, as indicated in the student questionnaire: the CCD 2011–2012 and the PSS 2011–2012.

S2OTH2STATE

S2OTH2STATE is the FIPS code for the second other school state.

X2AQSTAT

X2AQSTAT indicates whether a complete base-year administrator interview is available on the data file; X2AQSTAT also indicates the mode of the first follow-up administrator interview, and whether the administrator responded to a full-length or abbreviated interview. For an explanation of a responding case, please see chapter 2 of the HSLS:09 First Follow-up Data File Documentation (NCES 2014-361).

X2AQDATE

Month and year the school administrator responded to the first follow-up administrator questionnaire.

X2AQDESIGNEE

Indicates whether an administrator designee completed the applicable portion of the administrator questionnaire. An administrator designee was allowed to complete all sections of the administrator questionnaire except for the "Goals and Background" section (i.e., administrator questionnaire variables with a variable label prefix of "A2 Dxxx"), which was the administrator was required to complete him- or herself.

X2CQSTAT

X2CQSTAT indicates whether a complete base-year counselor interview is available on the data file; X2CQSTAT also indicates the mode of the first follow-up counselor interview. For an explanation of a responding case, please see chapter 2 of the HSLS:09 First Follow-up Data File Documentation (NCES 2014-361).

X2CQDATE

Month and year the school counselor responded to the first follow-up counselor questionnaire.

X2SCHOOLCLI

This variable is a scale of the administrator's assessment of his or her school's climate. Higher values represent more positive assessments of the school's climate (i.e., fewer problems are indicated). The variable was created through principal components factor analysis and standardized to a mean of 0 and standard deviation of 1. The inputs to this scale were A2CONFLICT, A2ROBBERY, A2VANDALISM, A2DRUGUSE, A2ALCOHOL, A2DRUGSALE, A2WEAPONS, A2PHYSABUSE, A2TENSION, A2CYBERBULLY, A2OTHERBULLY, A2VERBAL, A2MISBEHAVE, A2DISRESPECT, and A2GANG.

X2TXMTH1

Mathematics theta score multiple imputation value (1 of 5). When the math test data were missing for student survey respondents, the math theta score was imputed with multiple imputation technique, with five imputed values. X2TXMTH is the mean of X2TXMTH1-5. The theta score provides a norm-referenced measurement of achievement, that is, an estimate of achievement relative to the population (fall 2009 9th-graders) as a whole. It provides information on status compared to peers (as distinguished from the IRT-estimated scale score which represents status with respect to achievement on a particular criterion set of test items). The associated theta score is X2TXMTH. The standardized form of the theta score is X2TXMTSCOR.

X2TXMTH2

Mathematics theta score multiple imputation value (2 of 5). When the math test data were missing for student survey respondents, the math theta score was imputed with multiple imputation technique, with five imputed values. X2TXMTH is the mean of X2TXMTH1-5. The theta score provides a norm-referenced measurement of achievement, that is, an estimate of achievement relative to the population (fall 2009 9th-graders) as a whole. It provides information on status compared to peers (as distinguished from the IRT-estimated scale score which represents status with respect to achievement on a particular criterion set of test items). The associated theta score is X2TXMTH. The standardized form of the theta score is X2TXMTSCOR.

X2TXMTH3

Mathematics theta score multiple imputation value (3 of 5). When the math test data were missing for student survey respondents, the math theta score was imputed with multiple imputation technique, with five imputed values. X2TXMTH is the mean of X2TXMTH1-5. The theta score provides a norm-referenced measurement of achievement, that is, an estimate of achievement relative to the population (fall 2009 9th-graders) as a whole. It provides information on status compared to peers (as distinguished from the IRT-estimated scale score which represents status with respect to achievement on a particular criterion set of test items). The associated theta score is X2TXMTH. The standardized form of the theta score is X2TXMTSCOR.

X2TXMTH4

Mathematics theta score multiple imputation value (4 of 5). When the math test data were missing for student survey respondents, the math theta score was imputed with multiple imputation technique, with five imputed values. X2TXMTH is the mean of X2TXMTH1-5. The theta score provides a norm-referenced measurement of achievement, that is, an estimate of achievement relative to the population (fall 2009 9th-graders) as a whole. It provides information on status compared to peers (as distinguished from the IRT-estimated scale score which represents status with respect to achievement on a particular criterion set of test items). The associated theta score is X2TXMTH. The standardized form of the theta score is X2TXMTSCOR.

X2TXMTH5

Mathematics theta score multiple imputation value (5 of 5). When the math test data were missing for student survey respondents, the math theta score was imputed with multiple imputation technique, with five imputed values. X2TXMTH is the mean of X2TXMTH1-5. The theta score provides a norm-referenced measurement of achievement, that is, an estimate of achievement relative to the population (fall 2009 9th-graders) as a whole. It provides information on status compared to peers (as distinguished from the IRT-estimated scale score which represents status with respect to achievement on a particular criterion set of test items). The associated theta score is X2TXMTH. The standardized form of the theta score is X2TXMTSCOR.

X2TXMSEM1

Mathematics standard error of measurement multiple imputation value (1 of 5). When the math test data were missing for student survey respondents, the math standard error of measurement (SEM) for the raw theta score was imputed with multiple imputation technique, with five imputed values. X2TXMTH is the mean of X2TXMTH1-5. The standard error of measurement for the raw theta score indicates the precision in the ability estimate. It is calculated from the sum of item information functions for each item answered by each student. Unlike the classical standard error of measurement, which is a constant, the IRT standard error varies across the scale-score continuum. It is typically smaller for students whose theta score falls toward the center of the distribution because more students answered the items with average difficulty. However, students whose theta scores fall at the extremes of the distribution tend to have a higher SEM because their scores are based on items answered by fewer students overall. The associated standard error of measurement is X2TXMSEM.

X2TXMSEM2

Mathematics standard error of measurement multiple imputation value (2 of 5). When the math test data were missing for student survey respondents, the math standard error of measurement (SEM) for the raw theta score was imputed with multiple imputation technique,

with five imputed values. X2TXMTH is the mean of X2TXMTH1-5. The standard error of measurement for the raw theta score indicates the precision in the ability estimate. It is calculated from the sum of item information functions for each item answered by each student. Unlike the classical standard error of measurement, which is a constant, the IRT standard error varies across the scale-score continuum. It is typically smaller for students whose theta score falls toward the center of the distribution because more students answered the items with average difficulty. However, students whose theta scores fall at the extremes of the distribution tend to have a higher SEM because their scores are based on items answered by fewer students overall. The associated standard error of measurement is X2TXMSEM.

X2TXMSEM3

Mathematics standard error of measurement multiple imputation value (3 of 5). When the math test data were missing for student survey respondents, the math standard error of measurement (SEM) for the raw theta score was imputed with multiple imputation technique, with five imputed values. X2TXMTH is the mean of X2TXMTH1-5. The standard error of measurement for the raw theta score indicates the precision in the ability estimate. It is calculated from the sum of item information functions for each item answered by each student. Unlike the classical standard error of measurement, which is a constant, the IRT standard error varies across the scale-score continuum. It is typically smaller for students whose theta score falls toward the center of the distribution because more students answered the items with average difficulty. However, students whose theta scores fall at the extremes of the distribution tend to have a higher SEM because their scores are based on items answered by fewer students overall. The associated standard error of measurement is X2TXMSEM.

X2TXMSEM4

Mathematics standard error of measurement multiple imputation value (4 of 5). When the math test data were missing for student survey respondents, the math standard error of measurement (SEM) for the raw theta score was imputed with multiple imputation technique, with five imputed values. X2TXMTH is the mean of X2TXMTH1-5. The standard error of measurement for the raw theta score indicates the precision in the ability estimate. It is calculated from the sum of item information functions for each item answered by each student. Unlike the classical standard error of measurement, which is a constant, the IRT standard error varies across the scale-score continuum. It is typically smaller for students whose theta score falls toward the center of the distribution because more students answered the items with average difficulty. However, students whose theta scores fall at the extremes of the distribution tend to have a higher SEM because their scores are based on items answered by fewer students overall. The associated standard error of measurement is X2TXMSEM.

X2TXMSEM5

Mathematics standard error of measurement multiple imputation value (5 of 5). When the math test data were missing for student survey respondents, the math standard error of measurement (SEM) for the raw theta score was imputed with multiple imputation technique, with five imputed values. X2TXMTH is the mean of X2TXMTH1-5. The standard error of measurement for the raw theta score indicates the precision in the ability estimate. It is calculated from the sum of item information functions for each item answered by each student. Unlike the classical standard error of measurement, which is a constant, the IRT standard error varies across the scale-score continuum. It is typically smaller for students whose theta score falls toward the center of the distribution because more students answered the items with average difficulty. However, students whose theta scores fall at the extremes of the distribution tend to have a higher SEM because their scores are based on items answered by fewer students overall. The associated standard error of measurement is X2TXMSEM.

X2SES1

This variable contains the imputed value (1 of 5) for X2SES, generated through a multiple imputation model, for responding students without a responding parent/guardian. X2SES is the mean of X2SES1–X2SES5.

X2SES2

This variable contains the imputed value (2 of 5) for X2SES, generated through a multiple imputation model, for responding students without a responding parent/guardian. X2SES is the mean of X2SES1–X2SES5.

X2SES3

This variable contains the imputed value (3 of 5) for X2SES, generated through a multiple imputation model, for responding students without a responding parent/guardian. X2SES is the mean of X2SES1–X2SES5.

X2SES4

This variable contains the imputed value (4 of 5) for X2SES, generated through a multiple imputation model, for responding students without a responding parent/guardian. X2SES is the mean of X2SES1–X2SES5.

X2SES5

This variable contains the imputed value (5 of 5) for X2SES, generated through a multiple imputation model, for responding students without a responding parent/guardian. X2SES is the mean of X2SES1–X2SES5.

X2SES1_U
This variable contains the imputed values (1 of 5) for X2SES_U, generated through a multiple imputation model, for responding students without a responding parent/guardian. X2SES_U is the mean of X2SES1_U–X2SES5_U.

X2SES2_U
This variable contains the imputed values (2 of 5) for X2SES_U, generated through a multiple imputation model, for responding students without a responding parent/guardian. X2SES_U is the mean of X2SES1_U–X2SES5_U.

X2SES3_U
This variable contains the imputed values (3 of 5) for X2SES_U, generated through a multiple imputation model, for responding students without a responding parent/guardian. X2SES_U is the mean of X2SES1_U–X2SES5_U.

X2SES4_U
This variable contains the imputed values (4 of 5) for X2SES_U, generated through a multiple imputation model, for responding students without a responding parent/guardian. X2SES_U is the mean of X2SES1_U–X2SES5_U.

X2SES5_U
This variable contains the imputed values (5 of 5) for X2SES_U, generated through a multiple imputation model, for responding students without a responding parent/guardian. X2SES_U is the mean of X2SES1_U–X2SES5_U.

X2TXMATH_IM
Flag indicating whether the X2TXM variables were statistically imputed or not imputed.

X2SEX_IM
Flag indicating whether the variable X2SEX was statistically imputed or not imputed.

X2RACE_IM
Flag indicating whether the variable X2RACE was statistically imputed or not imputed.

X2HISPAN_IM
Flag indicating whether the variable X2HISPANIC was statistically imputed or not imputed.

X2NATIVEL_IM
Flag indicating whether the variable X2NATIVELANG was statistically imputed or not imputed.

X2P1RELAT_IM
Flag indicating whether the variable X2P1RELATION was statistically imputed or not imputed.

X2P2RELAT_IM
Flag indicating whether the variable X2P2RELATION was statistically imputed or not imputed.

X2PAR1EDU_IM
Flag indicating whether the variable X2PAR1EDU was statistically imputed or not imputed.

X2PAR2EDU_IM
Flag indicating whether the variable X2PAR2EDU was statistically imputed or not imputed.

X2PAREDU_IM
Flag indicating whether any of the inputs to X2PAREDU were statistically imputed or not imputed.

X2PARPATT_IM
Flag indicating whether any of the inputs to X2PARPATTERN were statistically imputed or not imputed.

X2PAR1EMP_IM
Flag indicating whether the variable X2PAR1EMP was statistically imputed or not imputed.

X2PAR2EMP_IM
Flag indicating whether the variable X2PAR2EMP was statistically imputed or not imputed.

X2PAR1OCC_IM
Flag indicating whether the variables X2PAR1OCC2/X2PAR1OCC6 were statistically imputed or not imputed.

X2PAR2OCC_IM
Flag indicating whether the variables X2PAR2OCC2/X2PAR2OCC6 were statistically imputed or not imputed.

X2MOMREL_IM
Flag indicating whether any of the inputs to X2MOMREL were statistically imputed or not imputed.

X2MOMEDU_IM
Flag indicating whether any of the inputs to X2MOMEDU were statistically imputed or not imputed.

X2MOMEMP_IM
Flag indicating whether any of the inputs to X2MOMEMP were statistically imputed or not imputed.

X2MOMOCC_IM
Flag indicating whether any of the inputs to X2MOMOCC2 were statistically imputed or not imputed.

X2DADREL_IM
Flag indicating whether any of the inputs to X2DADREL were statistically imputed or not imputed.

X2DADEDU_IM
Flag indicating whether any of the inputs to X2DADEDU were statistically imputed or not imputed.

X2DADEMP_IM
Flag indicating whether any of the inputs to X2DADEMP were statistically imputed or not imputed.

X2DADOCC_IM
Flag indicating whether any of the inputs to X2DADOCC2 were statistically imputed or not imputed.

X2HHNUMB_IM
Flag indicating whether one or both of the input variables P2HHLT18 and P2HHGE18 for the composite X2HHNUMBER were statistically imputed or not imputed.

X2FAMINC_IM
Flag indicating whether the variable X2FAMINCOME was statistically imputed or not imputed.

X2POVERTY_IM
Flag indicating whether the inputs to X2POVERTY/X2POVERTY130/X2POVERTY185 were statistically imputed or not imputed.

X2SES_IM
Flag indicating whether the variables X2SES/X2SES_U or any inputs to X2SES/X2SES_U were statistically imputed.

X2STUEDEX_IM
Flag indicating whether the variable X2STUEDEXPT was statistically imputed or not imputed.

X2PAREDEX_IM
Flag indicating whether the variable X2PAREDEXPCT was statistically imputed or not imputed.

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Appendix F.
Standard Errors and Design Effects

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The estimated standard errors (SEs), design effects (*deff*), and root design effects (*deft*) are presented in the following tables by study instrument and survey item. The student variables are displayed in tables F-1 through F-21 and the parent variables are included in tables F-22 through F-42.

Design effects (*deff*) measure the relative efficiency of a sample design using particular items collected in the survey. These values are calculated as the ratio of two estimated variances,

$$deff = \frac{\hat{V}_d\left(\hat{\theta}\right)}{\hat{V}_s\left(\hat{\theta}\right)},$$

for an estimated HSLS:09 characteristic $\hat{\theta}$. The numerator value, $\hat{V}_d\left(\hat{\theta}\right)$, is the estimated variance that properly accounts for the complex sample design and the variability associated with the analytic weights. The denominator value, $\hat{V}_s\left(\hat{\theta}\right)$, is the estimated variance from a simple random sample (*srs*) design of the same size. Like *deff*, root design effect or *deft* also provides a measure of relative efficiency of a sample design but in terms of the standard errors:

$$deft = \sqrt{\frac{\hat{V}_d\left(\hat{\theta}\right)}{\hat{V}_s\left(\hat{\theta}\right)}},$$

where the components are the same as defined for *deff*.

Table F-1. Student standard errors and design effects—Overall

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Teenager's final grade in algebra I (7 Levels)	S2ALG1GRADE	19,746	2.2	0.02	0.01	5.56	2.36
Taking algebra II spring 2012	S2ALG2M12	17,430	40.2	0.96	0.37	6.75	2.60
Took an AP math course	S2APMATH	7,264	25.4	1.03	0.51	4.08	2.02
Took an AP science course	S2APSCIENCE	7,267	33.0	1.14	0.55	4.26	2.06
Taking biology II spring 2012	S2BIO2S12	16,048	3.7	0.36	0.15	5.75	2.40
Teenager's Birth Year	S2BIRTHYR	20,551	5.5	0.01	0.00	6.52	2.55
If accepted to college, family can't afford (4 Levels)	S2CANTAFFORD	19,961	2.8	0.01	0.01	5.42	2.33
How certain teenager is to attend most likely college/school (3 Levels)	S2CERTAINCLG	11,287	1.8	0.01	0.01	3.61	1.90
Searched Internet or read college guides for college options	S2CLGSEARCH	20,402	79.6	0.64	0.28	5.16	2.27
Teen has ever participated in Upward Bound	S2EVERUPWARD	20,007	2.3	0.01	0.00	5.04	2.25
Math or science is fav subj	S2FAVSUBJ	20,307	30.4	0.58	0.32	3.23	1.80
Grade teenager was in last school year (2010-2011)	S2GRD1011	20,357	2.0	0.00	0.00	4.05	2.01
Student's First Spoken Language (5 Levels)	S2LANG1ST	20,591	1.3	0.02	0.01	6.50	2.55
Confident can do excellent job on math tests (4 Levels)	S2MASSEXCL	19,983	2.1	0.01	0.01	4.20	2.05
Taking spring 2012 math because likes the challenged	S2MCHALLENGE	17,276	46.2	0.65	0.38	2.91	1.71
Student is enjoying math class (4 Levels)	S2MENJOYING	20,072	2.5	0.01	0.01	3.98	1.99
Student sees self as math person (4 Levels)	S2MPERSON1	20,103	2.7	0.01	0.01	3.46	1.86
Student thinks math class will be useful in career (4 Levels)	S2MUSEJOB	20,032	1.7	0.01	0.01	3.71	1.93
Teen thinks (spring 2012) math course is a waste of time (4 Levels)	S2MWASTE	20,037	3.0	0.01	0.01	3.43	1.85
How much student has thought about occupation at age 30 (4 Levels)	S2OCC30THINK	14,639	3.7	0.01	0.00	3.55	1.89
Teenager attended a school besides Base Year/transfer/last school	S2OTHHS	20,393	5.9	0.29	0.16	3.07	1.75
Confident can do excellent job on science assignments (4 Levels)	S2SASSEXCL	19,820	2.1	0.01	0.01	4.02	2.01

See notes at end of table

Table F-1. Student standard errors and design effects—Overall—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Number of times teenager has taken the SAT or ACT	S2SATNUM	20,285	61.1	1.72	0.64	7.21	2.69
Teen is taking spring 2012 science because he/she likes to be challenged	S2SCHALLENGE	15,628	51.8	0.80	0.40	4.04	2.01
How teen compares males, females in science (5 Levels)	S2SCICOMP	19,983	3.1	0.01	0.01	4.17	2.04
Participated in a science competition	S2SCOMPETE	19,789	5.5	0.34	0.16	4.42	2.10
Teenager sees self as science person (4 Levels)	S2SPERSON1	20,046	2.5	0.01	0.01	3.79	1.95
How sure teenager is that he/she will pursue Bachelor's degree (4 Levels)	S2SUREBA	20,261	1.8	0.01	0.01	4.59	2.14
How sure teenager is that he/she will receive high school diploma (4 Levels)	S2SUREDIPL	20,241	1.2	0.01	0.00	4.19	2.05
Thinks science course is waste of time (4 Levels)	S2SWASTE	19,890	3.0	0.01	0.01	3.18	1.78
Times in class without books/reading material in last 6 months of school	S2WOBOOKS	20,342	1.5	0.01	0.01	4.17	2.04
At age 30 exp to be a manager	X2STU30OCC2 (composite)	20,240	3.8	0.24	0.13	3.31	1.82
At age 30 exp to be in the military	X2STU30OCC2 (composite)	20,240	1.9	0.15	0.10	2.52	1.59
At age 30 exp to be an operative	X2STU30OCC2 (composite)	20,240	1.2	0.15	0.08	3.64	1.91
At age 30 exp to be a clergyman	X2STU30OCC2 (composite)	20,240	1.6	0.19	0.09	4.67	2.16
At age 30 exp to be a technician	X2STU30OCC2 (composite)	20,240	21.7	0.65	0.29	5.04	2.25
At age 30 doesn't know what to be	X2STU30OCC2 (composite)	20,240	27.9	0.59	0.32	3.45	1.86
Math theta (raw)	X2TXMTH	15,500	1.1	0.02	0.01	5.59	2.36
Summary statistics							
Mean						4.38	2.08
Minimum						2.52	1.59
Median						4.13	2.03
Maximum						7.21	2.69
Standard deviation						1.13	0.26

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-2. Student standard errors and design effects—Public schools

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Teenager's final grade in algebra I (7 Levels)	S2ALG1GRADE	16,077	2.2	0.02	0.01	5.22	2.28
Taking algebra II spring 2012	S2ALG2M12	13,872	39.9	0.99	0.42	5.61	2.37
Took an AP math course	S2APMATH	5,759	25.6	1.14	0.57	3.92	1.98
Took an AP science course	S2APSCIENCE	5,758	32.9	1.24	0.62	3.99	2.00
Taking biology II spring 2012	S2BIO2S12	12,643	3.8	0.40	0.17	5.42	2.33
Teenager's Birth Year	S2BIRTHYR	16,808	5.5	0.01	0.01	5.90	2.43
If accepted to college, family can't afford (4 Levels)	S2CANTAFFORD	16,307	2.8	0.02	0.01	5.19	2.28
How certain teenager is to attend most likely college/school (3 Levels)	S2CERTAINCLG	9,015	1.8	0.01	0.01	3.05	1.75
Searched Internet or read college guides for college options	S2CLGSEARCH	16,680	78.8	0.70	0.32	4.94	2.22
Teen has ever participated in Upward Bound	S2EVERUPWARD	16,342	2.3	0.01	0.00	4.51	2.12
Math or science is fav subj	S2FAVSUBJ	16,600	30.1	0.63	0.36	3.11	1.76
Grade teenager was in last school year (2010-2011)	S2GRD1011	16,635	2.0	0.00	0.00	3.62	1.90
Student's First Spoken Language (5 Levels)	S2LANG1ST	16,842	1.4	0.02	0.01	6.13	2.48
Confident can do excellent job on math tests (4 Levels)	S2MASSEXCL	16,314	2.1	0.01	0.01	3.75	1.94
Taking spring 2012 math because likes the challenged	S2MCHALLENGE	13,748	45.7	0.70	0.42	2.72	1.65
Student is enjoying math class (4 Levels)	S2MENJOYING	16,393	2.5	0.01	0.01	3.63	1.90
Student sees self as math person (4 Levels)	S2MPERSON1	16,424	2.7	0.01	0.01	3.28	1.81
Student thinks math class will be useful in career (4 Levels)	S2MUSEJOB	16,363	1.7	0.01	0.01	3.42	1.85
Teen thinks (spring 2012) math course is a waste of time (4 Levels)	S2MWASTE	16,361	3.0	0.01	0.01	3.14	1.77
How much student has thought about occupation at age 30 (4 Levels)	S2OCC30THINK	12,012	3.7	0.01	0.01	3.30	1.82
Teenager attended a school besides Base Year/transfer/last school	S2OTHHS	16,679	6.0	0.30	0.18	2.74	1.65
Confident can do excellent job on science assignments (4 Levels)	S2SASSEXCL	16,166	2.1	0.01	0.01	3.88	1.97

See notes at end of table

Table F-2. Student standard errors and design effects—Public schools—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Number of times teenager has taken the SAT or ACT	S2SATNUM	16,570	59.3	1.85	0.71	6.82	2.61
Teen is taking spring 2012 science because he/she likes to be challenged	S2SCHALLENGE	12,277	51.3	0.87	0.45	3.74	1.93
How teen compares males, females in science (5 Levels)	S2SCICOMP	16,325	3.1	0.01	0.01	4.02	2.01
Participated in a science competition	S2SCOMPETE	16,172	5.4	0.36	0.18	4.17	2.04
Teenager sees self as science person (4 Levels)	S2SPERSON1	16,371	2.5	0.01	0.01	3.48	1.87
How sure teenager is that he/she will pursue Bachelor's degree (4 Levels)	S2SUREBA	16,572	1.8	0.01	0.01	4.33	2.08
How sure teenager is that he/she will receive high school diploma (4 Levels)	S2SUREDIPL	16,520	1.2	0.01	0.00	3.79	1.95
Thinks science course is waste of time (4 Levels)	S2SWASTE	16,222	3.0	0.01	0.01	3.05	1.75
Times in class without books/reading material in last 6 months of school	S2WOBOOKS	16,629	1.5	0.01	0.01	3.74	1.93
At age 30 exp to be a manager	X2STU30OCC2 (composite)	16,537	3.7	0.27	0.15	3.23	1.80
At age 30 exp to be in the military	X2STU30OCC2 (composite)	16,537	2.0	0.16	0.11	2.23	1.49
At age 30 exp to be an operative	X2STU30OCC2 (composite)	16,537	1.3	0.16	0.09	3.21	1.79
At age 30 exp to be a clergyman	X2STU30OCC2 (composite)	16,537	1.6	0.20	0.10	3.93	1.98
At age 30 exp to be a technician	X2STU30OCC2 (composite)	16,537	21.6	0.68	0.32	4.52	2.13
At age 30 doesn't know what to be	X2STU30OCC2 (composite)	16,537	27.7	0.62	0.35	3.14	1.77
Math theta (raw)	X2TXMTH	12,164	1.1	0.02	0.01	5.35	2.31
Summary statistics							
Mean						4.03	1.99
Minimum						2.23	1.49
Median						3.77	1.94
Maximum						6.82	2.61
Standard deviation						1.05	0.25

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-3. Student standard errors and design effects—Private schools

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Teenager's final grade in algebra I (7 Levels)	S2ALG1GRADE	3,669	1.7	0.07	0.02	16.40	4.05
Taking algebra II spring 2012	S2ALG2M12	3,558	43.1	3.28	0.83	15.56	3.94
Took an AP math course	S2APMATH	1,505	23.7	2.50	1.10	5.19	2.28
Took an AP science course	S2APSCIENCE	1,509	33.8	3.18	1.22	6.80	2.61
Taking biology II spring 2012	S2BIO2S12	3,405	2.2	0.64	0.25	6.29	2.51
Teenager's Birth Year	S2BIRTHYR	3,743	5.6	0.02	0.01	4.94	2.22
If accepted to college, family can't afford (4 Levels)	S2CANTAFFORD	3,654	3.1	0.04	0.01	9.49	3.08
How certain teenager is to attend most likely college/school (3 Levels)	S2CERTAINCLG	2,272	2.0	0.03	0.01	5.13	2.27
Searched Internet or read college guides for college options	S2CLGSEARCH	3,722	90.3	1.50	0.49	9.46	3.08
Teen has ever participated in Upward Bound	S2EVERUPWARD	3,665	2.4	0.02	0.01	4.96	2.23
Math or science is fav subj	S2FAVSUBJ	3,707	34.7	1.32	0.78	2.86	1.69
Grade teenager was in last school year (2010-2011)	S2GRD1011	3,722	2.0	0.00	0.00	1.46	1.21
Student's First Spoken Language (5 Levels)	S2LANG1ST	3,749	1.2	0.04	0.01	10.14	3.18
Confident can do excellent job on math tests (4 Levels)	S2MASSEXCL	3,669	2.0	0.03	0.01	5.72	2.39
Taking spring 2012 math because likes the challenged	S2MCHALLENGE	3,528	51.4	1.66	0.84	3.90	1.98
Student is enjoying math class (4 Levels)	S2MENJOYING	3,679	2.5	0.04	0.02	6.54	2.56
Student sees self as math person (4 Levels)	S2MPERSON1	3,679	2.5	0.03	0.02	3.36	1.83
Student thinks math class will be useful in career (4 Levels)	S2MUSEJOB	3,669	1.8	0.02	0.01	2.88	1.70
Teen thinks (spring 2012) math course is a waste of time (4 Levels)	S2MWASTE	3,676	3.1	0.02	0.01	2.98	1.73
How much student has thought about occupation at age 30 (4 Levels)	S2OCC30THINK	2,627	3.7	0.02	0.01	2.31	1.52
Teenager attended a school besides Base Year/transfer/last school	S2OTHHS	3,714	4.0	0.71	0.32	4.89	2.21
Confident can do excellent job on science assignments (4 Levels)	S2SASSEXCL	3,654	2.0	0.03	0.01	4.86	2.21

See notes at end of table

Table F-3. Student standard errors and design effects—Private schools—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Number of times teenager has taken the SAT or ACT	S2SATNUM	3,715	84.5	5.78	1.49	15.15	3.89
Teen is taking spring 2012 science because he/she likes to be challenged	S2SCHALLENGE	3,351	58.2	1.72	0.85	4.06	2.02
How teen compares males, females in science (5 Levels)	S2SCICOMP	3,658	3.2	0.03	0.01	5.38	2.32
Participated in a science competition	S2SCOMPETE	3,617	6.6	0.73	0.41	3.17	1.78
Teenager sees self as science person (4 Levels)	S2SPERSON1	3,675	2.4	0.03	0.02	5.18	2.28
How sure teenager is that he/she will pursue Bachelor's degree (4 Levels)	S2SUREBA	3,689	1.4	0.03	0.01	5.83	2.42
How sure teenager is that he/she will receive high school diploma (4 Levels)	S2SUREDIPL	3,721	1.0	0.01	0.00	3.86	1.96
Thinks science course is waste of time (4 Levels)	S2SWASTE	3,668	3.1	0.03	0.01	5.69	2.39
Times in class without books/reading material in last 6 months of school	S2WOBOOKS	3,713	1.6	0.04	0.01	6.15	2.48
At age 30 exp to be a manager	X2STU30OCC2 (composite)	3,703	4.4	0.46	0.34	1.89	1.37
At age 30 exp to be in the military	X2STU30OCC2 (composite)	3,703	0.7	0.20	0.13	2.16	1.47
At age 30 exp to be an operative	X2STU30OCC2 (composite)	3,703	0.4	0.17	0.10	2.78	1.67
At age 30 exp to be a clergyman	X2STU30OCC2 (composite)	3,703	1.4	0.54	0.19	7.59	2.75
At age 30 exp to be a technician	X2STU30OCC2 (composite)	3,703	23.0	1.20	0.69	3.00	1.73
At age 30 doesn't know what to be	X2STU30OCC2 (composite)	3,703	31.0	1.27	0.76	2.77	1.66
Math theta (raw)	X2TXMTH	3,336	1.4	0.05	0.01	11.04	3.32
Summary statistics							
Mean						5.84	2.32
Minimum						1.46	1.21
Median						5.05	2.25
Maximum						16.40	4.05
Standard deviation						3.72	0.70

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-4. Student standard errors and design effects—Northeast schools

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Teenager's final grade in algebra I (7 Levels)	S2ALG1GRADE	3,084	2.1	0.05	0.02	5.34	2.31
Taking algebra II spring 2012	S2ALG2M12	2,870	43.1	3.02	0.92	10.70	3.27
Took an AP math course	S2APMATH	977	23.8	3.64	1.36	7.13	2.67
Took an AP science course	S2APSCIENCE	979	32.5	2.88	1.50	3.70	1.92
Taking biology II spring 2012	S2BIO2S12	2,714	2.2	0.65	0.28	5.42	2.33
Teenager's Birth Year	S2BIRTHYR	3,204	5.6	0.04	0.01	12.38	3.52
If accepted to college, family can't afford (4 Levels)	S2CANTAFFORD	3,093	2.9	0.03	0.01	3.26	1.81
How certain teenager is to attend most likely college/school (3 Levels)	S2CERTAINCLG	1,533	1.9	0.05	0.02	8.28	2.88
Searched Internet or read college guides for college options	S2CLGSEARCH	3,176	82.0	1.64	0.68	5.77	2.40
Teen has ever participated in Upward Bound	S2EVERUPWARD	3,104	2.4	0.02	0.01	4.12	2.03
Math or science is fav subj	S2FAVSUBJ	3,162	33.3	1.68	0.84	4.00	2.00
Grade teenager was in last school year (2010-2011)	S2GRD1011	3,181	2.0	0.01	0.00	5.73	2.39
Student's First Spoken Language (5 Levels)	S2LANG1ST	3,208	1.4	0.04	0.02	5.88	2.42
Confident can do excellent job on math tests (4 Levels)	S2MASSEXCL	3,104	2.1	0.03	0.01	3.71	1.93
Taking spring 2012 math because likes the challenged	S2MCHALLENGE	2,850	50.3	1.35	0.94	2.09	1.45
Student is enjoying math class (4 Levels)	S2MENJOYING	3,121	2.5	0.03	0.02	2.89	1.70
Student sees self as math person (4 Levels)	S2MPERSON1	3,117	2.6	0.04	0.02	4.36	2.09
Student thinks math class will be useful in career (4 Levels)	S2MUSEJOB	3,106	1.7	0.04	0.01	10.47	3.24
Teen thinks (spring 2012) math course is a waste of time (4 Levels)	S2MWASTE	3,111	3.0	0.04	0.01	5.91	2.43
How much student has thought about occupation at age 30 (4 Levels)	S2OCC30THINK	2,269	3.8	0.02	0.01	3.91	1.98
Teenager attended a school besides Base Year/transfer/last school	S2OTHHS	3,175	3.0	0.62	0.30	4.28	2.07
Confident can do excellent job on science assignments (4 Levels)	S2SASSEXCL	3,076	2.1	0.03	0.01	3.61	1.90

See notes at end of table

Table F-4. Student standard errors and design effects—Northeast schools—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Number of times teenager has taken the SAT or ACT	S2SATNUM	3,166	43.9	3.10	1.41	4.82	2.20
Teen is taking spring 2012 science because he/she likes to be challenged	S2SCHALLENGE	2,652	55.4	2.35	0.97	5.91	2.43
How teen compares males, females in science (5 Levels)	S2SCICOMP	3,102	3.1	0.03	0.01	5.04	2.25
Participated in a science competition	S2SCOMPETE	3,080	5.1	0.65	0.40	2.66	1.63
Teenager sees self as science person (4 Levels)	S2SPERSON1	3,108	2.5	0.03	0.02	3.80	1.95
How sure teenager is that he/she will pursue Bachelor's degree (4 Levels)	S2SUREBA	3,155	1.7	0.02	0.02	2.26	1.50
How sure teenager is that he/she will receive high school diploma (4 Levels)	S2SUREDIPL	3,180	1.1	0.01	0.01	3.99	2.00
Thinks science course is waste of time (4 Levels)	S2SWASTE	3,092	3.0	0.03	0.02	3.93	1.98
Times in class without books/reading material in last 6 months of school	S2WOBOOKS	3,177	1.5	0.03	0.02	4.05	2.01
At age 30 exp to be a manager	X2STU30OCC2 (composite)	3,144	3.4	0.70	0.32	4.74	2.18
At age 30 exp to be in the military	X2STU30OCC2 (composite)	3,144	1.7	0.46	0.23	4.09	2.02
At age 30 exp to be an operative	X2STU30OCC2 (composite)	3,144	1.1	0.30	0.19	2.61	1.62
At age 30 exp to be a clergyman	X2STU30OCC2 (composite)	3,144	1.0	0.33	0.18	3.40	1.84
At age 30 exp to be a technician	X2STU30OCC2 (composite)	3,144	19.4	2.41	0.71	11.71	3.42
At age 30 doesn't know what to be	X2STU30OCC2 (composite)	3,144	28.1	2.06	0.80	6.61	2.57
Math theta (raw)	X2TXMTH	2,570	1.2	0.04	0.02	4.89	2.21
Summary statistics							
Mean						5.20	2.22
Minimum						2.09	1.45
Median						4.32	2.08
Maximum						12.38	3.52
Standard deviation						2.51	0.50

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-5. Student standard errors and design effects—Midwest schools

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Teenager's final grade in algebra I (7 Levels)	S2ALG1GRADE	5,247	2.2	0.03	0.02	3.97	1.99
Taking algebra II spring 2012	S2ALG2M12	4,838	44.1	1.62	0.71	5.16	2.27
Took an AP math course	S2APMATH	1,827	28.2	1.97	1.05	3.49	1.87
Took an AP science course	S2APSCIENCE	1,829	33.5	2.25	1.10	4.15	2.04
Taking biology II spring 2012	S2BIO2S12	4,424	5.0	0.95	0.33	8.26	2.87
Teenager's Birth Year	S2BIRTHYR	5,486	5.5	0.02	0.01	6.11	2.47
If accepted to college, family can't afford (4 Levels)	S2CANTAFFORD	5,342	2.8	0.03	0.01	5.57	2.36
How certain teenager is to attend most likely college/school (3 Levels)	S2CERTAINCLG	2,986	1.9	0.02	0.01	2.85	1.69
Searched Internet or read college guides for college options	S2CLGSEARCH	5,461	80.7	0.91	0.53	2.92	1.71
Teen has ever participated in Upward Bound	S2EVERUPWARD	5,353	2.3	0.02	0.01	7.96	2.82
Math or science is fav subj	S2FAVSUBJ	5,417	30.4	1.02	0.63	2.66	1.63
Grade teenager was in last school year (2010-2011)	S2GRD1011	5,437	2.0	0.01	0.00	4.67	2.16
Student's First Spoken Language (5 Levels)	S2LANG1ST	5,500	1.2	0.02	0.01	4.64	2.15
Confident can do excellent job on math tests (4 Levels)	S2MASSEXCL	5,341	2.1	0.02	0.01	3.20	1.79
Taking spring 2012 math because likes the challenged	S2MCHALLENGE	4,794	47.1	1.23	0.72	2.90	1.70
Student is enjoying math class (4 Levels)	S2MENJOYING	5,366	2.5	0.03	0.01	4.62	2.15
Student sees self as math person (4 Levels)	S2MPERSON1	5,370	2.6	0.03	0.01	3.90	1.97
Student thinks math class will be useful in career (4 Levels)	S2MUSEJOB	5,353	1.8	0.01	0.01	2.05	1.43
Teen thinks (spring 2012) math course is a waste of time (4 Levels)	S2MWASTE	5,358	2.9	0.02	0.01	2.86	1.69
How much student has thought about occupation at age 30 (4 Levels)	S2OCC30THINK	3,849	3.7	0.01	0.01	2.18	1.48
Teenager attended a school besides Base Year/transfer/last school	S2OTHHS	5,446	5.5	0.51	0.31	2.71	1.64
Confident can do excellent job on science assignments (4 Levels)	S2SASSEXCL	5,303	2.1	0.02	0.01	2.62	1.62

See notes at end of table

Table F-5. Student standard errors and design effects—Midwest schools—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Number of times teenager has taken the SAT or ACT	S2SATNUM	5,421	67.3	3.27	1.21	7.28	2.70
Teen is taking spring 2012 science because he/she likes to be challenged	S2SCHALLENGE	4,329	52.5	1.35	0.76	3.17	1.78
How teen compares males, females in science (5 Levels)	S2SCICOMP	5,355	3.2	0.02	0.01	2.77	1.67
Participated in a science competition	S2SCOMPETE	5,308	5.0	0.55	0.30	3.45	1.86
Teenager sees self as science person (4 Levels)	S2SPERSON1	5,354	2.5	0.02	0.01	2.56	1.60
How sure teenager is that he/she will pursue Bachelor's degree (4 Levels)	S2SUREBA	5,400	1.8	0.03	0.01	4.72	2.17
How sure teenager is that he/she will receive high school diploma (4 Levels)	S2SUREDIPL	5,416	1.2	0.01	0.01	2.29	1.51
Thinks science course is waste of time (4 Levels)	S2SWASTE	5,316	3.0	0.02	0.01	2.25	1.50
Times in class without books/reading material in last 6 months of school	S2WOBOOKS	5,437	1.6	0.02	0.01	2.44	1.56
At age 30 exp to be a manager	X2STU30OCC2 (composite)	5,393	4.4	0.39	0.28	1.90	1.38
At age 30 exp to be in the military	X2STU30OCC2 (composite)	5,393	1.5	0.26	0.17	2.40	1.55
At age 30 exp to be an operative	X2STU30OCC2 (composite)	5,393	1.3	0.23	0.15	2.36	1.54
At age 30 exp to be a clergyman	X2STU30OCC2 (composite)	5,393	1.6	0.30	0.17	3.04	1.74
At age 30 exp to be a technician	X2STU30OCC2 (composite)	5,393	20.5	0.77	0.55	1.97	1.40
At age 30 doesn't know what to be	X2STU30OCC2 (composite)	5,393	27.6	0.88	0.61	2.08	1.44
Math theta (raw)	X2TXMTH	4,196	1.1	0.03	0.01	5.22	2.28
Summary statistics							
Mean						3.67	1.87
Minimum						1.90	1.38
Median						2.98	1.73
Maximum						8.26	2.87
Standard deviation						1.66	0.40

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-6. Student standard errors and design effects—South schools

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Teenager's final grade in algebra I (7 Levels)	S2ALG1GRADE	8,093	2.1	0.03	0.01	5.51	2.35
Taking algebra II spring 2012	S2ALG2M12	6,768	42.5	1.42	0.60	5.61	2.37
Took an AP math course	S2APMATH	3,206	25.4	1.39	0.77	3.27	1.81
Took an AP science course	S2APSCIENCE	3,209	34.8	1.89	0.84	5.04	2.25
Taking biology II spring 2012	S2BIO2S12	6,398	3.1	0.61	0.22	7.94	2.82
Teenager's Birth Year	S2BIRTHYR	8,414	5.4	0.02	0.01	5.26	2.29
If accepted to college, family can't afford (4 Levels)	S2CANTAFFORD	8,165	2.8	0.02	0.01	6.11	2.47
How certain teenager is to attend most likely college/school (3 Levels)	S2CERTAINCLG	4,957	1.8	0.01	0.01	2.76	1.66
Searched Internet or read college guides for college options	S2CLGSEARCH	8,341	80.7	0.90	0.43	4.39	2.09
Teen has ever participated in Upward Bound	S2EVERUPWARD	8,197	2.3	0.01	0.01	4.06	2.01
Math or science is fav subj	S2FAVSUBJ	8,320	29.6	0.69	0.50	1.90	1.38
Grade teenager was in last school year (2010-2011)	S2GRD1011	8,309	2.0	0.01	0.00	3.44	1.85
Student's First Spoken Language (5 Levels)	S2LANG1ST	8,430	1.3	0.02	0.01	4.24	2.06
Confident can do excellent job on math tests (4 Levels)	S2MASSEXCL	8,185	2.1	0.02	0.01	4.29	2.07
Taking spring 2012 math because likes the challenged	S2MCHALLENGE	6,704	46.4	0.96	0.61	2.50	1.58
Student is enjoying math class (4 Levels)	S2MENJOYING	8,212	2.5	0.02	0.01	3.79	1.95
Student sees self as math person (4 Levels)	S2MPERSON1	8,233	2.7	0.02	0.01	2.32	1.52
Student thinks math class will be useful in career (4 Levels)	S2MUSEJOB	8,218	1.7	0.01	0.01	2.70	1.64
Teen thinks (spring 2012) math course is a waste of time (4 Levels)	S2MWASTE	8,202	3.0	0.02	0.01	2.77	1.66
How much student has thought about occupation at age 30 (4 Levels)	S2OCC30THINK	6,111	3.8	0.01	0.01	2.76	1.66
Teenager attended a school besides Base Year/transfer/last school	S2OTHHS	8,346	6.4	0.46	0.27	2.99	1.73
Confident can do excellent job on science assignments (4 Levels)	S2SASSEXCL	8,108	2.1	0.01	0.01	2.67	1.64

See notes at end of table

Table F-6. Student standard errors and design effects—South schools—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Number of times teenager has taken the SAT or ACT	S2SATNUM	8,304	69.7	2.78	1.01	7.58	2.75
Teen is taking spring 2012 science because he/she likes to be challenged	S2SCHALLENGE	6,208	51.8	1.04	0.63	2.70	1.64
How teen compares males, females in science (5 Levels)	S2SCICOMP	8,168	3.1	0.02	0.01	3.35	1.83
Participated in a science competition	S2SCOMPETE	8,081	6.1	0.65	0.27	5.90	2.43
Teenager sees self as science person (4 Levels)	S2SPERSON1	8,209	2.5	0.02	0.01	3.21	1.79
How sure teenager is that he/she will pursue Bachelor's degree (4 Levels)	S2SUREBA	8,309	1.8	0.02	0.01	3.91	1.98
How sure teenager is that he/she will receive high school diploma (4 Levels)	S2SUREDIPL	8,248	1.2	0.01	0.01	3.94	1.98
Thinks science course is waste of time (4 Levels)	S2SWASTE	8,138	3.0	0.02	0.01	3.46	1.86
Times in class without books/reading material in last 6 months of school	S2WOBOOKS	8,317	1.5	0.02	0.01	2.73	1.65
At age 30 exp to be a manager	X2STU30OCC2 (composite)	8,302	3.9	0.43	0.21	4.05	2.01
At age 30 exp to be in the military	X2STU30OCC2 (composite)	8,302	2.7	0.27	0.18	2.33	1.53
At age 30 exp to be an operative	X2STU30OCC2 (composite)	8,302	1.5	0.26	0.13	3.75	1.94
At age 30 exp to be a clergyman	X2STU30OCC2 (composite)	8,302	1.6	0.24	0.14	2.85	1.69
At age 30 exp to be a technician	X2STU30OCC2 (composite)	8,302	24.4	0.99	0.47	4.41	2.10
At age 30 doesn't know what to be	X2STU30OCC2 (composite)	8,302	25.1	0.73	0.48	2.38	1.54
Math theta (raw)	X2TXMTH	6,128	1.0	0.03	0.01	7.77	2.79
Summary statistics							
Mean						3.96	1.96
Minimum						1.90	1.38
Median						3.60	1.90
Maximum						7.94	2.82
Standard deviation						1.55	0.37

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-7. Student standard errors and design effects—West schools

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Teenager's final grade in algebra I (7 Levels)	S2ALG1GRADE	3,322	2.3	0.05	0.02	4.88	2.21
Taking algebra II spring 2012	S2ALG2M12	2,954	30.4	1.93	0.85	5.22	2.28
Took an AP math course	S2APMATH	1,254	24.1	2.53	1.21	4.39	2.10
Took an AP science course	S2APSCIENCE	1,250	29.7	2.48	1.29	3.67	1.92
Taking biology II spring 2012	S2BIO2S12	2,512	4.6	0.81	0.42	3.77	1.94
Teenager's Birth Year	S2BIRTHYR	3,447	5.6	0.02	0.01	4.72	2.17
If accepted to college, family can't afford (4 Levels)	S2CANTAFFORD	3,361	2.7	0.03	0.01	4.47	2.11
How certain teenager is to attend most likely college/school (3 Levels)	S2CERTAINCLG	1,811	1.9	0.03	0.02	3.79	1.95
Searched Internet or read college guides for college options	S2CLGSEARCH	3,424	74.9	1.91	0.74	6.63	2.57
Teen has ever participated in Upward Bound	S2EVERUPWARD	3,353	2.4	0.02	0.01	3.77	1.94
Math or science is fav subj	S2FAVSUBJ	3,408	29.6	1.69	0.78	4.66	2.16
Grade teenager was in last school year (2010-2011)	S2GRD1011	3,430	2.0	0.01	0.00	3.71	1.93
Student's First Spoken Language (5 Levels)	S2LANG1ST	3,453	1.6	0.05	0.02	7.69	2.77
Confident can do excellent job on math tests (4 Levels)	S2MASSEXCL	3,353	2.2	0.02	0.01	3.50	1.87
Taking spring 2012 math because likes the challenged	S2MCHALLENGE	2,928	41.6	1.64	0.91	3.25	1.80
Student is enjoying math class (4 Levels)	S2MENJOYING	3,373	2.6	0.03	0.02	4.01	2.00
Student sees self as math person (4 Levels)	S2MPERSON1	3,383	2.7	0.03	0.02	2.88	1.70
Student thinks math class will be useful in career (4 Levels)	S2MUSEJOB	3,355	1.8	0.02	0.01	2.66	1.63
Teen thinks (spring 2012) math course is a waste of time (4 Levels)	S2MWASTE	3,366	3.0	0.02	0.01	2.78	1.67
How much student has thought about occupation at age 30 (4 Levels)	S2OCC30THINK	2,410	3.7	0.02	0.01	3.29	1.81
Teenager attended a school besides Base Year/transfer/last school	S2OTHHS	3,426	7.6	0.77	0.45	2.90	1.70
Confident can do excellent job on science assignments (4 Levels)	S2SASSEXCL	3,333	2.1	0.03	0.01	4.96	2.23

See notes at end of table

Table F-7. Student standard errors and design effects—West schools—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Number of times teenager has taken the SAT or ACT	S2SATNUM	3,394	54.1	4.19	1.68	6.26	2.50
Teen is taking spring 2012 science because he/she likes to be challenged	S2SCHALLENGE	2,439	48.1	1.88	1.01	3.44	1.86
How teen compares males, females in science (5 Levels)	S2SCICOMP	3,358	3.1	0.04	0.01	7.08	2.66
Participated in a science competition	S2SCOMPETE	3,320	5.1	0.67	0.38	3.06	1.75
Teenager sees self as science person (4 Levels)	S2SPERSON1	3,375	2.6	0.03	0.02	3.53	1.88
How sure teenager is that he/she will pursue Bachelor's degree (4 Levels)	S2SUREBA	3,397	1.8	0.03	0.01	4.79	2.19
How sure teenager is that he/she will receive high school diploma (4 Levels)	S2SUREDIPL	3,397	1.2	0.02	0.01	5.41	2.33
Thinks science course is waste of time (4 Levels)	S2SWASTE	3,344	3.0	0.03	0.01	3.65	1.91
Times in class without books/reading material in last 6 months of school	S2WOBOOKS	3,411	1.6	0.04	0.02	6.58	2.56
At age 30 exp to be a manager	X2STU30OCC2 (composite)	3,401	3.3	0.48	0.31	2.46	1.57
At age 30 exp to be in the military	X2STU30OCC2 (composite)	3,401	1.3	0.31	0.20	2.51	1.58
At age 30 exp to be an operative	X2STU30OCC2 (composite)	3,401	0.8	0.31	0.15	4.03	2.01
At age 30 exp to be a clergyman	X2STU30OCC2 (composite)	3,401	2.0	0.55	0.24	5.35	2.31
At age 30 exp to be a technician	X2STU30OCC2 (composite)	3,401	20.2	1.36	0.69	3.93	1.98
At age 30 doesn't know what to be	X2STU30OCC2 (composite)	3,401	32.6	1.43	0.80	3.17	1.78
Math theta (raw)	X2TXMTH	2,606	1.1	0.04	0.02	5.26	2.29
Summary statistics							
Mean						4.27	2.04
Minimum						2.46	1.57
Median						3.86	1.96
Maximum						7.69	2.77
Standard deviation						1.31	0.31

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-8. Student standard errors and design effects—City schools

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Teenager's final grade in algebra I (7 Levels)	S2ALG1GRADE	5,647	2.2	0.04	0.02	8.36	2.89
Taking algebra II spring 2012	S2ALG2M12	5,074	40.0	1.82	0.69	7.00	2.65
Took an AP math course	S2APMATH	2,397	24.5	2.27	0.88	6.65	2.58
Took an AP science course	S2APSCIENCE	2,392	36.9	2.22	0.99	5.07	2.25
Taking biology II spring 2012	S2BIO2S12	4,682	3.5	0.68	0.27	6.48	2.54
Teenager's Birth Year	S2BIRTHYR	5,838	5.5	0.03	0.01	10.69	3.27
If accepted to college, family can't afford (4 Levels)	S2CANTAFFORD	5,658	2.7	0.03	0.01	7.13	2.67
How certain teenager is to attend most likely college/school (3 Levels)	S2CERTAINCLG	3,272	1.8	0.03	0.01	5.73	2.39
Searched Internet or read college guides for college options	S2CLGSEARCH	5,800	78.3	1.50	0.54	7.62	2.76
Teen has ever participated in Upward Bound	S2EVERUPWARD	5,693	2.3	0.02	0.01	8.09	2.84
Math or science is fav subj	S2FAVSUBJ	5,764	32.6	1.23	0.62	3.98	2.00
Grade teenager was in last school year (2010-2011)	S2GRD1011	5,776	2.0	0.01	0.00	5.55	2.36
Student's First Spoken Language (5 Levels)	S2LANG1ST	5,851	1.5	0.04	0.01	9.53	3.09
Confident can do excellent job on math tests (4 Levels)	S2MASSEXCL	5,670	2.1	0.02	0.01	4.60	2.14
Taking spring 2012 math because likes the challenged	S2MCHALLENGE	5,033	49.3	1.47	0.70	4.33	2.08
Student is enjoying math class (4 Levels)	S2MENJOYING	5,686	2.5	0.03	0.01	4.45	2.11
Student sees self as math person (4 Levels)	S2MPERSON1	5,706	2.6	0.03	0.01	3.95	1.99
Student thinks math class will be useful in career (4 Levels)	S2MUSEJOB	5,676	1.7	0.02	0.01	6.10	2.47
Teen thinks (spring 2012) math course is a waste of time (4 Levels)	S2MWASTE	5,679	3.0	0.02	0.01	4.77	2.19
How much student has thought about occupation at age 30 (4 Levels)	S2OCC30THINK	4,068	3.7	0.02	0.01	4.70	2.17
Teenager attended a school besides Base Year/transfer/last school	S2OTHHS	5,787	7.1	0.64	0.34	3.58	1.89
Confident can do excellent job on science assignments (4 Levels)	S2SASSEXCL	5,636	2.1	0.02	0.01	5.32	2.31

See notes at end of table

Table F-8. Student standard errors and design effects—City schools—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Number of times teenager has taken the SAT or ACT	S2SATNUM	5,767	63.4	3.51	1.26	7.72	2.78
Teen is taking spring 2012 science because he/she likes to be challenged	S2SCHALLENGE	4,558	51.5	1.92	0.74	6.71	2.59
How teen compares males, females in science (5 Levels)	S2SCICOMP	5,678	3.1	0.02	0.01	5.34	2.31
Participated in a science competition	S2SCOMPETE	5,603	6.8	0.81	0.34	5.79	2.41
Teenager sees self as science person (4 Levels)	S2SPERSON1	5,688	2.5	0.03	0.01	4.49	2.12
How sure teenager is that he/she will pursue Bachelor's degree (4 Levels)	S2SUREBA	5,752	1.8	0.03	0.01	5.46	2.34
How sure teenager is that he/she will receive high school diploma (4 Levels)	S2SUREDIPL	5,761	1.2	0.02	0.01	5.42	2.33
Thinks science course is waste of time (4 Levels)	S2SWASTE	5,648	3.0	0.02	0.01	5.35	2.31
Times in class without books/reading material in last 6 months of school	S2WOBOOKS	5,782	1.5	0.02	0.01	3.49	1.87
At age 30 exp to be a manager	X2STU30OCC2 (composite)	5,765	3.7	0.55	0.25	4.95	2.22
At age 30 exp to be in the military	X2STU30OCC2 (composite)	5,765	1.8	0.34	0.17	3.83	1.96
At age 30 exp to be an operative	X2STU30OCC2 (composite)	5,765	1.1	0.32	0.14	5.30	2.30
At age 30 exp to be a clergyman	X2STU30OCC2 (composite)	5,765	1.7	0.45	0.17	7.14	2.67
At age 30 exp to be a technician	X2STU30OCC2 (composite)	5,765	21.4	1.54	0.54	8.17	2.86
At age 30 doesn't know what to be	X2STU30OCC2 (composite)	5,765	29.3	1.30	0.60	4.72	2.17
Math theta (raw)	X2TXMTH	4,574	1.1	0.04	0.01	8.22	2.87
Summary statistics							
Mean						5.94	2.41
Minimum						3.49	1.87
Median						5.44	2.33
Maximum						10.69	3.27
Standard deviation						1.71	0.34

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-9. Student standard errors and design effects—Suburban schools

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Teenager's final grade in algebra I (7 Levels)	S2ALG1GRADE	7,078	2.2	0.03	0.01	5.27	2.30
Taking algebra II spring 2012	S2ALG2M12	6,451	40.1	1.45	0.61	5.63	2.37
Took an AP math course	S2APMATH	2,711	23.0	1.39	0.81	2.97	1.72
Took an AP science course	S2APSCIENCE	2,714	31.2	1.58	0.89	3.15	1.78
Taking biology II spring 2012	S2BIO2S12	5,902	2.4	0.33	0.20	2.75	1.66
Teenager's Birth Year	S2BIRTHYR	7,365	5.5	0.02	0.01	4.46	2.11
If accepted to college, family can't afford (4 Levels)	S2CANTAFFORD	7,143	2.8	0.02	0.01	3.84	1.96
How certain teenager is to attend most likely college/school (3 Levels)	S2CERTAINCLG	4,070	1.8	0.02	0.01	2.54	1.59
Searched Internet or read college guides for college options	S2CLGSEARCH	7,309	81.0	0.79	0.46	3.00	1.73
Teen has ever participated in Upward Bound	S2EVERUPWARD	7,141	2.3	0.01	0.01	2.33	1.52
Math or science is fav subj	S2FAVSUBJ	7,254	30.3	0.92	0.54	2.93	1.71
Grade teenager was in last school year (2010-2011)	S2GRD1011	7,295	2.0	0.01	0.00	3.31	1.82
Student's First Spoken Language (5 Levels)	S2LANG1ST	7,376	1.4	0.03	0.01	7.37	2.72
Confident can do excellent job on math tests (4 Levels)	S2MASSEXCL	7,128	2.1	0.02	0.01	2.65	1.63
Taking spring 2012 math because likes the challenged	S2MCHALLENGE	6,399	45.8	1.11	0.62	3.19	1.79
Student is enjoying math class (4 Levels)	S2MENJOYING	7,172	2.5	0.02	0.01	2.98	1.73
Student sees self as math person (4 Levels)	S2MPERSON1	7,180	2.6	0.02	0.01	2.99	1.73
Student thinks math class will be useful in career (4 Levels)	S2MUSEJOB	7,177	1.8	0.01	0.01	2.33	1.53
Teen thinks (spring 2012) math course is a waste of time (4 Levels)	S2MWASTE	7,155	3.0	0.01	0.01	2.10	1.45
How much student has thought about occupation at age 30 (4 Levels)	S2OCC30THINK	5,229	3.7	0.01	0.01	2.80	1.67
Teenager attended a school besides Base Year/transfer/last school	S2OTHHS	7,303	5.2	0.45	0.26	2.94	1.72
Confident can do excellent job on science assignments (4 Levels)	S2SASSEXCL	7,085	2.1	0.01	0.01	2.37	1.54

See notes at end of table

Table F-9. Student standard errors and design effects—Suburban schools—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Number of times teenager has taken the SAT or ACT	S2SATNUM	7,262	60.5	2.54	1.04	6.00	2.45
Teen is taking spring 2012 science because he/she likes to be challenged	S2SCHALLENGE	5,754	53.6	1.20	0.66	3.34	1.83
How teen compares males, females in science (5 Levels)	S2SCICOMP	7,156	3.1	0.02	0.01	3.19	1.79
Participated in a science competition	S2SCOMPETE	7,081	4.8	0.40	0.25	2.54	1.59
Teenager sees self as science person (4 Levels)	S2SPERSON1	7,178	2.5	0.02	0.01	2.29	1.51
How sure teenager is that he/she will pursue Bachelor's degree (4 Levels)	S2SUREBA	7,270	1.7	0.02	0.01	2.91	1.70
How sure teenager is that he/she will receive high school diploma (4 Levels)	S2SUREDIPL	7,252	1.2	0.01	0.01	3.18	1.78
Thinks science course is waste of time (4 Levels)	S2SWASTE	7,119	3.0	0.02	0.01	2.36	1.54
Times in class without books/reading material in last 6 months of school	S2WOBOOKS	7,288	1.6	0.03	0.01	6.49	2.55
At age 30 exp to be a manager	X2STU30OCC2 (composite)	7,232	3.9	0.34	0.23	2.25	1.50
At age 30 exp to be in the military	X2STU30OCC2 (composite)	7,232	1.6	0.18	0.15	1.52	1.23
At age 30 exp to be an operative	X2STU30OCC2 (composite)	7,232	0.5	0.11	0.09	1.78	1.33
At age 30 exp to be a clergyman	X2STU30OCC2 (composite)	7,232	1.3	0.18	0.13	1.86	1.36
At age 30 exp to be a technician	X2STU30OCC2 (composite)	7,232	20.4	0.74	0.47	2.47	1.57
At age 30 doesn't know what to be	X2STU30OCC2 (composite)	7,232	28.8	0.87	0.53	2.68	1.64
Math theta (raw)	X2TXMTH	5,716	1.2	0.03	0.01	5.27	2.30
Summary statistics							
Mean						3.26	1.77
Minimum						1.52	1.23
Median						2.93	1.71
Maximum						7.37	2.72
Standard deviation						1.35	0.34

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-10. Student standard errors and design effects—Town schools

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Teenager's final grade in algebra I (7 Levels)	S2ALG1GRADE	2,332	2.2	0.05	0.02	3.73	1.93
Taking algebra II spring 2012	S2ALG2M12	1,986	39.6	3.13	1.10	8.11	2.85
Took an AP math course	S2APMATH	658	33.6	3.40	1.84	3.40	1.84
Took an AP science course	S2APSCIENCE	662	36.4	3.76	1.87	4.03	2.01
Taking biology II spring 2012	S2BIO2S12	1,788	6.0	1.40	0.56	6.20	2.49
Teenager's Birth Year	S2BIRTHYR	2,440	5.5	0.03	0.01	5.82	2.41
If accepted to college, family can't afford (4 Levels)	S2CANTAFFORD	2,376	2.8	0.03	0.02	3.82	1.95
How certain teenager is to attend most likely college/school (3 Levels)	S2CERTAINCLG	1,288	1.8	0.03	0.02	3.51	1.87
Searched Internet or read college guides for college options	S2CLGSEARCH	2,427	77.9	1.57	0.84	3.48	1.87
Teen has ever participated in Upward Bound	S2EVERUPWARD	2,383	2.3	0.03	0.01	8.74	2.96
Math or science is fav subj	S2FAVSUBJ	2,413	26.1	1.37	0.89	2.34	1.53
Grade teenager was in last school year (2010-2011)	S2GRD1011	2,421	2.0	0.01	0.01	2.99	1.73
Student's First Spoken Language (5 Levels)	S2LANG1ST	2,447	1.1	0.03	0.01	5.24	2.29
Confident can do excellent job on math tests (4 Levels)	S2MASSEXCL	2,382	2.2	0.03	0.02	4.56	2.13
Taking spring 2012 math because likes the challenged	S2MCHALLENGE	1,971	41.6	1.79	1.11	2.60	1.61
Student is enjoying math class (4 Levels)	S2MENJOYING	2,394	2.6	0.05	0.02	6.31	2.51
Student sees self as math person (4 Levels)	S2MPERSON1	2,391	2.8	0.04	0.02	3.92	1.98
Student thinks math class will be useful in career (4 Levels)	S2MUSEJOB	2,370	1.8	0.03	0.01	3.65	1.91
Teen thinks (spring 2012) math course is a waste of time (4 Levels)	S2MWASTE	2,388	2.9	0.03	0.02	3.31	1.82
How much student has thought about occupation at age 30 (4 Levels)	S2OCC30THINK	1,759	3.7	0.02	0.01	2.15	1.47
Teenager attended a school besides Base Year/transfer/last school	S2OTHHS	2,429	5.5	0.71	0.46	2.33	1.53
Confident can do excellent job on science assignments (4 Levels)	S2SASSEXCL	2,346	2.1	0.04	0.02	4.52	2.13

See notes at end of table

Table F-10. Student standard errors and design effects—Town schools—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Number of times teenager has taken the SAT or ACT	S2SATNUM	2,418	58.1	5.36	1.84	8.52	2.92
Teen is taking spring 2012 science because he/she likes to be challenged	S2SCHALLENGE	1,740	49.1	2.07	1.20	2.99	1.73
How teen compares males, females in science (5 Levels)	S2SCICOMP	2,366	3.1	0.03	0.02	2.80	1.67
Participated in a science competition	S2SCOMPETE	2,362	4.5	0.71	0.43	2.75	1.66
Teenager sees self as science person (4 Levels)	S2SPERSON1	2,380	2.6	0.03	0.02	2.72	1.65
How sure teenager is that he/she will pursue Bachelor's degree (4 Levels)	S2SUREBA	2,410	2.0	0.03	0.02	2.91	1.70
How sure teenager is that he/she will receive high school diploma (4 Levels)	S2SUREDIPL	2,410	1.2	0.02	0.01	3.31	1.82
Thinks science course is waste of time (4 Levels)	S2SWASTE	2,356	3.0	0.03	0.02	4.01	2.00
Times in class without books/reading material in last 6 months of school	S2WOBOOKS	2,420	1.6	0.04	0.02	3.68	1.92
At age 30 exp to be a manager	X2STU30OCC2 (composite)	2,408	3.9	0.59	0.40	2.23	1.49
At age 30 exp to be in the military	X2STU30OCC2 (composite)	2,408	3.3	0.58	0.36	2.57	1.60
At age 30 exp to be an operative	X2STU30OCC2 (composite)	2,408	2.0	0.52	0.29	3.24	1.80
At age 30 exp to be a clergyman	X2STU30OCC2 (composite)	2,408	2.0	0.55	0.28	3.80	1.95
At age 30 exp to be a technician	X2STU30OCC2 (composite)	2,408	22.9	1.51	0.86	3.10	1.76
At age 30 doesn't know what to be	X2STU30OCC2 (composite)	2,408	26.3	1.57	0.90	3.07	1.75
Math theta (raw)	X2TXMTH	1,716	96.2	3.55	1.74	4.18	2.04
Summary statistics							
Mean						3.96	1.96
Minimum						2.15	1.47
Median						3.50	1.87
Maximum						8.74	2.96
Standard deviation						1.68	0.38

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-11. Student standard errors and design effects—Rural schools

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Teenager's final grade in algebra I (7 Levels)	S2ALG1GRADE	4,689	2.1	0.04	0.02	4.99	2.23
Taking algebra II spring 2012	S2ALG2M12	3,919	40.8	2.04	0.79	6.77	2.60
Took an AP math course	S2APMATH	1,498	27.4	2.05	1.15	3.17	1.78
Took an AP science course	S2APSCIENCE	1,499	28.2	2.38	1.16	4.21	2.05
Taking biology II spring 2012	S2BIO2S12	3,676	4.8	1.00	0.35	8.06	2.84
Teenager's Birth Year	S2BIRTHYR	4,908	5.5	0.02	0.01	5.02	2.24
If accepted to college, family can't afford (4 Levels)	S2CANTAFFORD	4,784	2.8	0.03	0.01	4.96	2.23
How certain teenager is to attend most likely college/school (3 Levels)	S2CERTAINCLG	2,657	1.8	0.02	0.01	2.47	1.57
Searched Internet or read college guides for college options	S2CLGSEARCH	4,866	80.3	1.31	0.57	5.24	2.29
Teen has ever participated in Upward Bound	S2EVERUPWARD	4,790	2.3	0.02	0.01	4.87	2.21
Math or science is fav subj	S2FAVSUBJ	4,876	29.8	1.13	0.65	2.98	1.73
Grade teenager was in last school year (2010-2011)	S2GRD1011	4,865	2.0	0.01	0.00	2.58	1.61
Student's First Spoken Language (5 Levels)	S2LANG1ST	4,917	1.2	0.03	0.01	8.97	3.00
Confident can do excellent job on math tests (4 Levels)	S2MASSEXCL	4,803	2.1	0.02	0.01	3.19	1.79
Taking spring 2012 math because likes the challenged	S2MCHALLENGE	3,873	44.4	1.15	0.80	2.07	1.44
Student is enjoying math class (4 Levels)	S2MENJOYING	4,820	2.5	0.02	0.01	2.75	1.66
Student sees self as math person (4 Levels)	S2MPERSON1	4,826	2.6	0.02	0.01	3.06	1.75
Student thinks math class will be useful in career (4 Levels)	S2MUSEJOB	4,809	1.7	0.02	0.01	2.61	1.61
Teen thinks (spring 2012) math course is a waste of time (4 Levels)	S2MWASTE	4,815	3.0	0.02	0.01	2.40	1.55
How much student has thought about occupation at age 30 (4 Levels)	S2OCC30THINK	3,583	3.8	0.01	0.01	1.90	1.38
Teenager attended a school besides Base Year/transfer/last school	S2OTHHS	4,874	5.3	0.59	0.32	3.32	1.82
Confident can do excellent job on science assignments (4 Levels)	S2SASSEXCL	4,753	2.1	0.02	0.01	3.98	2.00

See notes at end of table

Table F-11. Student standard errors and design effects—Rural schools—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Number of times teenager has taken the SAT or ACT	S2SATNUM	4,838	60.3	3.51	1.27	7.57	2.75
Teen is taking spring 2012 science because he/she likes to be challenged	S2SCHALLENGE	3,576	51.0	1.31	0.84	2.44	1.56
How teen compares males, females in science (5 Levels)	S2SCICOMP	4,783	3.1	0.03	0.01	5.46	2.34
Participated in a science competition	S2SCOMPETE	4,743	5.1	0.59	0.32	3.43	1.85
Teenager sees self as science person (4 Levels)	S2SPERSON1	4,800	2.5	0.02	0.01	3.48	1.86
How sure teenager is that he/she will pursue Bachelor's degree (4 Levels)	S2SUREBA	4,829	1.8	0.03	0.01	4.81	2.19
How sure teenager is that he/she will receive high school diploma (4 Levels)	S2SUREDIPL	4,818	1.1	0.01	0.01	3.04	1.74
Thinks science course is waste of time (4 Levels)	S2SWASTE	4,767	3.0	0.02	0.01	1.72	1.31
Times in class without books/reading material in last 6 months of school	S2WOBOOKS	4,852	1.5	0.02	0.01	2.55	1.60
At age 30 exp to be a manager	X2STU30OCC2 (composite)	4,835	3.6	0.36	0.27	1.83	1.35
At age 30 exp to be in the military	X2STU30OCC2 (composite)	4,835	2.0	0.31	0.20	2.33	1.53
At age 30 exp to be an operative	X2STU30OCC2 (composite)	4,835	1.9	0.32	0.20	2.71	1.65
At age 30 exp to be a clergyman	X2STU30OCC2 (composite)	4,835	1.8	0.34	0.19	3.23	1.80
At age 30 exp to be a technician	X2STU30OCC2 (composite)	4,835	23.5	1.20	0.61	3.85	1.96
At age 30 doesn't know what to be	X2STU30OCC2 (composite)	4,835	25.4	0.97	0.63	2.42	1.56
Math theta (raw)	X2TXMTH	3,494	1.1	0.03	0.01	5.26	2.29
Summary statistics							
Mean						3.83	1.91
Minimum						1.72	1.31
Median						3.21	1.79
Maximum						8.97	3.00
Standard deviation						1.77	0.42

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-12. Student standard errors and design effects—Male students

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Teenager's final grade in algebra I (7 Levels)	S2ALG1GRADE	9,922	2.2	0.02	0.01	4.02	2.01
Taking algebra II spring 2012	S2ALG2M12	8,750	39.1	1.11	0.52	4.50	2.12
Took an AP math course	S2APMATH	3,322	30.9	1.35	0.80	2.83	1.68
Took an AP science course	S2APSCIENCE	3,321	34.3	1.59	0.82	3.71	1.93
Taking biology II spring 2012	S2BIO2S12	8,033	3.5	0.41	0.21	3.89	1.97
Teenager's Birth Year	S2BIRTHYR	10,354	5.4	0.01	0.01	4.29	2.07
If accepted to college, family can't afford (4 Levels)	S2CANTAFFORD	10,042	2.8	0.02	0.01	4.63	2.15
How certain teenager is to attend most likely college/school (3 Levels)	S2CERTAINCLG	5,100	1.8	0.02	0.01	3.24	1.80
Searched Internet or read college guides for college options	S2CLGSEARCH	10,281	72.8	0.97	0.44	4.89	2.21
Teen has ever participated in Upward Bound	S2EVERUPWARD	10,066	2.3	0.01	0.01	4.08	2.02
Math or science is fav subj	S2FAVSUBJ	10,218	31.8	0.81	0.46	3.10	1.76
Grade teenager was in last school year (2010-2011)	S2GRD1011	10,249	2.0	0.01	0.00	3.21	1.79
Student's First Spoken Language (5 Levels)	S2LANG1ST	10,383	1.3	0.02	0.01	5.26	2.29
Confident can do excellent job on math tests (4 Levels)	S2MASSEXCL	10,039	2.1	0.02	0.01	4.15	2.04
Taking spring 2012 math because likes the challenged	S2MCHALLENGE	8,669	46.6	1.02	0.54	3.65	1.91
Student is enjoying math class (4 Levels)	S2MENJOYING	10,093	2.5	0.02	0.01	3.76	1.94
Student sees self as math person (4 Levels)	S2MPERSON1	10,136	2.6	0.02	0.01	3.59	1.89
Student thinks math class will be useful in career (4 Levels)	S2MUSEJOB	10,080	1.7	0.01	0.01	3.04	1.74
Teen thinks (spring 2012) math course is a waste of time (4 Levels)	S2MWASTE	10,059	2.9	0.02	0.01	3.30	1.82
How much student has thought about occupation at age 30 (4 Levels)	S2OCC30THINK	6,899	3.7	0.01	0.01	3.12	1.77
Teenager attended a school besides Base Year/transfer/last school	S2OTHHS	10,268	5.6	0.36	0.23	2.52	1.59
Confident can do excellent job on science assignments (4 Levels)	S2SASSEXCL	9,952	2.0	0.02	0.01	3.85	1.96

See notes at end of table

Table F-12. Student standard errors and design effects—Male students—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Number of times teenager has taken the SAT or ACT	S2SATNUM	10,199	60.3	2.28	0.92	6.17	2.48
Teen is taking spring 2012 science because he/she likes to be challenged	S2SCHALLENGE	7,762	52.9	1.20	0.57	4.49	2.12
How teen compares males, females in science (5 Levels)	S2SCICOMP	10,064	3.2	0.02	0.01	3.45	1.86
Participated in a science competition	S2SCOMPETE	9,933	6.2	0.42	0.24	2.97	1.72
Teenager sees self as science person (4 Levels)	S2SPERSON1	10,093	2.5	0.02	0.01	3.23	1.80
How sure teenager is that he/she will pursue Bachelor's degree (4 Levels)	S2SUREBA	10,197	1.9	0.02	0.01	4.38	2.09
How sure teenager is that he/she will receive high school diploma (4 Levels)	S2SUREDIPL	10,181	1.2	0.01	0.01	3.70	1.92
Thinks science course is waste of time (4 Levels)	S2SWASTE	10,004	3.0	0.02	0.01	3.87	1.97
Times in class without books/reading material in last 6 months of school	S2WOBOOKS	10,228	1.6	0.02	0.01	4.11	2.03
At age 30 exp to be a manager	X2STU30OCC2 (composite)	10,178	5.1	0.39	0.22	3.11	1.76
At age 30 exp to be in the military	X2STU30OCC2 (composite)	10,178	3.2	0.28	0.17	2.56	1.60
At age 30 exp to be an operative	X2STU30OCC2 (composite)	10,178	1.9	0.24	0.14	3.04	1.74
At age 30 exp to be a clergyman	X2STU30OCC2 (composite)	10,178	0.6	0.12	0.08	2.35	1.53
At age 30 exp to be a technician	X2STU30OCC2 (composite)	10,178	9.9	0.57	0.30	3.72	1.93
At age 30 doesn't know what to be	X2STU30OCC2 (composite)	10,178	33.1	0.79	0.47	2.90	1.70
Math theta (raw)	X2TXMTH	7,739	1.1	0.02	0.01	3.58	1.89
Summary statistics							
Mean						3.69	1.91
Minimum						2.35	1.53
Median						3.67	1.92
Maximum						6.17	2.48
Standard deviation						0.79	0.20

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-13. Student standard errors and design effects—Female students

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Teenager's final grade in algebra I (7 Levels)	S2ALG1GRADE	9,824	2.1	0.02	0.01	4.58	2.14
Taking algebra II spring 2012	S2ALG2M12	8,680	41.3	1.18	0.53	5.03	2.24
Took an AP math course	S2APMATH	3,942	20.8	1.13	0.65	3.06	1.75
Took an AP science course	S2APSCIENCE	3,946	31.9	1.37	0.74	3.41	1.85
Taking biology II spring 2012	S2BIO2S12	8,015	3.9	0.53	0.22	6.05	2.46
Teenager's Birth Year	S2BIRTHYR	10,197	5.6	0.01	0.01	5.20	2.28
If accepted to college, family can't afford (4 Levels)	S2CANTAFFORD	9,919	2.8	0.02	0.01	3.57	1.89
How certain teenager is to attend most likely college/school (3 Levels)	S2CERTAINCLG	6,187	1.8	0.01	0.01	3.29	1.81
Searched Internet or read college guides for college options	S2CLGSEARCH	10,121	86.5	0.67	0.34	3.88	1.97
Teen has ever participated in Upward Bound	S2EVERUPWARD	9,941	2.3	0.01	0.01	3.97	1.99
Math or science is fav subj	S2FAVSUBJ	10,089	29.1	0.85	0.45	3.51	1.87
Grade teenager was in last school year (2010-2011)	S2GRD1011	10,108	2.0	0.01	0.00	3.94	1.98
Student's First Spoken Language (5 Levels)	S2LANG1ST	10,208	1.4	0.02	0.01	4.64	2.15
Confident can do excellent job on math tests (4 Levels)	S2MASSEXCL	9,944	2.2	0.01	0.01	3.57	1.89
Taking spring 2012 math because likes the challenged	S2MCHALLENGE	8,607	45.7	0.93	0.54	2.97	1.72
Student is enjoying math class (4 Levels)	S2MENJOYING	9,979	2.6	0.02	0.01	3.41	1.85
Student sees self as math person (4 Levels)	S2MPERSON1	9,967	2.7	0.02	0.01	3.40	1.84
Student thinks math class will be useful in career (4 Levels)	S2MUSEJOB	9,952	1.8	0.02	0.01	4.58	2.14
Teen thinks (spring 2012) math course is a waste of time (4 Levels)	S2MWASTE	9,978	3.0	0.01	0.01	3.00	1.73
How much student has thought about occupation at age 30 (4 Levels)	S2OCC30THINK	7,740	3.8	0.01	0.01	3.93	1.98
Teenager attended a school besides Base Year/transfer/last school	S2OTHHS	10,125	6.2	0.39	0.24	2.70	1.64
Confident can do excellent job on science assignments (4 Levels)	S2SASSEXCL	9,868	2.1	0.01	0.01	3.07	1.75

See notes at end of table

Table F-13. Student standard errors and design effects—Female students—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Number of times teenager has taken the SAT or ACT	S2SATNUM	10,086	61.9	2.01	0.89	5.09	2.26
Teen is taking spring 2012 science because he/she likes to be challenged	S2SCHALLENGE	7,866	50.8	1.03	0.56	3.36	1.83
How teen compares males, females in science (5 Levels)	S2SCICOMP	9,919	3.0	0.01	0.01	2.97	1.72
Participated in a science competition	S2SCOMPETE	9,856	4.7	0.40	0.21	3.55	1.88
Teenager sees self as science person (4 Levels)	S2SPERSON1	9,953	2.6	0.02	0.01	2.81	1.68
How sure teenager is that he/she will pursue Bachelor's degree (4 Levels)	S2SUREBA	10,064	1.7	0.01	0.01	3.35	1.83
How sure teenager is that he/she will receive high school diploma (4 Levels)	S2SUREDIPL	10,060	1.1	0.01	0.00	3.20	1.79
Thinks science course is waste of time (4 Levels)	S2SWASTE	9,886	3.1	0.01	0.01	2.20	1.48
Times in class without books/reading material in last 6 months of school	S2WOBOOKS	10,114	1.4	0.01	0.01	2.97	1.72
At age 30 exp to be a manager	X2STU30OCC2 (composite)	10,062	2.4	0.23	0.15	2.34	1.53
At age 30 exp to be in the military	X2STU30OCC2 (composite)	10,062	0.7	0.14	0.08	3.05	1.75
At age 30 exp to be an operative	X2STU30OCC2 (composite)	10,062	0.5	0.15	0.07	4.18	2.04
At age 30 exp to be a clergyman	X2STU30OCC2 (composite)	10,062	2.6	0.34	0.16	4.41	2.10
At age 30 exp to be a technician	X2STU30OCC2 (composite)	10,062	33.6	0.87	0.47	3.40	1.84
At age 30 doesn't know what to be	X2STU30OCC2 (composite)	10,062	22.7	0.75	0.42	3.21	1.79
Math theta (raw)	X2TXMTH	7,761	1.1	0.02	0.01	5.11	2.26
Summary statistics							
Mean						3.68	1.91
Minimum						2.20	1.48
Median						3.41	1.85
Maximum						6.05	2.46
Standard deviation						0.86	0.22

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-14. Student standard errors and design effects—Hispanic students

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Teenager's final grade in algebra I (7 Levels)	S2ALG1GRADE	3,112	2.4	0.04	0.02	3.63	1.91
Taking algebra II spring 2012	S2ALG2M12	2,705	39.4	2.07	0.94	4.86	2.21
Took an AP math course	S2APMATH	959	20.4	2.12	1.30	2.65	1.63
Took an AP science course	S2APSCIENCE	958	30.9	2.47	1.49	2.73	1.65
Taking biology II spring 2012	S2BIO2S12	2,445	3.8	0.78	0.39	4.08	2.02
Teenager's Birth Year	S2BIRTHYR	3,260	5.5	0.03	0.01	5.19	2.28
If accepted to college, family can't afford (4 Levels)	S2CANTAFFORD	3,141	2.6	0.03	0.01	3.61	1.90
How certain teenager is to attend most likely college/school (3 Levels)	S2CERTAINCLG	1,513	1.8	0.04	0.02	4.70	2.17
Searched Internet or read college guides for college options	S2CLGSEARCH	3,232	72.4	1.61	0.79	4.21	2.05
Teen has ever participated in Upward Bound	S2EVERUPWARD	3,138	2.3	0.02	0.01	3.31	1.82
Math or science is fav subj	S2FAVSUBJ	3,205	30.0	1.57	0.81	3.75	1.94
Grade teenager was in last school year (2010-2011)	S2GRD1011	3,213	2.0	0.01	0.01	3.42	1.85
Student's First Spoken Language (5 Levels)	S2LANG1ST	3,270	1.9	0.04	0.02	3.86	1.97
Confident can do excellent job on math tests (4 Levels)	S2MASSEXCL	3,124	2.2	0.03	0.01	3.96	1.99
Taking spring 2012 math because likes the challenged	S2MCHALLENGE	2,681	42.4	1.76	0.95	3.41	1.85
Student is enjoying math class (4 Levels)	S2MENJOYING	3,154	2.5	0.03	0.02	4.55	2.13
Student sees self as math person (4 Levels)	S2MPERSON1	3,160	2.7	0.04	0.02	4.49	2.12
Student thinks math class will be useful in career (4 Levels)	S2MUSEJOB	3,158	1.7	0.02	0.01	2.01	1.42
Teen thinks (spring 2012) math course is a waste of time (4 Levels)	S2MWASTE	3,148	3.0	0.03	0.01	3.76	1.94
How much student has thought about occupation at age 30 (4 Levels)	S2OCC30THINK	2,242	3.7	0.02	0.01	3.65	1.91
Teenager attended a school besides Base Year/transfer/last school	S2OTHHS	3,228	7.4	0.85	0.46	3.39	1.84
Confident can do excellent job on science assignments (4 Levels)	S2SASSEXCL	3,115	2.2	0.03	0.01	3.80	1.95

See notes at end of table

Table F-14. Student standard errors and design effects—Hispanic students—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Number of times teenager has taken the SAT or ACT	S2SATNUM	3,204	61.1	3.88	1.82	4.52	2.13
Teen is taking spring 2012 science because he/she likes to be challenged	S2SCHALLENGE	2,374	45.2	2.19	1.02	4.60	2.14
How teen compares males, females in science (5 Levels)	S2SCICOMP	3,148	3.0	0.03	0.01	4.29	2.07
Participated in a science competition	S2SCOMPETE	3,115	4.4	0.67	0.37	3.34	1.83
Teenager sees self as science person (4 Levels)	S2SPERSON1	3,147	2.6	0.03	0.02	3.83	1.96
How sure teenager is that he/she will pursue Bachelor's degree (4 Levels)	S2SUREBA	3,206	1.9	0.03	0.01	4.68	2.16
How sure teenager is that he/she will receive high school diploma (4 Levels)	S2SUREDIPL	3,186	1.3	0.02	0.01	5.03	2.24
Thinks science course is waste of time (4 Levels)	S2SWASTE	3,131	3.0	0.03	0.01	4.54	2.13
Times in class without books/reading material in last 6 months of school	S2WOBOOKS	3,216	1.5	0.04	0.02	4.91	2.22
At age 30 exp to be a manager	X2STU30OCC2 (composite)	3,197	3.6	0.59	0.33	3.24	1.80
At age 30 exp to be in the military	X2STU30OCC2 (composite)	3,197	1.7	0.41	0.23	3.31	1.82
At age 30 exp to be an operative	X2STU30OCC2 (composite)	3,197	1.1	0.36	0.18	3.81	1.95
At age 30 exp to be a clergyman	X2STU30OCC2 (composite)	3,197	1.7	0.55	0.23	5.96	2.44
At age 30 exp to be a technician	X2STU30OCC2 (composite)	3,197	20.8	1.47	0.72	4.18	2.04
At age 30 doesn't know what to be	X2STU30OCC2 (composite)	3,197	31.7	1.54	0.82	3.49	1.87
Math theta (raw)	X2TXMTH	2,200	91.4	2.79	1.49	3.50	1.87
Summary statistics							
Mean						3.95	1.98
Minimum						2.01	1.42
Median						3.82	1.95
Maximum						5.96	2.44
Standard deviation						0.77	0.20

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-15. Student standard errors and design effects—Asian students

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Teenager's final grade in algebra I (7 Levels)	S2ALG1GRADE	1,629	1.6	0.06	0.02	6.65	2.58
Taking algebra II spring 2012	S2ALG2M12	1,524	27.0	2.59	1.14	5.21	2.28
Took an AP math course	S2APMATH	997	40.4	4.86	1.55	9.77	3.13
Took an AP science course	S2APSCIENCE	996	39.5	4.14	1.55	7.14	2.67
Taking biology II spring 2012	S2BIO2S12	1,467	1.6	0.55	0.33	2.76	1.66
Teenager's Birth Year	S2BIRTHYR	1,673	5.7	0.03	0.01	4.76	2.18
If accepted to college, family can't afford (4 Levels)	S2CANTAFFORD	1,613	2.9	0.04	0.02	4.75	2.18
How certain teenager is to attend most likely college/school (3 Levels)	S2CERTAINCLG	968	1.9	0.05	0.02	4.70	2.17
Searched Internet or read college guides for college options	S2CLGSEARCH	1,655	86.4	2.24	0.84	7.10	2.66
Teen has ever participated in Upward Bound	S2EVERUPWARD	1,624	2.4	0.04	0.01	7.74	2.78
Math or science is fav subj	S2FAVSUBJ	1,654	43.3	1.97	1.22	2.62	1.62
Grade teenager was in last school year (2010-2011)	S2GRD1011	1,657	2.0	0.01	0.00	1.98	1.41
Student's First Spoken Language (5 Levels)	S2LANG1ST	1,675	2.7	0.10	0.04	6.92	2.63
Confident can do excellent job on math tests (4 Levels)	S2MASSEXCL	1,620	2.0	0.03	0.02	3.58	1.89
Taking spring 2012 math because likes the challenged	S2MCHALLENGE	1,517	60.1	2.40	1.26	3.65	1.91
Student is enjoying math class (4 Levels)	S2MENJOYING	1,631	2.3	0.05	0.02	6.39	2.53
Student sees self as math person (4 Levels)	S2MPERSON1	1,617	2.3	0.04	0.02	2.97	1.72
Student thinks math class will be useful in career (4 Levels)	S2MUSEJOB	1,623	1.7	0.04	0.02	5.98	2.45
Teen thinks (spring 2012) math course is a waste of time (4 Levels)	S2MWASTE	1,629	3.2	0.04	0.02	3.80	1.95
How much student has thought about occupation at age 30 (4 Levels)	S2OCC30THINK	1,089	3.7	0.03	0.02	3.08	1.75
Teenager attended a school besides Base Year/transfer/last school	S2OTHHS	1,651	1.7	0.66	0.32	4.21	2.05
Confident can do excellent job on science assignments (4 Levels)	S2SASSEXCL	1,603	2.0	0.05	0.02	6.55	2.56

See notes at end of table

Table F-15. Student standard errors and design effects—Asian students—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Number of times teenager has taken the SAT or ACT	S2SATNUM	1,653	74.7	4.72	2.24	4.43	2.10
Teen is taking spring 2012 science because he/she likes to be challenged	S2SCHALLENGE	1,445	61.0	2.62	1.28	4.16	2.04
How teen compares males, females in science (5 Levels)	S2SCICOMP	1,617	3.1	0.04	0.02	4.90	2.21
Participated in a science competition	S2SCOMPETE	1,592	12.6	1.76	0.83	4.46	2.11
Teenager sees self as science person (4 Levels)	S2SPERSON1	1,627	2.4	0.07	0.02	8.13	2.85
How sure teenager is that he/she will pursue Bachelor's degree (4 Levels)	S2SUREBA	1,656	1.6	0.06	0.02	10.24	3.20
How sure teenager is that he/she will receive high school diploma (4 Levels)	S2SUREDIPL	1,656	1.1	0.02	0.01	3.52	1.88
Thinks science course is waste of time (4 Levels)	S2SWASTE	1,613	3.1	0.04	0.02	4.79	2.19
Times in class without books/reading material in last 6 months of school	S2WOBOOKS	1,649	1.5	0.04	0.02	3.23	1.80
At age 30 exp to be a manager	X2STU30OCC2 (composite)	1,649	2.2	0.87	0.36	5.81	2.41
At age 30 exp to be in the military	X2STU30OCC2 (composite)	1,649	0.9	0.39	0.23	2.85	1.69
At age 30 exp to be an operative	X2STU30OCC2 (composite)	1,649	0.0	0.01	0.02	0.15	0.39
At age 30 exp to be a clergyman	X2STU30OCC2 (composite)	1,649	0.6	0.29	0.20	2.16	1.47
At age 30 exp to be a technician	X2STU30OCC2 (composite)	1,649	27.9	2.49	1.11	5.09	2.26
At age 30 doesn't know what to be	X2STU30OCC2 (composite)	1,649	38.3	2.13	1.20	3.16	1.78
Math theta (raw)	X2TXMTH	1,519	1.7	0.07	0.03	7.23	2.69
Summary statistics							
Mean						4.91	2.15
Minimum						0.15	0.39
Median						4.73	2.17
Maximum						10.24	3.20
Standard deviation						2.17	0.53

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-16. Student standard errors and design effects—Black students

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Teenager's final grade in algebra I (7 Levels)	S2ALG1GRADE	2,005	2.4	0.05	0.02	3.73	1.93
Taking algebra II spring 2012	S2ALG2M12	1,700	46.7	2.05	1.21	2.86	1.69
Took an AP math course	S2APMATH	517	25.1	3.43	1.91	3.23	1.80
Took an AP science course	S2APSCIENCE	520	34.5	4.02	2.09	3.71	1.93
Taking biology II spring 2012	S2BIO2S12	1,532	5.1	1.16	0.56	4.29	2.07
Teenager's Birth Year	S2BIRTHYR	2,114	5.4	0.04	0.02	5.16	2.27
If accepted to college, family can't afford (4 Levels)	S2CANTAFFORD	2,029	2.8	0.05	0.02	7.54	2.75
How certain teenager is to attend most likely college/school (3 Levels)	S2CERTAINCLG	1,209	1.8	0.03	0.02	3.14	1.77
Searched Internet or read college guides for college options	S2CLGSEARCH	2,097	82.3	1.81	0.83	4.71	2.17
Teen has ever participated in Upward Bound	S2EVERUPWARD	2,028	2.2	0.02	0.01	3.77	1.94
Math or science is fav subj	S2FAVSUBJ	2,081	32.6	1.55	1.03	2.28	1.51
Grade teenager was in last school year (2010-2011)	S2GRD1011	2,092	2.1	0.01	0.01	2.98	1.73
Student's First Spoken Language (5 Levels)	S2LANG1ST	2,120	1.2	0.03	0.01	4.88	2.21
Confident can do excellent job on math tests (4 Levels)	S2MASSEXCL	2,028	2.0	0.04	0.02	5.84	2.42
Taking spring 2012 math because likes the challenged	S2MCHALLENGE	1,684	54.6	2.17	1.21	3.20	1.79
Student is enjoying math class (4 Levels)	S2MENJOYING	2,041	2.4	0.05	0.02	4.86	2.20
Student sees self as math person (4 Levels)	S2MPERSON1	2,045	2.6	0.04	0.02	2.87	1.70
Student thinks math class will be useful in career (4 Levels)	S2MUSEJOB	2,031	1.6	0.03	0.02	4.38	2.09
Teen thinks (spring 2012) math course is a waste of time (4 Levels)	S2MWASTE	2,028	3.0	0.03	0.02	3.05	1.75
How much student has thought about occupation at age 30 (4 Levels)	S2OCC30THINK	1,590	3.8	0.03	0.01	3.30	1.82
Teenager attended a school besides Base Year/transfer/last school	S2OTHHS	2,093	8.7	0.96	0.62	2.44	1.56
Confident can do excellent job on science assignments (4 Levels)	S2SASSEXCL	2,003	2.0	0.03	0.02	2.71	1.65

See notes at end of table

Table F-16. Student standard errors and design effects—Black students—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Number of times teenager has taken the SAT or ACT	S2SATNUM	2,079	60.3	4.38	1.92	5.21	2.28
Teen is taking spring 2012 science because he/she likes to be challenged	S2SCHALLENGE	1,493	55.0	2.39	1.29	3.44	1.85
How teen compares males, females in science (5 Levels)	S2SCICOMP	2,030	3.1	0.04	0.02	3.22	1.80
Participated in a science competition	S2SCOMPETE	2,006	5.6	0.86	0.51	2.83	1.68
Teenager sees self as science person (4 Levels)	S2SPERSON1	2,033	2.6	0.03	0.02	2.52	1.59
How sure teenager is that he/she will pursue Bachelor's degree (4 Levels)	S2SUREBA	2,073	1.8	0.04	0.02	4.38	2.09
How sure teenager is that he/she will receive high school diploma (4 Levels)	S2SUREDIPL	2,074	1.1	0.02	0.01	3.49	1.87
Thinks science course is waste of time (4 Levels)	S2SWASTE	2,013	3.1	0.03	0.02	3.70	1.92
Times in class without books/reading material in last 6 months of school	S2WOBOOKS	2,079	1.5	0.04	0.02	3.72	1.93
At age 30 exp to be a manager	X2STU30OCC2 (composite)	2,078	5.4	0.94	0.50	3.60	1.90
At age 30 exp to be in the military	X2STU30OCC2 (composite)	2,078	2.1	0.51	0.31	2.64	1.62
At age 30 exp to be an operative	X2STU30OCC2 (composite)	2,078	1.1	0.42	0.23	3.18	1.78
At age 30 exp to be a clergyman	X2STU30OCC2 (composite)	2,078	2.3	0.55	0.33	2.77	1.66
At age 30 exp to be a technician	X2STU30OCC2 (composite)	2,078	25.6	2.07	0.96	4.67	2.16
At age 30 doesn't know what to be	X2STU30OCC2 (composite)	2,078	22.6	1.74	0.92	3.57	1.89
Math theta (raw)	X2TXMTH	1,269	76.5	2.97	1.61	3.40	1.84
Summary statistics							
Mean						3.72	1.91
Minimum						2.28	1.51
Median						3.46	1.86
Maximum						7.54	2.75
Standard deviation						1.07	0.26

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-17. Student standard errors and design effects—White students

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Teenager's final grade in algebra I (7 Levels)	S2ALG1GRADE	11,083	2.0	0.02	0.01	3.93	1.98
Taking algebra II spring 2012	S2ALG2M12	9,804	39.1	1.15	0.49	5.43	2.33
Took an AP math course	S2APMATH	4,086	26.0	1.06	0.69	2.41	1.55
Took an AP science course	S2APSCIENCE	4,088	33.1	1.25	0.74	2.87	1.69
Taking biology II spring 2012	S2BIO2S12	9,072	3.5	0.47	0.19	5.99	2.45
Teenager's Birth Year	S2BIRTHYR	11,515	5.5	0.01	0.01	2.79	1.67
If accepted to college, family can't afford (4 Levels)	S2CANTAFFORD	11,239	2.9	0.01	0.01	2.80	1.67
How certain teenager is to attend most likely college/school (3 Levels)	S2CERTAINCLG	6,509	1.9	0.01	0.01	2.12	1.46
Searched Internet or read college guides for college options	S2CLGSEARCH	11,438	81.3	0.57	0.36	2.43	1.56
Teen has ever participated in Upward Bound	S2EVERUPWARD	11,270	2.3	0.01	0.00	3.54	1.88
Math or science is fav subj	S2FAVSUBJ	11,396	29.4	0.65	0.43	2.31	1.52
Grade teenager was in last school year (2010-2011)	S2GRD1011	11,415	2.0	0.00	0.00	2.10	1.45
Student's First Spoken Language (5 Levels)	S2LANG1ST	11,531	1.1	0.01	0.00	3.51	1.87
Confident can do excellent job on math tests (4 Levels)	S2MASSEXCL	11,263	2.1	0.01	0.01	2.45	1.57
Taking spring 2012 math because likes the challenged	S2MCHALLENGE	9,709	44.8	0.77	0.50	2.30	1.52
Student is enjoying math class (4 Levels)	S2MENJOYING	11,289	2.6	0.01	0.01	2.39	1.54
Student sees self as math person (4 Levels)	S2MPERSON1	11,325	2.6	0.02	0.01	3.11	1.76
Student thinks math class will be useful in career (4 Levels)	S2MUSEJOB	11,278	1.8	0.01	0.01	1.83	1.35
Teen thinks (spring 2012) math course is a waste of time (4 Levels)	S2MWASTE	11,280	2.9	0.01	0.01	1.92	1.39
How much student has thought about occupation at age 30 (4 Levels)	S2OCC30THINK	8,243	3.8	0.01	0.01	1.72	1.31
Teenager attended a school besides Base Year/transfer/last school	S2OTHHS	11,442	4.4	0.28	0.19	2.21	1.49
Confident can do excellent job on science assignments (4 Levels)	S2SASSEXCL	11,176	2.1	0.01	0.01	2.48	1.57

See notes at end of table

Table F-17. Student standard errors and design effects—White students—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Number of times teenager has taken the SAT or ACT	S2SATNUM	11,376	61.4	2.03	0.82	6.17	2.48
Teen is taking spring 2012 science because he/she likes to be challenged	S2SCHALLENGE	8,822	53.1	0.83	0.53	2.41	1.55
How teen compares males, females in science (5 Levels)	S2SCICOMP	11,240	3.2	0.01	0.01	2.83	1.68
Participated in a science competition	S2SCOMPETE	11,145	5.3	0.37	0.21	3.08	1.75
Teenager sees self as science person (4 Levels)	S2SPERSON1	11,289	2.5	0.01	0.01	2.72	1.65
How sure teenager is that he/she will pursue Bachelor's degree (4 Levels)	S2SUREBA	11,370	1.8	0.01	0.01	3.13	1.77
How sure teenager is that he/she will receive high school diploma (4 Levels)	S2SUREDIPL	11,360	1.1	0.00	0.00	1.54	1.24
Thinks science course is waste of time (4 Levels)	S2SWASTE	11,204	3.0	0.01	0.01	1.60	1.26
Times in class without books/reading material in last 6 months of school	S2WOBOOKS	11,422	1.6	0.01	0.01	2.33	1.53
At age 30 exp to be a manager	X2STU30OCC2 (composite)	11,351	3.6	0.23	0.17	1.72	1.31
At age 30 exp to be in the military	X2STU30OCC2 (composite)	11,351	2.1	0.18	0.13	1.75	1.32
At age 30 exp to be an operative	X2STU30OCC2 (composite)	11,351	1.4	0.17	0.11	2.40	1.55
At age 30 exp to be a clergyman	X2STU30OCC2 (composite)	11,351	1.5	0.17	0.12	2.05	1.43
At age 30 exp to be a technician	X2STU30OCC2 (composite)	11,351	20.8	0.50	0.38	1.75	1.32
At age 30 doesn't know what to be	X2STU30OCC2 (composite)	11,351	27.6	0.57	0.42	1.82	1.35
Math theta (raw)	X2TXMTH	9,031	1.2	0.02	0.01	3.12	1.77
Summary statistics							
Mean						2.71	1.62
Minimum						1.54	1.24
Median						2.41	1.55
Maximum						6.17	2.48
Standard deviation						1.10	0.30

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-18. Student standard errors and design effects—Multiracial students

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Teenager's final grade in algebra I (7 Levels)	S2ALG1GRADE	1,917	2.3	0.06	0.03	4.13	2.03
Taking algebra II spring 2012	S2ALG2M12	1,697	45.3	2.46	1.21	4.14	2.03
Took an AP math course	S2APMATH	705	22.9	2.76	1.58	3.04	1.74
Took an AP science course	S2APSCIENCE	705	30.3	3.12	1.73	3.23	1.80
Taking biology II spring 2012	S2BIO2S12	1,532	3.7	0.88	0.48	3.39	1.84
Teenager's Birth Year	S2BIRTHYR	1,989	5.5	0.03	0.01	3.03	1.74
If accepted to college, family can't afford (4 Levels)	S2CANTAFFORD	1,939	2.7	0.03	0.02	2.28	1.51
How certain teenager is to attend most likely college/school (3 Levels)	S2CERTAINCLG	1,088	1.8	0.03	0.02	3.23	1.80
Searched Internet or read college guides for college options	S2CLGSEARCH	1,980	81.2	1.67	0.88	3.61	1.90
Teen has ever participated in Upward Bound	S2EVERUPWARD	1,947	2.3	0.02	0.01	3.06	1.75
Math or science is fav subj	S2FAVSUBJ	1,971	28.9	1.80	1.02	3.10	1.76
Grade teenager was in last school year (2010-2011)	S2GRD1011	1,980	2.0	0.01	0.01	3.93	1.98
Student's First Spoken Language (5 Levels)	S2LANG1ST	1,995	1.2	0.03	0.02	2.27	1.51
Confident can do excellent job on math tests (4 Levels)	S2MASSEXCL	1,948	2.1	0.03	0.02	1.98	1.41
Taking spring 2012 math because likes the challenged	S2MCHALLENGE	1,685	45.1	1.99	1.21	2.68	1.64
Student is enjoying math class (4 Levels)	S2MENJOYING	1,957	2.6	0.03	0.02	2.50	1.58
Student sees self as math person (4 Levels)	S2MPERSON1	1,956	2.7	0.04	0.02	2.55	1.60
Student thinks math class will be useful in career (4 Levels)	S2MUSEJOB	1,942	1.8	0.03	0.02	3.49	1.87
Teen thinks (spring 2012) math course is a waste of time (4 Levels)	S2MWASTE	1,952	2.9	0.03	0.02	2.70	1.64
How much student has thought about occupation at age 30 (4 Levels)	S2OCC30THINK	1,475	3.8	0.02	0.01	2.77	1.66
Teenager attended a school besides Base Year/transfer/last school	S2OTHHS	1,979	8.2	1.06	0.62	2.96	1.72
Confident can do excellent job on science assignments (4 Levels)	S2SASSEXCL	1,923	2.1	0.03	0.02	2.88	1.70

See notes at end of table

Table F-18. Student standard errors and design effects—Multiracial students—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Number of times teenager has taken the SAT or ACT	S2SATNUM	1,973	54.5	3.30	1.94	2.89	1.70
Teen is taking spring 2012 science because he/she likes to be challenged	S2SCHALLENGE	1,494	51.7	2.27	1.29	3.09	1.76
How teen compares males, females in science (5 Levels)	S2SCICOMP	1,948	3.1	0.03	0.02	3.06	1.75
Participated in a science competition	S2SCOMPETE	1,931	5.8	0.89	0.53	2.81	1.68
Teenager sees self as science person (4 Levels)	S2SPERSON1	1,950	2.5	0.04	0.02	3.04	1.74
How sure teenager is that he/she will pursue Bachelor's degree (4 Levels)	S2SUREBA	1,956	1.8	0.04	0.02	3.44	1.86
How sure teenager is that he/she will receive high school diploma (4 Levels)	S2SUREDIPL	1,965	1.2	0.02	0.01	4.18	2.04
Thinks science course is waste of time (4 Levels)	S2SWASTE	1,929	3.0	0.04	0.02	3.77	1.94
Times in class without books/reading material in last 6 months of school	S2WOBOOKS	1,976	1.6	0.03	0.02	2.37	1.54
At age 30 exp to be a manager	X2STU30OCC2 (composite)	1,965	3.7	0.82	0.43	3.65	1.91
At age 30 exp to be in the military	X2STU30OCC2 (composite)	1,965	1.9	0.39	0.31	1.61	1.27
At age 30 exp to be an operative	X2STU30OCC2 (composite)	1,965	1.0	0.55	0.23	5.73	2.39
At age 30 exp to be a clergyman	X2STU30OCC2 (composite)	1,965	1.2	0.35	0.25	2.02	1.42
At age 30 exp to be a technician	X2STU30OCC2 (composite)	1,965	20.7	1.50	0.91	2.69	1.64
At age 30 doesn't know what to be	X2STU30OCC2 (composite)	1,965	24.0	1.65	0.96	2.95	1.72
Math theta (raw)	X2TXMTH	1,481	1.1	0.04	0.02	3.02	1.74
Summary statistics							
Mean						3.09	1.74
Minimum						1.61	1.27
Median						3.04	1.74
Maximum						5.73	2.39
Standard deviation						0.74	0.21

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-19. Student standard errors and design effects—Low percentile SES students

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Teenager's final grade in algebra I (7 Levels)	S2ALG1GRADE	3,816	2.5	0.04	0.02	3.31	1.82
Taking algebra II spring 2012	S2ALG2M12	3,156	40.8	1.58	0.87	3.26	1.80
Took an AP math course	S2APMATH	899	26.5	2.43	1.47	2.73	1.65
Took an AP science course	S2APSCIENCE	899	29.3	2.96	1.52	3.80	1.95
Taking biology II spring 2012	S2BIO2S12	2,749	4.6	0.84	0.40	4.42	2.10
Teenager's Birth Year	S2BIRTHYR	4,037	5.4	0.02	0.01	4.10	2.03
If accepted to college, family can't afford (4 Levels)	S2CANTAFFORD	3,877	2.5	0.03	0.01	4.28	2.07
How certain teenager is to attend most likely college/school (3 Levels)	S2CERTAINCLG	1,810	1.7	0.03	0.01	3.16	1.78
Searched Internet or read college guides for college options	S2CLGSEARCH	4,003	71.9	1.40	0.71	3.90	1.97
Teen has ever participated in Upward Bound	S2EVERUPWARD	3,905	2.3	0.02	0.01	3.41	1.85
Math or science is fav subj	S2FAVSUBJ	3,977	29.0	1.28	0.72	3.17	1.78
Grade teenager was in last school year (2010-2011)	S2GRD1011	3,966	2.0	0.01	0.01	2.87	1.69
Student's First Spoken Language (5 Levels)	S2LANG1ST	4,051	1.6	0.03	0.02	4.17	2.04
Confident can do excellent job on math tests (4 Levels)	S2MASSEXCL	3,875	2.2	0.02	0.01	2.48	1.57
Taking spring 2012 math because likes the challenged	S2MCHALLENGE	3,122	43.9	1.45	0.89	2.66	1.63
Student is enjoying math class (4 Levels)	S2MENJOYING	3,904	2.5	0.03	0.02	3.07	1.75
Student sees self as math person (4 Levels)	S2MPERSON1	3,909	2.7	0.03	0.02	3.31	1.82
Student thinks math class will be useful in career (4 Levels)	S2MUSEJOB	3,890	1.7	0.02	0.01	3.42	1.85
Teen thinks (spring 2012) math course is a waste of time (4 Levels)	S2MWASTE	3,890	3.0	0.03	0.01	3.66	1.91
How much student has thought about occupation at age 30 (4 Levels)	S2OCC30THINK	2,804	3.7	0.02	0.01	2.67	1.63
Teenager attended a school besides Base Year/transfer/last school	S2OTHHS	3,999	8.4	0.71	0.44	2.58	1.61
Confident can do excellent job on science assignments (4 Levels)	S2SASSEXCL	3,833	2.1	0.02	0.01	2.91	1.71
Number of times teenager has taken the SAT or ACT	S2SATNUM	3,971	61.1	3.18	1.59	4.02	2.01

See notes at end of table

Table F-19. Student standard errors and design effects—Low percentile SES students—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Teen is taking spring 2012 science because he/she likes to be challenged	S2SCHALLENGE	2,660	47.1	2.04	0.97	4.42	2.10
How teen compares males, females in science (5 Levels)	S2SCICOMP	3,879	3.0	0.02	0.01	2.80	1.67
Participated in a science competition	S2SCOMPETE	3,863	4.5	0.57	0.34	2.90	1.70
Teenager sees self as science person (4 Levels)	S2SPERSON1	3,895	2.6	0.02	0.01	2.93	1.71
How sure teenager is that he/she will pursue Bachelor's degree (4 Levels)	S2SUREBA	3,985	2.0	0.02	0.01	2.79	1.67
How sure teenager is that he/she will receive high school diploma (4 Levels)	S2SUREDIPL	3,939	1.3	0.01	0.01	2.61	1.62
Thinks science course is waste of time (4 Levels)	S2SWASTE	3,834	3.0	0.02	0.01	3.76	1.94
Times in class without books/reading material in last 6 months of school	S2WOBOOKS	3,982	1.5	0.02	0.01	2.68	1.64
At age 30 exp to be a manager	X2STU30OCC2 (composite)	3,967	3.6	0.58	0.30	3.78	1.94
At age 30 exp to be in the military	X2STU30OCC2 (composite)	3,967	1.9	0.37	0.22	2.84	1.68
At age 30 exp to be an operative	X2STU30OCC2 (composite)	3,967	1.5	0.34	0.19	3.08	1.75
At age 30 exp to be a clergyman	X2STU30OCC2 (composite)	3,967	1.3	0.28	0.18	2.47	1.57
At age 30 exp to be a technician	X2STU30OCC2 (composite)	3,967	20.5	1.12	0.64	3.04	1.74
At age 30 doesn't know what to be	X2STU30OCC2 (composite)	3,967	30.6	1.41	0.73	3.71	1.93
Math theta (raw)	X2TXMTH	2,413	80.6	2.48	1.33	3.47	1.86
Summary statistics							
Mean						3.28	1.80
Minimum						2.47	1.57
Median						3.16	1.78
Maximum						4.42	2.10
Standard deviation						0.57	0.16

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-20. Student standard errors and design effects—Middle percentile SES students

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Teenager's final grade in algebra I (7 Levels)	S2ALG1GRADE	11,863	2.2	0.02	0.01	3.68	1.92
Taking algebra II spring 2012	S2ALG2M12	10,468	42.3	1.10	0.48	5.21	2.28
Took an AP math course	S2APMATH	4,091	23.8	1.17	0.67	3.11	1.76
Took an AP science course	S2APSCIENCE	4,091	31.6	1.17	0.73	2.59	1.61
Taking biology II spring 2012	S2BIO2S12	9,652	3.8	0.41	0.19	4.40	2.10
Teenager's Birth Year	S2BIRTHYR	12,367	5.5	0.01	0.01	5.01	2.24
If accepted to college, family can't afford (4 Levels)	S2CANTAFFORD	12,036	2.8	0.01	0.01	3.41	1.85
How certain teenager is to attend most likely college/school (3 Levels)	S2CERTAINCLG	6,830	1.8	0.01	0.01	3.22	1.79
Searched Internet or read college guides for college options	S2CLGSEARCH	12,271	80.0	0.77	0.36	4.55	2.13
Teen has ever participated in Upward Bound	S2EVERUPWARD	12,050	2.3	0.01	0.00	4.72	2.17
Math or science is fav subj	S2FAVSUBJ	12,226	29.7	0.77	0.41	3.45	1.86
Grade teenager was in last school year (2010-2011)	S2GRD1011	12,264	2.0	0.00	0.00	3.39	1.84
Student's First Spoken Language (5 Levels)	S2LANG1ST	12,387	1.3	0.02	0.01	5.72	2.39
Confident can do excellent job on math tests (4 Levels)	S2MASSEXCL	12,041	2.1	0.01	0.01	3.75	1.94
Taking spring 2012 math because likes the challenged	S2MCHALLENGE	10,377	44.7	0.87	0.49	3.20	1.79
Student is enjoying math class (4 Levels)	S2MENJOYING	12,098	2.6	0.02	0.01	3.72	1.93
Student sees self as math person (4 Levels)	S2MPERSON1	12,122	2.7	0.02	0.01	3.25	1.80
Student thinks math class will be useful in career (4 Levels)	S2MUSEJOB	12,083	1.8	0.01	0.01	3.37	1.84
Teen thinks (spring 2012) math course is a waste of time (4 Levels)	S2MWASTE	12,082	3.0	0.01	0.01	2.54	1.59
How much student has thought about occupation at age 30 (4 Levels)	S2OCC30THINK	8,945	3.8	0.01	0.01	3.42	1.85
Teenager attended a school besides Base Year/transfer/last school	S2OTHHS	12,289	5.6	0.33	0.21	2.58	1.60
Confident can do excellent job on science assignments (4 Levels)	S2SASSEXCL	11,947	2.1	0.01	0.01	3.77	1.94
Number of times teenager has taken the SAT or ACT	S2SATNUM	12,204	56.3	1.75	0.79	4.98	2.23

See notes at end of table

Table F-20. Student standard errors and design effects—Middle percentile SES students—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Teen is taking spring 2012 science because he/she likes to be challenged	S2SCHALLENGE	9,389	50.7	0.80	0.52	2.39	1.55
How teen compares males, females in science (5 Levels)	S2SCICOMP	12,045	3.1	0.02	0.01	4.30	2.07
Participated in a science competition	S2SCOMPETE	11,924	5.1	0.38	0.20	3.60	1.90
Teenager sees self as science person (4 Levels)	S2SPERSON1	12,091	2.5	0.01	0.01	3.04	1.74
How sure teenager is that he/she will pursue Bachelor's degree (4 Levels)	S2SUREBA	12,177	1.8	0.01	0.01	3.64	1.91
How sure teenager is that he/she will receive high school diploma (4 Levels)	S2SUREDIPL	12,188	1.2	0.01	0.00	3.31	1.82
Thinks science course is waste of time (4 Levels)	S2SWASTE	11,999	3.0	0.01	0.01	2.35	1.53
Times in class without books/reading material in last 6 months of school	S2WOBOOKS	12,238	1.5	0.02	0.01	3.64	1.91
At age 30 exp to be a manager	X2STU30OCC2 (composite)	12,180	3.7	0.30	0.17	3.15	1.77
At age 30 exp to be in the military	X2STU30OCC2 (composite)	12,180	2.1	0.20	0.13	2.34	1.53
At age 30 exp to be an operative	X2STU30OCC2 (composite)	12,180	1.3	0.19	0.10	3.23	1.80
At age 30 exp to be a clergyman	X2STU30OCC2 (composite)	12,180	1.8	0.27	0.12	4.99	2.23
At age 30 exp to be a technician	X2STU30OCC2 (composite)	12,180	22.1	0.75	0.38	3.96	1.99
At age 30 doesn't know what to be	X2STU30OCC2 (composite)	12,180	26.4	0.81	0.40	4.15	2.04
Math theta (raw)	X2TXMTH	9,309	1.1	0.01	0.01	3.68	1.92
Summary statistics							
Mean						3.65	1.90
Minimum						2.34	1.53
Median						3.53	1.88
Maximum						5.72	2.39
Standard deviation						0.84	0.22

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-21. Student standard errors and design effects—High percentile SES students

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Teenager's final grade in algebra I (7 Levels)	S2ALG1GRADE	4,067	1.7	0.04	0.02	5.23	2.29
Taking algebra II spring 2012	S2ALG2M12	3,806	31.8	1.43	0.75	3.61	1.90
Took an AP math course	S2APMATH	2,274	28.3	1.51	0.94	2.55	1.60
Took an AP science course	S2APSCIENCE	2,277	38.5	1.98	1.02	3.76	1.94
Taking biology II spring 2012	S2BIO2S12	3,647	2.1	0.39	0.24	2.72	1.65
Teenager's Birth Year	S2BIRTHYR	4,147	5.6	0.01	0.01	2.52	1.59
If accepted to college, family can't afford (4 Levels)	S2CANTAFFORD	4,048	3.2	0.02	0.01	3.17	1.78
How certain teenager is to attend most likely college/school (3 Levels)	S2CERTAINCLG	2,647	2.0	0.02	0.01	2.72	1.65
Searched Internet or read college guides for college options	S2CLGSEARCH	4,128	90.4	0.70	0.46	2.35	1.53
Teen has ever participated in Upward Bound	S2EVERUPWARD	4,052	2.4	0.01	0.01	2.30	1.52
Math or science is fav subj	S2FAVSUBJ	4,104	35.4	1.14	0.75	2.32	1.52
Grade teenager was in last school year (2010-2011)	S2GRD1011	4,127	2.0	0.00	0.00	1.80	1.34
Student's First Spoken Language (5 Levels)	S2LANG1ST	4,153	1.2	0.02	0.01	3.59	1.89
Confident can do excellent job on math tests (4 Levels)	S2MASSEXCL	4,067	2.0	0.02	0.01	2.83	1.68
Taking spring 2012 math because likes the challenged	S2MCHALLENGE	3,777	54.5	1.35	0.81	2.79	1.67
Student is enjoying math class (4 Levels)	S2MENJOYING	4,070	2.5	0.02	0.01	2.54	1.59
Student sees self as math person (4 Levels)	S2MPERSON1	4,072	2.5	0.02	0.02	2.45	1.56
Student thinks math class will be useful in career (4 Levels)	S2MUSEJOB	4,059	1.8	0.02	0.01	2.14	1.46
Teen thinks (spring 2012) math course is a waste of time (4 Levels)	S2MWASTE	4,065	3.0	0.02	0.01	3.19	1.79
How much student has thought about occupation at age 30 (4 Levels)	S2OCC30THINK	2,890	3.8	0.01	0.01	2.27	1.51
Teenager attended a school besides Base Year/transfer/last school	S2OTHHS	4,105	2.7	0.36	0.25	2.07	1.44
Confident can do excellent job on science assignments (4 Levels)	S2SASSEXCL	4,040	2.0	0.02	0.01	2.74	1.65
Number of times teenager has taken the SAT or ACT	S2SATNUM	4,110	79.8	2.68	1.41	3.60	1.90

See notes at end of table

Table F-21. Student standard errors and design effects—High percentile SES students—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Teen is taking spring 2012 science because he/she likes to be challenged	S2SCHALLENGE	3,579	61.7	1.39	0.81	2.91	1.71
How teen compares males, females in science (5 Levels)	S2SCICOMP	4,059	3.2	0.02	0.01	2.63	1.62
Participated in a science competition	S2SCOMPETE	4,002	8.5	0.79	0.44	3.20	1.79
Teenager sees self as science person (4 Levels)	S2SPERSON1	4,060	2.3	0.02	0.01	2.95	1.72
How sure teenager is that he/she will pursue Bachelor's degree (4 Levels)	S2SUREBA	4,099	1.4	0.01	0.01	1.84	1.36
How sure teenager is that he/she will receive high school diploma (4 Levels)	S2SUREDIPL	4,114	1.1	0.01	0.00	2.45	1.56
Thinks science course is waste of time (4 Levels)	S2SWASTE	4,057	3.1	0.02	0.01	1.88	1.37
Times in class without books/reading material in last 6 months of school	S2WOBOOKS	4,122	1.5	0.02	0.01	2.46	1.57
At age 30 exp to be a manager	X2STU30OCC2 (composite)	4,093	4.4	0.49	0.32	2.37	1.54
At age 30 exp to be in the military	X2STU30OCC2 (composite)	4,093	1.2	0.25	0.17	2.19	1.48
At age 30 exp to be an operative	X2STU30OCC2 (composite)	4,093	0.3	0.12	0.09	1.74	1.32
At age 30 exp to be a clergyman	X2STU30OCC2 (composite)	4,093	1.5	0.30	0.19	2.51	1.58
At age 30 exp to be a technician	X2STU30OCC2 (composite)	4,093	22.3	1.20	0.65	3.40	1.84
At age 30 doesn't know what to be	X2STU30OCC2 (composite)	4,093	29.1	1.18	0.71	2.77	1.66
Math theta (raw)	X2TXMTH	3,778	1.6	0.02	0.01	2.72	1.65
Summary statistics							
Mean						2.72	1.64
Minimum						1.74	1.32
Median						2.59	1.61
Maximum						5.23	2.29
Standard deviation						0.67	0.19

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-22. Parent standard errors and design effects—overall

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Biological mother completed parent questionnaire	P2RELSHP	8,647	73.2	0.85	0.48	3.17	1.78
Language other than English is regularly spoken in home	P2HOMELANG	7,757	25.1	0.88	0.49	3.18	1.78
Teenager has not repeated any grades	P2REPEATNONE	8,165	83.4	0.78	0.41	3.62	1.90
Helped teenager with a school science fair project in last year	P2SCIPROJ	8,103	29.6	0.84	0.51	2.76	1.66
Teenager has not skipped any grades	P2SKIPNONE	8,065	97.1	0.30	0.19	2.66	1.63
Parent respondent highest level of education obtained (7 levels)	P2HIDEG1	8,427	3.3	0.04	0.02	5.65	2.38
Highest level of education obtained between both parents (7 levels)	X2PAREDU	8,651	3.6	0.05	0.02	6.89	2.62
Family has opened account(s) to save for teenager's college education	P2ACCTPAY	7,853	20.5	0.83	0.46	3.31	1.82
How certain teenager is to attend most likely postsecondary institution (3 levels)	P2CERTAINCLG	3,371	1.7	0.02	0.01	2.35	1.53
Teenager stopped going to high school for 4 weeks or more since fall 2009	P2DROPOUTHS	7,546	5.1	0.50	0.25	3.85	1.96
Family plans to help teenager pay for postsecondary education (3 levels)	P2HELPPAY	7,994	1.4	0.02	0.01	4.73	2.17
Student lives with parent questionnaire respondent all of the time	P2HHTIME	8,160	90.5	0.55	0.33	2.88	1.70
Language other than English is regularly spoken in home	P2HOMELANG	7,757	25.1	0.88	0.49	3.18	1.78
How often parent helps with homework (5 Levels)	P2HWOFTEN	8,137	3.7	0.02	0.01	2.95	1.72
Whether parent respondent is currently employed	P2JOBNOW1	7,935	75.6	0.84	0.48	3.06	1.75
Level of postsecondary institution teenager most likely to attend in fall 2013 (3 levels)	P2LIKELYCLGLV	2,967	1.4	0.02	0.01	2.32	1.52
Confidence in helping with math homework in 2011-2012 or when teenager was last enrolled (3 levels)	P2MTHHWEFF	8,104	2.2	0.01	0.01	3.08	1.75

See notes at end of table

Table F-22. Parent standard errors and design effects—overall—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Whether home is owned, rented or other arrangement	P2OWNHOME	7,855	1.4	0.01	0.01	3.95	1.99
Teenager has sibling enrolled in college or a school providing occupational training	P2SIBSTARTCLG	7,382	38.6	1.06	0.57	3.50	1.87
Whether teenager has ever been suspended or expelled	P2SUSPEND	8,127	14.8	0.74	0.39	3.57	1.89
Whether respondent was born in the U.S. (3 Levels)	P2USBORN1	8,258	1.4	0.02	0.01	4.87	2.21
Parent Respondent's age as of Dec 31, 2012	P2YRBORN1	8,187	46.1	0.13	0.08	2.90	1.70
Teenager lives with mother and father	X2PARPATTERN	8,651	52.6	1.00	0.54	3.45	1.86
Mother's occupation	X2MOMOCC2 (composite)	7,762	27.4	0.91	0.51	3.26	1.80
Father's occupation	X2DADOCC2 (composite)	6,400	17.6	0.80	0.48	2.83	1.68
Summary statistics							
Mean						3.52	1.86
Minimum						2.32	1.52
Median						3.18	1.78
Maximum						6.89	2.62
Standard deviation						1.04	0.26

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-23. Parent standard errors and design effects—Public schools

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Biological mother completed parent questionnaire	P2RELSHP	7,116	73.3	0.88	0.52	2.79	1.67
Language other than English is regularly spoken in home	P2HOMELANG	6,345	25.6	0.94	0.55	2.97	1.72
Teenager has not repeated any grades	P2REPEATNONE	6,701	82.8	0.84	0.46	3.30	1.82
Helped teenager with a school science fair project in last year	P2SCIPROJ	6,643	29.9	0.91	0.56	2.61	1.62
Teenager has not skipped any grades	P2SKIPNONE	6,616	97.1	0.32	0.21	2.48	1.57
Parent respondent highest level of education obtained (7 levels)	P2HIDEG1	6,922	3.2	0.05	0.02	5.62	2.37
Highest level of education obtained between both parents (7 levels)	X2PAREDU	7,120	3.5	0.05	0.02	6.82	2.61
Family has opened account(s) to save for teenager's college education	P2ACCTPAY	6,437	19.4	0.87	0.49	3.14	1.77
How certain teenager is to attend most likely postsecondary institution (3 levels)	P2CERTAINCLG	2,803	1.7	0.02	0.01	2.18	1.48
Teenager stopped going to high school for 4 weeks or more since fall 2009	P2DROPOUTHS	6,123	5.3	0.52	0.29	3.32	1.82
Family plans to help teenager pay for postsecondary education (3 levels)	P2HELPPAY	6,545	1.4	0.02	0.01	4.32	2.08
Student lives with parent questionnaire respondent all of the time	P2HHTIME	6,696	90.4	0.57	0.36	2.52	1.59
Language other than English is regularly spoken in home	P2HOMELANG	6,345	25.6	0.94	0.55	2.97	1.72
How often parent helps with homework (5 Levels)	P2HWOFTEN	6,674	3.7	0.02	0.01	2.57	1.60
Whether parent respondent is currently employed	P2JOBNOW1	6,499	75.5	0.90	0.53	2.87	1.69
Level of postsecondary institution teenager most likely to attend in fall 2013 (3 levels)	P2LIKELYCLGLV	2,456	1.4	0.02	0.01	2.14	1.46

See notes at end of table

Table F-23. Parent standard errors and design effects—Public schools—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Confidence in helping with math homework in 2011-2012 or when teenager was last enrolled (3 levels)	P2MTHHWEFF	6,653	2.2	0.02	0.01	2.90	1.70
Whether home is owned, rented or other arrangement	P2OWNHOME	6,431	1.4	0.01	0.01	3.67	1.92
Teenager has sibling enrolled in college or a school providing occupational training	P2SIBSTARTCLG	6,093	38.3	1.13	0.62	3.28	1.81
Whether teenager has ever been suspended or expelled	P2SUSPEND	6,665	15.7	0.80	0.45	3.25	1.80
Whether respondent was born in the U.S. (3 Levels)	P2USBORN1	6,776	1.4	0.02	0.01	4.45	2.11
Parent Respondent's age as of Dec 31, 2012	P2YRBORN1	6,722	45.9	0.14	0.09	2.58	1.61
Teenager lives with mother and father	X2PARPATTERN	7,120	50.9	1.07	0.59	3.23	1.80
Mother's occupation	X2MOMOCC2 (composite)	6,305	26.1	0.98	0.55	3.12	1.77
Father's occupation	X2DADOCC2 (composite)	5,131	16.6	0.87	0.52	2.81	1.68
Summary statistics							
Mean						3.28	1.79
Minimum						2.14	1.46
Median						2.97	1.72
Maximum						6.82	2.61
Standard deviation						1.06	0.26

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-24. Parent standard errors and design effects—Private schools

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Biological mother completed parent questionnaire	P2RELSHP	1,531	72.1	2.27	1.15	3.91	1.98
Language other than English is regularly spoken in home	P2HOMELANG	1,412	18.2	2.37	1.03	5.33	2.31
Teenager has not repeated any grades	P2REPEATNONE	1,464	91.1	1.22	0.74	2.68	1.64
Helped teenager with a school science fair project in last year	P2SCIPROJ	1,460	25.9	1.95	1.15	2.88	1.70
Teenager has not skipped any grades	P2SKIPNONE	1,449	97.6	0.65	0.40	2.63	1.62
Parent respondent highest level of education obtained (7 levels)	P2HIDEG1	1,505	4.6	0.09	0.04	4.87	2.21
Highest level of education obtained between both parents (7 levels)	X2PAREDU	1,531	4.9	0.09	0.04	5.54	2.35
Family has opened account(s) to save for teenager's college education	P2ACCTPAY	1,416	33.8	1.90	1.26	2.29	1.51
How certain teenager is to attend most likely postsecondary institution (3 levels)	P2CERTAINCLG	568	1.8	0.04	0.03	1.81	1.34
Teenager stopped going to high school for 4 weeks or more since fall 2009	P2DROPOUTHS	1,423	2.2	0.74	0.39	3.67	1.92
Family plans to help teenager pay for postsecondary education (3 levels)	P2HELPPAY	1,449	1.2	0.02	0.01	2.76	1.66
Student lives with parent questionnaire respondent all of the time	P2HHTIME	1,464	91.0	1.52	0.75	4.14	2.03
Language other than English is regularly spoken in home	P2HOMELANG	1,412	18.2	2.37	1.03	5.33	2.31
How often parent helps with homework (5 Levels)	P2HWOFTEN	1,463	3.8	0.05	0.03	3.01	1.74
Whether parent respondent is currently employed	P2JOBNOW1	1,436	77.6	2.24	1.10	4.12	2.03
Level of postsecondary institution teenager most likely to attend in fall 2013 (3 levels)	P2LIKELYCLGLV	511	1.1	0.03	0.02	2.90	1.70

See notes at end of table

Table F-24. Parent standard errors and design effects—Private schools—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Confidence in helping with math homework in 2011-2012 or when teenager was last enrolled (3 levels)	P2MTHHWEFF	1,451	2.2	0.02	0.02	1.28	1.13
Whether home is owned, rented or other arrangement	P2OWNHOME	1,424	1.2	0.02	0.01	3.38	1.84
Teenager has sibling enrolled in college or a school providing occupational training	P2SIBSTARTCLG	1,289	41.6	2.33	1.37	2.87	1.70
Whether teenager has ever been suspended or expelled	P2SUSPEND	1,462	3.6	0.77	0.49	2.46	1.57
Whether respondent was born in the U.S. (3 Levels)	P2USBORN1	1,482	1.3	0.04	0.02	5.36	2.31
Parent Respondent's age as of Dec 31, 2012	P2YRBORN1	1,465	48.8	0.35	0.15	5.27	2.30
Teenager lives with mother and father	X2PARPATTERN	1,531	74.5	2.29	1.11	4.23	2.06
Mother's occupation	X2MOMOCC2 (composite)	1,457	42.9	1.81	1.30	1.95	1.40
Father's occupation	X2DADOCC2 (composite)	1,269	29.0	1.60	1.27	1.57	1.25
Summary statistics							
Mean						3.45	1.82
Minimum						1.28	1.13
Median						3.01	1.74
Maximum						5.54	2.35
Standard deviation						1.30	0.36

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-25. Parent standard errors and design effects—Northeast schools

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Biological mother completed parent questionnaire	P2RELSHP	1,354	72.8	2.60	1.21	4.62	2.15
Language other than English is regularly spoken in home	P2HOMELANG	1,220	28.8	3.04	1.30	5.49	2.34
Teenager has not repeated any grades	P2REPEATNONE	1,262	86.9	2.03	0.95	4.57	2.14
Helped teenager with a school science fair project in last year	P2SCIPROJ	1,255	23.1	1.41	1.19	1.41	1.19
Teenager has not skipped any grades	P2SKIPNONE	1,250	97.6	0.76	0.43	3.15	1.77
Parent respondent highest level of education obtained (7 levels)	P2HIDEG1	1,332	3.5	0.16	0.05	10.87	3.30
Highest level of education obtained between both parents (7 levels)	X2PAREDU	1,355	3.7	0.17	0.05	11.85	3.44
Family has opened account(s) to save for teenager's college education	P2ACCTPAY	1,211	23.0	2.67	1.21	4.88	2.21
How certain teenager is to attend most likely postsecondary institution (3 levels)	P2CERTAINCLG	436	1.8	0.05	0.03	2.17	1.47
Teenager stopped going to high school for 4 weeks or more since fall 2009	P2DROPOUTHS	1,200	4.7	1.55	0.61	6.43	2.54
Family plans to help teenager pay for postsecondary education (3 levels)	P2HELPPAY	1,239	1.4	0.06	0.02	7.08	2.66
Student lives with parent questionnaire respondent all of the time	P2HHTIME	1,257	91.5	1.25	0.79	2.52	1.59
Language other than English is regularly spoken in home	P2HOMELANG	1,220	28.8	3.04	1.30	5.49	2.34
How often parent helps with homework (5 Levels)	P2HWOFTEN	1,255	3.8	0.06	0.03	3.36	1.83
Whether parent respondent is currently employed	P2JOBNOW1	1,232	77.2	2.03	1.20	2.89	1.70
Level of postsecondary institution teenager most likely to attend in fall 2013 (3 levels)	P2LIKELYCLGLV	366	1.4	0.04	0.03	2.24	1.50

See notes at end of table

Table F-25. Parent standard errors and design effects—Northeast schools—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Confidence in helping with math homework in 2011-2012 or when teenager was last enrolled (3 levels)	P2MTHHWEFF	1,251	2.2	0.05	0.02	5.12	2.26
Whether home is owned, rented or other arrangement	P2OWNHOME	1,226	1.4	0.04	0.02	4.91	2.21
Teenager has sibling enrolled in college or a school providing occupational training	P2SIBSTARTCLG	1,128	40.8	2.08	1.46	2.02	1.42
Whether teenager has ever been suspended or expelled	P2SUSPEND	1,255	9.9	1.61	0.84	3.64	1.91
Whether respondent was born in the U.S. (3 Levels)	P2USBORN1	1,286	1.4	0.06	0.02	6.71	2.59
Parent Respondent's age as of Dec 31, 2012	P2YRBORN1	1,272	47.2	0.30	0.19	2.44	1.56
Teenager lives with mother and father	X2PARPATTERN	1,355	53.2	3.40	1.36	6.30	2.51
Mother's occupation	X2MOMOCC2 (composite)	1,228	30.2	2.65	1.31	4.10	2.02
Father's occupation	X2DADOCC2 (composite)	1,017	19.2	2.05	1.24	2.74	1.66
Summary statistics							
Mean						4.68	2.09
Minimum						1.41	1.19
Median						4.57	2.14
Maximum						11.85	3.44
Standard deviation						2.57	0.56

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-26. Parent standard errors and design effects—Midwest schools

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Biological mother completed parent questionnaire	P2RELSHP	2,234	73.7	1.36	0.93	2.13	1.46
Language other than English is regularly spoken in home	P2HOMELANG	2,013	13.0	1.28	0.75	2.90	1.70
Teenager has not repeated any grades	P2REPEATNONE	2,107	84.7	1.62	0.79	4.23	2.06
Helped teenager with a school science fair project in last year	P2SCIPROJ	2,098	26.6	1.57	0.97	2.66	1.63
Teenager has not skipped any grades	P2SKIPNONE	2,086	97.2	0.81	0.36	4.94	2.22
Parent respondent highest level of education obtained (7 levels)	P2HIDEG1	2,186	3.4	0.07	0.03	3.89	1.97
Highest level of education obtained between both parents (7 levels)	X2PAREDU	2,235	3.7	0.08	0.03	4.62	2.15
Family has opened account(s) to save for teenager's college education	P2ACCTPAY	2,037	22.2	1.35	0.92	2.15	1.47
How certain teenager is to attend most likely postsecondary institution (3 levels)	P2CERTAINCLG	841	1.8	0.03	0.02	2.08	1.44
Teenager stopped going to high school for 4 weeks or more since fall 2009	P2DROPOUTHS	1,938	4.8	0.84	0.48	2.98	1.73
Family plans to help teenager pay for postsecondary education (3 levels)	P2HELPPAY	2,076	1.4	0.03	0.02	3.00	1.73
Student lives with parent questionnaire respondent all of the time	P2HHTIME	2,118	88.1	1.35	0.70	3.66	1.91
Language other than English is regularly spoken in home	P2HOMELANG	2,013	13.0	1.28	0.75	2.90	1.70
How often parent helps with homework (5 Levels)	P2HWOFTEN	2,111	3.8	0.04	0.02	3.00	1.73
Whether parent respondent is currently employed	P2JOBNOW1	2,069	75.4	1.87	0.95	3.91	1.98
Level of postsecondary institution teenager most likely to attend in fall 2013 (3 levels)	P2LIKELYCLGLV	750	1.4	0.03	0.02	2.50	1.58

See notes at end of table

Table F-26. Parent standard errors and design effects—Midwest schools—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Confidence in helping with math homework in 2011-2012 or when teenager was last enrolled (3 levels)	P2MTHHWEFF	2,098	2.2	0.03	0.02	2.87	1.69
Whether home is owned, rented or other arrangement	P2OWNHOME	2,046	1.3	0.02	0.01	3.70	1.92
Teenager has sibling enrolled in college or a school providing occupational training	P2SIBSTARTCLG	1,931	40.7	1.98	1.12	3.15	1.78
Whether teenager has ever been suspended or expelled	P2SUSPEND	2,102	14.4	1.29	0.77	2.83	1.68
Whether respondent was born in the U.S. (3 Levels)	P2USBORN1	2,144	1.2	0.03	0.01	4.52	2.13
Parent Respondent's age as of Dec 31, 2012	P2YRBORN1	2,128	45.9	0.24	0.15	2.46	1.57
Teenager lives with mother and father	X2PARPATTERN	2,235	52.8	1.90	1.06	3.24	1.80
Mother's occupation	X2MOMOCC2 (composite)	2,013	30.2	1.64	1.02	2.56	1.60
Father's occupation	X2DADOCC2 (composite)	1,670	16.2	1.51	0.90	2.82	1.68
Summary statistics							
Mean						3.19	1.77
Minimum						2.08	1.44
Median						2.98	1.73
Maximum						4.94	2.22
Standard deviation						0.80	0.22

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-27. Parent standard errors and design effects—South schools

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Biological mother completed parent questionnaire	P2RELSHP	3,502	73.0	1.14	0.75	2.32	1.52
Language other than English is regularly spoken in home	P2HOMELANG	3,137	21.7	1.38	0.74	3.50	1.87
Teenager has not repeated any grades	P2REPEATNONE	3,334	77.9	1.22	0.72	2.90	1.70
Helped teenager with a school science fair project in last year	P2SCIPROJ	3,299	33.1	1.33	0.82	2.62	1.62
Teenager has not skipped any grades	P2SKIPNONE	3,280	97.0	0.45	0.30	2.23	1.49
Parent respondent highest level of education obtained (7 levels)	P2HIDEG1	3,393	3.2	0.07	0.03	5.41	2.33
Highest level of education obtained between both parents (7 levels)	X2PAREDU	3,503	3.5	0.07	0.03	5.43	2.33
Family has opened account(s) to save for teenager's college education	P2ACCTPAY	3,180	19.6	1.04	0.70	2.18	1.48
How certain teenager is to attend most likely postsecondary institution (3 levels)	P2CERTAINCLG	1,489	1.7	0.03	0.02	2.35	1.53
Teenager stopped going to high school for 4 weeks or more since fall 2009	P2DROPOUTHS	3,073	6.8	0.83	0.45	3.39	1.84
Family plans to help teenager pay for postsecondary education (3 levels)	P2HELPPAY	3,239	1.4	0.02	0.01	3.26	1.81
Student lives with parent questionnaire respondent all of the time	P2HHTIME	3,318	91.0	0.78	0.50	2.49	1.58
Language other than English is regularly spoken in home	P2HOMELANG	3,137	21.7	1.38	0.74	3.50	1.87
How often parent helps with homework (5 Levels)	P2HWOFTEN	3,309	3.7	0.03	0.02	1.96	1.40
Whether parent respondent is currently employed	P2JOBNOW1	3,204	75.6	1.32	0.76	3.05	1.75
Level of postsecondary institution teenager most likely to attend in fall 2013 (3 levels)	P2LIKELYCLGLV	1,328	1.4	0.02	0.01	1.74	1.32

See notes at end of table

Table F-27. Parent standard errors and design effects—South schools—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Confidence in helping with math homework in 2011-2012 or when teenager was last enrolled (3 levels)	P2MTHHWEFF	3,295	2.1	0.02	0.01	2.68	1.64
Whether home is owned, rented or other arrangement	P2OWNHOME	3,170	1.4	0.02	0.01	3.74	1.94
Teenager has sibling enrolled in college or a school providing occupational training	P2SIBSTARTCLG	2,986	37.9	1.80	0.89	4.11	2.03
Whether teenager has ever been suspended or expelled	P2SUSPEND	3,309	18.8	1.35	0.68	3.94	1.99
Whether respondent was born in the U.S. (3 Levels)	P2USBORN1	3,352	1.4	0.02	0.01	3.37	1.84
Parent Respondent's age as of Dec 31, 2012	P2YRBORN1	3,320	45.7	0.24	0.13	3.44	1.85
Teenager lives with mother and father	X2PARPATTERN	3,503	47.7	1.58	0.84	3.49	1.87
Mother's occupation	X2MOMOCC2 (composite)	3,133	25.4	1.28	0.78	2.71	1.65
Father's occupation	X2DADOCC2 (composite)	2,582	17.5	1.17	0.75	2.45	1.57
Summary statistics							
Mean						3.13	1.75
Minimum						1.74	1.32
Median						3.05	1.75
Maximum						5.43	2.33
Standard deviation						0.93	0.26

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-28. Parent standard errors and design effects—West schools

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Biological mother completed parent questionnaire	P2RELSHP	1,557	73.4	1.68	1.12	2.24	1.50
Language other than English is regularly spoken in home	P2HOMELANG	1,387	39.6	2.54	1.31	3.75	1.94
Teenager has not repeated any grades	P2REPEATNONE	1,462	88.8	1.81	0.83	4.80	2.19
Helped teenager with a school science fair project in last year	P2SCIPROJ	1,451	31.7	2.25	1.22	3.39	1.84
Teenager has not skipped any grades	P2SKIPNONE	1,449	97.0	0.72	0.45	2.54	1.59
Parent respondent highest level of education obtained (7 levels)	P2HIDEG1	1,516	3.1	0.11	0.04	6.34	2.52
Highest level of education obtained between both parents (7 levels)	X2PAREDU	1,558	3.4	0.12	0.04	7.40	2.72
Family has opened account(s) to save for teenager's college education	P2ACCTPAY	1,425	18.5	1.96	1.03	3.62	1.90
How certain teenager is to attend most likely postsecondary institution (3 levels)	P2CERTAINCLG	605	1.8	0.05	0.03	3.11	1.76
Teenager stopped going to high school for 4 weeks or more since fall 2009	P2DROPOUTHS	1,335	3.0	0.59	0.46	1.59	1.26
Family plans to help teenager pay for postsecondary education (3 levels)	P2HELPPAY	1,440	1.5	0.05	0.02	5.20	2.28
Student lives with parent questionnaire respondent all of the time	P2HHTIME	1,467	91.1	1.23	0.74	2.74	1.65
Language other than English is regularly spoken in home	P2HOMELANG	1,387	39.6	2.54	1.31	3.75	1.94
How often parent helps with homework (5 Levels)	P2HWOFTEN	1,462	3.6	0.04	0.03	2.01	1.42
Whether parent respondent is currently employed	P2JOBNOW1	1,430	74.7	1.81	1.15	2.48	1.57
Level of postsecondary institution teenager most likely to attend in fall 2013 (3 levels)	P2LIKELYCLGLV	523	1.5	0.05	0.02	4.61	2.15

See notes at end of table

Table F-28. Parent standard errors and design effects—West schools—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Confidence in helping with math homework in 2011-2012 or when teenager was last enrolled (3 levels)	P2MTHHWEFF	1,460	2.3	0.03	0.02	3.13	1.77
Whether home is owned, rented or other arrangement	P2OWNHOME	1,413	1.4	0.04	0.02	4.77	2.18
Teenager has sibling enrolled in college or a school providing occupational training	P2SIBSTARTCLG	1,337	35.9	2.10	1.31	2.55	1.60
Whether teenager has ever been suspended or expelled	P2SUSPEND	1,461	12.3	1.69	0.86	3.86	1.97
Whether respondent was born in the U.S. (3 Levels)	P2USBORN1	1,476	1.7	0.05	0.02	4.34	2.08
Parent Respondent's age as of Dec 31, 2012	P2YRBORN1	1,467	46.3	0.30	0.19	2.46	1.57
Teenager lives with mother and father	X2PARPATTERN	1,558	59.9	2.27	1.24	3.35	1.83
Mother's occupation	X2MOMOCC2 (composite)	1,388	25.6	2.50	1.17	4.55	2.13
Father's occupation	X2DADOCC2 (composite)	1,131	18.0	2.03	1.14	3.14	1.77
Summary statistics							
Mean						3.67	1.89
Minimum						1.59	1.26
Median						3.39	1.84
Maximum						7.40	2.72
Standard deviation						1.36	0.34

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-29. Parent standard errors and design effects—City schools

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Biological mother completed parent questionnaire	P2RELSHP	2,529	73.0	1.79	0.88	4.11	2.03
Language other than English is regularly spoken in home	P2HOMELANG	2,263	35.7	2.43	1.01	5.82	2.41
Teenager has not repeated any grades	P2REPEATNONE	2,380	82.6	1.90	0.78	5.97	2.44
Helped teenager with a school science fair project in last year	P2SCIPROJ	2,376	30.5	1.93	0.95	4.15	2.04
Teenager has not skipped any grades	P2SKIPNONE	2,345	96.7	0.60	0.37	2.62	1.62
Parent respondent highest level of education obtained (7 levels)	P2HIDEG1	2,462	3.2	0.09	0.03	7.17	2.68
Highest level of education obtained between both parents (7 levels)	X2PAREDU	2,530	3.4	0.10	0.04	7.61	2.76
Family has opened account(s) to save for teenager's college education	P2ACCTPAY	2,300	20.8	1.79	0.85	4.45	2.11
How certain teenager is to attend most likely postsecondary institution (3 levels)	P2CERTAINCLG	967	1.7	0.04	0.02	3.71	1.93
Teenager stopped going to high school for 4 weeks or more since fall 2009	P2DROPOUTHS	2,207	5.7	1.15	0.49	5.36	2.32
Family plans to help teenager pay for postsecondary education (3 levels)	P2HELPPAY	2,345	1.5	0.04	0.02	5.81	2.41
Student lives with parent questionnaire respondent all of the time	P2HHTIME	2,387	90.1	1.12	0.61	3.38	1.84
Language other than English is regularly spoken in home	P2HOMELANG	2,263	35.7	2.43	1.01	5.82	2.41
How often parent helps with homework (5 Levels)	P2HWOFTEN	2,379	3.7	0.04	0.02	2.94	1.71
Whether parent respondent is currently employed	P2JOBNOW1	2,321	70.7	1.73	0.95	3.37	1.84
Level of postsecondary institution teenager most likely to attend in fall 2013 (3 levels)	P2LIKELYCLGLV	837	1.3	0.03	0.02	2.49	1.58

See notes at end of table

Table F-29. Parent standard errors and design effects—City schools—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Confidence in helping with math homework in 2011-2012 or when teenager was last enrolled (3 levels)	P2MTHHWEFF	2,367	2.1	0.04	0.02	5.12	2.26
Whether home is owned, rented or other arrangement	P2OWNHOME	2,299	1.5	0.03	0.01	4.30	2.07
Teenager has sibling enrolled in college or a school providing occupational training	P2SIBSTARTCLG	2,112	37.5	1.95	1.05	3.42	1.85
Whether teenager has ever been suspended or expelled	P2SUSPEND	2,379	15.4	1.94	0.74	6.89	2.62
Whether respondent was born in the U.S. (3 Levels)	P2USBORN1	2,422	1.6	0.05	0.02	8.00	2.83
Parent Respondent's age as of Dec 31, 2012	P2YRBORN1	2,395	46.5	0.32	0.16	4.22	2.05
Teenager lives with mother and father	X2PARPATTERN	2,530	50.7	2.19	0.99	4.84	2.20
Mother's occupation	X2MOMOCC2 (composite)	2,287	24.9	1.56	0.90	2.96	1.72
Father's occupation	X2DADOCC2 (composite)	1,869	19.3	1.55	0.91	2.88	1.70
Summary statistics							
Mean						4.70	2.14
Minimum						2.49	1.58
Median						4.30	2.07
Maximum						8.00	2.83
Standard deviation						1.61	0.37

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-30. Parent standard errors and design effects—Suburban schools

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Biological mother completed parent questionnaire	P2RELSHP	3,147	73.6	1.20	0.79	2.35	1.53
Language other than English is regularly spoken in home	P2HOMELANG	2,830	26.8	1.96	0.83	5.56	2.36
Teenager has not repeated any grades	P2REPEATNONE	2,975	85.1	1.14	0.65	3.04	1.74
Helped teenager with a school science fair project in last year	P2SCIPROJ	2,949	29.7	1.22	0.84	2.10	1.45
Teenager has not skipped any grades	P2SKIPNONE	2,948	97.9	0.41	0.27	2.33	1.53
Parent respondent highest level of education obtained (7 levels)	P2HIDEG1	3,072	3.5	0.07	0.03	5.67	2.38
Highest level of education obtained between both parents (7 levels)	X2PAREDU	3,147	3.8	0.08	0.03	6.09	2.47
Family has opened account(s) to save for teenager's college education	P2ACCTPAY	2,851	22.2	1.15	0.78	2.18	1.48
How certain teenager is to attend most likely postsecondary institution (3 levels)	P2CERTAINCLG	1,202	1.8	0.03	0.02	2.12	1.45
Teenager stopped going to high school for 4 weeks or more since fall 2009	P2DROPOUTHS	2,759	5.0	0.63	0.42	2.28	1.51
Family plans to help teenager pay for postsecondary education (3 levels)	P2HELPPAY	2,907	1.4	0.03	0.01	3.72	1.93
Student lives with parent questionnaire respondent all of the time	P2HHTIME	2,973	91.8	0.79	0.50	2.47	1.57
Language other than English is regularly spoken in home	P2HOMELANG	2,830	26.8	1.96	0.83	5.56	2.36
How often parent helps with homework (5 Levels)	P2HWOFTEN	2,965	3.7	0.03	0.02	2.80	1.67
Whether parent respondent is currently employed	P2JOBNOW1	2,891	78.8	1.21	0.76	2.54	1.59
Level of postsecondary institution teenager most likely to attend in fall 2013 (3 levels)	P2LIKELYCLGLV	1,062	1.4	0.03	0.02	3.91	1.98

See notes at end of table

Table F-30. Parent standard errors and design effects—Suburban schools—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Confidence in helping with math homework in 2011-2012 or when teenager was last enrolled (3 levels)	P2MTHHWEFF	2,961	2.2	0.02	0.01	2.22	1.49
Whether home is owned, rented or other arrangement	P2OWNHOME	2,866	1.4	0.02	0.01	2.73	1.65
Teenager has sibling enrolled in college or a school providing occupational training	P2SIBSTARTCLG	2,702	37.8	1.26	0.93	1.82	1.35
Whether teenager has ever been suspended or expelled	P2SUSPEND	2,961	13.5	0.93	0.63	2.18	1.48
Whether respondent was born in the U.S. (3 Levels)	P2USBORN1	3,007	1.5	0.04	0.02	6.68	2.58
Parent Respondent's age as of Dec 31, 2012	P2YRBORN1	2,983	46.6	0.22	0.12	3.24	1.80
Teenager lives with mother and father	X2PARPATTERN	3,147	56.2	1.69	0.88	3.67	1.92
Mother's occupation	X2MOMOCC2 (composite)	2,838	28.1	1.52	0.84	3.24	1.80
Father's occupation	X2DADOCC2 (composite)	2,341	17.6	1.24	0.79	2.50	1.58
Summary statistics							
Mean						3.32	1.79
Minimum						1.82	1.35
Median						2.73	1.65
Maximum						6.68	2.58
Standard deviation						1.44	0.37

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-31. Parent standard errors and design effects—Town schools

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Biological mother completed parent questionnaire	P2RELSHP	983	73.8	1.68	1.40	1.43	1.20
Language other than English is regularly spoken in home	P2HOMELANG	874	12.2	1.96	1.11	3.12	1.77
Teenager has not repeated any grades	P2REPEATNONE	928	82.0	2.69	1.26	4.55	2.13
Helped teenager with a school science fair project in last year	P2SCIPROJ	917	27.7	1.93	1.48	1.69	1.30
Teenager has not skipped any grades	P2SKIPNONE	913	96.5	0.92	0.61	2.30	1.52
Parent respondent highest level of education obtained (7 levels)	P2HIDEG1	957	3.2	0.13	0.05	6.43	2.54
Highest level of education obtained between both parents (7 levels)	X2PAREDU	985	3.4	0.13	0.05	6.37	2.52
Family has opened account(s) to save for teenager's college education	P2ACCTPAY	891	18.3	1.94	1.30	2.23	1.49
How certain teenager is to attend most likely postsecondary institution (3 levels)	P2CERTAINCLG	409	1.8	0.04	0.03	1.71	1.31
Teenager stopped going to high school for 4 weeks or more since fall 2009	P2DROPOUTHS	860	5.6	1.60	0.78	4.20	2.05
Family plans to help teenager pay for postsecondary education (3 levels)	P2HELPPAY	901	1.4	0.05	0.02	4.28	2.07
Student lives with parent questionnaire respondent all of the time	P2HHTIME	921	88.2	1.83	1.06	2.95	1.72
Language other than English is regularly spoken in home	P2HOMELANG	874	12.2	1.96	1.11	3.12	1.77
How often parent helps with homework (5 Levels)	P2HWOFTEN	919	3.7	0.07	0.04	3.51	1.87
Whether parent respondent is currently employed	P2JOBNOW1	896	76.4	2.60	1.42	3.36	1.83
Level of postsecondary institution teenager most likely to attend in fall 2013 (3 levels)	P2LIKELYCLGLV	365	1.5	0.05	0.03	3.06	1.75

See notes at end of table

Table F-31. Parent standard errors and design effects—Town schools—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Confidence in helping with math homework in 2011-2012 or when teenager was last enrolled (3 levels)	P2MTHHWEFF	915	2.1	0.04	0.03	3.05	1.75
Whether home is owned, rented or other arrangement	P2OWNHOME	879	1.4	0.05	0.02	6.51	2.55
Teenager has sibling enrolled in college or a school providing occupational training	P2SIBSTARTCLG	842	39.6	3.74	1.69	4.92	2.22
Whether teenager has ever been suspended or expelled	P2SUSPEND	919	17.6	2.24	1.26	3.16	1.78
Whether respondent was born in the U.S. (3 Levels)	P2USBORN1	928	1.1	0.03	0.02	2.92	1.71
Parent Respondent's age as of Dec 31, 2012	P2YRBORN1	921	45.0	0.33	0.23	2.00	1.41
Teenager lives with mother and father	X2PARPATTERN	985	46.1	2.47	1.59	2.42	1.56
Mother's occupation	X2MOMOCC2 (composite)	870	27.5	2.45	1.52	2.61	1.62
Father's occupation	X2DADOCC2 (composite)	707	17.5	2.11	1.43	2.18	1.48
Summary statistics							
Mean						3.36	1.80
Minimum						1.43	1.20
Median						3.06	1.75
Maximum						6.51	2.55
Standard deviation						1.45	0.38

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-32. Parent standard errors and design effects—Rural schools

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Biological mother completed parent questionnaire	P2RELSHP	1,988	72.4	1.52	1.00	2.28	1.51
Language other than English is regularly spoken in home	P2HOMELANG	1,790	14.5	1.73	0.83	4.34	2.08
Teenager has not repeated any grades	P2REPEATNONE	1,882	82.9	1.92	0.87	4.91	2.22
Helped teenager with a school science fair project in last year	P2SCIPROJ	1,861	29.1	1.92	1.05	3.32	1.82
Teenager has not skipped any grades	P2SKIPNONE	1,859	97.0	0.69	0.40	3.06	1.75
Parent respondent highest level of education obtained (7 levels)	P2HIDEG1	1,936	3.2	0.08	0.04	4.37	2.09
Highest level of education obtained between both parents (7 levels)	X2PAREDU	1,989	3.5	0.09	0.04	6.24	2.50
Family has opened account(s) to save for teenager's college education	P2ACCTPAY	1,811	18.7	1.55	0.92	2.86	1.69
How certain teenager is to attend most likely postsecondary institution (3 levels)	P2CERTAINCLG	793	1.7	0.03	0.02	2.13	1.46
Teenager stopped going to high school for 4 weeks or more since fall 2009	P2DROPOUTHS	1,720	4.1	0.67	0.48	1.97	1.40
Family plans to help teenager pay for postsecondary education (3 levels)	P2HELPPAY	1,841	1.4	0.03	0.02	3.56	1.89
Student lives with parent questionnaire respondent all of the time	P2HHTIME	1,879	90.1	1.00	0.69	2.12	1.46
Language other than English is regularly spoken in home	P2HOMELANG	1,790	14.5	1.73	0.83	4.34	2.08
How often parent helps with homework (5 Levels)	P2HWOFTEN	1,874	3.7	0.04	0.03	2.15	1.47
Whether parent respondent is currently employed	P2JOBNOW1	1,827	77.3	1.81	0.98	3.40	1.84
Level of postsecondary institution teenager most likely to attend in fall 2013 (3 levels)	P2LIKELYCLGLV	703	1.5	0.03	0.02	1.71	1.31

See notes at end of table

Table F-32. Parent standard errors and design effects—Rural schools—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Confidence in helping with math homework in 2011-2012 or when teenager was last enrolled (3 levels)	P2MTHHWEFF	1,861	2.3	0.03	0.02	2.92	1.71
Whether home is owned, rented or other arrangement	P2OWNHOME	1,811	1.3	0.03	0.01	3.60	1.90
Teenager has sibling enrolled in college or a school providing occupational training	P2SIBSTARTCLG	1,726	40.5	2.07	1.18	3.07	1.75
Whether teenager has ever been suspended or expelled	P2SUSPEND	1,868	14.5	1.76	0.81	4.68	2.16
Whether respondent was born in the U.S. (3 Levels)	P2USBORN1	1,901	1.2	0.03	0.01	5.79	2.41
Parent Respondent's age as of Dec 31, 2012	P2YRBORN1	1,888	45.6	0.26	0.16	2.63	1.62
Teenager lives with mother and father	X2PARPATTERN	1,989	53.3	2.01	1.12	3.22	1.79
Mother's occupation	X2MOMOCC2 (composite)	1,767	29.7	2.20	1.09	4.08	2.02
Father's occupation	X2DADOCC2 (composite)	1,483	15.7	2.07	0.95	4.80	2.19
Summary statistics							
Mean						3.50	1.84
Minimum						1.71	1.31
Median						3.32	1.82
Maximum						6.24	2.50
Standard deviation						1.21	0.32

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-33. Parent standard errors and design effects—Male students

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Biological mother completed parent questionnaire	P2RELSHP	4,382	71.9	1.21	0.68	3.16	1.78
Language other than English is regularly spoken in home	P2HOMELANG	3,944	25.2	1.56	0.69	5.12	2.26
Teenager has not repeated any grades	P2REPEATNONE	4,137	81.1	1.00	0.61	2.72	1.65
Helped teenager with a school science fair project in last year	P2SCIPROJ	4,106	27.7	1.13	0.70	2.63	1.62
Teenager has not skipped any grades	P2SKIPNONE	4,095	97.6	0.36	0.24	2.22	1.49
Parent respondent highest level of education obtained (7 levels)	P2HIDEG1	4,291	3.3	0.06	0.03	5.13	2.26
Highest level of education obtained between both parents (7 levels)	X2PAREDU	4,384	3.6	0.06	0.03	5.73	2.39
Family has opened account(s) to save for teenager's college education	P2ACCTPAY	3,992	20.7	1.11	0.64	2.98	1.73
How certain teenager is to attend most likely postsecondary institution (3 levels)	P2CERTAINCLG	1,630	1.7	0.02	0.02	2.45	1.56
Teenager stopped going to high school for 4 weeks or more since fall 2009	P2DROPOUTHS	3,812	5.6	0.75	0.37	4.01	2.00
Family plans to help teenager pay for postsecondary education (3 levels)	P2HELPPAY	4,063	1.4	0.02	0.01	3.90	1.97
Student lives with parent questionnaire respondent all of the time	P2HHTIME	4,134	89.5	0.72	0.48	2.28	1.51
Language other than English is regularly spoken in home	P2HOMELANG	3,944	25.2	1.56	0.69	5.12	2.26
How often parent helps with homework (5 Levels)	P2HWOFTEN	4,119	3.7	0.03	0.02	2.87	1.70
Whether parent respondent is currently employed	P2JOBNOW1	4,034	76.0	1.16	0.67	3.00	1.73
Level of postsecondary institution teenager most likely to attend in fall 2013 (3 levels)	P2LIKELYCLGLV	1,419	1.5	0.02	0.01	2.25	1.50

See notes at end of table

Table F-33. Parent standard errors and design effects—Male students—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Confidence in helping with math homework in 2011-2012 or when teenager was last enrolled (3 levels)	P2MTHHWEFF	4,100	2.2	0.02	0.01	3.03	1.74
Whether home is owned, rented or other arrangement	P2OWNHOME	3,999	1.4	0.02	0.01	3.77	1.94
Teenager has sibling enrolled in college or a school providing occupational training	P2SIBSTARTCLG	3,724	39.8	1.45	0.80	3.25	1.80
Whether teenager has ever been suspended or expelled	P2SUSPEND	4,117	19.7	1.14	0.62	3.40	1.84
Whether respondent was born in the U.S. (3 Levels)	P2USBORN1	4,174	1.4	0.03	0.01	4.58	2.14
Parent Respondent's age as of Dec 31, 2012	P2YRBORN1	4,138	46.2	0.23	0.11	4.26	2.06
Teenager lives with mother and father	X2PARPATTERN	4,384	54.0	1.29	0.75	2.92	1.71
Mother's occupation	X2MOMOCC2 (composite)	3,913	26.8	1.21	0.71	2.91	1.70
Father's occupation	X2DADOCC2 (composite)	3,292	19.2	1.20	0.69	3.04	1.74
Summary statistics							
Mean						3.47	1.84
Minimum						2.22	1.49
Median						3.04	1.74
Maximum						5.73	2.39
Standard deviation						1.01	0.26

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-34. Parent standard errors and design effects—Female students

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Biological mother completed parent questionnaire	P2RELSHP	4,265	74.5	1.22	0.67	3.35	1.83
Language other than English is regularly spoken in home	P2HOMELANG	3,813	25.0	1.08	0.70	2.37	1.54
Teenager has not repeated any grades	P2REPEATNONE	4,028	85.8	1.06	0.55	3.69	1.92
Helped teenager with a school science fair project in last year	P2SCIPROJ	3,997	31.6	1.29	0.74	3.05	1.75
Teenager has not skipped any grades	P2SKIPNONE	3,970	96.7	0.51	0.28	3.22	1.79
Parent respondent highest level of education obtained (7 levels)	P2HIDEG1	4,136	3.3	0.05	0.03	3.38	1.84
Highest level of education obtained between both parents (7 levels)	X2PAREDU	4,267	3.5	0.05	0.03	4.01	2.00
Family has opened account(s) to save for teenager's college education	P2ACCTPAY	3,861	20.3	1.12	0.65	2.99	1.73
How certain teenager is to attend most likely postsecondary institution (3 levels)	P2CERTAINCLG	1,741	1.7	0.02	0.02	2.12	1.46
Teenager stopped going to high school for 4 weeks or more since fall 2009	P2DROPOUTHS	3,734	4.6	0.55	0.34	2.62	1.62
Family plans to help teenager pay for postsecondary education (3 levels)	P2HELPPAY	3,931	1.4	0.02	0.01	3.94	1.99
Student lives with parent questionnaire respondent all of the time	P2HHTIME	4,026	91.4	0.70	0.44	2.49	1.58
Language other than English is regularly spoken in home	P2HOMELANG	3,813	25.0	1.08	0.70	2.37	1.54
How often parent helps with homework (5 Levels)	P2HWOFTEN	4,018	3.7	0.03	0.02	3.90	1.98
Whether parent respondent is currently employed	P2JOBNOW1	3,901	75.2	1.16	0.69	2.84	1.68
Level of postsecondary institution teenager most likely to attend in fall 2013 (3 levels)	P2LIKELYCLGLV	1,548	1.4	0.02	0.01	3.04	1.74

See notes at end of table

Table F-34. Parent standard errors and design effects—Female students—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Confidence in helping with math homework in 2011-2012 or when teenager was last enrolled (3 levels)	P2MTHHWEFF	4,004	2.2	0.02	0.01	2.98	1.73
Whether home is owned, rented or other arrangement	P2OWNHOME	3,856	1.4	0.02	0.01	2.56	1.60
Teenager has sibling enrolled in college or a school providing occupational training	P2SIBSTARTCLG	3,658	37.4	1.55	0.80	3.74	1.93
Whether teenager has ever been suspended or expelled	P2SUSPEND	4,010	9.8	0.79	0.47	2.82	1.68
Whether respondent was born in the U.S. (3 Levels)	P2USBORN1	4,084	1.4	0.02	0.01	3.28	1.81
Parent Respondent's age as of Dec 31, 2012	P2YRBORN1	4,049	46.0	0.21	0.11	3.54	1.88
Teenager lives with mother and father	X2PARPATTERN	4,267	51.1	1.46	0.77	3.65	1.91
Mother's occupation	X2MOMOCC2 (composite)	3,849	28.0	1.32	0.72	3.34	1.83
Father's occupation	X2DADOCC2 (composite)	3,108	15.9	0.95	0.66	2.07	1.44
Summary statistics							
Mean						3.10	1.75
Minimum						2.07	1.44
Median						3.05	1.75
Maximum						4.01	2.00
Standard deviation						0.57	0.16

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-35. Parent standard errors and design effects—Hispanic students

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Biological mother completed parent questionnaire	P2RELSHP	1,409	73.5	1.98	1.18	2.82	1.68
Language other than English is regularly spoken in home	P2HOMELANG	1,213	68.3	2.08	1.34	2.43	1.56
Teenager has not repeated any grades	P2REPEATNONE	1,314	81.6	1.97	1.07	3.39	1.84
Helped teenager with a school science fair project in last year	P2SCIPROJ	1,294	35.3	2.38	1.33	3.21	1.79
Teenager has not skipped any grades	P2SKIPNONE	1,283	96.3	0.80	0.53	2.30	1.52
Parent respondent highest level of education obtained (7 levels)	P2HIDEG1	1,353	2.5	0.08	0.04	4.01	2.00
Highest level of education obtained between both parents (7 levels)	X2PAREDU	1,409	2.8	0.09	0.04	4.34	2.08
Family has opened account(s) to save for teenager's college education	P2ACCTPAY	1,257	13.7	2.17	0.97	5.03	2.24
How certain teenager is to attend most likely postsecondary institution (3 levels)	P2CERTAINCLG	466	1.6	0.05	0.03	3.41	1.85
Teenager stopped going to high school for 4 weeks or more since fall 2009	P2DROPOUTHS	1,198	5.1	1.29	0.63	4.13	2.03
Family plans to help teenager pay for postsecondary education (3 levels)	P2HELPPAY	1,268	1.6	0.05	0.02	4.34	2.08
Student lives with parent questionnaire respondent all of the time	P2HHTIME	1,304	91.8	1.21	0.76	2.53	1.59
Language other than English is regularly spoken in home	P2HOMELANG	1,213	68.3	2.08	1.34	2.43	1.56
How often parent helps with homework (5 Levels)	P2HWOFTEN	1,300	3.7	0.05	0.03	2.56	1.60
Whether parent respondent is currently employed	P2JOBNOW1	1,247	72.3	2.37	1.27	3.49	1.87
Level of postsecondary institution teenager most likely to attend in fall 2013 (3 levels)	P2LIKELYCLGLV	402	1.4	0.06	0.03	4.12	2.03

See notes at end of table

Table F-35. Parent standard errors and design effects—Hispanic students—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Confidence in helping with math homework in 2011-2012 or when teenager was last enrolled (3 levels)	P2MTHHWEFF	1,289	2.2	0.04	0.02	3.39	1.84
Whether home is owned, rented or other arrangement	P2OWNHOME	1,234	1.5	0.03	0.02	2.28	1.51
Teenager has sibling enrolled in college or a school providing occupational training	P2SIBSTARTCLG	1,202	33.1	2.93	1.36	4.65	2.16
Whether teenager has ever been suspended or expelled	P2SUSPEND	1,298	12.1	1.36	0.91	2.25	1.50
Whether respondent was born in the U.S. (3 Levels)	P2USBORN1	1,326	2.1	0.05	0.03	3.95	1.99
Parent Respondent's age as of Dec 31, 2012	P2YRBORN1	1,319	44.8	0.38	0.20	3.59	1.89
Teenager lives with mother and father	X2PARPATTERN	1,409	52.1	2.53	1.33	3.63	1.90
Mother's occupation	X2MOMOCC2 (composite)	1,227	17.4	2.01	1.08	3.46	1.86
Father's occupation	X2DADOCC2 (composite)	1,006	8.7	1.22	0.89	1.90	1.38
Summary statistics							
Mean						3.34	1.81
Minimum						1.90	1.38
Median						3.41	1.85
Maximum						5.03	2.24
Standard deviation						0.85	0.24

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-36. Parent standard errors and design effects—Asian students

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Biological mother completed parent questionnaire	P2RELSHP	667	56.6	2.93	1.92	2.33	1.53
Language other than English is regularly spoken in home	P2HOMELANG	596	81.7	3.22	1.59	4.14	2.03
Teenager has not repeated any grades	P2REPEATNONE	623	91.8	2.14	1.10	3.79	1.95
Helped teenager with a school science fair project in last year	P2SCIPROJ	619	40.3	3.73	1.97	3.58	1.89
Teenager has not skipped any grades	P2SKIPNONE	621	97.0	1.40	0.69	4.10	2.03
Parent respondent highest level of education obtained (7 levels)	P2HIDEG1	645	4.1	0.15	0.07	4.32	2.08
Highest level of education obtained between both parents (7 levels)	X2PAREDU	667	4.4	0.14	0.07	3.93	1.98
Family has opened account(s) to save for teenager's college education	P2ACCTPAY	593	23.5	3.08	1.74	3.11	1.76
How certain teenager is to attend most likely postsecondary institution (3 levels)	P2CERTAINCLG	276	1.8	0.07	0.04	3.26	1.80
Teenager stopped going to high school for 4 weeks or more since fall 2009	P2DROPOUTHS	592	2.7	1.28	0.67	3.71	1.93
Family plans to help teenager pay for postsecondary education (3 levels)	P2HELPPAY	613	1.4	0.05	0.03	2.81	1.68
Student lives with parent questionnaire respondent all of the time	P2HHTIME	628	93.9	2.04	0.96	4.53	2.13
Language other than English is regularly spoken in home	P2HOMELANG	596	81.7	3.22	1.59	4.14	2.03
How often parent helps with homework (5 Levels)	P2HWOFTEN	625	3.3	0.09	0.05	3.15	1.77
Whether parent respondent is currently employed	P2JOBNOW1	601	76.8	2.73	1.72	2.51	1.59
Level of postsecondary institution teenager most likely to attend in fall 2013 (3 levels)	P2LIKELYCLGLV	247	1.1	0.05	0.02	4.00	2.00

See notes at end of table

Table F-36. Parent standard errors and design effects—Asian students—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Confidence in helping with math homework in 2011-2012 or when teenager was last enrolled (3 levels)	P2MTHHWEFF	624	1.9	0.07	0.03	4.10	2.02
Whether home is owned, rented or other arrangement	P2OWNHOME	596	1.3	0.05	0.02	3.95	1.99
Teenager has sibling enrolled in college or a school providing occupational training	P2SIBSTARTCLG	530	37.5	4.05	2.10	3.71	1.92
Whether teenager has ever been suspended or expelled	P2SUSPEND	624	3.3	1.10	0.71	2.36	1.54
Whether respondent was born in the U.S. (3 Levels)	P2USBORN1	631	2.8	0.05	0.03	3.36	1.83
Parent Respondent's age as of Dec 31, 2012	P2YRBORN1	615	48.9	0.57	0.26	4.71	2.17
Teenager lives with mother and father	X2PARPATTERN	667	77.7	3.52	1.61	4.75	2.18
Mother's occupation	X2MOMOCC2 (composite)	580	33.1	3.67	1.96	3.52	1.88
Father's occupation	X2DADOCC2 (composite)	568	28.7	3.29	1.90	2.99	1.73
Summary statistics							
Mean						3.63	1.90
Minimum						2.33	1.53
Median						3.71	1.93
Maximum						4.75	2.18
Standard deviation						0.69	0.19

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-37. Parent standard errors and design effects—Black students

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Biological mother completed parent questionnaire	P2RELSHP	955	73.1	3.09	1.43	4.65	2.16
Language other than English is regularly spoken in home	P2HOMELANG	847	12.8	1.96	1.15	2.92	1.71
Teenager has not repeated any grades	P2REPEATNONE	902	73.0	3.32	1.48	5.05	2.25
Helped teenager with a school science fair project in last year	P2SCIPROJ	890	36.9	3.08	1.62	3.63	1.90
Teenager has not skipped any grades	P2SKIPNONE	886	97.7	0.77	0.51	2.29	1.51
Parent respondent highest level of education obtained (7 levels)	P2HIDEG1	935	3.0	0.11	0.05	4.51	2.12
Highest level of education obtained between both parents (7 levels)	X2PAREDU	955	3.2	0.11	0.05	5.02	2.24
Family has opened account(s) to save for teenager's college education	P2ACCTPAY	862	11.6	1.82	1.09	2.77	1.67
How certain teenager is to attend most likely postsecondary institution (3 levels)	P2CERTAINCLG	367	1.6	0.06	0.03	2.96	1.72
Teenager stopped going to high school for 4 weeks or more since fall 2009	P2DROPOUTHS	798	10.6	1.81	1.09	2.74	1.66
Family plans to help teenager pay for postsecondary education (3 levels)	P2HELPPAY	882	1.5	0.05	0.03	3.57	1.89
Student lives with parent questionnaire respondent all of the time	P2HHTIME	900	88.8	1.97	1.05	3.51	1.87
Language other than English is regularly spoken in home	P2HOMELANG	847	12.8	1.96	1.15	2.92	1.71
How often parent helps with homework (5 Levels)	P2HWOFTEN	891	3.8	0.06	0.04	2.89	1.70
Whether parent respondent is currently employed	P2JOBNOW1	878	68.5	3.38	1.57	4.64	2.16
Level of postsecondary institution teenager most likely to attend in fall 2013 (3 levels)	P2LIKELYCLGLV	309	1.3	0.04	0.03	2.10	1.45

See notes at end of table

Table F-37. Parent standard errors and design effects—Black students—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Confidence in helping with math homework in 2011-2012 or when teenager was last enrolled (3 levels)	P2MTHHWEFF	891	1.9	0.05	0.03	3.49	1.87
Whether home is owned, rented or other arrangement	P2OWNHOME	869	1.6	0.04	0.02	3.41	1.85
Teenager has sibling enrolled in college or a school providing occupational training	P2SIBSTARTCLG	808	44.6	3.24	1.75	3.42	1.85
Whether teenager has ever been suspended or expelled	P2SUSPEND	898	27.1	3.04	1.48	4.19	2.05
Whether respondent was born in the U.S. (3 Levels)	P2USBORN1	917	1.2	0.03	0.02	2.21	1.49
Parent Respondent's age as of Dec 31, 2012	P2YRBORN1	900	45.2	0.74	0.30	6.27	2.50
Teenager lives with mother and father	X2PARPATTERN	955	26.9	2.63	1.43	3.37	1.83
Mother's occupation	X2MOMOCC2 (composite)	826	19.6	2.33	1.38	2.85	1.69
Father's occupation	X2DADOCC2 (composite)	470	14.7	2.91	1.64	3.17	1.78
Summary statistics							
Mean						3.54	1.86
Minimum						2.10	1.45
Median						3.41	1.85
Maximum						6.27	2.50
Standard deviation						1.01	0.26

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-38. Parent standard errors and design effects—White students

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Biological mother completed parent questionnaire	P2RELSHP	4,741	74.1	0.95	0.64	2.23	1.49
Language other than English is regularly spoken in home	P2HOMELANG	4,313	8.2	0.58	0.42	1.90	1.38
Teenager has not repeated any grades	P2REPEATNONE	4,501	86.6	0.78	0.51	2.39	1.55
Helped teenager with a school science fair project in last year	P2SCIPROJ	4,476	25.1	0.97	0.65	2.23	1.49
Teenager has not skipped any grades	P2SKIPNONE	4,458	97.6	0.36	0.23	2.51	1.58
Parent respondent highest level of education obtained (7 levels)	P2HIDEG1	4,642	3.6	0.04	0.02	3.23	1.80
Highest level of education obtained between both parents (7 levels)	X2PAREDU	4,745	4.0	0.05	0.02	3.87	1.97
Family has opened account(s) to save for teenager's college education	P2ACCTPAY	4,350	25.5	0.98	0.66	2.20	1.48
How certain teenager is to attend most likely postsecondary institution (3 levels)	P2CERTAINCLG	1,903	1.8	0.02	0.01	1.56	1.25
Teenager stopped going to high school for 4 weeks or more since fall 2009	P2DROPOUTHS	4,200	3.8	0.47	0.30	2.53	1.59
Family plans to help teenager pay for postsecondary education (3 levels)	P2HELPPAY	4,418	1.3	0.02	0.01	2.65	1.63
Student lives with parent questionnaire respondent all of the time	P2HHTIME	4,501	89.9	0.69	0.45	2.38	1.54
Language other than English is regularly spoken in home	P2HOMELANG	4,313	8.2	0.58	0.42	1.90	1.38
How often parent helps with homework (5 Levels)	P2HWOFTEN	4,494	3.7	0.02	0.02	2.23	1.49
Whether parent respondent is currently employed	P2JOBNOW1	4,407	78.2	0.95	0.62	2.34	1.53
Level of postsecondary institution teenager most likely to attend in fall 2013 (3 levels)	P2LIKELYCLGLV	1,693	1.4	0.02	0.01	1.75	1.32

See notes at end of table

Table F-38. Parent standard errors and design effects—White students—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Confidence in helping with math homework in 2011-2012 or when teenager was last enrolled (3 levels)	P2MTHHWEFF	4,480	2.2	0.02	0.01	2.01	1.42
Whether home is owned, rented or other arrangement	P2OWNHOME	4,360	1.3	0.01	0.01	2.08	1.44
Teenager has sibling enrolled in college or a school providing occupational training	P2SIBSTARTCLG	4,102	40.0	1.14	0.77	2.22	1.49
Whether teenager has ever been suspended or expelled	P2SUSPEND	4,479	12.5	0.87	0.49	3.08	1.75
Whether respondent was born in the U.S. (3 Levels)	P2USBORN1	4,548	1.1	0.01	0.01	1.93	1.39
Parent Respondent's age as of Dec 31, 2012	P2YRBORN1	4,522	47.0	0.14	0.10	2.02	1.42
Teenager lives with mother and father	X2PARPATTERN	4,745	59.6	1.08	0.71	2.28	1.51
Mother's occupation	X2MOMOCC2 (composite)	4,335	33.3	1.14	0.72	2.55	1.60
Father's occupation	X2DADOCC2 (composite)	3,770	20.0	0.99	0.65	2.31	1.52
Summary statistics							
Mean						2.34	1.52
Minimum						1.56	1.25
Median						2.23	1.49
Maximum						3.87	1.97
Standard deviation						0.49	0.15

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-39. Parent standard errors and design effects—Multiracial and other students

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Biological mother completed parent questionnaire	P2RELSHP	875	73.1	2.27	1.50	2.30	1.52
Language other than English is regularly spoken in home	P2HOMELANG	788	19.7	2.43	1.42	2.93	1.71
Teenager has not repeated any grades	P2REPEATNONE	825	82.2	2.50	1.33	3.52	1.88
Helped teenager with a school science fair project in last year	P2SCIPROJ	824	26.9	2.83	1.55	3.34	1.83
Teenager has not skipped any grades	P2SKIPNONE	817	95.7	1.47	0.71	4.27	2.07
Parent respondent highest level of education obtained (7 levels)	P2HIDEG1	852	3.3	0.10	0.05	3.30	1.82
Highest level of education obtained between both parents (7 levels)	X2PAREDU	875	3.6	0.10	0.06	3.16	1.78
Family has opened account(s) to save for teenager's college education	P2ACCTPAY	791	20.5	2.16	1.44	2.25	1.50
How certain teenager is to attend most likely postsecondary institution (3 levels)	P2CERTAINCLG	359	1.7	0.06	0.03	3.44	1.85
Teenager stopped going to high school for 4 weeks or more since fall 2009	P2DROPOUTHS	758	5.7	1.36	0.84	2.60	1.61
Family plans to help teenager pay for postsecondary education (3 levels)	P2HELPPAY	813	1.4	0.04	0.03	2.80	1.67
Student lives with parent questionnaire respondent all of the time	P2HHTIME	827	91.7	1.71	0.96	3.19	1.78
Language other than English is regularly spoken in home	P2HOMELANG	788	19.7	2.43	1.42	2.93	1.71
How often parent helps with homework (5 Levels)	P2HWOFTEN	827	3.8	0.06	0.04	2.71	1.65
Whether parent respondent is currently employed	P2JOBNOW1	802	78.7	2.38	1.45	2.69	1.64
Level of postsecondary institution teenager most likely to attend in fall 2013 (3 levels)	P2LIKELYCLGLV	316	1.5	0.05	0.03	2.19	1.48

See notes at end of table

Table F-39. Parent standard errors and design effects—Multiracial and other students—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Confidence in helping with math homework in 2011-2012 or when teenager was last enrolled (3 levels)	P2MTHHWEFF	820	2.2	0.04	0.03	2.47	1.57
Whether home is owned, rented or other arrangement	P2OWNHOME	796	1.5	0.04	0.02	2.82	1.68
Teenager has sibling enrolled in college or a school providing occupational training	P2SIBSTARTCLG	740	34.1	2.59	1.74	2.21	1.49
Whether teenager has ever been suspended or expelled	P2SUSPEND	828	20.4	2.95	1.40	4.42	2.10
Whether respondent was born in the U.S. (3 Levels)	P2USBORN1	836	1.3	0.04	0.03	3.10	1.76
Parent Respondent's age as of Dec 31, 2012	P2YRBORN1	831	44.9	0.44	0.25	3.04	1.74
Teenager lives with mother and father	X2PARPATTERN	875	41.9	2.54	1.67	2.31	1.52
Mother's occupation	X2MOMOCC2 (composite)	794	26.5	2.58	1.57	2.71	1.65
Father's occupation	X2DADOCC2 (composite)	586	22.5	2.28	1.73	1.74	1.32
Summary statistics							
Mean						2.90	1.69
Minimum						1.74	1.32
Median						2.82	1.68
Maximum						4.42	2.10
Standard deviation						0.62	0.18

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-40. Parent standard errors and design effects—Low percentile SES students

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Biological mother completed parent questionnaire	P2RELSHP	1,956	74.9	1.86	0.98	3.59	1.90
Language other than English is regularly spoken in home	P2HOMELANG	1,683	41.3	1.91	1.20	2.52	1.59
Teenager has not repeated any grades	P2REPEATNONE	1,819	73.5	1.96	1.04	3.60	1.90
Helped teenager with a school science fair project in last year	P2SCIPROJ	1,793	30.6	1.89	1.09	3.02	1.74
Teenager has not skipped any grades	P2SKIPNONE	1,770	96.2	0.83	0.45	3.34	1.83
Parent respondent highest level of education obtained (7 levels)	P2HIDEG1	1,883	1.8	0.03	0.02	2.96	1.72
Highest level of education obtained between both parents (7 levels)	X2PAREDU	1,957	1.9	0.03	0.02	2.83	1.68
Family has opened account(s) to save for teenager's college education	P2ACCTPAY	1,733	8.0	1.46	0.65	5.02	2.24
How certain teenager is to attend most likely postsecondary institution (3 levels)	P2CERTAINCLG	538	1.6	0.05	0.03	2.41	1.55
Teenager stopped going to high school for 4 weeks or more since fall 2009	P2DROPOUTHS	1,587	10.0	1.48	0.75	3.85	1.96
Family plans to help teenager pay for postsecondary education (3 levels)	P2HELPPAY	1,757	1.7	0.04	0.02	4.29	2.07
Student lives with parent questionnaire respondent all of the time	P2HHTIME	1,808	87.6	1.43	0.77	3.43	1.85
Language other than English is regularly spoken in home	P2HOMELANG	1,683	41.3	1.91	1.20	2.52	1.59
How often parent helps with homework (5 Levels)	P2HWOFTEN	1,801	3.5	0.05	0.03	2.77	1.66
Whether parent respondent is currently employed	P2JOBNOW1	1,733	59.0	2.17	1.18	3.38	1.84
Level of postsecondary institution teenager most likely to attend in fall 2013 (3 levels)	P2LIKELYCLGLV	472	1.5	0.04	0.03	2.63	1.62

See notes at end of table

Table F-40. Parent standard errors and design effects—Low percentile SES students—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Confidence in helping with math homework in 2011-2012 or when teenager was last enrolled (3 levels)	P2MTHHWEFF	1,788	2.2	0.04	0.02	4.95	2.22
Whether home is owned, rented or other arrangement	P2OWNHOME	1,705	1.7	0.03	0.02	2.79	1.67
Teenager has sibling enrolled in college or a school providing occupational training	P2SIBSTARTCLG	1,643	30.5	1.75	1.14	2.37	1.54
Whether teenager has ever been suspended or expelled	P2SUSPEND	1,800	22.3	2.13	0.98	4.70	2.17
Whether respondent was born in the U.S. (3 Levels)	P2USBORN1	1,837	1.7	0.05	0.02	4.55	2.13
Parent Respondent's age as of Dec 31, 2012	P2YRBORN1	1,812	45.0	0.38	0.20	3.69	1.92
Teenager lives with mother and father	X2PARPATTERN	1,957	32.9	2.12	1.06	4.00	2.00
Mother's occupation	X2MOMOCC2 (composite)	1,575	2.5	0.66	0.39	2.90	1.70
Father's occupation	X2DADOCC2 (composite)	1,014	1.1	0.46	0.32	2.01	1.42
Summary statistics							
Mean						3.36	1.82
Minimum						2.01	1.42
Median						3.34	1.83
Maximum						5.02	2.24
Standard deviation						0.85	0.23

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-41. Parent standard errors and design effects—Middle percentile SES students

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Biological mother completed parent questionnaire	P2RELSHP	4,636	73.4	0.92	0.65	2.02	1.42
Language other than English is regularly spoken in home	P2HOMELANG	4,139	19.7	1.01	0.62	2.65	1.63
Teenager has not repeated any grades	P2REPEATNONE	4,369	85.7	0.91	0.53	2.93	1.71
Helped teenager with a school science fair project in last year	P2SCIPROJ	4,335	29.8	1.15	0.69	2.72	1.65
Teenager has not skipped any grades	P2SKIPNONE	4,326	97.6	0.39	0.23	2.87	1.69
Parent respondent highest level of education obtained (7 levels)	P2HIDEG1	4,513	3.4	0.04	0.02	3.11	1.76
Highest level of education obtained between both parents (7 levels)	X2PAREDU	4,639	3.7	0.04	0.02	3.94	1.99
Family has opened account(s) to save for teenager's college education	P2ACCTPAY	4,187	18.9	0.92	0.60	2.32	1.52
How certain teenager is to attend most likely postsecondary institution (3 levels)	P2CERTAINCLG	1,976	1.7	0.02	0.01	2.10	1.45
Teenager stopped going to high school for 4 weeks or more since fall 2009	P2DROPOUTHS	4,040	4.0	0.42	0.31	1.83	1.35
Family plans to help teenager pay for postsecondary education (3 levels)	P2HELPPAY	4,272	1.4	0.02	0.01	3.04	1.74
Student lives with parent questionnaire respondent all of the time	P2HHTIME	4,365	90.9	0.64	0.43	2.16	1.47
Language other than English is regularly spoken in home	P2HOMELANG	4,139	19.7	1.01	0.62	2.65	1.63
How often parent helps with homework (5 Levels)	P2HWOFTEN	4,351	3.8	0.03	0.02	2.44	1.56
Whether parent respondent is currently employed	P2JOBNOW1	4,243	81.2	0.89	0.60	2.18	1.48
Level of postsecondary institution teenager most likely to attend in fall 2013 (3 levels)	P2LIKELYCLGLV	1,725	1.4	0.02	0.01	2.03	1.43

See notes at end of table

Table F-41. Parent standard errors and design effects—Middle percentile SES students—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Confidence in helping with math homework in 2011-2012 or when teenager was last enrolled (3 levels)	P2MTHHWEFF	4,332	2.2	0.02	0.01	2.33	1.53
Whether home is owned, rented or other arrangement	P2OWNHOME	4,203	1.3	0.01	0.01	2.68	1.64
Teenager has sibling enrolled in college or a school providing occupational training	P2SIBSTARTCLG	3,959	42.2	1.30	0.79	2.75	1.66
Whether teenager has ever been suspended or expelled	P2SUSPEND	4,350	14.1	0.82	0.53	2.43	1.56
Whether respondent was born in the U.S. (3 Levels)	P2USBORN1	4,408	1.3	0.02	0.01	2.82	1.68
Parent Respondent's age as of Dec 31, 2012	P2YRBORN1	4,378	45.8	0.16	0.10	2.70	1.64
Teenager lives with mother and father	X2PARPATTERN	4,639	54.8	1.20	0.73	2.72	1.65
Mother's occupation	X2MOMOCC2 (composite)	4,219	25.1	1.27	0.67	3.64	1.91
Father's occupation	X2DADOCC2 (composite)	3,547	11.5	0.90	0.54	2.83	1.68
Summary statistics							
Mean						2.64	1.62
Minimum						1.83	1.35
Median						2.68	1.64
Maximum						3.94	1.99
Standard deviation						0.49	0.15

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table F-42. Parent standard errors and design effects—High percentile SES students

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Biological mother completed parent questionnaire	P2RELSHP	2,055	69.8	1.71	1.01	2.84	1.69
Language other than English is regularly spoken in home	P2HOMELANG	1,935	17.1	1.31	0.86	2.34	1.53
Teenager has not repeated any grades	P2REPEATNONE	1,977	92.0	0.86	0.61	1.99	1.41
Helped teenager with a school science fair project in last year	P2SCIPROJ	1,975	27.7	1.60	1.01	2.52	1.59
Teenager has not skipped any grades	P2SKIPNONE	1,969	97.0	0.57	0.38	2.20	1.48
Parent respondent highest level of education obtained (7 levels)	P2HIDEG1	2,031	5.3	0.03	0.02	2.21	1.49
Highest level of education obtained between both parents (7 levels)	X2PAREDU	2,055	5.7	0.03	0.02	2.73	1.65
Family has opened account(s) to save for teenager's college education	P2ACCTPAY	1,933	43.4	1.73	1.13	2.35	1.53
How certain teenager is to attend most likely postsecondary institution (3 levels)	P2CERTAINCLG	857	1.8	0.03	0.02	1.69	1.30
Teenager stopped going to high school for 4 weeks or more since fall 2009	P2DROPOUTHS	1,919	1.4	0.35	0.26	1.79	1.34
Family plans to help teenager pay for postsecondary education (3 levels)	P2HELPPAY	1,965	1.1	0.01	0.01	1.95	1.40
Student lives with parent questionnaire respondent all of the time	P2HHTIME	1,987	93.3	0.81	0.56	2.10	1.45
Language other than English is regularly spoken in home	P2HOMELANG	1,935	17.1	1.31	0.86	2.34	1.53
How often parent helps with homework (5 Levels)	P2HWOFTEN	1,985	3.9	0.04	0.02	2.73	1.65
Whether parent respondent is currently employed	P2JOBNOW1	1,959	83.8	1.20	0.83	2.08	1.44
Level of postsecondary institution teenager most likely to attend in fall 2013 (3 levels)	P2LIKELYCLGLV	770	1.2	0.02	0.02	1.95	1.40

See notes at end of table

Table F-42. Parent standard errors and design effects—High percentile SES students—Continued

Survey item[1]	Variable	n	Estimate	Design-based SE[2]	Simple random sample SE[3]	*deff*	*deft*
Confidence in helping with math homework in 2011-2012 or when teenager was last enrolled (3 levels)	P2MTHHWEFF	1,984	2.1	0.03	0.02	2.53	1.59
Whether home is owned, rented or other arrangement	P2OWNHOME	1,947	1.1	0.01	0.01	1.87	1.37
Teenager has sibling enrolled in college or a school providing occupational training	P2SIBSTARTCLG	1,780	40.5	1.96	1.16	2.83	1.68
Whether teenager has ever been suspended or expelled	P2SUSPEND	1,977	5.7	0.70	0.52	1.80	1.34
Whether respondent was born in the U.S. (3 Levels)	P2USBORN1	2,013	1.3	0.02	0.02	2.35	1.53
Parent Respondent's age as of Dec 31, 2012	P2YRBORN1	1,997	48.9	0.20	0.13	2.57	1.60
Teenager lives with mother and father	X2PARPATTERN	2,055	76.7	1.39	0.93	2.23	1.49
Mother's occupation	X2MOMOCC2 (composite)	1,968	66.6	1.62	1.06	2.33	1.53
Father's occupation	X2DADOCC2 (composite)	1,839	47.3	1.90	1.16	2.65	1.63
Summary statistics							
Mean						2.28	1.51
Minimum						1.69	1.30
Median						2.33	1.53
Maximum						2.84	1.69
Standard deviation						0.34	0.11

[1] Survey items include the questions in the study instruments as well as composite variables. The associated variable names on the HSLS:09 public-use file are included in parentheses.

[2] Design-based standard error (SE) equal to the numerator term in the formulae above.

[3] Simple random sample standard error (SE) equal to the denominator term in the formulae above.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

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Appendix G.
Unit and Item Nonresponse Bias Analyses

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Tabular results for the unit nonresponse bias analyses (section 6.6) and the item nonresponse bias analyses (section 7.2) conducted with the High School Longitudinal Study of 2009 (HSLS:09) first follow-up data are presented below. The unit bias analysis results for the first follow-up and longitudinal weights are provided in section G.1, followed by the unit analyses for the student-level contextual responsive design in section G.2. The appendix concludes with the item-level analysis in section G.3

G.1 Unit Nonresponse Bias

Unit nonresponse bias analyses were conducted for HSLS:09 first follow-up. The primary purpose of this task was first to test for detectable levels of nonresponse bias in the values known for respondents and nonrespondents, and then to determine whether those levels still exist after adjusting the analytic weights through a subsequent test.

The unit nonresponse bias tables are presented in this section for each HSLS:09 first follow-up analytic weight—W2STUDENT (student), W2W1STU (longitudinal student), W2PARENT (student home-life, contextual), and W2W1PAR (longitudinal home-life; contextual). Details of the analysis procedure along with the summary of the analysis tables are included in section 6.6.

Table G-1. Unit nonresponse bias before and after adjustments were applied to the student base weights used in the first follow-up student analytic weights (W2STUDENT) for selected variables

				Before adjustments[1]					After adjustments[2]		
	Unweighted counts		Weighted	Weighted mean							
Domain category	Respondents	Non-respondents	percent nonresponse	Overall	Respondents	Non-respondents	Estimated bias[3]	Relative bias[4]	Overall weighted mean	Estimated bias[5]	Relative bias[4]
School type											
Public	16,845	3,558	17.1	92.8	92.9	92.5	0.06	0.07	92.8	−0.00	0.00
Private	3,749	781	17.9	7.2	7.1	7.5	−0.06	−0.84	7.2	−0.00	0.00
Asian 9th-grade enrollment percent											
≤ 2 percent	10,996	2,154	16.4	50.0	50.4	47.9	0.43	0.87	50.0	0.06	0.12
> 2 percent	9,598	2,185	17.9	50.0	49.6	52.1	−0.43	−0.87	50.0	−0.06	−0.12
Black 9th-grade enrollment percent											
≤ 7 percent	11,508	2,337	16.6	54.0	54.4	52.1	0.39	0.72	54.0	−0.08	−0.16
> 7 percent	9,086	2,002	17.9	46.0	45.6	47.9	−0.39	−0.84	46.0	0.08	0.18
Hispanic 9th-grade enrollment percent											
≤ 5 percent	10,984	2,134	15.8	44.4	45.1	40.9	0.73*	1.64	44.5	0.28	0.63
> 5 percent	9,610	2,205	18.2	55.6	54.9	59.1	−0.73*	−1.31	55.5	−0.28	−0.50
Other 9th-grade enrollment percent											
< 80 percent	10,595	2,416	18.1	61.9	61.2	65.1	−0.68*	−1.10	61.8	−0.13	−0.21
≥ 80 percent	9,999	1,923	15.7	38.1	38.8	34.9	0.68*	1.78	38.2	0.13	0.33
Charter school											
Yes	360	81	18.1	1.6	1.5	1.6	−0.02	−1.17	1.6	0.03	1.84
No	16,419	3,468	17.2	90.5	90.5	90.6	−0.02	−0.02	90.4	−0.10	−0.11
Private	3,815	790	16.8	8.0	8.0	7.8	0.03	0.42	8.0	0.07	0.87

See notes at end of table.

Table G-1. Unit nonresponse bias before and after adjustments were applied to the student base weights used in the first follow-up student analytic weights (W2STUDENT) for selected variables—Continued

				Before adjustments[1]					After adjustments[2]		
	Unweighted counts		Weighted	Weighted mean							
Domain category	Respondents	Non-respondents	percent nonresponse	Overall	Respondents	Non-respondents	Estimated bias[3]	Relative bias[4]	Overall weighted mean	Estimated bias[5]	Relative bias[4]
Total enrollment											
< 499 students	3,490	690	15.1	13.2	13.5	11.6	0.32	2.44	13.2	−0.00	0.00
500–999 students	4,920	937	15.6	24.2	24.7	22.0	0.47	1.93	24.2	−0.00	0.00
1,000–1,499 students	4,634	994	18.9	21.6	21.2	23.9	−0.46	−2.13	21.6	−0.00	0.00
1,500–2,000 students	3,750	868	18.7	17.9	17.5	19.5	−0.34	−1.88	17.8	−0.08	−0.44
> 2,000 students	3,800	850	17.1	23.1	23.1	23.0	0.01	0.03	23.1	0.08	0.34
9th-grade enrollment											
0–149 9th-grade students	4,795	944	15.0	17.8	18.2	15.5	0.46*	2.60	17.8	−0.00	0.00
150–299 9th-grade students	4,684	901	16.2	23.0	23.2	21.7	0.25	1.10	23.0	−0.00	0.00
300–449 9th-grade students	4,709	1,006	18.2	21.6	21.3	22.9	−0.27	−1.23	21.6	−0.00	0.00
450–600 9th-grade students	3,236	745	18.5	17.6	17.3	19.0	−0.28	−1.61	17.7	0.16	0.90
600+ 9th-grade students	3,170	743	17.8	20.1	19.9	20.9	−0.17	−0.83	20.0	−0.16	−0.79
Number of full-time teachers											
≤ 50	6,691	1,320	15.4	28.7	29.4	25.7	0.63*	2.18	28.7	−0.00	0.00
51–100	8,374	1,740	17.5	39.0	38.8	39.9	−0.18	−0.46	39.0	−0.00	0.00
101–150	4,049	962	19.2	22.6	22.1	25.3	−0.55*	−2.43	22.6	−0.00	0.00
> 150	1,480	317	16.3	9.6	9.7	9.1	0.11	1.10	9.6	−0.00	0.00
Student to teacher ratio											
≤ 10	1,484	355	19.8	6.7	6.5	7.8	−0.21	−3.16	6.7	−0.00	0.00
11–15	6,006	1,195	16.4	29.1	29.3	27.9	0.25	0.87	29.1	−0.00	0.00
15–20	9,453	2,020	17.0	45.5	45.6	45.1	0.09	0.21	45.5	−0.00	0.00
20–25	3,499	734	17.9	18.0	17.8	18.7	−0.16	−0.90	18.0	−0.00	0.00
> 25	152	35	13.8	0.7	0.7	0.6	0.03	4.00	0.7	−0.00	0.00

See notes at end of table.

Table G-1. Unit nonresponse bias before and after adjustments were applied to the student base weights used in the first follow-up student analytic weights (W2STUDENT) for selected variables—Continued

				Before adjustments[1]					After adjustments[2]		
	Unweighted counts		Weighted	Weighted mean							
Domain category	Respondents	Non-respondents	percent nonresponse	Overall	Respondents	Non-respondents	Estimated bias[3]	Relative bias[4]	Overall weighted mean	Estimated bias[5]	Relative bias[4]
Census region											
Northeast	3,208	717	18.2	18.9	18.7	20.0	−0.23	−1.20	18.9	−0.00	0.00
Midwest	5,501	1,119	17.0	21.4	21.4	21.2	0.04	0.18	21.4	−0.00	0.00
South	8,432	1,659	16.0	37.9	38.4	35.3	0.54*	1.42	37.9	−0.00	0.00
West	3,453	844	18.5	21.8	21.5	23.5	−0.35	−1.59	21.8	−0.00	0.00
School urbanicity											
City	5,852	1,313	18.3	29.3	28.9	31.4	−0.42	−1.42	29.3	−0.00	0.00
Suburban	7,378	1,709	18.8	33.2	32.6	36.4	−0.65*	−1.95	33.2	−0.00	0.00
Town	2,447	440	14.6	13.1	13.5	11.1	0.41*	3.13	13.1	−0.00	0.00
Rural	4,917	877	14.9	24.3	25.0	21.2	0.65*	2.69	24.3	−0.00	0.00
Range of grades in school											
High school only	17,333	3,638	17.3	85.6	85.4	86.5	−0.19	−0.22	85.5	−0.14	−0.16
Middle and high school	2,027	385	15.0	10.6	10.9	9.3	0.28	2.61	10.7	0.11	1.04
Elementary to high school	1,234	316	19.1	3.8	3.7	4.2	−0.09	−2.34	3.8	0.03	0.80
Religious affiliation											
Yes	3,634	760	18.0	6.9	6.8	7.2	−0.07	−1.04	6.9	−0.03	−0.42
No	115	21	14.2	0.3	0.3	0.3	0.01	3.63	0.3	0.03	9.42
Public	16,845	3,558	17.1	92.8	92.9	92.5	0.06	0.07	92.8	−0.00	0.00
School is regular secondary											
Yes	3,445	703	17.8	6.5	6.5	6.8	−0.05	−0.72	6.5	−0.04	−0.69
No	304	78	18.8	0.7	0.7	0.7	−0.01	−2.02	0.7	0.04	6.59
Public	16,845	3,558	17.1	92.8	92.9	92.5	0.06	0.07	92.8	−0.00	0.00

See notes at end of table.

Table G-1. Unit nonresponse bias before and after adjustments were applied to the student base weights used in the first follow-up student analytic weights (W2STUDENT) for selected variables—Continued

				Before adjustments[1]					After adjustments[2]		
	Unweighted counts		Weighted	Weighted mean							
Domain category	Respondents	Non-respondents	percent nonresponse	Overall	Respondents	Non-respondents	Estimated bias[3]	Relative bias[4]	Overall weighted mean	Estimated bias[5]	Relative bias[4]
Augmented sample-state (public school only)											
California	1,045	230	17.2	13.0	12.9	13.0	−0.01	−0.06	13.0	−0.00	0.00
Florida	723	223	22.4	3.4	3.2	4.5	−0.22*	−6.36	3.4	−0.00	0.00
Georgia	978	235	17.7	2.3	2.3	2.4	−0.01	−0.65	2.3	−0.00	0.00
Michigan	1,066	162	12.5	3.3	3.5	2.4	0.19*	5.65	3.3	−0.00	0.00
North Carolina	1,124	171	12.8	3.3	3.5	2.5	0.18*	5.27	3.3	−0.00	0.00
Ohio	975	250	23.4	2.8	2.6	3.8	−0.21*	−7.55	2.8	−0.00	0.00
Pennsylvania	937	177	14.0	3.7	3.8	3.0	0.14*	3.77	3.7	−0.00	0.00
Tennessee	1,085	147	13.5	2.2	2.3	1.7	0.10	4.48	2.2	−0.00	0.00
Texas	1,106	216	14.8	9.1	9.4	7.9	0.27	2.91	9.1	−0.00	0.00
Washington state	871	214	20.5	2.2	2.1	2.6	−0.09	−3.99	2.2	−0.00	0.00
Public schools in other states	10,684	2,314	17.7	54.8	54.5	56.4	−0.33	−0.60	54.8	−0.00	0.00
Gender											
Male	10,385	2,322	18.2	50.6	50.0	53.6	−0.62*	−1.22	50.6	−0.00	0.00
Female	10,209	2,017	16.1	49.4	50.0	46.4	0.62*	1.25	49.4	−0.00	0.00
Race[6]											
Hispanic	2,141	425	14.2	4.2	4.3	3.4	0.15*	3.58	4.2	−0.00	0.00
Asian	2,320	528	18.7	14.3	14.0	15.6	−0.27	−1.87	14.3	−0.00	0.00
Black	2,424	557	17.6	17.2	17.1	17.6	−0.08	−0.49	17.2	−0.00	0.00
Other	13,709	2,829	16.9	64.4	64.6	63.4	0.20	0.32	64.4	−0.00	0.00

[1] Estimates were calculated with the student base weights excluding questionnaire-incapable student records.
[2] Estimates were calculated with the student analytic weights (W2STUDENT) excluding questionnaire-incapable student records.
[3] Estimated bias is calculated as a function of the weighted nonresponse rate times the difference in the weighted respondent and nonrespondent means as shown in equation 6.20. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.
[4] The relative bias is calculated as the estimated bias divided by the (before adjustments) overall mean.
[5] Estimated bias is calculated as the difference in the weighted overall mean before and after the adjustments following the equations discussed in section 6.7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.
[6] Student race as defined on the school enrollment lists used for sampling purposes.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up Restricted-use File.

Table G-2. Comparison of student estimates calculated with the nonresponse adjusted weight, the base weight, and the student analytic weight (W2STUDENT) for selected variables

	Unweighted counts		After non-response weight adjustment	After post-stratification adjustment			
			Mean	Means		Differences	
Domain category	Respondents	Non-respondents	Respondents, non-response adjusted (1)	Full sample base weight (2)	Respondents, adjusted for non-response and post-stratified (3)	Mean(1) − Mean(3)	Mean(2) − Mean(3)
School type							
Public	16,845	3,558	157.2	189.6	229.0	−71.8	−39.4
Private	3,749	781	54.4	66.2	79.4	−25.0	−13.2
Asian 9th-grade enrollment percent							
≤ 2 percent	10,996	2,154	130.8	156.7	186.5	−55.7	−29.8
> 2 percent	9,598	2,185	147.3	179.1	219.3	−72.0	−40.1
Black 9th-grade enrollment percent							
≤ 7 percent	11,508	2,337	134.8	161.3	192.6	−57.8	−31.3
> 7 percent	9,086	2,002	143.1	174.6	213.5	−70.3	−38.9
Hispanic 9th-grade enrollment percent							
≤ 5 percent	10,984	2,134	117.1	140.0	165.1	−48.0	−25.2
> 5 percent	9,610	2,205	162.9	198.2	243.7	−80.8	−45.4
Other 9th-grade enrollment percent							
< 80 percent	10,595	2,416	164.7	200.6	245.8	−81.2	−45.3
≥ 80 percent	9,999	1,923	110.7	131.8	155.1	−44.4	−23.4
Charter school							
Yes	360	81	121.8	151.5	210.8	−89.0	−59.3
No	16,419	3,468	157.1	189.5	228.3	−71.2	−38.8
Private	3,815	790	59.7	72.4	86.9	−27.2	−14.5

See notes at end of table.

Table G-2. Comparison of student estimates calculated with the nonresponse adjusted weight, the base weight, and the student analytic weight (W2STUDENT) for selected variables—Continued

Domain category	Unweighted counts		After non-response weight adjustment	After post-stratification adjustment			
			Mean	Means		Differences	
	Respondents	Non-respondents	Respondents, non-response adjusted (1)	Full sample base weight (2)	Respondents, adjusted for non-response and post-stratified (3)	Mean(1) − Mean(3)	Mean(2) − Mean(3)
Total enrollment							
< 499 students	3,490	690	110.5	130.2	151.7	−41.3	−21.6
500–999 students	4,920	937	143.2	169.5	194.9	−51.7	−25.3
1,000–1,499 students	4,634	994	130.4	160.8	188.3	−57.9	−27.5
1,500–2,000 students	3,750	868	133.3	163.3	206.4	−73.1	−43.1
> 2,000 students	3,800	850	173.1	209.6	268.6	−95.5	−59.0
9th-grade enrollment							
0–149 9th-grade students	4,795	944	108.3	127.4	149.6	−41.3	−22.2
150–299 9th-grade students	4,684	901	141.3	168.7	195.2	−53.9	−26.5
300–449 9th-grade students	4,709	1,006	129.2	157.9	185.9	−56.6	−27.9
450–600 9th-grade students	3,236	745	152.5	188.8	238.4	−85.9	−49.6
600+ 9th-grade students	3,170	743	179.4	216.6	276.8	−97.5	−60.2
Number of full-time teachers							
≤ 50	6,691	1,320	125.2	147.9	170.9	−45.7	−23.0
51–100	8,374	1,740	132.2	160.4	192.2	−60.0	−31.9
101–150	4,049	962	155.6	192.5	245.6	−90.0	−53.0
> 150	1,480	317	187.0	223.2	275.7	−88.8	−52.5
Student to teacher ratio							
≤ 10	1,484	355	125.2	156.0	186.8	−61.7	−30.8
11–15	6,006	1,195	139.3	166.7	188.0	−48.7	−21.3
15–20	9,453	2,020	137.7	165.8	203.4	−65.7	−37.5
20–25	3,499	734	145.0	176.6	228.0	−83.0	−51.4
> 25	152	35	137.3	159.4	193.4	−56.1	−34.0

See notes at end of table.

Table G-2. Comparison of student estimates calculated with the nonresponse adjusted weight, the base weight, and the student analytic weight (W2STUDENT) for selected variables—Continued

Domain category	Unweighted counts		After non-response weight adjustment	After post-stratification adjustment			
			Mean	Means		Differences	
	Respondents	Non-respondents	Respondents, non-response adjusted (1)	Full sample base weight (2)	Respondents, adjusted for non-response and post-stratified (3)	Mean(1) − Mean(3)	Mean(2) − Mean(3)
Census region							
Northeast	3,208	717	166.2	203.1	225.4	−59.2	−22.3
Midwest	5,501	1,119	110.9	133.7	167.2	−56.2	−33.5
South	8,432	1,659	129.9	154.6	185.3	−55.4	−30.7
West	3,453	844	177.5	217.8	275.4	−97.8	−57.6
School urbanicity							
City	5,852	1,313	141.0	172.6	227.1	−86.1	−54.5
Suburban	7,378	1,709	125.9	155.0	187.7	−61.7	−32.6
Town	2,447	440	157.3	184.1	197.9	−40.6	−13.8
Rural	4,917	877	144.9	170.4	194.8	−49.8	−24.4
Range of grades in school							
High school only	17,333	3,638	140.5	169.7	205.7	−65.2	−36.0
Middle and high school	2,027	385	153.7	182.7	206.9	−53.2	−24.2
Elementary to high school	1,234	316	85.0	105.9	138.6	−53.6	−32.7
Religious affiliation							
Yes	3,634	760	53.6	65.1	77.8	−24.2	−12.6
No	115	21	78.7	100.3	130.5	−51.8	−30.2
Public	16,845	3,558	157.2	189.6	229.0	−71.8	−39.4
School is regular secondary							
Yes	3,445	703	53.6	64.8	78.0	−24.4	−13.2
No	304	78	62.7	82.3	94.9	−32.2	−12.6
Public	16,845	3,558	157.2	189.6	229.0	−71.8	−39.4

See notes at end of table.

Table G-2. Comparison of student estimates calculated with the nonresponse adjusted weight, the base weight, and the student analytic weight (W2STUDENT) for selected variables—Continued

Domain category	Unweighted counts		After non-response weight adjustment	After post-stratification adjustment			
			Mean	Means		Differences	
	Respondents	Non-respondents	Respondents, non-response adjusted (1)	Full sample base weight (2)	Respondents, adjusted for non-response and post-stratified (3)	Mean(1) − Mean(3)	Mean(2) − Mean(3)
Augmented sample-state (public school only)							
California	1,045	230	353.4	426.8	489.2	−135.8	−62.4
Florida	723	223	126.9	163.6	314.9	−188.0	−151.3
Georgia	978	235	66.4	80.6	144.6	−78.2	−63.9
Michigan	1,066	162	92.5	105.7	127.3	−34.8	−21.6
North Carolina	1,124	171	89.0	102.1	107.3	−18.3	−5.2
Ohio	975	250	74.6	97.4	160.8	−86.2	−63.3
Pennsylvania	937	177	116.4	135.4	146.9	−30.5	−11.5
Tennessee	1,085	147	59.2	68.5	70.2	−10.9	−1.7
Texas	1,106	216	242.6	284.6	319.9	−77.3	−35.3
Washington state	871	214	68.4	86.0	85.7	−17.3	0.3
Public schools in other states	10,684	2,314	145.4	176.5	207.8	−62.4	−31.3
Gender							
Male	10,385	2,322	137.2	167.7	201.1	−63.9	−33.4
Female	10,209	2,017	139.7	166.6	202.5	−62.7	−35.9
Race[1]							
Hispanic	2,141	425	57.3	66.8	80.0	−22.6	−13.1
Asian	2,320	528	172.6	212.4	262.2	−89.5	−49.8
Black	2,424	557	200.9	243.7	297.5	−96.6	−53.8
Other	13,709	2,829	134.3	161.6	193.7	−59.3	−32.0

[1] Student race as defined on the school enrollment lists used for sampling purposes.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up Restricted-use File.

Table G-3. Unit nonresponse bias before and after adjustments were applied to the student base weights used in the longitudinal student analytic weights (W2W1STU) for selected variables

				Before adjustments[1]					After adjustments[2]		
	Unweighted counts		Weighted	Weighted mean							
Domain category	Respondents	Non-respondents	percent nonresponse	Overall	Respondents	Non-respondents	Estimated bias[3]	Relative bias[4]	Overall weighted mean	Estimated bias[5]	Relative Bias[4]
School type											
Public	15400	5020	24.6	92.8	92.8	93.1	−0.07	−0.08	92.8	−0.00	0.00
Private	3466	1066	23.8	7.2	7.2	6.9	0.07	1.01	7.2	−0.00	0.00
Asian 9th-grade enrollment percent											
≤ 2 percent	10149	3010	23.3	49.3	50.1	46.8	0.81	1.65	50.1	0.18	0.37
> 2 percent	8717	3076	25.8	50.7	49.9	53.2	−0.81	−1.61	49.9	−0.18	−0.36
Black 9th-grade enrollment percent											
≤ 7 percent	10572	3281	23.3	53.5	54.4	50.7	0.91	1.71	53.9	−0.19	−0.36
> 7 percent	8294	2805	26.0	46.5	45.6	49.3	−0.91	−1.96	46.1	0.19	0.41
Hispanic 9th-grade enrollment percent											
≤ 5 percent	10059	3068	22.9	43.6	44.5	40.6	0.97*	2.22	44.5	0.33	0.76
> 5 percent	8807	3018	25.9	56.4	55.5	59.4	−0.97*	−1.71	55.5	−0.33	−0.59
Other 9th-grade enrollment percent											
< 80 percent	9653	3369	26.1	62.7	61.4	66.5	−1.25*	−1.99	61.7	−0.26	−0.41
≥ 80 percent	9213	2717	22.0	37.3	38.6	33.5	1.25*	3.35	38.3	0.26	0.69
Charter school											
Yes	335	106	23.7	1.8	1.8	1.7	0.02	1.18	1.6	0.01	0.63
No	15000	4904	24.8	90.3	90.1	91.1	−0.26	−0.29	90.4	−0.12	−0.13
Private	3531	1076	22.3	7.9	8.2	7.2	0.24	3.05	8.0	0.11	1.36

See notes at end of table.

Table G-3. Unit nonresponse bias before and after adjustments were applied to the student base weights used in the longitudinal student analytic weights (W2W1STU) for selected variables—Continued

				Before adjustments[1]					After adjustments[2]		
	Unweighted counts		Weighted	Weighted mean							
Domain category	Respondents	Non-respondents	percent nonresponse	Overall	Respondents	Non-respondents	Estimated bias[3]	Relative bias[4]	Overall weighted mean	Estimated bias[5]	Relative Bias[4]
Total enrollment											
< 499 students	3,276	908	19.5	12.8	13.7	10.2	0.86*	6.71	13.2	−0.00	0.00
500–999 students	4,564	1,295	21.4	23.1	24.0	20.1	0.95*	4.14	24.2	−0.00	0.00
1,000–1,499 students	4,173	1,460	28.0	20.9	19.9	23.8	−0.95*	−4.53	21.6	−0.00	0.00
1,500–2,000 students	3,422	1,199	26.0	18.7	18.4	19.8	−0.36	−1.90	17.8	−0.07	−0.36
> 2,000 students	3,431	1,224	26.1	24.5	24.0	26.1	−0.51	−2.10	23.1	0.07	0.28
9th-grade enrollment											
0–149 9th-grade students	4,515	1,228	19.4	17.3	18.5	13.7	1.20*	6.90	17.8	−0.00	0.00
150–299 9th-grade students	4,301	1,285	22.6	22.0	22.6	20.2	0.58	2.64	23.0	−0.00	0.00
300–449 9th-grade students	4,252	1,470	26.7	21.0	20.4	22.9	−0.60	−2.86	21.6	−0.00	0.00
450–600 9th-grade students	2,982	1,001	24.9	18.4	18.3	18.7	−0.08	−0.44	17.8	0.46	2.51
600+ 9th-grade students	2,816	1,102	28.4	21.2	20.2	24.6	−1.09*	−5.15	19.9	−0.46	−2.17
Number of full-time teachers											
≤ 50	6,245	1,771	20.8	27.6	29.0	23.5	1.36*	4.93	28.7	−0.00	0.00
51–100	7,630	2,493	25.0	38.6	38.4	39.3	−0.21	−0.54	39.0	−0.00	0.00
101–150	3,694	1,319	27.7	23.9	22.9	26.9	−0.98*	−4.10	22.6	−0.00	0.00
> 150	1,297	503	25.9	9.8	9.6	10.3	−0.17	−1.78	9.6	−0.00	0.00
Student to teacher ratio											
≤ 10	1,389	452	23.2	6.6	6.8	6.3	0.12	1.84	6.7	−0.00	0.00
11–15	5,544	1,664	22.6	27.3	28.0	25.1	0.70	2.57	29.1	−0.00	0.00
15–20	8,587	2,896	25.8	46.2	45.5	48.6	−0.75	−1.62	45.5	−0.00	0.00
20–25	3,199	1,034	25.1	19.2	19.0	19.6	−0.15	−0.76	18.0	−0.00	0.00
> 25	147	40	16.8	0.7	0.8	0.5	0.07	10.25	0.7	−0.00	0.00

See notes at end of table.

Table G-3. Unit nonresponse bias before and after adjustments were applied to the student base weights used in the longitudinal student analytic weights (W2W1STU) for selected variables—Continued

				Before adjustments[1]					After adjustments[2]		
	Unweighted counts		Weighted	Weighted mean							
Domain category	Respondents	Non-respondents	percent nonresponse	Overall	Respondents	Non-respondents	Estimated bias[3]	Relative bias[4]	Overall weighted mean	Estimated bias[5]	Relative Bias[4]
Census region											
Northeast	2,940	986	23.9	17.4	17.5	17.0	0.14	0.81	18.9	−0.00	0.00
Midwest	5,039	1,585	24.6	22.1	22.1	22.1	−0.01	−0.03	21.4	−0.00	0.00
South	7,713	2,389	24.2	37.6	37.8	37.0	0.18	0.49	37.9	−0.00	0.00
West	3,174	1,126	25.6	22.9	22.6	23.9	−0.32	−1.38	21.8	−0.00	0.00
School urbanicity											
City	5,314	1,857	25.8	32.0	31.5	33.6	−0.51	−1.61	29.3	−0.00	0.00
Suburban	6,648	2,448	28.2	33.3	31.7	38.3	−1.61*	−4.84	33.2	−0.00	0.00
Town	2,287	600	20.6	11.6	12.3	9.8	0.61*	5.25	13.1	−0.00	0.00
Rural	4,617	1,181	19.6	23.0	24.6	18.4	1.52*	6.58	24.3	−0.00	0.00
Range of grades in school											
High school only	15,835	5,153	24.8	86.0	85.7	86.7	−0.23	−0.27	85.7	0.15	0.18
Middle and high school	1,884	530	23.1	10.0	10.2	9.4	0.20	1.98	10.6	−0.14	−1.44
Elementary to high school	1,147	403	24.0	4.0	4.1	3.9	0.03	0.78	3.8	−0.01	−0.16
Religious affiliation											
Yes	3,365	1,031	23.8	6.8	6.9	6.6	0.07	1.03	6.9	−0.02	−0.32
No	101	35	24.0	0.3	0.3	0.3	0.00	0.69	0.3	0.02	7.02
Public	15,400	5,020	24.6	92.8	92.8	93.1	−0.07	−0.08	92.8	−0.00	0.00
School is regular secondary											
Yes	3,195	955	23.3	6.5	6.6	6.2	0.11	1.68	6.5	−0.01	−0.11
No	271	111	28.8	0.7	0.6	0.8	−0.04	−5.58	0.7	0.01	1.10
Public	15,400	5,020	24.6	92.8	92.8	93.1	−0.07	−0.08	92.8	−0.00	0.00

See notes at end of table.

Table G-3. Unit nonresponse bias before and after adjustments were applied to the student base weights used in the longitudinal student analytic weights (W2W1STU) for selected variables—Continued

	Unweighted counts		Weighted percent nonresponse	Before adjustments[1]					After adjustments[2]		
				Weighted mean							
Domain category	Respondents	Non-respondents		Overall	Respondents	Non-respondents	Estimated bias[3]	Relative bias[4]	Overall weighted mean	Estimated bias[5]	Relative Bias[4]
Augmented sample-state (public school only)											
California	963	313	24.9	12.3	12.2	12.5	−0.05	−0.44	13.0	−0.00	0.00
Florida	626	322	33.6	5.5	4.8	7.5	−0.66*	−11.98	3.4	−0.00	0.00
Georgia	869	344	26.1	3.4	3.3	3.6	−0.07	−2.05	2.3	−0.00	0.00
Michigan	993	236	19.4	3.3	3.5	2.6	0.22*	6.86	3.3	−0.00	0.00
North Carolina	1,022	274	20.3	2.9	3.1	2.4	0.16*	5.61	3.3	−0.00	0.00
Ohio	862	364	32.4	3.8	3.4	5.0	−0.39*	−10.42	2.8	−0.00	0.00
Pennsylvania	885	229	18.1	3.3	3.6	2.4	0.28*	8.53	3.7	−0.00	0.00
Tennessee	1,005	228	19.9	1.8	1.9	1.5	0.11*	6.21	2.2	−0.00	0.00
Texas	1,022	303	22.3	8.5	8.8	7.7	0.26	3.02	9.1	−0.00	0.00
Washington state	779	307	31.3	1.8	1.6	2.3	−0.16	−8.88	2.2	−0.00	0.00
Public schools in other states	9,840	3,166	24.1	53.4	53.7	52.5	0.29	0.55	54.8	−0.00	0.00
Gender											
Male	9,482	3,239	25.8	50.3	49.4	52.9	−0.84*	−1.68	50.6	−0.00	0.00
Female	9,384	2,847	23.3	49.7	50.6	47.1	0.84*	1.70	49.4	−0.00	0.00
Race[6]											
Hispanic	1,967	599	22.3	4.1	4.2	3.7	0.12	3.00	4.2	−0.00	0.00
Asian	2,130	721	25.7	14.5	14.3	15.2	−0.22	−1.52	14.3	−0.00	0.00
Black	2,239	744	24.8	17.4	17.3	17.6	−0.06	−0.37	17.2	−0.00	0.00
Other	12,530	4,022	24.4	64.0	64.2	63.5	0.16	0.25	64.4	−0.00	0.00

[1] Estimates were calculated with the student base weights excluding questionnaire-incapable student records.

[2] Estimates were calculated with the student longitudinal weights (W2W1STU) excluding questionnaire-incapable student records.

[3] Estimated bias is calculated as a function of the weighted nonresponse rate times the difference in the weighted respondent and nonrespondent means as shown in equation 6.20. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

[4] The relative bias is calculated as the estimated bias divided by the (before adjustments) overall mean.

[5] Estimated bias is calculated as the difference in the weighted overall mean before and after the adjustments following the equations discussed in section 6.7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

[6] Student race as defined on the school enrollment lists used for sampling purposes.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up Restricted-use File.

Table G-4. Comparison of student estimates calculated with the nonresponse adjusted weight, the base weight, and the student longitudinal weight (W2W1STU) for selected variables

	Unweighted counts		After non-response weight adjustment	After post-stratification adjustment			
			Mean	Means		Differences	
Domain category	Respondents	Non-respondents	Respondents, non-response adjusted (1)	Full sample base weight (2)	Respondents, adjusted for non-response and post-stratified (3)	Mean(1) − Mean(3)	Mean(2) − Mean(3)
School type							
Public	15,400	5,020	157.4	207.4	250.7	−93.3	−43.3
Private	3,466	1,066	54.7	71.6	85.8	−31.2	−14.3
Asian 9th-grade enrollment percent							
≤ 2 percent	10,149	3,010	131.0	170.2	202.7	−71.8	−32.5
> 2 percent	8,717	3,076	147.3	196.8	241.0	−93.6	−44.2
Black 9th-grade enrollment percent							
≤ 7 percent	10,572	3,281	135.2	175.2	208.9	−73.7	−33.7
> 7 percent	8,294	2,805	142.7	191.7	235.0	−92.3	−43.3
Hispanic 9th-grade enrollment percent							
≤ 5 percent	10,059	3,068	118.1	153.0	180.3	−62.2	−27.3
> 5 percent	8,807	3,018	161.9	216.1	266.2	−104.3	−50.1
Other 9th-grade enrollment percent							
< 80 percent	9,653	3,369	164.0	219.7	269.8	−105.8	−50.1
≥ 80 percent	9,213	2,717	111.9	143.5	168.7	−56.8	−25.2
Charter school							
Yes	335	106	122.9	161.0	225.6	−102.7	−64.7
No	15,000	4,904	157.3	207.4	250.0	−92.7	−42.6
Private	3,531	1,076	60.4	78.6	94.4	−34.0	−15.8

See notes at end of table.

Table G-4. Comparison of student estimates calculated with the nonresponse adjusted weight, the base weight, and the student longitudinal weight (W2W1STU) for selected variables—Continued

	Unweighted counts		After non-response weight adjustment	After post-stratification adjustment			
			Mean	Means		Differences	
Domain category	Respondents	Non-respondents	Respondents, non-response adjusted (1)	Full sample base weight (2)	Respondents, adjusted for non-response and post-stratified (3)	Mean(1) − Mean(3)	Mean(2) − Mean(3)
Total enrollment							
< 499 students	3,276	908	112.1	138.7	161.6	−49.5	−23.0
500–999 students	4,564	1,295	144.7	182.8	210.1	−65.4	−27.3
1,000–1,499 students	4,173	1,460	129.2	178.5	210.4	−81.2	−31.9
1,500–2,000 students	3,422	1,199	133.7	179.0	225.8	−92.1	−46.8
> 2,000 students	3,431	1,224	171.7	232.1	296.9	−125.3	−64.9
9th-grade enrollment							
0–149 9th-grade students	4,515	1,228	109.7	135.3	159.0	−49.3	−23.7
150–299 9th-grade students	4,301	1,285	143.1	183.7	212.4	−69.3	−28.6
300–449 9th-grade students	4,252	1,470	128.9	174.9	206.9	−78.0	−32.0
450–600 9th-grade students	2,982	1,001	153.7	208.4	262.1	−108.4	−53.7
600+ 9th-grade students	2,816	1,102	176.3	240.1	307.4	−131.2	−67.3
Number of full-time teachers							
≤ 50	6,245	1,771	126.7	158.4	183.3	−56.6	−24.8
51–100	7,630	2,493	132.6	176.0	211.3	−78.7	−35.2
101–150	3,694	1,319	153.2	211.0	268.0	−114.8	−57.0
> 150	1,297	503	188.8	254.7	317.3	−128.5	−62.6
Student to teacher ratio							
≤ 10	1,389	452	126.6	166.7	200.3	−73.7	−33.6
11–15	5,544	1,664	140.3	180.6	204.0	−63.7	−23.4
15–20	8,587	2,896	137.0	182.6	223.9	−86.9	−41.4
20–25	3,199	1,034	144.8	193.2	249.1	−104.3	−55.9
> 25	147	40	136.6	164.8	198.5	−61.9	−33.7

See notes at end of table.

Table G-4. Comparison of student estimates calculated with the nonresponse adjusted weight, the base weight, and the student longitudinal weight (W2W1STU) for selected variables—Continued

	Unweighted counts		After non-response weight adjustment	After post-stratification adjustment			
			Mean	Means		Differences	
Domain category	Respondents	Non-respondents	Respondents, non-response adjusted (1)	Full sample base weight (2)	Respondents, adjusted for non-response and post-stratified (3)	Mean(1) − Mean(3)	Mean(2) − Mean(3)
Census region							
Northeast	2,940	986	167.7	221.6	246.0	−78.3	−24.4
Midwest	5,039	1,585	111.1	145.9	182.5	−71.4	−36.6
South	7,713	2,389	129.7	169.0	202.7	−73.0	−33.7
West	3,174	1,126	176.4	236.9	299.7	−123.3	−62.8
School urbanicity							
City	5,314	1,857	141.5	190.1	250.2	−108.8	−60.1
Suburban	6,648	2,448	124.3	172.1	208.4	−84.1	−36.3
Town	2,287	600	157.4	197.0	212.1	−54.7	−15.1
Rural	4,617	1,181	146.3	181.5	207.5	−61.2	−26.0
Range of grades in school							
High school only	15,835	5,153	141.1	186.4	225.8	−84.8	−39.4
Middle and high school	1,884	530	149.7	191.9	218.1	−68.4	−26.1
Elementary to high school	1,147	403	84.9	112.8	149.2	−64.3	−36.4
Religious affiliation							
Yes	3,365	1,031	53.9	70.4	84.0	−30.0	−13.6
No	101	35	79.0	111.8	149.1	−70.1	−37.3
Public	15,400	5,020	157.4	207.4	250.7	−93.3	−43.3
School is regular secondary							
Yes	3,195	955	54.0	70.2	84.6	−30.6	−14.4
No	271	111	62.0	87.5	100.3	−38.2	−12.7
Public	15,400	5,020	157.4	207.4	250.7	−93.3	−43.3

See notes at end of table.

Table G-4. Comparison of student estimates calculated with the nonresponse adjusted weight, the base weight, and the student longitudinal weight (W2W1STU) for selected variables—Continued

Domain category	Unweighted counts		After non-response weight adjustment	After post-stratification adjustment			
			Mean	Means		Differences	
	Respondents	Non-respondents	Respondents, non-response adjusted (1)	Full sample base weight (2)	Respondents, adjusted for non-response and post-stratified (3)	Mean(1) − Mean(3)	Mean(2) − Mean(3)
Augmented sample-state (public school only)							
California	963	313	347.7	463.2	530.8	−183.1	−67.7
Florida	626	322	125.3	188.9	363.7	−238.3	−174.8
Georgia	869	344	67.1	90.8	163.2	−96.1	−72.4
Michigan	993	236	91.8	113.4	136.6	−44.9	−23.2
North Carolina	1,022	274	89.8	112.2	118.0	−28.3	−5.8
Ohio	862	364	75.4	110.2	182.0	−106.7	−71.8
Pennsylvania	885	229	117.4	143.4	155.6	−38.2	−12.3
Tennessee	1,005	228	59.7	73.9	75.7	−16.1	−1.8
Texas	1,022	303	240.3	308.0	346.9	−106.6	−38.9
Washington state	779	307	68.2	96.2	96.0	−27.8	0.2
Public schools in other states	9,840	3,166	145.5	191.7	225.7	−80.3	−34.0
Gender							
Male	9,482	3,239	137.1	183.7	220.5	−83.3	−36.8
Female	9,384	2,847	139.9	181.3	220.3	−80.4	−39.1
Race[1]							
Hispanic	1,967	599	56.9	72.7	87.1	−30.3	−14.4
Asian	2,130	721	172.5	231.3	286.1	−113.6	−54.8
Black	2,239	744	199.6	263.9	323.3	−123.8	−59.5
Other	12,530	4,022	134.6	176.9	211.8	−77.1	−34.9

[1] Student race as defined on the school enrollment lists used for sampling purposes.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up Restricted-use File.

Table G-5. Unit nonresponse bias before and after adjustments were applied to the student home-life contextual base weights used in the student home-life contextual analytic weights (W2PARENT) for selected variables

				Before adjustments[1]					After adjustments[2]		
	Unweighted counts		Weighted	Weighted mean							
Domain category	Respondents	Non-respondents	percent nonresponse	Overall	Respondents	Non-respondents	Estimated bias[3]	Relative bias[4]	Overall weighted mean	Estimated bias[5]	Relative bias[4]
School type											
Public	7,120	2,769	28.7	92.9	92.6	93.7	−0.33	−0.36	92.9	0.00	0.00
Private	1,531	541	25.1	7.1	7.4	6.3	0.33	4.68	7.1	−0.00	0.00
Asian 9th-grade enrollment percent											
≤ 2 percent	4,531	1,681	28.1	50.0	50.1	49.5	0.18	0.36	49.9	−0.11	−0.22
> 2 percent	4,120	1,629	28.7	50.0	49.9	50.5	−0.18	−0.36	50.1	0.11	0.22
Black 9th-grade enrollment percent											
≤ 7 percent	4,843	1,788	26.8	53.3	54.5	50.4	1.17*	2.19	53.4	0.21	0.40
> 7 percent	3,808	1,522	30.2	46.7	45.5	49.6	−1.17*	−2.50	46.6	−0.21	−0.46
Hispanic 9th-grade enrollment percent											
≤ 5 percent	4,522	1,590	26.9	43.4	44.3	41.0	0.92*	2.13	43.5	0.37	0.85
> 5 percent	4,129	1,720	29.6	56.6	55.7	59.0	−0.92*	−1.63	56.5	−0.37	−0.65
Other 9th-grade enrollment percent											
< 80 percent	4,514	1,917	30.3	62.8	61.2	67.0	−1.67*	−2.66	62.6	−0.46	−0.73
≥ 80 percent	4,137	1,393	25.2	37.2	38.8	33.0	1.67*	4.49	37.4	0.46	1.24
Charter school											
Yes	156	60	31.9	1.8	1.7	2.0	−0.09	−4.93	1.8	−0.01	−0.58
No	6,937	2,702	28.7	90.4	90.0	91.5	−0.42	−0.47	90.3	−0.15	−0.17
Private	1,558	548	23.7	7.8	8.4	6.6	0.51*	6.50	7.9	0.16	2.04
Total enrollment											
< 499 students	1,408	537	25.0	12.9	13.5	11.4	0.62*	4.78	13.0	0.19	1.45
500–999 students	2,034	705	26.7	22.8	23.4	21.4	0.55	2.43	22.8	0.03	0.12
1,000–1,499 students	1,923	770	31.0	21.2	20.4	23.1	−0.77	−3.63	20.9	−0.51	−2.43
1,500–2,000 students	1,610	596	26.8	18.6	19.0	17.6	0.41	2.20	18.9	0.64	3.43
> 2,000 students	1,676	702	30.8	24.5	23.7	26.6	−0.81*	−3.31	24.4	−0.34	−1.38

See notes at end of table.

Table G-5. Unit nonresponse bias before and after adjustments were applied to the student home-life contextual base weights used in the student home-life contextual analytic weights (W2PARENT) for selected variables—Continued

				Before adjustments[1]					After adjustments[2]		
	Unweighted counts		Weighted percent nonresponse	Weighted mean			Estimated bias[3]	Relative bias[4]	Overall weighted mean	Estimated bias[5]	Relative bias[4]
Domain category	Respondents	Non-respondents		Overall	Respondents	Non-respondents					
9th-grade enrollment											
0–149 9th-grade students	1,948	714	24.2	17.3	18.4	14.8	1.02*	5.88	17.6	0.45	2.61
150–299 9th-grade students	1,930	701	29.0	21.9	21.7	22.4	−0.20	−0.90	21.7	−0.40	−1.84
300–449 9th-grade students	1,976	729	29.2	20.9	20.7	21.5	−0.24	−1.14	20.8	−0.15	−0.74
450–600 9th-grade students	1,386	568	28.5	18.5	18.5	18.6	−0.02	−0.11	18.7	0.35	1.89
600+ 9th-grade students	1,411	598	30.3	21.3	20.7	22.7	−0.56	−2.65	21.2	−0.25	−1.16
Number of full-time teachers											
≤ 50	2,725	975	25.2	27.6	28.9	24.5	1.25*	4.54	27.8	0.31	1.13
51–100	3,473	1,354	30.0	38.5	37.6	40.7	−0.86	−2.24	38.3	−0.45	−1.16
101–150	1,781	712	30.0	24.0	23.4	25.3	−0.54	−2.25	23.9	−0.17	−0.70
> 150	672	269	27.3	9.9	10.1	9.6	0.15	1.50	10.1	0.30	3.05
Student to teacher ratio											
≤ 10	615	254	23.7	6.7	7.1	5.6	0.44	6.62	6.9	0.36	5.38
11–15	2,474	957	28.8	27.2	27.0	27.6	−0.17	−0.61	27.0	−0.37	−1.37
15–20	3,953	1,487	29.2	46.2	45.7	47.5	−0.52	−1.13	45.8	−0.73	−1.58
20–25	1,546	582	27.4	19.2	19.5	18.5	0.27	1.41	19.6	0.77	4.00
> 25	63	30	31.0	0.7	0.6	0.7	−0.02	−3.67	0.7	−0.02	−3.71
Census region											
Northeast	1,355	560	29.7	17.4	17.1	18.2	−0.30	−1.75	17.4	0.00	0.00
Midwest	2,235	812	27.7	22.1	22.3	21.5	0.23	1.03	22.1	0.00	0.00
South	3,503	1,316	28.1	37.6	37.8	37.2	0.16	0.42	37.6	0.00	0.00
West	1,558	622	28.7	22.9	22.8	23.1	−0.08	−0.35	22.9	−0.00	0.00
School urbanicity											
City	2,530	953	29.2	31.9	31.5	32.8	−0.37	−1.17	31.9	0.00	0.00
Suburban	3,147	1,253	30.1	33.3	32.6	35.3	−0.78	−2.34	33.3	0.00	0.00
Town	985	358	24.6	11.7	12.4	10.2	0.62*	5.25	11.7	0.00	0.00
Rural	1,989	746	26.7	23.0	23.6	21.7	0.54	2.33	23.0	−0.00	0.00

See notes at end of table.

Table G-5. Unit nonresponse bias before and after adjustments were applied to the student home-life contextual base weights used in the student home-life contextual analytic weights (W2PARENT) for selected variables—Continued

Domain category	Unweighted counts		Weighted percent nonresponse	Before adjustments[1]					After adjustments[2]		
				Weighted mean							
	Respondents	Non-respondents		Overall	Respondents	Non-respondents	Estimated bias[3]	Relative bias[4]	Overall weighted mean	Estimated bias[5]	Relative bias[4]
Range of grades in school											
High school only	7,272	2,794	28.8	86.0	85.6	87.1	−0.43	−0.50	85.9	−0.33	−0.39
Middle and high school	881	293	25.4	10.0	10.4	8.9	0.43	4.26	10.1	0.32	3.18
Elementary to high school	498	223	28.4	4.0	4.0	4.0	0.00	0.04	4.0	0.01	0.34
Religious affiliation											
Yes	1,492	520	24.6	6.8	7.2	5.9	0.36*	5.37	6.8	0.02	0.26
No	39	21	36.1	0.3	0.3	0.4	−0.03	−10.80	0.3	−0.02	−5.84
Public	7,120	2,769	28.7	92.9	92.6	93.7	−0.33	−0.36	92.9	0.00	0.00
School is regular secondary											
Yes	1,413	490	25.1	6.4	6.7	5.7	0.29	4.57	6.4	−0.02	−0.36
No	118	51	24.2	0.7	0.7	0.6	0.04	5.82	0.7	0.02	3.52
Public	7,120	2,769	28.7	92.9	92.6	93.7	−0.33	−0.36	92.9	0.00	0.00
Augmented sample-state (public school only)											
California	545	221	29.0	12.3	12.2	12.5	−0.10	−0.79	12.3	0.00	0.00
Florida	316	156	33.9	5.4	5.0	6.5	−0.42	−7.69	5.4	0.00	0.00
Georgia	387	167	31.4	3.4	3.3	3.8	−0.14	−4.13	3.4	0.00	0.00
Michigan	429	144	26.0	3.3	3.4	3.0	0.11	3.42	3.3	0.00	0.00
North Carolina	463	134	20.4	2.9	3.2	2.1	0.33*	11.20	2.9	0.00	0.00
Ohio	406	167	32.8	3.8	3.5	4.3	−0.23	−6.11	3.8	0.00	0.00
Pennsylvania	443	177	30.4	3.3	3.2	3.6	−0.09	−2.80	3.3	0.00	0.00
Tennessee	451	121	21.8	1.8	2.0	1.4	0.17*	9.26	1.8	0.00	0.00
Texas	525	231	26.5	8.5	8.8	8.0	0.23	2.68	8.5	0.00	0.00
Washington state	372	154	30.7	1.8	1.7	1.9	−0.06	−3.20	1.8	0.00	0.00
Public schools in other states	4,314	1,638	28.1	53.5	53.7	53.0	0.20	0.38	53.5	−0.00	0.00

See notes at end of table.

Table G-5. Unit nonresponse bias before and after adjustments were applied to the student home-life contextual base weights used in the student home-life contextual analytic weights (W2PARENT) for selected variables—Continued

				Before adjustments[1]					After adjustments[2]		
	Unweighted counts		Weighted	Weighted mean							
Domain category	Respondents	Non-respondents	percent nonresponse	Overall	Respondents	Non-respondents	Estimated bias[3]	Relative bias[4]	Overall weighted mean	Estimated bias[5]	Relative bias[4]
Gender											
Male	4,384	1,757	29.4	50.5	49.8	52.2	−0.70	−1.38	50.5	0.00	0.00
Female	4,267	1,553	27.4	49.5	50.2	47.8	0.70	1.41	49.5	−0.00	0.00
Race[6]											
Hispanic	877	415	30.7	4.1	4.0	4.4	−0.13	−3.14	4.1	0.00	0.00
Asian	1,038	416	32.9	14.5	13.6	16.8	−0.90*	−6.22	14.5	0.00	0.00
Black	1,058	480	29.9	17.4	17.0	18.3	−0.37	−2.11	17.4	0.00	0.00
Other	5,678	1,999	26.8	64.0	65.4	60.5	1.40*	2.18	64.0	−0.00	0.00

[1] Estimates were calculated with the student home-life contextual base weights excluding questionnaire-incapable student records.

[2] Estimates were calculated with the student home-life contextual analytic weights (W1PARENT) excluding questionnaire-incapable student records.

[3] Estimated bias is calculated as a function of the weighted nonresponse rate times the difference in the weighted respondent and nonrespondent means as shown in equation 6.20. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

[4] The relative bias is calculated as the estimated bias divided by the (before adjustments) overall mean.

[5] Estimated bias is calculated as the difference in the weighted overall mean before and after the adjustments following the equations discussed in section 6.7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

[6] Student race as defined on the school enrollment lists used for sampling purposes.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up Restricted-use File.

Table G-6. Unit nonresponse bias before and after adjustments were applied to the student home-life contextual base weights used in the student home-life contextual longitudinal weights (W2W1PAR) for selected variables

				Before adjustments[1]					After adjustments[2]		
	Unweighted counts		Weighted	Weighted mean							
Domain category	Respondents	Non-respondents	percent nonresponse	Overall	Respondents	Non-respondents	Estimated bias[3]	Relative bias[4]	Overall weighted mean	Estimated bias[5]	Relative bias[4]
School type											
Public	5,190	4,699	47.7	92.9	91.9	94.0	−0.99*	−1.07	92.9	0.00	0.00
Private	1,240	832	39.7	7.1	8.1	6.0	0.99*	13.97	7.1	−0.00	0.00
Asian 9th-grade enrollment percent											
≤ 2 percent	3,343	2,869	48.1	50.0	49.1	50.9	−0.87	−1.73	49.2	−1.58*	−3.17
> 2 percent	3,087	2,662	46.2	50.0	50.9	49.1	0.87	1.73	50.8	1.58*	3.16
Black 9th-grade enrollment percent											
≤ 7 percent	3,673	2,958	44.4	53.3	56.0	50.2	2.74*	5.14	53.6	0.56	1.06
> 7 percent	2,757	2,573	50.2	46.7	44.0	49.8	−2.74*	−5.87	46.4	−0.56	−1.20
Hispanic 9th-grade enrollment percent											
≤ 5 percent	3,431	2,681	44.9	43.4	45.2	41.3	1.81*	4.17	43.7	0.73	1.67
> 5 percent	2,999	2,850	48.8	56.6	54.8	58.7	−1.81*	−3.19	56.3	−0.73	−1.28
Other 9th-grade enrollment percent											
< 80 percent	3,261	3,170	49.7	62.8	59.8	66.3	−3.09*	−4.91	62.5	−0.71	−1.13
≥ 80 percent	3,169	2,361	42.7	37.2	40.2	33.7	3.09*	8.31	37.5	0.71	1.91
Charter school											
Yes	110	106	49.7	1.8	1.7	1.9	−0.09	−4.87	1.8	0.08	4.71
No	5,061	4,578	47.8	90.4	89.2	91.8	−1.22*	−1.35	90.2	−0.41	−0.45
Private	1,259	847	38.3	7.8	9.2	6.4	1.31*	16.67	8.0	0.33	4.19
Total enrollment											
< 499 students	1,065	880	42.8	12.9	14.0	11.7	1.06*	8.18	12.9	−0.07	−0.54
500–999 students	1,534	1,205	43.4	22.8	24.4	21.0	1.60*	7.01	23.3	1.00	4.38
1,000–1,499 students	1,426	1,267	50.5	21.2	19.8	22.7	−1.36*	−6.42	20.6	−1.04	−4.92
1,500–2,000 students	1,175	1,031	46.7	18.6	18.7	18.4	0.14	0.77	19.0	0.75	4.01
> 2,000 students	1,230	1,148	50.2	24.5	23.1	26.2	−1.44*	−5.87	24.2	−0.64	−2.59

See notes at end of table.

Table G-6. Unit nonresponse bias before and after adjustments were applied to the student home-life contextual base weights used in the student home-life contextual longitudinal weights (W2W1PAR) for selected variables—Continued

	Unweighted counts		Weighted	Before adjustments[1]					After adjustments[2]		
				Weighted mean							
Domain category	Respondents	Non-respondents	percent nonresponse	Overall	Respondents	Non-respondents	Estimated bias[3]	Relative bias[4]	Overall weighted mean	Estimated bias[5]	Relative bias[4]
9th-grade enrollment											
0–149 9th-grade students	1,489	1,173	41.7	17.3	19.1	15.3	1.78*	10.27	17.5	0.31	1.81
150–299 9th-grade students	1,465	1,166	45.5	21.9	22.6	21.2	0.67	3.04	22.1	0.28	1.27
300–449 9th-grade students	1,464	1,241	47.2	20.9	20.9	21.0	−0.05	−0.22	21.1	0.45	2.15
450–600 9th-grade students	1,007	947	48.8	18.5	18.0	19.2	−0.58	−3.12	18.5	−0.04	−0.24
600+ 9th-grade students	1,005	1,004	51.7	21.3	19.5	23.3	−1.82*	−8.57	20.8	−1.00	−4.68
Number of full-time teachers											
≤ 50	2,076	1,624	42.3	27.6	30.2	24.8	2.55*	9.22	28.1	0.90	3.26
51–100	2,574	2,253	47.7	38.5	38.1	39.0	−0.42	−1.08	38.6	0.15	0.39
101–150	1,302	1,191	50.2	24.0	22.6	25.5	−1.40*	−5.83	23.5	−0.88	−3.66
> 150	478	463	51.0	9.9	9.2	10.8	−0.73	−7.38	9.8	−0.17	−1.75
Student to teacher ratio											
≤ 10	469	400	42.6	6.7	7.3	6.1	0.57	8.56	6.9	0.41	6.19
11–15	1,871	1,560	47.1	27.2	27.2	27.2	0.02	0.08	26.9	−0.58	−2.13
15–20	2,914	2,526	48.0	46.2	45.4	47.1	−0.80	−1.72	46.0	−0.44	−0.95
20–25	1,125	1,003	46.9	19.2	19.3	19.1	0.07	0.35	19.5	0.47	2.42
> 25	51	42	36.5	0.7	0.8	0.5	0.13	20.16	0.7	0.14	21.26
Census region											
Northeast	1,018	897	47.9	17.4	17.2	17.7	−0.25	−1.46	17.4	0.00	0.00
Midwest	1,681	1,366	45.9	22.1	22.6	21.5	0.52	2.35	22.1	0.00	0.00
South	2,590	2,229	48.2	37.6	36.8	38.5	−0.78	−2.07	37.6	0.00	0.00
West	1,141	1,039	45.9	22.9	23.4	22.3	0.52	2.26	22.9	−0.00	0.00
School urbanicity											
City	1,889	1,594	48.6	31.9	31.0	32.9	−0.89	−2.78	31.9	0.00	0.00
Suburban	2,345	2,055	48.4	33.3	32.5	34.3	−0.83	−2.48	33.3	−0.00	0.00
Town	720	623	45.7	11.7	12.1	11.4	0.31	2.68	11.7	0.00	0.00
Rural	1,476	1,259	43.9	23.0	24.4	21.5	1.40*	6.07	23.0	−0.00	0.00

See notes at end of table.

Table G-6. Unit nonresponse bias before and after adjustments were applied to the student home-life contextual base weights used in the student home-life contextual longitudinal weights (W2W1PAR) for selected variables—Continued

Domain category	Unweighted counts		Weighted percent nonresponse	Before adjustments[1]					After adjustments[2]		
				Weighted mean							
	Respondents	Non-respondents		Overall	Respondents	Non-respondents	Estimated bias[3]	Relative bias[4]	Overall weighted mean	Estimated bias[5]	Relative bias[4]
Range of grades in school											
High school only	5,377	4,689	47.7	86.0	85.2	87.0	−0.87	−1.01	85.9	−0.29	−0.33
Middle and high school	675	499	43.2	10.0	10.7	9.2	0.74	7.39	10.1	0.32	3.19
Elementary to high school	378	343	45.4	4.0	4.1	3.8	0.13	3.30	4.0	−0.03	−0.76
Religious affiliation											
Yes	1,210	802	39.1	6.8	7.8	5.6	1.03*	15.10	6.8	0.03	0.47
No	30	30	53.2	0.3	0.3	0.3	−0.03	−11.48	0.3	−0.03	−10.66
Public	5,190	4,699	47.7	92.9	91.9	94.0	−0.99*	−1.07	92.9	0.00	0.00
School is regular secondary											
Yes	1,145	758	40.0	6.4	7.3	5.5	0.87*	13.43	6.4	−0.05	−0.74
No	95	74	36.9	0.7	0.8	0.5	0.13	19.28	0.7	0.05	7.26
Public	5,190	4,699	47.7	92.9	91.9	94.0	−0.99*	−1.07	92.9	0.00	0.00
Augmented sample-state (public school only)											
California	395	371	46.5	12.3	12.4	12.1	0.14	1.11	12.3	0.00	0.00
Florida	231	241	52.1	5.4	4.9	6.0	−0.51	−9.41	5.4	0.00	0.00
Georgia	287	267	50.9	3.4	3.2	3.7	−0.24	−7.05	3.4	0.00	0.00
Michigan	325	248	43.4	3.3	3.5	3.0	0.23	7.07	3.3	0.00	0.00
North Carolina	339	258	40.7	2.9	3.3	2.5	0.36*	12.25	2.9	0.00	0.00
Ohio	290	283	52.8	3.8	3.4	4.2	−0.40*	−10.67	3.8	−0.00	0.00
Pennsylvania	343	277	45.4	3.3	3.4	3.2	0.11	3.28	3.3	0.00	0.00
Tennessee	320	252	46.9	1.8	1.8	1.8	0.01	0.43	1.8	0.00	0.00
Texas	369	387	49.5	8.5	8.2	9.0	−0.37	−4.39	8.5	0.00	0.00
Washington state	274	252	48.6	1.8	1.7	1.8	−0.05	−2.74	1.8	0.00	0.00
Public schools in other states	3,257	2,695	46.4	53.5	54.2	52.6	0.74	1.38	53.5	−0.00	0.00

See notes at end of table.

Table G-6. Unit nonresponse bias before and after adjustments were applied to the student home-life contextual base weights used in the student home-life contextual longitudinal weights (W2W1PAR) for selected variables—Continued

				Before adjustments[1]					After adjustments[2]		
	Unweighted counts		Weighted	Weighted mean							
Domain category	Respondents	Non-respondents	percent nonresponse	Overall	Respondents	Non-respondents	Estimated bias[3]	Relative bias[4]	Overall weighted mean	Estimated bias[5]	Relative bias[4]
Gender											
Male	3,233	2,908	48.2	50.5	49.5	51.6	−1.03	−2.04	50.5	0.00	0.00
Female	3,197	2,623	46.0	49.5	50.5	48.4	1.03	2.08	49.5	−0.00	0.00
Race[6]											
Hispanic	645	647	50.6	4.1	3.8	4.4	−0.27	−6.55	4.1	0.00	0.00
Asian	712	742	54.3	14.5	12.5	16.7	−1.97*	−13.64	14.5	0.00	0.00
Black	780	758	49.4	17.4	16.6	18.2	−0.73	−4.23	17.4	0.00	0.00
Other	4,293	3,384	44.7	64.0	67.0	60.7	2.98*	4.65	64.0	−0.00	0.00

[1] Estimates were calculated with the student base weights excluding questionnaire-incapable student records.

[2] Estimates were calculated with the student home-life contextual longitudinal weights (W2W1PAR) excluding questionnaire-incapable student records.

[3] Estimated bias is calculated as a function of the weighted nonresponse rate times the difference in the weighted respondent and nonrespondent means as shown in equation 6.20. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

[4] The relative bias is calculated as the estimated bias divided by the (before adjustments) overall mean.

[5] Estimated bias is calculated as the difference in the weighted overall mean before and after the adjustments following the equations discussed in section 6.7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

[6] Student race as defined on the school enrollment lists used for sampling purposes.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up Restricted-use File.

G.2 Unit Nonresponse Bias for Student Home-life Contextual Responsive Design

Table G-7. Unit nonresponse bias before and after inclusion of additional parent cases attributed to the responsive design

	Unweighted counts		Weighted	Before adjustments[1]					After adjustments[2]		
				Weighted mean							
Domain category	Respondents	Non-respondents	percent nonresponse	Overall	Respondents	Non-respondents	Estimated bias[3]	Relative bias[4]	Overall weighted mean	Estimated bias[5]	Relative bias[4]
School type											
Public	6,786	2,599	27.9	92.9	92.7	93.4	−1.15*	−1.23	92.5	−0.37	−0.40
Private	1,524	541	25.6	7.1	7.3	6.6	1.15*	16.08	7.5	0.37	5.24
Asian 9th-grade enrollment percent											
≤ 2 percent	4,424	1,624	26.9	50.0	50.6	48.5	−0.06	−0.11	51.4	1.34	2.68
> 2 percent	3,886	1,516	28.6	50.0	49.4	51.5	0.06	0.11	48.6	−1.34	−2.69
Black 9th-grade enrollment percent											
≤ 7 percent	4,667	1,709	26.8	54.1	54.8	52.2	0.64	1.17	53.6	−0.57	−1.05
> 7 percent	3,643	1,431	28.9	45.9	45.2	47.8	−0.64	−1.38	46.4	0.57	1.23
Hispanic 9th-grade enrollment percent											
≤ 5 percent	4,465	1,568	26.1	44.6	45.6	41.9	1.40	3.13	45.9	1.34	3.00
> 5 percent	3,845	1,572	29.1	55.4	54.4	58.1	−1.40	−2.52	54.1	−1.34	−2.41
Other 9th-grade enrollment percent											
< 80 percent	4,225	1,769	29.6	62.0	60.4	66.0	−2.35*	−3.80	60.5	−1.53*	−2.47
≥ 80 percent	4,085	1,371	24.8	38.0	39.6	34.0	2.35*	6.19	39.5	1.53*	4.03
Charter school											
Yes	144	57	32.7	1.6	1.4	1.8	−0.01	−0.51	1.6	0.03	2.05
No	6,642	2,542	27.8	91.3	91.2	91.6	−1.14*	−1.25	90.9	−0.40	−0.44
Private	1,524	541	25.6	7.1	7.3	6.6	1.15*	16.08	7.5	0.37	5.24
Total enrollment											
< 499 students	1,394	529	25.1	13.2	13.6	11.9	0.77	5.82	13.8	0.62	4.68
500–999 students	1,983	685	26.6	23.9	24.3	22.9	0.13	0.54	23.5	−0.46	−1.92
1,000–1,499 students	1,863	739	29.9	21.9	21.3	23.6	−1.44	−6.55	20.9	−1.04	−4.76
1,500–2,000 students	1,567	571	26.6	18.0	18.3	17.3	1.52*	8.41	19.6	1.57*	8.72
> 2,000 students	1,503	616	29.3	23.0	22.5	24.3	−0.97	−4.24	22.3	−0.69	−2.98

See notes at end of table.

Table G-7. Unit nonresponse bias before and after inclusion of additional parent cases attributed to the responsive design—Continued

Domain category	Unweighted counts		Weighted percent nonresponse	Before adjustments[1]					After adjustments[2]		
				Weighted mean							
	Respondents	Non-respondents		Overall	Respondents	Non-respondents	Estimated bias[3]	Relative bias[4]	Overall weighted mean	Estimated bias[5]	Relative bias[4]
9th-grade enrollment											
0–149 9th-grade students	1,917	698	24.2	17.6	18.4	15.3	1.41*	8.01	18.6	1.02*	5.79
150–299 9th-grade students	1,889	685	28.2	22.9	22.7	23.3	0.01	0.05	22.2	−0.63	−2.74
300–449 9th-grade students	1,928	710	28.8	22.0	21.7	22.8	−0.99	−4.50	21.0	−0.94	−4.27
450–600 9th-grade students	1,317	528	27.7	17.7	17.7	17.6	0.68	3.82	18.9	1.22	6.89
600+ 9th-grade students	1,259	519	29.2	19.9	19.5	21.0	−1.11	−5.55	19.3	−0.67	−3.35
Number of full-time teachers											
≤ 50	2,680	955	25.2	28.3	29.3	25.8	1.13	3.99	28.9	0.62	2.20
51–100	3,378	1,301	29.3	39.4	38.6	41.6	−0.22	−0.57	39.0	−0.46	−1.17
101–150	1,657	655	29.1	22.7	22.3	23.9	−0.72	−3.16	22.5	−0.25	−1.12
> 150	595	229	25.4	9.5	9.8	8.7	−0.19	−2.00	9.6	0.09	0.96
Student to teacher ratio											
≤ 10	604	248	25.4	6.6	6.8	6.0	0.62	9.47	7.3	0.70	10.71
11–15	2,390	916	28.3	28.8	28.6	29.4	−1.48*	−5.12	27.1	−1.71*	−5.95
15–20	3,823	1,416	28.2	45.4	45.1	46.2	0.61	1.33	46.0	0.62	1.36
20–25	1,435	535	26.6	18.6	18.9	17.8	0.20	1.07	19.0	0.45	2.42
> 25	58	25	25.8	0.7	0.7	0.6	0.05	7.05	0.6	−0.05	−7.92
Census region											
Northeast	1,287	524	29.0	19.0	18.7	19.9	−0.91	−4.77	18.0	−1.01	−5.32
Midwest	2,231	812	26.8	21.3	21.6	20.6	2.18*	10.22	23.4	2.09*	9.83
South	3,377	1,250	26.9	37.8	38.2	36.7	−0.76	−2.01	37.4	−0.39	−1.04
West	1,415	554	29.0	21.9	21.5	22.9	−0.51	−2.34	21.2	−0.69	−3.15
School urbanicity											
City	2,395	882	28.9	29.1	28.7	30.3	1.66*	5.68	31.1	2.00*	6.86
Suburban	2,983	1,177	29.1	33.0	32.4	34.7	−0.07	−0.21	32.8	−0.23	−0.69
Town	973	356	23.6	13.4	14.1	11.4	−1.28*	−9.53	12.3	−1.12*	−8.39
Rural	1,959	725	26.7	24.4	24.8	23.6	−0.31	−1.27	23.8	−0.65	−2.65

See notes at end of table.

Table G-7. Unit nonresponse bias before and after inclusion of additional parent cases attributed to the responsive design—Continued

Domain category	Unweighted counts		Weighted percent nonresponse	Before adjustments[1]					After adjustments[2]		
				Weighted mean							
	Respondents	Non-respondents		Overall	Respondents	Non-respondents	Estimated bias[3]	Relative bias[4]	Overall weighted mean	Estimated bias[5]	Relative bias[4]
Range of grades in school											
High school only	6,983	2,647	27.9	85.7	85.6	86.2	−0.34	−0.39	85.8	0.11	0.13
Middle and high school	839	276	26.1	10.5	10.7	9.9	−0.03	−0.33	10.1	−0.45	−4.28
Elementary to high school	488	217	28.8	3.8	3.7	3.9	0.37	9.83	4.1	0.34	8.89
Religious affiliation											
Yes	1,485	520	25.1	6.8	7.1	6.2	1.14*	16.79	7.2	0.39	5.77
No	39	21	36.2	0.3	0.3	0.4	0.00	0.97	0.3	−0.02	−6.08
Public	6,786	2,599	27.9	92.9	92.7	93.4	−1.15*	−1.23	92.5	−0.37	−0.40
School is regular secondary											
Yes	1,406	490	25.5	6.5	6.7	5.9	1.01*	15.60	6.8	0.31	4.74
No	118	51	26.7	0.7	0.7	0.6	0.14	20.85	0.7	0.07	10.12
Public	6,786	2,599	27.9	92.9	92.7	93.4	−1.15*	−1.23	92.5	−0.37	−0.40
Augmented sample-state (public school only)											
California	429	173	29.8	13.3	13.0	14.3	−3.03*	−22.69	10.3	−3.09*	−23.14
Florida	284	141	34.9	3.3	3.0	4.2	1.76*	53.06	5.0	1.72*	51.79
Georgia	387	167	30.6	2.3	2.2	2.5	0.82*	36.05	3.6	1.32*	57.48
Michigan	429	144	25.7	3.3	3.4	3.0	0.33*	9.90	3.5	0.17	5.05
North Carolina	462	134	18.7	3.3	3.7	2.2	−0.17	−5.10	3.1	−0.25	−7.59
Ohio	406	167	32.7	2.8	2.6	3.3	1.01*	36.47	4.0	1.21*	43.74
Pennsylvania	377	141	28.1	3.8	3.8	3.9	−0.79*	−20.50	3.1	−0.75*	−19.43
Tennessee	451	121	20.8	2.2	2.4	1.6	−0.33*	−14.90	1.9	−0.25*	−11.30
Texas	437	180	25.8	9.0	9.3	8.4	−1.64*	−18.15	7.4	−1.64*	−18.18
Washington state	356	142	29.4	2.2	2.1	2.3	−0.38*	−17.27	1.8	−0.40*	−18.11
Public schools in other states	4,292	1,630	27.6	54.4	54.5	54.2	2.40*	4.42	56.4	1.96*	3.60

See notes at end of table.

Table G-7. Unit nonresponse bias before and after inclusion of additional parent cases attributed to the responsive design—Continued

				Before adjustments[1]					After adjustments[2]		
	Unweighted counts		Weighted	Weighted mean							
Domain category	Respondents	Non-respondents	percent nonresponse	Overall	Respondents	Non-respondents	Estimated bias[3]	Relative bias[4]	Overall weighted mean	Estimated bias[5]	Relative bias[4]
Gender											
Male	4,221	1,667	28.4	51.3	50.9	52.5	0.12	0.24	50.8	−0.51	−0.99
Female	4,089	1,473	27.1	48.7	49.1	47.5	−0.12	−0.25	49.2	0.51	1.04
Race[6]											
Hispanic	824	383	31.2	4.0	3.8	4.5	−0.25	−6.16	3.7	−0.29	−7.26
Asian	959	431	28.8	16.7	16.5	17.4	−0.60	−3.62	15.8	−0.90	−5.37
Black	974	375	31.6	14.6	13.8	16.6	−1.88*	−12.88	14.1	−0.51	−3.51
Other	5,553	1,951	26.4	64.7	65.9	61.5	2.73*	4.22	66.4	1.70	2.63

[1] Estimates were calculated with the student base weights excluding questionnaire-incapable student records.

[2] Estimates were calculated with the student analytic weights (W2STUDENT) excluding questionnaire-incapable student records.

[3] Estimated bias is calculated as a function of the weighted nonresponse rate times the difference in the weighted respondent and nonrespondent means as shown in equation 6.20. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

[4] The relative bias is calculated as the estimated bias divided by the (before adjustments) overall mean.

[5] Estimated bias is calculated as the difference in the weighted overall mean before and after the adjustments following the equations discussed in section 6.7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

[6] Student race as defined on the school enrollment lists used for sampling purposes.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up Restricted-use File.

G.3 Item Nonresponse Bias

Item nonresponse bias analysis, like the unit-level bias discussed in the previous section, is used to evaluate bias associated with nonresponse. The difference is that this analysis focuses on non-negligible patterns of item nonresponse among the (unit) respondents. All variable values collected in the student and parent questionnaires were evaluated to identify those with weighted item response rates less than 85 percent for this analysis. Details of the analysis procedure along with the summary of the analysis tables are included in section 7.2. Within the item nonresponse bias analysis tables presented in this section,

- 576 bias tests were conducted on a total of 36 student questionnaire variables (tables G-8–G-43) using the student base weight, where 38.6 percent of the tests showed significant levels of bias[1]; and
- 528 bias tests were conducted on a total of 33 parent questionnaire variables (tables G-44–G-76) using the parent subsample base weight, where 37.5 percent of the tests showed significant levels of bias.

[1] All statistical tests were conducted at the 0.05 significance level.

Table G-8. Comparison of item respondents and nonrespondents for S2MNOFAMREC (Not taking math because family member discouraged teen) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	95.5	98.1	93.8	2.67*
Private	4.5	1.9	6.2	−2.67*
Census region				
Northeast	16.2	10.0	20.1	−6.14*
Midwest	18.5	17.1	19.4	−1.40*
South	42.8	50.8	37.7	8.01*
West	22.5	22.0	22.8	−0.46
School urbanity				
City	29.2	23.9	32.6	−5.29*
Suburban	26.7	22.3	29.6	−4.40*
Town	14.9	18.3	12.7	3.40*
Rural	29.1	35.4	25.1	6.30*
Race/ethnicity				
Hispanic	22.9	19.5	25.2	−3.49
Asian	2.4	1.9	2.7	−0.52*
Black	17.1	18.2	16.4	1.12*
Other	57.6	60.4	55.7	2.89
Sex				
Male	52.5	50.8	53.5	−1.61
Female	47.5	49.2	46.5	1.61

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-9. Comparison of item respondents and nonrespondents for S2MNOTCHRREC (Not taking math because teacher discouraged teen) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	95.5	98.1	93.8	2.68*
Private	4.5	1.9	6.2	−2.68*
Census region				
Northeast	16.2	10.0	20.1	−6.14*
Midwest	18.5	16.7	19.6	−1.77*
South	42.8	51.0	37.6	8.22*
West	22.5	22.2	22.7	−0.31
School urbanity				
City	29.2	23.6	32.8	−5.60*
Suburban	26.7	22.4	29.5	−4.33*
Town	14.9	18.5	12.6	3.58*
Rural	29.1	35.5	25.1	6.35*
Race/ethnicity				
Hispanic	22.9	19.3	25.3	−3.68*
Asian	2.4	1.9	2.7	−0.52*
Black	17.1	18.1	16.5	1.01*
Other	57.6	60.7	55.5	3.18
Sex				
Male	52.5	50.8	53.5	−1.64
Female	47.5	49.2	46.5	1.64

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-10. Comparison of item respondents and nonrespondents for S2MNOASSIGN (Not taking math because not assigned to it) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	95.5	98.1	93.8	2.67*
Private	4.5	1.9	6.2	−2.67*
Census region				
Northeast	16.2	10.0	20.2	−6.23*
Midwest	18.5	16.9	19.5	−1.58*
South	42.8	51.0	37.6	8.13*
West	22.5	22.2	22.7	−0.32
School urbanity				
City	29.2	23.8	32.7	−5.44*
Suburban	26.7	22.3	29.6	−4.50*
Town	14.9	18.4	12.6	3.53*
Rural	29.1	35.5	25.0	6.41*
Race/ethnicity				
Hispanic	22.9	19.4	25.2	−3.54
Asian	2.4	1.8	2.7	−0.53*
Black	17.1	18.2	16.4	1.07*
Other	57.6	60.6	55.6	3.01
Sex				
Male	52.5	50.8	53.5	−1.61
Female	47.5	49.2	46.5	1.61

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-11. Comparison of item respondents and nonrespondents for S2MDONTDOWELL (Not taking math because doesn't do well in math) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	95.5	98.1	93.8	2.67*
Private	4.5	1.9	6.2	−2.67*
Census region				
Northeast	16.2	9.9	20.2	−6.29*
Midwest	18.5	16.8	19.6	−1.66*
South	42.8	51.1	37.5	8.33*
West	22.5	22.1	22.7	−0.38
School urbanity				
City	29.2	24.1	32.5	−5.17*
Suburban	26.7	22.4	29.5	−4.39*
Town	14.9	18.3	12.7	3.46*
Rural	29.1	35.2	25.3	6.09*
Race/ethnicity				
Hispanic	22.9	19.3	25.3	−3.62
Asian	2.4	1.9	2.7	−0.51*
Black	17.1	18.3	16.4	1.16*
Other	57.6	60.5	55.7	2.97
Sex				
Male	52.5	50.6	53.6	−1.82
Female	47.5	49.4	46.4	1.82

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-12. Comparison of item respondents and nonrespondents for S2MNOCNSLREC (Not taking math because HS counselor discouraged teen) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	95.5	98.1	93.8	2.66*
Private	4.5	1.9	6.2	−2.66*
Census region				
Northeast	16.2	10.1	20.1	−6.12*
Midwest	18.5	16.9	19.5	−1.58*
South	42.8	50.8	37.7	8.03*
West	22.5	22.2	22.7	−0.32
School urbanity				
City	29.2	23.8	32.7	−5.45*
Suburban	26.7	22.4	29.5	−4.39*
Town	14.9	18.5	12.6	3.65*
Rural	29.1	35.3	25.2	6.19*
Race/ethnicity				
Hispanic	22.9	19.4	25.2	−3.56
Asian	2.4	1.9	2.7	−0.51*
Black	17.1	18.1	16.5	0.93*
Other	57.6	60.7	55.6	3.14
Sex				
Male	52.5	50.9	53.4	−1.51
Female	47.5	49.1	46.6	1.51

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-13. Comparison of item respondents and nonrespondents for S2MNOPARREC (Not taking math because parent discouraged teen) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	95.5	98.1	93.8	2.67*
Private	4.5	1.9	6.2	−2.67*
Census region				
Northeast	16.2	10.0	20.1	−6.20*
Midwest	18.5	17.1	19.4	−1.45*
South	42.8	50.8	37.8	7.97*
West	22.5	22.2	22.7	−0.32
School urbanity				
City	29.2	23.9	32.6	−5.33*
Suburban	26.7	22.4	29.5	−4.33*
Town	14.9	18.4	12.6	3.54*
Rural	29.1	35.3	25.2	6.13*
Race/ethnicity				
Hispanic	22.9	19.3	25.3	−3.65
Asian	2.4	1.9	2.7	−0.52*
Black	17.1	18.3	16.4	1.18*
Other	57.6	60.5	55.6	2.99
Sex				
Male	52.5	50.9	53.4	−1.55
Female	47.5	49.1	46.6	1.55

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-14. Comparison of item respondents and nonrespondents for S2MNOCAREER (Not taking math because won't be needed for career) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	95.5	98.1	93.8	2.66*
Private	4.5	1.9	6.2	−2.66*
Census region				
Northeast	16.2	10.1	20.1	−6.13*
Midwest	18.5	16.8	19.6	−1.67*
South	42.8	50.9	37.7	8.05*
West	22.5	22.2	22.7	−0.26
School urbanity				
City	29.2	23.9	32.6	−5.31*
Suburban	26.7	22.5	29.5	−4.27*
Town	14.9	18.5	12.6	3.62*
Rural	29.1	35.1	25.4	5.96*
Race/ethnicity				
Hispanic	22.9	19.5	25.1	−3.45
Asian	2.4	1.9	2.7	−0.51*
Black	17.1	18.2	16.5	1.04*
Other	57.6	60.5	55.7	2.92
Sex				
Male	52.5	50.9	53.4	−1.56
Female	47.5	49.1	46.6	1.56

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-15. Comparison of item respondents and nonrespondents for S2MNOEMPREC (Not taking math because employer discouraged teen) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	95.5	98.2	93.8	2.69*
Private	4.5	1.8	6.2	−2.69*
Census region				
Northeast	16.2	9.9	20.2	−6.27*
Midwest	18.5	17.0	19.5	−1.53*
South	42.8	50.8	37.7	8.03*
West	22.5	22.3	22.6	−0.23
School urbanity				
City	29.2	23.7	32.7	−5.52*
Suburban	26.7	22.4	29.5	−4.33*
Town	14.9	18.4	12.7	3.47*
Rural	29.1	35.5	25.1	6.38*
Race/ethnicity				
Hispanic	22.9	19.5	25.1	−3.41
Asian	2.4	1.9	2.7	−0.51*
Black	17.1	18.0	16.5	0.92*
Other	57.6	60.6	55.6	3.01
Sex				
Male	52.5	50.9	53.4	−1.52
Female	47.5	49.1	46.6	1.52

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-16. Comparison of item respondents and nonrespondents for S2MNOCLGSUCC (Not taking math because won't be needed to succeed in college) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	95.5	98.1	93.8	2.66*
Private	4.5	1.9	6.2	−2.66*
Census region				
Northeast	16.2	10.1	20.1	−6.12*
Midwest	18.5	16.8	19.6	−1.69*
South	42.8	51.0	37.7	8.15*
West	22.5	22.2	22.7	−0.33
School urbanity				
City	29.2	23.8	32.7	−5.45*
Suburban	26.7	22.5	29.4	−4.26*
Town	14.9	18.4	12.7	3.52*
Rural	29.1	35.3	25.2	6.19*
Race/ethnicity				
Hispanic	22.9	19.5	25.1	−3.41
Asian	2.4	1.9	2.7	−0.51*
Black	17.1	18.2	16.4	1.11*
Other	57.6	60.4	55.8	2.81
Sex				
Male	52.5	50.8	53.5	−1.70
Female	47.5	49.2	46.5	1.70

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-17. Comparison of item respondents and nonrespondents for S2MNOFRIEND (Not taking math because friends were not taking it) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	95.5	98.1	93.8	2.65*
Private	4.5	1.9	6.2	−2.65*
Census region				
Northeast	16.2	10.1	20.0	−6.11*
Midwest	18.5	16.9	19.5	−1.65*
South	42.8	50.8	37.8	7.96*
West	22.5	22.3	22.6	−0.20
School urbanity				
City	29.2	23.8	32.6	−5.41*
Suburban	26.7	22.3	29.5	−4.43*
Town	14.9	18.3	12.7	3.42*
Rural	29.1	35.6	25.1	6.42*
Race/ethnicity				
Hispanic	22.9	19.4	25.2	−3.50
Asian	2.4	1.9	2.7	−0.50*
Black	17.1	18.1	16.5	0.93*
Other	57.6	60.6	55.6	3.07
Sex				
Male	52.5	50.7	53.6	−1.74
Female	47.5	49.3	46.4	1.74

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-18. Comparison of item respondents and nonrespondents for S2SDISLIKE (Not taking science because really dislikes science) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	95.4	97.0	93.8	1.64*
Private	4.6	3.0	6.2	−1.64*
Census region				
Northeast	15.5	11.9	19.1	−3.62*
Midwest	19.8	19.4	20.2	−0.41
South	39.1	40.1	38.1	0.96
West	25.6	28.6	22.5	3.07*
School urbanity				
City	28.8	25.1	32.4	−3.65*
Suburban	27.4	24.5	30.3	−2.88*
Town	15.6	18.4	12.9	2.76*
Rural	28.2	32.0	24.4	3.77
Race/ethnicity				
Hispanic	24.3	23.3	25.2	−0.95
Asian	2.3	1.6	2.9	−0.66*
Black	15.5	15.1	16.0	−0.46
Other	57.9	60.0	55.8	2.07
Sex				
Male	53.4	52.0	54.8	−1.40
Female	46.6	48.0	45.2	1.40

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-19. Comparison of item respondents and nonrespondents for S2SNOTHSREQ (Not taking science because it is not required for HS graduation) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	95.4	97.1	93.7	1.69*
Private	4.6	2.9	6.3	−1.69*
Census region				
Northeast	15.5	11.7	19.3	−3.81*
Midwest	19.8	19.5	20.2	−0.36
South	39.1	40.0	38.2	0.87
West	25.6	28.9	22.3	3.31*
School urbanity				
City	28.8	25.2	32.4	−3.61*
Suburban	27.4	24.4	30.3	−2.98*
Town	15.6	18.4	12.8	2.81*
Rural	28.2	32.0	24.5	3.78
Race/ethnicity				
Hispanic	24.3	23.3	25.2	−0.96
Asian	2.3	1.6	2.9	−0.66*
Black	15.5	15.1	15.9	−0.39
Other	57.9	59.9	55.9	2.01
Sex				
Male	53.4	52.1	54.7	−1.31
Female	46.6	47.9	45.3	1.31

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-20. Comparison of item respondents and nonrespondents for S2STOOKBEFORE (Not taking science because took it earlier in the school year) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	95.4	97.0	93.8	1.62*
Private	4.6	3.0	6.2	−1.62*
Census region				
Northeast	15.5	11.6	19.3	−3.85*
Midwest	19.8	19.3	20.3	−0.51
South	39.1	40.1	38.1	0.99
West	25.6	28.9	22.3	3.37*
School urbanity				
City	28.8	25.3	32.2	−3.49*
Suburban	27.4	24.4	30.3	−2.95*
Town	15.6	18.5	12.8	2.83*
Rural	28.2	31.8	24.7	3.61
Race/ethnicity				
Hispanic	24.3	23.4	25.2	−0.91
Asian	2.3	1.6	2.9	−0.65*
Black	15.5	15.1	16.0	−0.44
Other	57.9	59.9	55.9	2.00
Sex				
Male	53.4	52.3	54.5	−1.11
Female	46.6	47.7	45.5	1.11

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-21. Comparison of item respondents and nonrespondents for S2SNOCNSLREC (Not taking science because HS counselor discouraged teen) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	95.4	97.1	93.7	1.67*
Private	4.6	2.9	6.3	−1.67*
Census region				
Northeast	15.5	11.5	19.4	−3.96*
Midwest	19.8	19.5	20.2	−0.35
South	39.1	40.0	38.2	0.90
West	25.6	29.0	22.2	3.41*
School urbanity				
City	28.8	25.2	32.3	−3.59*
Suburban	27.4	24.3	30.4	−3.04*
Town	15.6	18.5	12.8	2.87*
Rural	28.2	32.0	24.5	3.76
Race/ethnicity				
Hispanic	24.3	23.4	25.2	−0.89
Asian	2.3	1.6	2.9	−0.65*
Black	15.5	15.0	16.1	−0.56
Other	57.9	60.0	55.8	2.11
Sex				
Male	53.4	52.1	54.8	−1.35
Female	46.6	47.9	45.2	1.35

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-22. Comparison of item respondents and nonrespondents for S2SNOCAREER (Not taking science because won't be needed for career) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	95.4	97.1	93.7	1.68*
Private	4.6	2.9	6.3	−1.68*
Census region				
Northeast	15.5	11.6	19.3	−3.90*
Midwest	19.8	19.5	20.2	−0.35
South	39.1	39.9	38.3	0.82
West	25.6	29.0	22.2	3.43*
School urbanity				
City	28.8	25.1	32.4	−3.69*
Suburban	27.4	24.4	30.3	−3.01*
Town	15.6	18.5	12.8	2.86*
Rural	28.2	32.0	24.4	3.84
Race/ethnicity				
Hispanic	24.3	23.4	25.1	−0.86
Asian	2.3	1.6	2.9	−0.67*
Black	15.5	15.0	16.0	−0.53
Other	57.9	60.0	55.9	2.05
Sex				
Male	53.4	52.2	54.7	−1.29
Female	46.6	47.8	45.3	1.29

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-23. Comparison of item respondents and nonrespondents for S2SNOASSIGN (Not taking science because not assigned to it) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	95.4	97.0	93.8	1.65*
Private	4.6	3.0	6.2	−1.65*
Census region				
Northeast	15.5	11.6	19.3	−3.85*
Midwest	19.8	19.4	20.3	−0.44
South	39.1	40.0	38.2	0.92
West	25.6	28.9	22.3	3.37*
School urbanity				
City	28.8	25.2	32.3	−3.61*
Suburban	27.4	24.5	30.2	−2.85*
Town	15.6	18.4	12.9	2.77*
Rural	28.2	31.9	24.6	3.69
Race/ethnicity				
Hispanic	24.3	23.4	25.2	−0.93
Asian	2.3	1.6	3.0	−0.70*
Black	15.5	15.1	15.9	−0.38
Other	57.9	59.9	55.9	2.01
Sex				
Male	53.4	52.1	54.8	−1.38
Female	46.6	47.9	45.2	1.38

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-24. Comparison of item respondents and nonrespondents for S2SNOCLGADM (Not taking science because won't be needed to get into college) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	95.4	97.1	93.7	1.67*
Private	4.6	2.9	6.3	−1.67*
Census region				
Northeast	15.5	11.7	19.3	−3.84*
Midwest	19.8	19.5	20.1	−0.30
South	39.1	40.1	38.1	0.98
West	25.6	28.7	22.5	3.17*
School urbanity				
City	28.8	25.1	32.3	−3.63*
Suburban	27.4	24.3	30.4	−3.09*
Town	15.6	18.5	12.8	2.90*
Rural	28.2	32.0	24.5	3.81
Race/ethnicity				
Hispanic	24.3	23.3	25.3	−1.04
Asian	2.3	1.6	2.9	−0.66*
Black	15.5	15.0	16.1	−0.53
Other	57.9	60.1	55.7	2.23
Sex				
Male	53.4	52.3	54.6	−1.18
Female	46.6	47.7	45.4	1.18

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-25. Comparison of item respondents and nonrespondents for S2OCC30EARN (Expected earnings for choice of occupation at age 30) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	93.3	93.3	93.3	−0.02
Private	6.7	6.7	6.7	0.02
Census region				
Northeast	19.0	18.5	20.2	−0.52
Midwest	21.0	21.6	19.6	0.61
South	39.5	39.9	38.5	0.42*
West	20.5	20.0	21.7	−0.51*
School urbanity				
City	29.3	28.9	30.3	−0.43
Suburban	27.2	26.3	29.2	−0.88*
Town	13.1	13.0	13.1	−0.01
Rural	30.5	31.8	27.4	1.33*
Race/ethnicity				
Hispanic	21.4	19.6	25.6	−1.79*
Asian	3.1	3.3	2.6	0.20
Black	14.3	14.7	13.6	0.33*
Other	61.2	62.4	58.3	1.25*
Sex				
Male	47.8	48.5	46.0	0.74*
Female	52.2	51.5	54.0	−0.74*

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-26. Comparison of item respondents and nonrespondents for S2SNOFAMREC (Not taking science because family member discouraged teen) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	95.4	97.1	93.8	1.67*
Private	4.6	2.9	6.2	−1.67*
Census region				
Northeast	15.5	11.6	19.3	−3.90*
Midwest	19.8	19.4	20.3	−0.48
South	39.1	40.1	38.1	0.99
West	25.6	29.0	22.3	3.39*
School urbanity				
City	28.8	25.2	32.3	−3.61*
Suburban	27.4	24.5	30.2	−2.92*
Town	15.6	18.5	12.8	2.87*
Rural	28.2	31.9	24.6	3.66
Race/ethnicity				
Hispanic	24.3	23.4	25.1	−0.87
Asian	2.3	1.6	2.9	−0.69*
Black	15.5	15.0	16.0	−0.49
Other	57.9	60.0	55.9	2.05
Sex				
Male	53.4	52.1	54.8	−1.37
Female	46.6	47.9	45.2	1.37

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-27. Comparison of item respondents and nonrespondents for S2SNOTCHRREC (Not taking science because teacher discouraged teen) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	95.4	97.1	93.8	1.66*
Private	4.6	2.9	6.2	−1.66*
Census region				
Northeast	15.5	11.6	19.3	−3.93*
Midwest	19.8	19.5	20.2	−0.35
South	39.1	40.1	38.1	0.99
West	25.6	28.9	22.4	3.28*
School urbanity				
City	28.8	25.1	32.4	−3.72*
Suburban	27.4	24.5	30.2	−2.87*
Town	15.6	18.5	12.8	2.86*
Rural	28.2	31.9	24.6	3.74
Race/ethnicity				
Hispanic	24.3	23.3	25.2	−0.98
Asian	2.3	1.6	2.9	−0.65*
Black	15.5	15.0	16.0	−0.52
Other	57.9	60.1	55.8	2.15
Sex				
Male	53.4	52.0	54.9	−1.47
Female	46.6	48.0	45.1	1.47

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-28. Comparison of item respondents and nonrespondents for S2SNOPARREC (Not taking science because parent discouraged teen) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	95.4	97.1	93.8	1.66*
Private	4.6	2.9	6.2	−1.66*
Census region				
Northeast	15.5	11.6	19.3	−3.90*
Midwest	19.8	19.3	20.3	−0.49
South	39.1	40.0	38.2	0.95
West	25.6	29.0	22.2	3.45*
School urbanity				
City	28.8	25.2	32.3	−3.58*
Suburban	27.4	24.5	30.3	−2.94*
Town	15.6	18.6	12.8	2.93*
Rural	28.2	31.8	24.7	3.59
Race/ethnicity				
Hispanic	24.3	23.4	25.1	−0.86
Asian	2.3	1.6	2.9	−0.65*
Black	15.5	15.0	16.0	−0.53
Other	57.9	60.0	55.9	2.05
Sex				
Male	53.4	52.1	54.8	−1.37
Female	46.6	47.9	45.2	1.37

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-29. Comparison of item respondents and nonrespondents for S2SDONTDOWELL (Not taking science because doesn't do well in science) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	95.4	97.1	93.8	1.66*
Private	4.6	2.9	6.2	−1.66*
Census region				
Northeast	15.5	11.6	19.3	−3.93*
Midwest	19.8	19.3	20.3	−0.50
South	39.1	40.0	38.2	0.95
West	25.6	29.0	22.2	3.48*
School urbanity				
City	28.8	25.2	32.3	−3.58*
Suburban	27.4	24.5	30.2	−2.92*
Town	15.6	18.5	12.8	2.89*
Rural	28.2	31.8	24.7	3.60
Race/ethnicity				
Hispanic	24.3	23.5	25.1	−0.82
Asian	2.3	1.6	2.9	−0.65*
Black	15.5	15.1	16.0	−0.47
Other	57.9	59.9	56.0	1.94
Sex				
Male	53.4	52.1	54.8	−1.34
Female	46.6	47.9	45.2	1.34

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-30. Comparison of item respondents and nonrespondents for S2SNOEMPREC (Not taking science because employer discouraged teen) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	95.4	97.1	93.8	1.67*
Private	4.6	2.9	6.2	−1.67*
Census region				
Northeast	15.5	11.6	19.3	−3.91*
Midwest	19.8	19.4	20.3	−0.43
South	39.1	40.0	38.2	0.95
West	25.6	29.0	22.3	3.39*
School urbanity				
City	28.8	25.3	32.2	−3.52*
Suburban	27.4	24.5	30.2	−2.87*
Town	15.6	18.6	12.8	2.95*
Rural	28.2	31.7	24.9	3.45
Race/ethnicity				
Hispanic	24.3	23.5	25.0	−0.76
Asian	2.3	1.6	2.9	−0.65*
Black	15.5	15.0	16.1	−0.55
Other	57.9	59.9	56.0	1.96
Sex				
Male	53.4	51.9	54.9	−1.53
Female	46.6	48.1	45.1	1.53

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-31. Comparison of item respondents and nonrespondents for S2SNOCLGSUCC (Not taking science because won't be needed to succeed in college) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	95.4	97.0	93.8	1.66*
Private	4.6	3.0	6.2	−1.66*
Census region				
Northeast	15.5	11.7	19.2	−3.82*
Midwest	19.8	19.5	20.1	−0.30
South	39.1	40.0	38.2	0.91
West	25.6	28.8	22.5	3.20*
School urbanity				
City	28.8	25.2	32.2	−3.54*
Suburban	27.4	24.2	30.5	−3.21*
Town	15.6	18.5	12.8	2.91*
Rural	28.2	32.1	24.5	3.85
Race/ethnicity				
Hispanic	24.3	23.4	25.2	−0.94
Asian	2.3	1.6	2.9	−0.65*
Black	15.5	14.9	16.1	−0.59
Other	57.9	60.1	55.8	2.18
Sex				
Male	53.4	52.3	54.6	−1.18
Female	46.6	47.7	45.4	1.18

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-32. Comparison of item respondents and nonrespondents for S2SNOFRIEND (Not taking science because friends were not taking it) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	95.4	97.0	93.8	1.66*
Private	4.6	3.0	6.2	−1.66*
Census region				
Northeast	15.5	11.6	19.3	−3.91*
Midwest	19.8	19.5	20.2	−0.36
South	39.1	39.9	38.3	0.78
West	25.6	29.1	22.2	3.50*
School urbanity				
City	28.8	25.2	32.2	−3.53*
Suburban	27.4	24.5	30.2	−2.94*
Town	15.6	18.5	12.8	2.92*
Rural	28.2	31.8	24.8	3.55
Race/ethnicity				
Hispanic	24.3	23.5	25.0	−0.77
Asian	2.3	1.6	2.9	−0.65*
Black	15.5	14.9	16.1	−0.61
Other	57.9	59.9	55.9	2.03
Sex				
Male	53.4	52.0	54.8	−1.43
Female	46.6	48.0	45.2	1.43

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-33. Comparison of item respondents and nonrespondents for S2JOBYR (Year dropout/early grad started current/most recent job) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	93.7	99.9	93.4	6.18*
Private	6.3	0.1	6.6	−6.18*
Census region				
Northeast	19.0	11.6	19.4	−7.37*
Midwest	19.7	19.8	19.7	0.14
South	38.8	61.8	37.6	23.00*
West	22.5	6.7	23.4	−15.77*
School urbanity				
City	31.8	26.8	32.1	−5.05
Suburban	29.6	28.2	29.7	−1.44
Town	13.2	18.4	12.9	5.24
Rural	25.4	26.7	25.3	1.25
Race/ethnicity				
Hispanic	25.4	28.3	25.3	2.91
Asian	2.6	0.5	2.7	−2.14*
Black	15.4	12.5	15.5	−2.87
Other	56.6	58.7	56.5	2.10
Sex				
Male	54.6	59.8	54.3	5.20
Female	45.4	40.2	45.7	−5.20

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-34. Comparison of item respondents and nonrespondents for X2PROBLEM (X2 Scale of problems at high school) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	93.1	92.9	93.6	−0.18
Private	6.9	7.1	6.4	0.18
Census region				
Northeast	18.8	20.0	14.8	1.25*
Midwest	21.1	21.3	20.6	0.16
South	38.4	37.6	41.0	−0.81
West	21.7	21.1	23.6	−0.61
School urbanity				
City	29.2	26.4	38.0	−2.78*
Suburban	27.8	27.7	28.0	−0.07
Town	13.0	13.8	10.6	0.76
Rural	30.1	32.2	23.4	2.09*
Race/ethnicity				
Hispanic	22.1	20.5	27.1	−1.58*
Asian	3.5	4.0	2.2	0.42*
Black	13.4	11.6	19.4	−1.87*
Other	60.9	63.9	51.3	3.03*
Sex				
Male	50.5	50.5	50.3	0.05
Female	49.5	49.5	49.7	−0.05

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-35. Comparison of item respondents and nonrespondents for S2CHILDBORNYR (Year dropout/early grad's first child was born) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	93.6	99.1	93.4	5.54*
Private	6.4	0.9	6.6	−5.54*
Census region				
Northeast	18.7	3.7	19.3	−14.97*
Midwest	20.0	24.2	19.8	4.17
South	38.4	60.2	37.5	21.74*
West	22.9	11.9	23.3	−10.94*
School urbanity				
City	32.6	43.3	32.2	10.65*
Suburban	29.2	20.7	29.5	−8.46
Town	12.9	13.1	12.9	0.26
Rural	25.4	22.9	25.5	−2.45
Race/ethnicity				
Hispanic	25.9	42.1	25.3	16.13*
Asian	2.6	0.0	2.7	−2.64*
Black	15.9	17.7	15.8	1.76
Other	55.5	40.3	56.2	−15.25*
Sex				
Male	53.4	32.1	54.3	−21.32*
Female	46.6	67.9	45.7	21.32*

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-36. Comparison of item respondents and nonrespondents for X2S2EARNNOHS (Earnings without HS diploma standardized by year) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	93.1	92.7	93.5	−0.35*
Private	6.9	7.3	6.5	0.35*
Census region				
Northeast	18.8	17.9	19.9	−0.86
Midwest	21.1	22.2	19.6	1.08*
South	38.4	38.9	37.8	0.45
West	21.7	21.0	22.6	−0.68
School urbanity				
City	29.2	28.8	29.7	−0.37
Suburban	27.8	27.5	28.2	−0.28
Town	13.0	13.0	12.9	0.05
Rural	30.1	30.7	29.3	0.60
Race/ethnicity				
Hispanic	22.1	20.7	24.1	−1.44*
Asian	3.5	3.6	3.5	0.04
Black	13.4	12.3	15.1	−1.19*
Other	60.9	63.5	57.3	2.58*
Sex				
Male	50.5	50.8	50.1	0.28
Female	49.5	49.2	49.9	−0.28

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-37. Comparison of item respondents and nonrespondents for X2S2EARNHS (Earnings with HS diploma standardized by year) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	93.1	92.7	93.6	−0.38*
Private	6.9	7.3	6.4	0.38*
Census region				
Northeast	18.8	17.9	19.9	−0.85
Midwest	21.1	22.2	19.6	1.07*
South	38.4	38.7	38.0	0.31
West	21.7	21.2	22.4	−0.53
School urbanity				
City	29.2	28.9	29.5	−0.26
Suburban	27.8	27.6	28.0	−0.17
Town	13.0	12.8	13.3	−0.19
Rural	30.1	30.7	29.2	0.61
Race/ethnicity				
Hispanic	22.1	20.7	24.1	−1.43*
Asian	3.5	3.6	3.4	0.10
Black	13.4	12.3	15.0	−1.17*
Other	60.9	63.4	57.5	2.50*
Sex				
Male	50.5	50.9	50.0	0.36
Female	49.5	49.1	50.0	−0.36

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-38. Comparison of item respondents and nonrespondents for X2S2EARN4Y (Earnings with four year college degree standardized by year) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	93.1	92.5	93.8	−0.56*
Private	6.9	7.5	6.2	0.56*
Census region				
Northeast	18.8	17.9	19.8	−0.83
Midwest	21.1	22.3	19.5	1.24*
South	38.4	38.6	38.2	0.14
West	21.7	21.2	22.4	−0.55
School urbanity				
City	29.2	28.9	29.5	−0.28
Suburban	27.8	27.7	27.9	−0.07
Town	13.0	12.7	13.3	−0.27
Rural	30.1	30.7	29.3	0.62
Race/ethnicity				
Hispanic	22.1	20.2	24.5	−1.89*
Asian	3.5	3.7	3.3	0.18
Black	13.4	12.3	14.9	−1.15*
Other	60.9	63.8	57.2	2.86*
Sex				
Male	50.5	50.8	50.1	0.33
Female	49.5	49.2	49.9	−0.33

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-39. Comparison of item respondents and nonrespondents for X2S2EARNOCC (Earnings with occupational training diploma standardized by year) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	93.1	92.6	93.6	−0.43*
Private	6.9	7.4	6.4	0.43*
Census region				
Northeast	18.8	17.8	20.0	−0.96
Midwest	21.1	22.3	19.5	1.23*
South	38.4	38.7	38.1	0.27
West	21.7	21.2	22.4	−0.54
School urbanity				
City	29.2	28.8	29.5	−0.31
Suburban	27.8	27.5	28.1	−0.24
Town	13.0	12.8	13.2	−0.18
Rural	30.1	30.8	29.2	0.73
Race/ethnicity				
Hispanic	22.1	20.4	24.3	−1.71*
Asian	3.5	3.7	3.3	0.16
Black	13.4	12.3	14.9	−1.13*
Other	60.9	63.6	57.5	2.68*
Sex				
Male	50.5	50.9	50.0	0.39
Female	49.5	49.1	50.0	−0.39

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-40. Comparison of item respondents and nonrespondents for X2S2EARN2YPUB (Earnings with two year college degree standardized by year) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	93.1	92.6	93.6	−0.47*
Private	6.9	7.4	6.4	0.47*
Census region				
Northeast	18.8	17.8	20.0	−0.98
Midwest	21.1	22.4	19.5	1.25*
South	38.4	38.6	38.2	0.21
West	21.7	21.2	22.3	−0.48
School urbanity				
City	29.2	28.9	29.5	−0.24
Suburban	27.8	27.7	27.9	−0.07
Town	13.0	12.7	13.3	−0.26
Rural	30.1	30.7	29.4	0.57
Race/ethnicity				
Hispanic	22.1	20.5	24.2	−1.63*
Asian	3.5	3.7	3.3	0.18
Black	13.4	12.2	15.0	−1.20*
Other	60.9	63.6	57.5	2.66*
Sex				
Male	50.5	51.0	49.9	0.46
Female	49.5	49.0	50.1	−0.46

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-41. Comparison of item respondents and nonrespondents for S2IBOTHER (Has taken IB course(s) in another subject) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	94.0	96.5	93.7	2.45
Private	6.0	3.5	6.3	−2.45
Census region				
Northeast	18.7	14.2	19.4	−4.50
Midwest	20.2	22.3	19.9	2.07
South	39.0	42.9	38.4	3.95
West	22.1	20.6	22.3	−1.52
School urbanity				
City	33.9	47.5	32.0	13.53*
Suburban	30.3	32.8	29.9	2.47
Town	11.7	4.3	12.8	−7.47*
Rural	24.0	15.5	25.2	−8.53*
Race/ethnicity				
Hispanic	24.8	21.5	25.2	−3.26
Asian	3.4	7.8	2.7	4.46*
Black	15.4	12.1	15.9	−3.35
Other	56.4	58.6	56.1	2.15
Sex				
Male	53.8	45.6	55.0	−8.22
Female	46.2	54.4	45.0	8.22

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-42. Comparison of item respondents and nonrespondents for S2IBSCIENCE (Has taken IB science course(s)) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	94.0	96.5	93.7	2.43
Private	6.0	3.5	6.3	−2.43
Census region				
Northeast	18.7	14.3	19.3	−4.43
Midwest	20.2	22.4	19.9	2.19
South	39.0	42.6	38.5	3.66
West	22.1	20.7	22.3	−1.41
School urbanity				
City	33.9	47.6	32.0	13.69*
Suburban	30.3	32.9	29.9	2.64
Town	11.7	4.3	12.8	−7.45*
Rural	24.0	15.1	25.3	−8.88*
Race/ethnicity				
Hispanic	24.8	21.6	25.2	−3.15
Asian	3.4	7.8	2.7	4.42*
Black	15.4	11.7	15.9	−3.71
Other	56.4	58.9	56.1	2.44
Sex				
Male	53.8	45.3	55.0	−8.49
Female	46.2	54.7	45.0	8.49

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-43. Comparison of item respondents and nonrespondents for S2IBMATH (Has taken IB math course(s)) by select sample school characteristics, using student base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	94.0	96.6	93.7	2.61*
Private	6.0	3.4	6.3	−2.61*
Census region				
Northeast	18.7	14.4	19.3	−4.33
Midwest	20.2	22.6	19.9	2.34
South	39.0	42.7	38.4	3.75
West	22.1	20.3	22.3	−1.75
School urbanity				
City	33.9	47.5	32.1	13.54*
Suburban	30.3	33.0	29.9	2.66
Town	11.7	4.3	12.8	−7.42*
Rural	24.0	15.2	25.3	−8.78*
Race/ethnicity				
Hispanic	24.8	21.8	25.2	−3.01
Asian	3.4	7.9	2.7	4.56*
Black	15.4	11.8	15.9	−3.64
Other	56.4	58.5	56.1	2.09
Sex				
Male	53.8	45.7	55.0	−8.11
Female	46.2	54.3	45.0	8.11

[1] Estimates were calculated with the student base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-44. Comparison of item respondents and nonrespondents for P2CLGWORKFT (Teenager will work full-time or part-time while attending college) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	93.7	93.4	93.9	−0.29
Private	6.3	6.6	6.1	0.29
Census region				
Northeast	18.2	16.3	19.5	−1.90*
Midwest	22.8	27.2	19.6	4.39*
South	36.9	35.0	38.4	−1.96*
West	22.1	21.6	22.5	−0.53
School urbanity				
City	27.8	24.3	30.2	−3.42*
Suburban	27.7	26.0	28.9	−1.65
Town	13.3	14.7	12.3	1.37
Rural	31.3	35.0	28.6	3.70*
Race/ethnicity				
Hispanic	20.6	15.0	24.6	−5.62*
Asian	3.9	2.4	5.0	−1.50*
Black	13.9	11.7	15.5	−2.23
Other	61.6	71.0	54.9	9.34*
Sex				
Male	50.5	51.9	49.6	1.34
Female	49.5	48.1	50.4	−1.34

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-45. Comparison of item respondents and nonrespondents for P2CONF2YPUB (Confidence in estimate of cost of public in-state 2-year college) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	93.2	92.2	94.4	−0.98*
Private	6.8	7.8	5.6	0.98*
Census region				
Northeast	18.6	17.9	19.4	−0.65
Midwest	21.1	22.8	19.0	1.66*
South	38.1	38.0	38.3	−0.13
West	22.2	21.3	23.3	−0.88
School urbanity				
City	28.1	26.8	29.8	−1.34
Suburban	27.5	26.6	28.6	−0.87
Town	13.6	14.2	12.8	0.60
Rural	30.8	32.5	28.8	1.62*
Race/ethnicity				
Hispanic	20.4	16.2	25.7	−4.20*
Asian	3.6	2.7	4.7	−0.85*
Black	13.8	12.5	15.4	−1.26
Other	62.2	68.5	54.2	6.32*
Sex				
Male	51.0	52.0	49.9	0.95
Female	49.0	48.0	50.1	−0.95

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-46. Comparison of item respondents and nonrespondents for P2CONF4YPRV (Confidence in estimate for cost of typical 4-year private college) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	91.6	89.3	94.4	−2.27*
Private	8.4	10.7	5.6	2.27*
Census region				
Northeast	19.5	19.8	19.3	0.22
Midwest	21.5	23.3	19.2	1.80*
South	38.2	38.0	38.5	−0.23
West	20.7	18.9	23.0	−1.80*
School urbanity				
City	28.6	27.4	30.2	−1.23
Suburban	28.5	28.8	28.3	0.22
Town	12.8	12.9	12.7	0.08
Rural	30.0	30.9	28.9	0.93
Race/ethnicity				
Hispanic	19.2	14.1	25.6	−5.12*
Asian	3.9	3.3	4.6	−0.55
Black	13.1	11.0	15.8	−2.12*
Other	63.8	71.6	54.0	7.79*
Sex				
Male	50.0	50.7	49.2	0.69
Female	50.0	49.3	50.8	−0.69

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-47. Comparison of item respondents and nonrespondents for P2FIRSTCHOICE (Most likely postsec school is parent's 1st choice not considering cost) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	93.9	93.5	94.3	−0.41
Private	6.1	6.5	5.7	0.41
Census region				
Northeast	17.1	14.1	20.0	−3.00*
Midwest	20.9	22.9	19.0	1.99*
South	40.8	43.5	38.3	2.71*
West	21.1	19.4	22.7	−1.70*
School urbanity				
City	28.1	26.1	30.0	−2.01*
Suburban	27.6	26.6	28.5	−1.00
Town	14.2	16.1	12.4	1.89*
Rural	30.1	31.2	29.1	1.11
Race/ethnicity				
Hispanic	21.0	16.1	25.5	−4.86*
Asian	4.1	3.4	4.7	−0.70
Black	13.4	11.3	15.4	−2.11*
Other	61.5	69.2	54.3	7.66*
Sex				
Male	49.5	49.0	49.9	−0.43
Female	50.5	51.0	50.1	0.43

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-48. Comparison of item respondents and nonrespondents for P2CERTAINCLG (How certain teenager is to attend most likely postsecondary institution) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	93.9	93.5	94.3	−0.44
Private	6.1	6.5	5.7	0.44
Census region				
Northeast	17.1	14.2	19.9	−2.95*
Midwest	20.9	22.8	19.1	1.91
South	40.8	43.5	38.4	2.62*
West	21.1	19.6	22.6	−1.58*
School urbanity				
City	28.1	25.9	30.2	−2.19*
Suburban	27.6	26.6	28.5	−0.98
Town	14.2	16.1	12.4	1.93*
Rural	30.1	31.3	28.9	1.25
Race/ethnicity				
Hispanic	21.0	16.2	25.5	−4.82*
Asian	4.1	3.4	4.7	−0.68
Black	13.4	11.2	15.5	−2.24*
Other	61.5	69.3	54.3	7.74*
Sex				
Male	49.5	49.0	49.9	−0.47
Female	50.5	51.0	50.1	0.47

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-49. Comparison of item respondents and nonrespondents for P2USYR1 (Year Parent 1 came to U.S. to stay) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	94.3	94.6	94.2	0.32*
Private	5.7	5.4	5.8	−0.32*
Census region				
Northeast	19.8	19.8	19.9	−0.07
Midwest	15.8	9.1	19.0	−6.62*
South	35.8	31.6	37.9	−4.18*
West	28.6	39.4	23.2	10.87*
School urbanity				
City	34.6	43.4	30.2	8.80*
Suburban	30.1	31.6	29.3	1.59
Town	10.2	6.4	12.0	−3.76*
Rural	25.2	18.6	28.5	−6.64*
Race/ethnicity				
Hispanic	36.9	58.6	26.2	21.69*
Asian	8.1	14.1	5.1	6.06*
Black	12.1	5.3	15.5	−6.80*
Other	42.9	22.0	53.3	−20.95*
Sex				
Male	51.1	52.5	50.5	1.33
Female	48.9	47.5	49.5	−1.33

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-50. Comparison of item respondents and nonrespondents for P2USYR2 (Year Parent 2 came to U.S. to stay) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	94.0	93.7	94.1	−0.30
Private	6.0	6.3	5.9	0.30
Census region				
Northeast	19.2	19.5	19.1	0.29
Midwest	16.6	10.1	19.2	−6.54*
South	36.2	32.1	37.8	−4.09*
West	28.0	38.3	23.9	10.34*
School urbanity				
City	34.3	43.8	30.5	9.59*
Suburban	30.0	31.5	29.4	1.51
Town	10.6	7.1	12.0	−3.53*
Rural	25.2	17.6	28.2	−7.57*
Race/ethnicity				
Hispanic	34.4	54.6	26.4	20.19*
Asian	8.2	15.8	5.2	7.56*
Black	12.6	5.9	15.3	−6.72*
Other	44.8	23.7	53.1	−21.03*
Sex				
Male	51.2	53.1	50.5	1.83
Female	48.8	46.9	49.5	−1.83

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-51. Comparison of item respondents and nonrespondents for P2LIKELYCLGLV (Level of postsecondary institution most likely to attend in fall 2013) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	93.9	93.2	94.4	−0.71
Private	6.1	6.8	5.6	0.71
Census region				
Northeast	17.1	13.1	20.1	−4.05*
Midwest	20.9	23.0	19.3	2.13*
South	40.8	44.9	37.9	4.08*
West	21.1	19.0	22.7	−2.16*
School urbanity				
City	28.1	25.9	29.7	−2.25*
Suburban	27.6	26.7	28.3	−0.91
Town	14.2	15.5	13.3	1.27*
Rural	30.1	32.0	28.7	1.89
Race/ethnicity				
Hispanic	21.0	15.8	24.8	−5.22*
Asian	4.1	3.6	4.5	−0.51
Black	13.4	10.9	15.2	−2.51*
Other	61.5	69.8	55.6	8.24*
Sex				
Male	49.5	48.5	50.2	−0.98
Female	50.5	51.5	49.8	0.98

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-52. Comparison of item respondents and nonrespondents for P2LIKELYCLGTYP (Control (public/private) of postsec inst most likely to attend in fall 2013) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	93.9	93.2	94.4	−0.72
Private	6.1	6.8	5.6	0.72
Census region				
Northeast	17.1	13.0	20.1	−4.15*
Midwest	20.9	23.1	19.3	2.21*
South	40.8	45.0	37.9	4.16*
West	21.1	18.9	22.7	−2.22*
School urbanity				
City	28.1	26.0	29.6	−2.16*
Suburban	27.6	26.7	28.2	−0.88
Town	14.2	15.3	13.4	1.09*
Rural	30.1	32.0	28.7	1.95
Race/ethnicity				
Hispanic	21.0	15.8	24.7	−5.20*
Asian	4.1	3.6	4.4	−0.50
Black	13.4	10.9	15.2	−2.49*
Other	61.5	69.7	55.7	8.19*
Sex				
Male	49.5	48.3	50.3	−1.13
Female	50.5	51.7	49.7	1.13

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-53. Comparison of item respondents and nonrespondents for X2PEARNNOHS (Parent questionnaire earnings without HS diploma standardized by year) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	93.2	92.5	94.0	−0.74*
Private	6.8	7.5	6.0	0.74*
Census region				
Northeast	18.4	17.1	19.9	−1.37*
Midwest	21.1	22.9	19.2	1.82*
South	38.5	38.0	39.0	−0.51
West	22.0	22.1	22.0	0.06
School urbanity				
City	28.4	28.0	28.8	−0.41
Suburban	28.0	26.7	29.2	−1.21
Town	13.2	13.8	12.5	0.61
Rural	30.4	31.5	29.4	1.01
Race/ethnicity				
Hispanic	21.9	19.6	24.4	−2.37*
Asian	3.6	2.7	4.5	−0.90*
Black	13.5	12.1	15.0	−1.42
Other	61.0	65.7	56.1	4.69*
Sex				
Male	50.5	51.4	49.6	0.87
Female	49.5	48.6	50.4	−0.87

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-54. Comparison of item respondents and nonrespondents for X2PEARNHS (Parent questionnaire earnings with HS diploma standardized by year) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	93.2	92.4	94.0	−0.80*
Private	6.8	7.6	6.0	0.80*
Census region				
Northeast	18.4	17.0	20.0	−1.48*
Midwest	21.1	22.7	19.4	1.62*
South	38.5	38.5	38.5	−0.01
West	22.0	21.9	22.2	−0.13
School urbanity				
City	28.4	27.4	29.4	−0.99
Suburban	28.0	26.7	29.2	−1.23
Town	13.2	14.0	12.4	0.77
Rural	30.4	31.9	28.9	1.45
Race/ethnicity				
Hispanic	21.9	18.8	25.2	−3.14*
Asian	3.6	2.7	4.5	−0.87*
Black	13.5	12.1	14.9	−1.37
Other	61.0	66.4	55.3	5.38*
Sex				
Male	50.5	51.3	49.6	0.84
Female	49.5	48.7	50.4	−0.84

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-55. Comparison of item respondents and nonrespondents for P2CHOICECLGLV (Level of parent's first choice postsecondary institution) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	94.0	93.6	94.3	−0.43
Private	6.0	6.4	5.7	0.43
Census region				
Northeast	17.2	12.8	20.0	−4.45*
Midwest	20.5	21.4	20.0	0.87
South	40.6	45.2	37.8	4.57*
West	21.6	20.6	22.2	−0.98
School urbanity				
City	28.7	27.5	29.5	−1.21
Suburban	27.4	25.7	28.4	−1.72*
Town	14.0	15.7	13.0	1.70*
Rural	29.9	31.1	29.1	1.22
Race/ethnicity				
Hispanic	21.5	17.2	24.1	−4.31*
Asian	4.2	3.8	4.5	−0.41
Black	13.7	11.6	15.1	−2.17
Other	60.5	67.4	56.3	6.88*
Sex				
Male	49.3	48.2	50.0	−1.13
Female	50.7	51.8	50.0	1.13

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-56. Comparison of item respondents and nonrespondents for P2CHOICECLGTYP (Control (public/private) of parent's first choice postsecondary institution) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	94.0	93.5	94.3	−0.54
Private	6.0	6.5	5.7	0.54
Census region				
Northeast	17.2	12.6	20.0	−4.59*
Midwest	20.5	21.4	20.0	0.91
South	40.6	45.2	37.8	4.60*
West	21.6	20.7	22.2	−0.92
School urbanity				
City	28.7	27.6	29.4	−1.16
Suburban	27.4	25.7	28.4	−1.72*
Town	14.0	15.7	13.0	1.68*
Rural	29.9	31.1	29.2	1.20
Race/ethnicity				
Hispanic	21.5	17.1	24.1	−4.35*
Asian	4.2	3.8	4.5	−0.40
Black	13.7	11.6	15.1	−2.18
Other	60.5	67.5	56.4	6.92*
Sex				
Male	49.3	48.1	50.0	−1.20
Female	50.7	51.9	50.0	1.20

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-57. Comparison of item respondents and nonrespondents for X2PEARN4Y (Parent questionnaire earnings with four year college degree standardized by year) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	93.2	91.8	94.6	−1.40*
Private	6.8	8.2	5.4	1.40*
Census region				
Northeast	18.4	17.4	19.5	−1.07
Midwest	21.1	23.0	19.1	1.93*
South	38.5	38.0	39.0	−0.52
West	22.0	21.7	22.4	−0.34
School urbanity				
City	28.4	27.7	29.2	−0.75
Suburban	28.0	27.0	28.9	−0.95
Town	13.2	13.6	12.8	0.38
Rural	30.4	31.8	29.1	1.32
Race/ethnicity				
Hispanic	21.9	17.7	26.2	−4.18*
Asian	3.6	3.1	4.1	−0.47*
Black	13.5	12.2	14.8	−1.28
Other	61.0	66.9	55.0	5.93*
Sex				
Male	50.5	50.9	50.1	0.40
Female	49.5	49.1	49.9	−0.40

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-58. Comparison of item respondents and nonrespondents for P2ENGLISH (English is regularly spoken in home) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	94.3	94.0	94.4	−0.29
Private	5.7	6.0	5.6	0.29
Census region				
Northeast	19.4	20.7	18.7	1.31
Midwest	17.3	11.4	20.2	−5.89*
South	36.4	32.6	38.2	−3.78*
West	27.0	35.4	22.9	8.36*
School urbanity				
City	34.0	42.0	30.0	8.02*
Suburban	29.5	31.7	28.4	2.21
Town	11.4	8.5	12.8	−2.87*
Rural	25.2	17.9	28.8	−7.36*
Race/ethnicity				
Hispanic	36.0	56.8	25.8	20.78*
Asian	6.7	10.8	4.6	4.15*
Black	12.4	6.6	15.3	−5.81*
Other	44.9	25.8	54.3	−19.11*
Sex				
Male	50.4	51.9	49.7	1.49
Female	49.6	48.1	50.3	−1.49

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-59. Comparison of item respondents and nonrespondents for X2PEARN2YPUB (Parent questionnaire earnings with two year college degree standardized by year) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	93.2	92.3	94.1	−0.93*
Private	6.8	7.7	5.9	0.93*
Census region				
Northeast	18.4	17.2	19.6	−1.25
Midwest	21.1	23.2	19.0	2.15*
South	38.5	38.2	38.8	−0.31
West	22.0	21.4	22.6	−0.59
School urbanity				
City	28.4	27.5	29.3	−0.92
Suburban	28.0	26.8	29.1	−1.19
Town	13.2	13.8	12.6	0.64
Rural	30.4	31.9	29.0	1.48
Race/ethnicity				
Hispanic	21.9	17.9	25.7	−4.00*
Asian	3.6	2.7	4.4	−0.86*
Black	13.5	12.3	14.6	−1.15
Other	61.0	67.0	55.3	6.01*
Sex				
Male	50.5	51.1	49.9	0.62
Female	49.5	48.9	50.1	−0.62

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-60. Comparison of item respondents and nonrespondents for X2PEARNOCC (Parent questionnaire earnings with occupational training diploma standardized by year) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	93.2	92.4	94.0	−0.83*
Private	6.8	7.6	6.0	0.83*
Census region				
Northeast	18.4	17.2	19.6	−1.20
Midwest	21.1	23.1	19.1	2.04*
South	38.5	37.9	39.0	−0.60
West	22.0	21.8	22.3	−0.24
School urbanity				
City	28.4	27.6	29.2	−0.84
Suburban	28.0	26.7	29.2	−1.29
Town	13.2	13.9	12.6	0.67
Rural	30.4	31.9	29.0	1.47
Race/ethnicity				
Hispanic	21.9	18.2	25.5	−3.77*
Asian	3.6	2.7	4.4	−0.87*
Black	13.5	12.1	14.8	−1.36
Other	61.0	67.0	55.3	6.00*
Sex				
Male	50.5	51.3	49.8	0.78
Female	49.5	48.7	50.2	−0.78

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-61. Comparison of item respondents and nonrespondents for P2USGRADE (Grade level teenager was placed in when started school in U.S.) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	94.5	95.8	94.2	1.33*
Private	5.5	4.2	5.8	−1.33*
Census region				
Northeast	20.2	20.2	20.2	0.04
Midwest	17.9	10.5	19.2	−7.39*
South	38.0	40.9	37.5	2.91
West	23.9	28.4	23.2	4.44
School urbanity				
City	32.7	47.7	30.1	15.04*
Suburban	29.6	32.1	29.1	2.49
Town	11.2	6.1	12.0	−5.11*
Rural	26.6	14.2	28.7	−12.42*
Race/ethnicity				
Hispanic	29.8	56.0	25.3	26.27*
Asian	6.6	16.6	4.9	10.02*
Black	14.5	7.2	15.8	−7.35*
Other	49.1	20.2	54.1	−28.93*
Sex				
Male	50.3	47.1	50.8	−3.16
Female	49.7	52.9	49.2	3.16

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-62. Comparison of item respondents and nonrespondents for P2USYRT (Year teenager came to the U.S. to stay) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	94.4	95.6	94.2	1.22*
Private	5.6	4.4	5.8	−1.22*
Census region				
Northeast	20.2	20.2	20.2	0.02
Midwest	17.9	10.6	19.2	−7.30*
South	37.9	40.2	37.5	2.26
West	23.9	28.9	23.1	5.02
School urbanity				
City	32.6	47.1	30.2	14.51*
Suburban	29.6	32.2	29.2	2.59
Town	11.1	5.8	12.0	−5.33*
Rural	26.6	14.8	28.6	−11.77*
Race/ethnicity				
Hispanic	29.7	55.1	25.4	25.49*
Asian	6.6	16.9	4.9	10.23*
Black	14.6	8.4	15.6	−6.21*
Other	49.1	19.6	54.1	−29.52*
Sex				
Male	50.1	46.4	50.8	−3.75
Female	49.9	53.6	49.2	3.75

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-63. Comparison of item respondents and nonrespondents for P2DKHOWAPP (Won't apply for financial aid because does not know how) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	93.1	88.8	94.3	−4.28*
Private	6.9	11.2	5.7	4.28*
Census region				
Northeast	18.5	16.0	19.3	−2.50
Midwest	19.8	19.7	19.8	−0.12
South	38.0	37.8	38.0	−0.14
West	23.7	26.5	22.9	2.76*
School urbanity				
City	30.1	31.3	29.7	1.26
Suburban	27.9	26.1	28.5	−1.81
Town	13.0	14.2	12.6	1.24
Rural	29.0	28.3	29.2	−0.68
Race/ethnicity				
Hispanic	24.8	22.1	25.6	−2.66
Asian	4.3	3.1	4.7	−1.21
Black	14.1	9.7	15.4	−4.39
Other	56.9	65.1	54.4	8.26
Sex				
Male	50.6	51.9	50.2	1.34
Female	49.4	48.1	49.8	−1.34

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-64. Comparison of item respondents and nonrespondents for P2NODEBT (Won't apply for financial aid because family doesn't want debt) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	93.1	88.7	94.3	−4.36*
Private	6.9	11.3	5.7	4.36*
Census region				
Northeast	18.5	15.8	19.3	−2.75
Midwest	19.8	19.9	19.8	0.13
South	38.0	37.7	38.0	−0.26
West	23.7	26.6	22.9	2.87*
School urbanity				
City	30.1	31.0	29.8	0.93
Suburban	27.9	26.4	28.4	−1.56
Town	13.0	14.3	12.6	1.32
Rural	29.0	28.3	29.2	−0.69
Race/ethnicity				
Hispanic	24.8	21.9	25.6	−2.87
Asian	4.3	3.1	4.6	−1.16
Black	14.1	9.8	15.3	−4.22
Other	56.9	65.1	54.4	8.25
Sex				
Male	50.6	51.9	50.2	1.28
Female	49.4	48.1	49.8	−1.28

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-65. Comparison of item respondents and nonrespondents for P2NOPLANS (Won't apply for financial aid because doesn't plan to continue education) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	93.1	88.6	94.4	−4.47*
Private	6.9	11.4	5.6	4.47*
Census region				
Northeast	18.5	16.1	19.2	−2.43
Midwest	19.8	19.7	19.8	−0.06
South	38.0	37.4	38.1	−0.58
West	23.7	26.8	22.8	3.06*
School urbanity				
City	30.1	31.3	29.7	1.26
Suburban	27.9	26.3	28.4	−1.69
Town	13.0	14.6	12.5	1.61
Rural	29.0	27.8	29.3	−1.18
Race/ethnicity				
Hispanic	24.8	22.4	25.5	−2.41
Asian	4.3	3.1	4.6	−1.20
Black	14.1	9.8	15.3	−4.26
Other	56.9	64.8	54.6	7.87
Sex				
Male	50.6	52.1	50.1	1.56
Female	49.4	47.9	49.9	−1.56

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-66. Comparison of item respondents and nonrespondents for P2INELIGIBLE (Won't apply for financial aid because may be ineligible/unqualified) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	93.1	88.4	94.4	−4.61*
Private	6.9	11.6	5.6	4.61*
Census region				
Northeast	18.5	15.8	19.3	−2.74
Midwest	19.8	20.2	19.7	0.44
South	38.0	37.5	38.1	−0.49
West	23.7	26.5	22.9	2.79*
School urbanity				
City	30.1	30.4	30.0	0.35
Suburban	27.9	26.4	28.4	−1.55
Town	13.0	14.7	12.5	1.73
Rural	29.0	28.4	29.1	−0.53
Race/ethnicity				
Hispanic	24.8	21.6	25.7	−3.17
Asian	4.3	3.0	4.7	−1.25
Black	14.1	9.9	15.3	−4.16
Other	56.9	65.5	54.4	8.58
Sex				
Male	50.6	51.6	50.3	1.04
Female	49.4	48.4	49.7	−1.04

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-67. Comparison of item respondents and nonrespondents for P2FORMSDIFF (Won't apply for financial aid because forms are too difficult) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	93.1	88.6	94.4	−4.44*
Private	6.9	11.4	5.6	4.44*
Census region				
Northeast	18.5	15.4	19.4	−3.07
Midwest	19.8	19.9	19.8	0.14
South	38.0	38.3	37.9	0.38
West	23.7	26.3	23.0	2.55*
School urbanity				
City	30.1	30.6	29.9	0.51
Suburban	27.9	26.0	28.5	−1.93
Town	13.0	14.8	12.5	1.77
Rural	29.0	28.6	29.1	−0.34
Race/ethnicity				
Hispanic	24.8	21.9	25.6	−2.89
Asian	4.3	3.0	4.7	−1.28
Black	14.1	9.6	15.3	−4.42
Other	56.9	65.5	54.4	8.58
Sex				
Male	50.6	51.6	50.3	1.02
Female	49.4	48.4	49.7	−1.02

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-68. Comparison of item respondents and nonrespondents for P2CANAFFORD (Won't apply for financial aid because can afford college/school w/out it) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	93.1	88.5	94.4	−4.57*
Private	6.9	11.5	5.6	4.57*
Census region				
Northeast	18.5	13.6	19.9	−4.88*
Midwest	19.8	21.0	19.4	1.20
South	38.0	38.4	37.8	0.47
West	23.7	26.9	22.8	3.22*
School urbanity				
City	30.1	29.4	30.3	−0.72
Suburban	27.9	27.0	28.2	−0.94
Town	13.0	14.8	12.5	1.84
Rural	29.0	28.8	29.0	−0.18
Race/ethnicity				
Hispanic	24.8	22.4	25.5	−2.38
Asian	4.3	3.0	4.7	−1.28
Black	14.1	7.2	16.0	−6.83*
Other	56.9	67.4	53.9	10.49*
Sex				
Male	50.6	53.5	49.8	2.89
Female	49.4	46.5	50.2	−2.89

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-69. Comparison of item respondents and nonrespondents for P2NOQUALCRED (Won't qualify for financial aid because of credit score) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	94.1	92.8	94.4	−1.26
Private	5.9	7.2	5.6	1.26
Census region				
Northeast	18.4	14.5	19.4	−3.83*
Midwest	19.8	20.1	19.7	0.29
South	38.1	38.9	37.9	0.75
West	23.7	26.5	22.9	2.79*
School urbanity				
City	28.3	23.5	29.6	−4.81*
Suburban	28.8	30.5	28.3	1.67
Town	13.0	13.7	12.8	0.74
Rural	29.9	32.3	29.3	2.41
Race/ethnicity				
Hispanic	25.2	24.6	25.4	−0.64
Asian	4.5	3.9	4.6	−0.55
Black	13.3	6.9	15.0	−6.35*
Other	57.0	64.6	55.0	7.54
Sex				
Male	51.8	56.8	50.4	5.01*
Female	48.2	43.2	49.6	−5.01*

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-70. Comparison of item respondents and nonrespondents for P2NOQUALTEST (Won't qualify for financial aid because grades or test scores too low) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	94.1	92.9	94.4	−1.12
Private	5.9	7.1	5.6	1.12
Census region				
Northeast	18.4	15.2	19.2	−3.18
Midwest	19.8	20.7	19.6	0.86
South	38.1	38.7	38.0	0.60
West	23.7	25.4	23.2	1.72
School urbanity				
City	28.3	23.1	29.7	−5.17*
Suburban	28.8	30.6	28.3	1.84
Town	13.0	13.8	12.8	0.85
Rural	29.9	32.4	29.2	2.48
Race/ethnicity				
Hispanic	25.2	24.1	25.5	−1.15
Asian	4.5	3.6	4.7	−0.86
Black	13.3	7.0	15.0	−6.30*
Other	57.0	65.4	54.8	8.30*
Sex				
Male	51.8	56.4	50.5	4.66*
Female	48.2	43.6	49.5	−4.66*

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-71. Comparison of item respondents and nonrespondents for P2NOQUALINC (Won't qualify for financial aid because income is too high) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	94.1	93.0	94.3	−1.07
Private	5.9	7.0	5.7	1.07
Census region				
Northeast	18.4	14.7	19.4	−3.67*
Midwest	19.8	20.4	19.6	0.60
South	38.1	39.2	37.9	1.03
West	23.7	25.7	23.1	2.04
School urbanity				
City	28.3	22.5	29.8	−5.74*
Suburban	28.8	30.4	28.4	1.57
Town	13.0	14.1	12.7	1.11
Rural	29.9	33.0	29.1	3.07
Race/ethnicity				
Hispanic	25.2	24.1	25.5	−1.16
Asian	4.5	3.5	4.7	−0.91
Black	13.3	6.9	15.0	−6.37*
Other	57.0	65.5	54.8	8.44*
Sex				
Male	51.8	56.6	50.4	4.81*
Female	48.2	43.4	49.6	−4.81*

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-72. Comparison of item respondents and nonrespondents for P2NOQUALFAM (Won't qualify for financial aid because family member didn't qualify) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	94.1	92.8	94.4	−1.22
Private	5.9	7.2	5.6	1.22
Census region				
Northeast	18.4	14.4	19.4	−3.94*
Midwest	19.8	20.8	19.5	0.96
South	38.1	38.5	38.0	0.40
West	23.7	26.3	23.0	2.58*
School urbanity				
City	28.3	23.4	29.6	−4.93*
Suburban	28.8	30.7	28.3	1.94
Town	13.0	13.9	12.7	0.91
Rural	29.9	32.0	29.4	2.08
Race/ethnicity				
Hispanic	25.2	24.0	25.6	−1.21
Asian	4.5	3.9	4.6	−0.52
Black	13.3	7.0	15.0	−6.30*
Other	57.0	65.1	54.9	8.03
Sex				
Male	51.8	56.6	50.5	4.80*
Female	48.2	43.4	49.5	−4.80*

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-73. Comparison of item respondents and nonrespondents for P2NOQUALPT (Won't qualify for financial aid because will attend part-time) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	94.1	92.7	94.4	−1.34
Private	5.9	7.3	5.6	1.34
Census region				
Northeast	18.4	15.1	19.2	−3.27
Midwest	19.8	20.3	19.7	0.47
South	38.1	37.9	38.2	−0.26
West	23.7	26.8	22.9	3.06*
School urbanity				
City	28.3	23.6	29.5	−4.69*
Suburban	28.8	30.5	28.3	1.73
Town	13.0	13.4	12.9	0.41
Rural	29.9	32.5	29.2	2.55
Race/ethnicity				
Hispanic	25.2	23.4	25.7	−1.83
Asian	4.5	4.0	4.6	−0.44
Black	13.3	7.1	14.9	−6.19*
Other	57.0	65.5	54.8	8.45*
Sex				
Male	51.8	57.2	50.3	5.43*
Female	48.2	42.8	49.7	−5.43*

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-74. Comparison of item respondents and nonrespondents for P2QHELP2 (Other family member helped respondent complete questionnaire) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	94.5	95.4	94.4	0.88
Private	5.5	4.6	5.6	−0.88
Census region				
Northeast	19.0	17.9	19.1	−1.05
Midwest	19.2	14.6	19.7	−4.57*
South	37.7	34.0	38.1	−3.72
West	24.2	33.5	23.2	9.34*
School urbanity				
City	31.6	45.1	30.2	13.46*
Suburban	28.3	25.7	28.6	−2.58
Town	12.3	10.4	12.5	−1.94
Rural	27.8	18.8	28.7	−8.94*
Race/ethnicity				
Hispanic	27.7	40.0	26.4	12.31*
Asian	5.3	10.3	4.7	5.05*
Black	14.8	8.6	15.4	−6.21
Other	52.3	41.1	53.4	−11.15*
Sex				
Male	49.3	47.4	49.4	−1.80
Female	50.7	52.6	50.6	1.80

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-75. Comparison of item respondents and nonrespondents for P2QHELP4 (Someone else helped respondent complete questionnaire) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	94.5	95.4	94.4	0.88
Private	5.5	4.6	5.6	−0.88
Census region				
Northeast	19.0	17.9	19.1	−1.05
Midwest	19.2	14.6	19.7	−4.57*
South	37.7	34.0	38.1	−3.72
West	24.2	33.5	23.2	9.34*
School urbanity				
City	31.6	45.1	30.2	13.46*
Suburban	28.3	25.7	28.6	−2.58
Town	12.3	10.4	12.5	−1.94
Rural	27.8	18.8	28.7	−8.94*
Race/ethnicity				
Hispanic	27.7	40.0	26.4	12.31*
Asian	5.3	10.3	4.7	5.05*
Black	14.8	8.6	15.4	−6.21
Other	52.3	41.1	53.4	−11.15*
Sex				
Male	49.3	47.4	49.4	−1.80
Female	50.7	52.6	50.6	1.80

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Table G-76. Comparison of item respondents and nonrespondents for P2QHELP1 (Teenager helped respondent complete questionnaire) by select sample school characteristics, using parent base weight

	Percent estimated[1]			
Characteristic	Total	Respondent	Nonrespondent	Estimated bias[2]
School type				
Public	94.5	95.4	94.4	0.88
Private	5.5	4.6	5.6	−0.88
Census region				
Northeast	19.0	17.9	19.1	−1.05
Midwest	19.2	14.6	19.7	−4.57*
South	37.7	34.0	38.1	−3.72
West	24.2	33.5	23.2	9.34*
School urbanity				
City	31.6	45.1	30.2	13.46*
Suburban	28.3	25.7	28.6	−2.58
Town	12.3	10.4	12.5	−1.94
Rural	27.8	18.8	28.7	−8.94*
Race/ethnicity				
Hispanic	27.7	40.0	26.4	12.31*
Asian	5.3	10.3	4.7	5.05*
Black	14.8	8.6	15.4	−6.21
Other	52.3	41.1	53.4	−11.15*
Sex				
Male	49.3	47.4	49.4	−1.80
Female	50.7	52.6	50.6	1.80

[1] Estimates were calculated with the parent base weight. Unit nonrespondents are classified for this analysis as item nonrespondents.

[2] Estimated bias is defined by equation 7.1. A value marked with an asterisk (*) identifies a bias that is significantly different from zero with statistical significance ≤ 0.05. Bias estimates without an asterisk are labeled as negligible.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09).

Appendix H.
Imputation Details

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H.1 Single-value Imputation

Item response rates were relatively high in the HSLS:09 first follow-up data. However, a set of key analytic variables was identified as being critical for complete-case analysis and subjected to imputation procedures. A single value was assigned in place of the missing response for 17 categorical variables from the student and parent questionnaires using a weighted sequential hot-deck imputation procedure (WSHD). An associated indicator "flag" variable was generated to distinguish the imputed values from those responses collected during the base-year study (see chapter 7). Details on the single-value imputation for the student variables, including variables used to create the imputation classes, are included in table H-1. The associated information for students with first follow-up responding parent is displayed in tables H-2 and H-3. Imputation details for the remaining students (i.e., students not selected for the parent survey subsample and others without a responding parent) are shown in tables H-4, H-5, and H-6. Tests for differences in the distribution of these variables both before and after imputation are summarized in table H-7 for the student variables, in table H-8 for the parent variables among the parent survey subsample cases, and in table H-9 for the parent variables among all responding student cases.

Table H-1. Details of imputation procedures for first follow-up student variables

Variable[1]	Method of imputation[2,3]	Imputation class variables	Sort variables within class
Student's sex (X2SEX)	Logical	—	—
Student is Hispanic (X2HISPANIC)	CART	X2SEX	X2SEX X2CONTROL
Student's native language (X2NATIVELANG)	CART	X2RACE	X2SEX X2CONTROL
Student's race (X2RACE)	Derived	—	—
How far student expects to get in school (X2STUEDEXPCT)	CART	X2CONTROL X2ASIAN	X2SEX X2CONTROL

— Not applicable.

[1] The variables are listed in the order in which the missing values were imputed.

[2] The variable was derived from another (source) variable containing imputed values. The imputation flag corresponds with the flag for the source variable.

[3] Identifies a statistical imputation performed with the assistance of a nonparametric classification and regression tree (CART) procedure for classification. CART isolates the variables and combination of variable values most associated with the imputation variable. The single-value imputation within these classes was implemented through a weighted sequential hot-deck methodology (WSHD).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table H-2. Details of imputation procedures for first follow-up responding parent – base-year responding parent (Group 1—see chapter 7)

Variable[1]	Method of imputation[2,3]	Imputation class variables	Sort variables within class
Parent 1 relationship to sample member (X2P1RELATION)	CART	X1P1RELATION	X2CONTROL
Parent 2 relationship to sample member (X2P2RELATION)	CART	X1P2RELATION X2P1RELATION	X2CONTROL
Parent 1 highest level of education (X2PAR1EDU)	CART	X1PAR1EDU SCHTYPE X2P2RELATION	X2CONTROL
Parent 2 highest level of education (X2PAR2EDU)	CART	X2PAR2EDU X2P2RELATION X2PAR1EDU	X2CONTROL
Highest level of education for Parents (X2PAREDU)	Derived	—	
Parent 1 and 2 relationship pattern (X2PARPATTERN)	Derived	—	
Parent 1 occupational prestige score (X2PAR1OCC2)	CART	X1PAR1OCC2 X2P1RELATION X2PAR1EDU	X2CONTROL
How far parent expects sample member to get in school (X2PAREDEXPCT)	CART	X1PAREDEXPCT	X2CONTROL
Parent 2 occupational prestige score (X2PAR2OCC2)	CART	X1PAR2OCC2 X2P2RELATION X2PAR2EDU	X2CONTROL
Number in household (X2HHNUMBER)	Derived	—	
Parent 1 employment status (X2PAR1EMP)	CART	X1PAR1EMP X2P1RELATION X2PAR1EDU X2HHNUMBER	X2CONTROL
Categorized family income (X2FAMINCOME)	CART	X1FAMINCOME X2PAR2EDU X2PAR1EDU X2PAREDU X2PAR2OCC2	X2CONTROL
Parent 2 employment status (X2PAR2EMP)	CART	X1PAR2EMP X2PAR2EDU	X2CONTROL

— Not applicable.

[1] The variables are listed in the order in which the missing values were imputed.

[2] The variable was derived from another (source) variable containing imputed values. The imputation flag corresponds with the flag for the source variable.

[3] Identifies a statistical imputation performed with the assistance of a nonparametric classification and regression tree (CART) procedure for classification. CART isolates the variables and combination of variable values most associated with the imputation variable. The single-value imputation within these classes was implemented through weighted sequential hot-deck imputation procedure (WSHD).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table H-3. Details of imputation procedures for first follow-up responding parent – no base-year parent data (Group 2—see chapter 7)

Variable[1]	Method of imputation[2,3]	Imputation class variables	Sort variables within class
Parent 1 relationship to sample member (X2P1RELATION)	CART	—	X2CONTROL
Parent 2 relationship to sample member (X2P2RELATION)	CART	X2P1RELATION	X2CONTROL
Parent 1 highest level of education (X2PAR1EDU)	CART	SCHTYPE X2P2RELATION	X2CONTROL
Parent 2 highest level of education (X2PAR2EDU)	CART	X2P2RELATION X2PAR1EDU	X2CONTROL
Highest level of education for Parents (X2PAREDU)	Derived	—	
Parent 1 occupational prestige score (X2PAR1OCC2)	CART	X2PAR1EDU X2P1RELATION	X2CONTROL
Parent 2 occupational prestige score (X2PAR2OCC2)	CART	X2PAR2EDU	X2CONTROL
Parent 1 and 2 relationship pattern (X2PARPATTERN)	Derived	—	
How far parent expects sample member to get in school (X2PAREDEXPCT)	CART	X2PAREDU	X2CONTROL
Categorized family income (X2FAMINCOME)	CART	X2PAR2EDU X2PAR1EDU X2PAREDU X2PAR2OCC2	X2CONTROL
Parent 2 employment status (X2PAR2EMP)	CART	X2PAR2EDU	X2CONTROL
Number in household (X2HHNUMBER)	Derived	—	
Parent 1 employment status (X2PAR1EMP)	CART	X2FAMINCOME X2P2RELATION	X2CONTROL

— Not applicable.

[1] The variables are listed in the order in which the missing values were imputed.

[2] The variable was derived from another (source) variable containing imputed values. The imputation flag corresponds with the flag for the source variable.

[3] Identifies a statistical imputation performed with the assistance of a nonparametric classification and regression tree (CART) procedure for classification. CART isolates the variables and combination of variable values most associated with the imputation variable. The single-value imputation within these classes was implemented through weighted sequential hot-deck imputation procedure (WSHD).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table H-4. Details of imputation procedures for no first follow-up parent data – base-year responding parent (Group 3—see chapter 7)

Variable[1]	Method of imputation[2,3,4]	Imputation class variables	Sort variables within class[5]
Parent 1 relationship to sample member (X2P1RELATION)	WSHD	X1P1RELATION	X2CONTROL X1REGION X1LOCALE SCHTYPE SCHSIZE
Parent 2 relationship to sample member (X2P2RELATION)	WSHD	X1P1RELATION	X2CONTROL X1REGION X1LOCALE SCHTYPE SCHSIZE
Parent 1 highest level of education (X2PAR1EDU)	WSHD	X1PAR1EDU	X2CONTROL X1REGION X1LOCALE SCHTYPE SCHSIZE
Parent 2 highest level of education (X2PAR2EDU)	WSHD	X1PAR2EDU	X2CONTROL X1REGION X1LOCALE SCHTYPE SCHSIZE
Highest level of education for Parents (X2PAREDU)	Derived	—	
Parent 1 employment status (X2PAR1EMP)	WSHD	X1PAR1EMP	X2CONTROL X1REGION X1LOCALE SCHTYPE SCHSIZE
Parent 1 occupational prestige score (X2PAR1OCC2)	WSHD	X1PAR1EMP	X2CONTROL X1REGION X1LOCALE SCHTYPE SCHSIZE
Parent 2 employment status (X2PAR2EMP)	WSHD	X1PAR2EMP	X2CONTROL X1REGION X1LOCALE SCHTYPE SCHSIZE
Parent 2 occupational prestige score (X2PAR2OCC2)	WSHD	X1PAR2EMP	X2CONTROL X1REGION X1LOCALE SCHTYPE SCHSIZE
Categorized family income (X2FAMINCOME)	WSHD	X1FAMINCOME	X2CONTROL X1REGION X1LOCALE SCHTYPE SCHSIZE
Parent 1 and 2 relationship pattern (X2PARPATTERN)	Derived	—	
Number in household (X2HHNUMBER)	Derived	—	
How far parent expects sample member to get in school (X2PAREDEXPCT)	WSHD	X1PAREDEXPCT	X2CONTROL X1REGION X1LOCALE SCHTYPE SCHSIZE

— Not applicable.

[1] The variables are listed in the order in which the missing values were imputed.

[2] The variable was derived from another (source) variable containing imputed values. The imputation flag corresponds with the flag for the source variable.

[3] WSHD (weighted sequential hot-deck imputation procedure) is a statistical imputation performed with a pre-determined group of classification variables.

[4] Identifies a statistical imputation performed with the assistance of a nonparametric classification and regression tree (CART) procedure for classification. CART isolates the variables and combination of variable values most associated with the imputation variable. The single-value imputation within these classes was implemented through WSHD.

[5] SCHTYPE (school type) is a 10-level variable to identify the type of public and SCHSIZE (school size) is the size of the first follow-up school. These variables were developed for internal use only from the latest CCD/PSS and are not included on the HSLS:09 data files.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table H-5. Details of imputation procedures for no first follow-up parent data – no base-year parent data – first follow-up responding student – base-year responding student (Group 4—see chapter 7)

Variable[1]	Method of imputation[2,3,4]	Imputation class variables	Sort variables within class[5]
Parent 1 relationship to sample member (X2P1RELATION)	WSHD	X1SESQ5	X2CONTROL X1REGION X1LOCALE SCHTYPE SCHSIZE
Parent 2 relationship to sample member (X2P2RELATION)	WSHD	X1SESQ5	X2CONTROL X1REGION X1LOCALE SCHTYPE SCHSIZE
Parent 1 highest level of education (X2PAR1EDU)	CART	X1SESQ5 X2CONTROL	X2CONTROL X1REGION X1LOCALE SCHTYPE SCHSIZE
Parent 2 highest level of education (X2PAR2EDU)	CART	X1SESQ5 X2P2RELATION X2PAR1EDU	X2CONTROL X1REGION X1LOCALE SCHTYPE SCHSIZE
Highest level of education for Parents (X2PAREDU)	Derived	—	
Parent 1 employment status (X2PAR1EMP)	CART	X1SESQ5 X2P1RELATION X2PAR1EDU	X2CONTROL X1REGION X1LOCALE SCHTYPE SCHSIZE
Parent 1 occupational prestige score (X2PAR1OCC2)	CART	X1SESQ5 X2P1RELATION X2PAR1EDU	X2CONTROL X1REGION X1LOCALE SCHTYPE SCHSIZE
Parent 2 employment status (X2PAR2EMP)	CART	X1SESQ5 X2PAR2EDU X2P2RELATION	X2CONTROL X1REGION X1LOCALE SCHTYPE SCHSIZE
Parent 2 occupational prestige score (X2PAR2OCC2)	CART	X1SESQ5 X2PAR2EDU X2P2RELATION	X2CONTROL X1REGION X1LOCALE SCHTYPE SCHSIZE
Categorized family income (X2FAMINCOME)	CART	X1SESQ5 X2PAR2EDU X2PAR1EDU	X2CONTROL X1REGION X1LOCALE SCHTYPE SCHSIZE
Parent 1 and 2 relationship pattern (X2PARPATTERN)	Derived	—	
Number in household (X2HHNUMBER)	Derived	—	
How far parent expects sample member to get in school (X2PAREDEXPCT)	CART	X1SESQ5 X2PAR1EDU	X2CONTROL X1REGION X1LOCALE SCHTYPE SCHSIZE

— Not applicable.

[1] The variables are listed in the order in which the missing values were imputed.

[2] The variable was derived from another (source) variable containing imputed values. The imputation flag corresponds with the flag for the source variable.

[3] WSHD (weighted sequential hot-deck imputation procedure) is a statistical imputation performed with a pre-determined group of classification variables.

[4] Identifies a statistical imputation performed with the assistance of a nonparametric classification and regression tree (CART) procedure for classification. CART isolates the variables and combination of variable values most associated with the imputation variable. The single-value imputation within these classes was implemented through WSHD.

[5] SCHTYPE (school type) is a 10-level variable to identify the type of public and SCHSIZE (school size) is the size of the first follow-up school. These variables were developed for internal use only from the latest CCD/PSS and are not included on the HSLS:09 data files.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table H-6. Details of imputation procedures for no first follow-up parent data – no base-year parent data – first follow-up responding student – no base-year student data (Group 5—see chapter 7)

Variable[1]	Method of imputation[2,3,4]	Imputation class variables	Sort variables within class[5]
Parent 1 relationship to sample member (X2P1RELATION)	WSHD	S2PARREL1	X2CONTROL X1REGION X1LOCALE SCHTYPE SCHSIZE
Parent 2 relationship to sample member (X2P2RELATION)	WSHD	S2PARREL1	X2CONTROL X1REGION X1LOCALE SCHTYPE SCHSIZE
Parent 1 highest level of education (X2PAR1EDU)	WSHD	S2HIDEG1	X2CONTROL X1REGION X1LOCALE SCHTYPE SCHSIZE
Parent 2 highest level of education (X2PAR2EDU)	WSHD	S2HIDEG2	X2CONTROL X1REGION X1LOCALE SCHTYPE SCHSIZE
Highest level of education for Parents (X2PAREDU)	Derived	—	
Parent 1 employment status (X2PAR1EMP)	WSHD	S2JOBNOW1	X2CONTROL X1REGION X1LOCALE SCHTYPE SCHSIZE
Parent 1 occupational prestige score (X2PAR1OCC2)	WSHD	S2JOBNOW1	X2CONTROL X1REGION X1LOCALE SCHTYPE SCHSIZE
Parent 2 employment status (X2PAR2EMP)	WSHD	S2JOBNOW2	X2CONTROL X1REGION X1LOCALE SCHTYPE SCHSIZE
Parent 2 occupational prestige score (X2PAR2OCC2)	WSHD	S2JOBNOW2	X2CONTROL X1REGION X1LOCALE SCHTYPE SCHSIZE
Categorized family income (X2FAMINCOME)	CART	X2PAR2EDU X2PAR1EDU	X2CONTROL X1REGION X1LOCALE SCHTYPE SCHSIZE
Parent 1 and 2 relationship pattern (X2PARPATTERN)	Derived	—	
Number in household (X2HHNUMBER)	Derived	—	
How far parent expects sample member to get in school (X2PAREDEXPCT)	CART	X2PAR1EDU	X2CONTROL X1REGION X1LOCALE SCHTYPE SCHSIZE

— Not applicable.

[1] The variables are listed in the order in which the missing values were imputed.

[2] The variable was derived from another (source) variable containing imputed values. The imputation flag corresponds with the flag for the source variable.

[3] WSHD (weighted sequential hot-deck imputation procedure) is a statistical imputation performed with a pre-determined group of classification variables.

[4] Identifies a statistical imputation performed with the assistance of a nonparametric classification and regression tree (CART) procedure for classification. CART isolates the variables and combination of variable values most associated with the imputation variable. The single-value imputation within these classes was implemented through WSHD.

[5] SCHTYPE (school type) is a 10-level variable to identify the type of public and SCHSIZE (school size) is the size of the first follow-up school. These variables were developed for internal use only from the latest CCD/PSS and are not included on the HSLS:09 data files.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table H-7. Weighted distribution of imputed first follow-up student variables before and after imputation

		Before imputation		After imputation		
Imputation variable	Variable category	Sample size[1]	Weighted percent	Sample size[2]	Weighted percent	Significant difference[3]
Student's race (X2RACE)	American Indian/Alaska Native, non-Hispanic	142	0.69	142	0.69	
	Asian, non-Hispanic	1,675	3.54	1,675	3.54	
	Black/African-American, non-Hispanic	2,120	13.71	2,121	13.72	
	Hispanic, no race specified	174	1.51	174	1.51	
	Hispanic, race specified	3,095	20.83	3,095	20.83	
	More than one race, non-Hispanic	1,755	7.47	1,755	7.47	
	Native Hawaiian/Pacific Islander, non-Hispanic	97	0.46	97	0.46	
	White, non-Hispanic	11,532	51.79	11,535	51.78	
Student is Hispanic (X2HISPANIC)	Not Hispanic	17,321	77.66	17,325	77.66	
	Hispanic	3,269	22.34	3,269	22.34	
Student's native language (X2NATIVELANG)	English only	17,184	81.94	17,186	81.94	
	Spanish	1,729	13.09	1,729	13.09	
	A non-Spanish European language	209	1.01	210	1.01	
	A Chinese language	245	0.55	245	0.55	
	A Filipino language	123	0.39	123	0.39	
	A southeast Asian language	284	0.63	284	0.63	
	A south Asian language	197	0.38	197	0.38	
	Another Asian language	130	0.21	130	0.21	
	A Middle Eastern language	116	0.44	116	0.44	
	Other non-English language	371	1.35	371	1.35	
	Unknown non-English language	3	0.01	3	0.01	

See notes at end of table

Table H-7. Weighted distribution of imputed first follow-up student variables before and after imputation—Continued

Imputation variable	Variable category	Before imputation		After imputation		
		Sample size[1]	Weighted percent	Sample size[2]	Weighted percent	Significant difference[3]
How far student expects to get in school (X2STUEDEXPCT)	Less than high school completion	115	0.55	115	0.55	yes
	Complete HS diploma/GED/alternative HS credential	1,724	10.40	1,730	10.43	
	Start, but not complete certificate/diploma from school providing occupational training	106	0.67	106	0.67	yes
	Complete certificate/diploma from school providing occupational training	1,037	5.59	1,041	5.60	
	Start, but not complete Associate's degree	166	0.89	166	0.89	yes
	Complete Associate's degree	1,834	9.37	1,835	9.36	yes
	Start, but not complete Bachelor's degree	237	1.26	237	1.26	yes
	Complete Bachelor's degree	5,477	26.00	5,487	25.99	
	Start, but not complete Master's degree	311	1.55	311	1.55	yes
	Complete Master's degree	4,355	19.72	4,362	19.72	
	Start, but not complete Ph.D./M.D./law degree/high level professional degree	169	0.75	169	0.75	yes
	Complete Ph.D./M.D./law degree/other high level professional degree	2,925	12.43	2,927	12.42	
	Don't know	2,106	10.81	2,108	10.81	

[1] Unweighted sample size excludes records with item nonresponse.

[2] Unweighted sample size includes all records with either actual or imputed values.

[3] Rows are flagged where the difference between the before and after estimates is significantly different from zero at the 0.05 significance level.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table H-8. Weighted distribution of imputed first follow-up parent variables from parent survey subsample before and after imputation

Imputation variable	Variable category	Before imputation		After imputation		Significant difference[3]
		Sample size[1]	Weighted percent	Sample size[2]	Weighted percent	
Parent 1 relationship to sample member (X2P1RELATION)	Biological mother	6,180	73.51	6,184	73.54	
	Biological father	1,748	18.71	1,748	18.69	
	Adoptive mother	186	1.87	186	1.86	
	Adoptive father	60	0.53	60	0.53	
	Stepmother	70	0.75	70	0.74	
	Stepfather	69	0.73	69	0.73	
	Foster mother	9	0.11	9	0.11	
	Foster father	6	0.04	6	0.04	
	Female partner of parent or guardian	6	0.07	6	0.07	
	Male partner of parent or guardian	6	0.08	6	0.08	
	Grandmother	138	1.92	138	1.92	
	Grandfather	21	0.22	21	0.22	
	Other female relative	39	0.48	39	0.48	
	Other male relative	18	0.26	18	0.26	
	Other female guardian	47	0.63	47	0.63	
	Other male guardian	14	0.09	14	0.09	

See notes at end of table

Table H-8. Weighted distribution of imputed first follow-up parent variables from parent survey subsample before and after imputation—Continued

Imputation variable	Variable category	Before imputation		After imputation		
		Sample size[1]	Weighted percent	Sample size[2]	Weighted percent	Significant difference[3]
Parent 2 relationship to sample member (X2P2RELATION)	Not Applicable	1,934	26.05	1,934	25.98	yes
	Biological mother	1,309	13.60	1,316	13.65	
	Biological father	3,574	39.82	3,581	39.78	
	Adoptive mother	48	0.35	48	0.35	yes
	Adoptive father	171	1.59	171	1.58	yes
	Stepmother	165	1.95	166	1.97	
	Stepfather	781	9.39	785	9.43	
	Foster mother	5	0.03	5	0.03	
	Foster father	7	0.09	7	0.09	
	Female partner of parent or guardian	41	0.54	41	0.54	yes
	Male partner of parent or guardian	143	1.62	143	1.62	yes
	Grandmother	144	1.62	145	1.62	
	Grandfather	75	1.06	76	1.06	
	Other female relative	52	0.53	52	0.53	yes
	Other male relative	50	0.76	50	0.75	yes
	Other female guardian	34	0.28	36	0.29	
	Other male guardian	65	0.72	65	0.72	yes
Parent 1 highest level of education (X2PAR1EDU)	Less than high school	714	11.11	748	11.37	
	High school diploma or GED	2,859	37.53	2,950	37.70	
	Associate's degree	496	6.03	508	5.96	
	Bachelor's degree	1,227	14.51	1,262	14.56	
	Master's degree	1,964	20.24	2,004	20.06	
	Educational Specialist diploma	823	8.07	832	7.92	yes
	Ph.D./M.D./law/other high level professional degree	315	2.50	317	2.43	yes

See notes at end of table

Table H-8. Weighted distribution of imputed first follow-up parent variables from parent survey subsample before and after imputation—Continued

Imputation variable	Variable category	Before imputation		After imputation		
		Sample size[1]	Weighted percent	Sample size[2]	Weighted percent	Significant difference[3]
Parent 2 highest level of education (X2PAR2EDU)	Not applicable	1,934	26.70	1,934	25.98	yes
	Less than high school	701	9.85	733	10.05	
	High school diploma or GED	2,549	30.96	2,640	31.47	yes
	Associate's degree	313	3.58	322	3.60	
	Bachelor's degree	763	8.80	783	8.77	
	Master's degree	1,347	12.74	1,376	12.81	
	Educational Specialist diploma	504	4.96	511	4.98	
	Ph.D./M.D./law/other high level professional degree	321	2.40	322	2.34	yes
Highest level of education for Parents (X2PAREDU)	Less than high school	525	8.54	543	8.52	
	High school diploma or GED	2,435	33.22	2,542	33.68	yes
	Associate's degree	509	6.17	527	6.16	
	Bachelor's degree	1,240	15.13	1,285	15.16	
	Master's degree	2,045	21.43	2,095	21.24	
	Educational specialist diploma	1,066	11.18	1,082	11.07	
	Ph.D./M.D./law/other high level professional degree	544	4.32	547	4.18	yes
Parent 1 employment status (X2PAR1EMP)	P1 has never worked for pay	149	2.08	151	1.87	yes
	P1 not currently working for pay	1,735	22.59	1,923	22.84	
	P1 currently working PT (<35 hrs/wk)	984	12.58	1,097	12.78	
	P1 currently working FT (>=35 hrs/wk)	4,943	62.75	5,450	62.51	
Parent 2 employment status (X2PAR2EMP)	Not applicable	1,934	28.25	1,934	25.98	yes
	P2 has never worked for pay	133	1.86	134	1.71	yes
	P2 not currently working for pay	951	11.61	1,052	11.97	
	P2 currently working PT (<35 hrs/wk)	434	4.84	481	5.01	
	P2 currently working FT (>=35 hrs/wk)	4,525	53.44	5,020	55.33	yes

See notes at end of table

Table H-8. Weighted distribution of imputed first follow-up parent variables from parent survey subsample before and after imputation—Continued

Imputation variable	Variable category	Before imputation		After imputation		
		Sample size[1]	Weighted percent	Sample size[2]	Weighted percent	Significant difference[3]
Parent 1 current/most recent occupation: 2-digit ONET code (X2PAR1OCC2)	Not applicable	149	1.97	151	1.87	yes
	Management occupations	1,129	12.37	1,175	12.17	
	Business and financial operations occupations	423	4.48	444	4.45	
	Computer and mathematical occupations	154	1.48	158	1.45	
	Architecture and engineering occupations	136	1.35	142	1.35	
	Life, physical, and social science occupations	94	0.92	100	0.89	yes
	Community and social services occupations	216	2.87	226	2.94	
	Legal occupations	94	0.98	95	0.93	yes
	Education, training, and library occupations	773	8.88	800	8.79	
	Arts, design, entertainment, sports, and media occupations	118	1.48	128	1.53	
	Healthcare practitioners and technical occupations	711	7.37	746	7.29	
	Healthcare support occupations	333	4.59	356	4.63	
	Protective service occupations	106	1.44	112	1.41	
	Food preparation and serving related occupations	326	4.38	351	4.51	
	Building and grounds cleaning and maintenance occupations	222	3.69	241	3.71	
	Personal care and service occupations	313	4.41	336	4.47	
	Sales and related occupations	573	7.19	602	7.13	
	Office and administrative support occupations	1,185	14.89	1,251	14.97	
	Farming, fishing, and forestry occupations	48	0.85	54	0.98	
	Construction and extraction occupations	140	2.10	150	2.07	
	Installation, maintenance, and repair occupations	167	2.25	177	2.20	
	Production occupations	491	6.69	532	6.84	
	Transportation and material moving occupations	252	3.07	268	3.12	
	Military specific occupations	23	0.29	26	0.29	

See notes at end of table

Table H-8. Weighted distribution of imputed first follow-up parent variables from parent survey subsample before and after imputation—Continued

Imputation variable	Variable category	Before imputation		After imputation		
		Sample size[1]	Weighted percent	Sample size[2]	Weighted percent	Significant difference[3]
Parent 2 current/most recent occupation: 2-digit ONET code (X2PAR2OCC2)	Not applicable	2,067	29.13	2,068	27.70	yes
	Management occupations	1,060	11.29	1,112	11.25	
	Business and financial operations occupations	254	2.74	267	2.72	
	Computer and mathematical occupations	176	1.84	181	1.78	yes
	Architecture and engineering occupations	222	2.27	237	2.37	
	Life, physical, and social science occupations	70	0.74	74	0.76	
	Community and social services occupations	83	0.81	86	0.80	
	Legal occupations	61	0.54	65	0.55	
	Education, training, and library occupations	279	3.01	290	3.00	
	Arts, design, entertainment, sports, and media occupations	88	1.09	95	1.09	
	Healthcare practitioners and technical occupations	380	3.16	399	3.22	
	Healthcare support occupations	98	1.15	104	1.22	
	Protective service occupations	157	1.90	167	1.98	
	Food preparation and serving related occupations	148	1.78	158	1.90	
	Building and grounds cleaning and maintenance occupations	185	2.94	199	3.07	
	Personal care and service occupations	126	1.39	133	1.41	
	Sales and related occupations	398	4.33	422	4.44	
	Office and administrative support occupations	414	4.76	436	4.82	
	Farming, fishing, and forestry occupations	66	1.05	72	1.07	
	Construction and extraction occupations	451	6.43	497	6.72	yes
	Installation, maintenance, and repair occupations	407	5.25	437	5.37	
	Production occupations	555	6.72	594	6.92	
	Transportation and material moving occupations	435	5.05	471	5.21	
	Military specific occupations	52	0.63	57	0.63	

See notes at end of table

Table H-8. Weighted distribution of imputed first follow-up parent variables from parent survey subsample before and after imputation—Continued

Imputation variable	Variable category	Before imputation		After imputation		
		Sample size[1]	Weighted percent	Sample size[2]	Weighted percent	Significant difference[3]
Total family income from all sources 2011 (X2FAMINCOME)	Family income less than or equal to $15,000	799	12.12	897	12.69	
	Family income > $15,000 and <= $35,000	1,403	20.46	1,538	20.27	
	Family income > $35,000 and <= $55,000	1,295	17.36	1,433	17.38	
	Family income > $55,000 and <= $75,000	1,089	13.99	1,183	13.83	
	Family income > $75,000 and <= $95,000	829	10.25	910	10.24	
	Family income > $95,000 and <= $115,000	703	7.87	766	7.82	
	Family income > $115,000 and <= $135,000	487	5.30	529	5.17	
	Family income > $135,000 and <= $155,000	329	3.56	364	3.57	
	Family income > $155,000 and <=$175,000	180	2.04	203	2.05	
	Family income > $175,000 and <= $195,000	114	1.36	124	1.32	
	Family income > $195,000 and <= $215,000	170	1.71	189	1.75	
	Family income > $215,000 and <= $235,000	73	0.72	76	0.70	
	Family income > $235,000	376	3.26	409	3.21	
Parent 1 and 2 relationship pattern (X2PARPATTERN)	Two bio/adoptive parents	4,652	53.42	4,897	52.90	
	Bio/adoptive mother and non-bio/adoptive partner	896	11.45	968	11.50	
	Bio/adoptive mother and non-partner guardian	214	2.83	218	2.68	yes
	Bio/adoptive father and non-bio/adoptive partner	204	2.53	218	2.51	
	Bio/adoptive father and non-partner guardian	61	0.66	61	0.62	yes
	Two other guardians	146	1.77	165	1.88	
	Bio/adoptive mother only	1,376	19.95	1,496	20.55	
	Bio/adoptive father only	219	2.67	234	2.72	
	Other female guardian only	66	0.99	74	1.01	
	Other male guardian only	8	0.15	10	0.18	
	Student lives with P1/P2 less than half the time	268	3.57	280	3.45	yes

See notes at end of table

Table H-8. Weighted distribution of imputed first follow-up parent variables from parent survey subsample before and after imputation—Continued

Imputation variable	Variable category	Before imputation		After imputation		
		Sample size[1]	Weighted percent	Sample size[2]	Weighted percent	Significant difference[3]
Number of 2012 household members (X2HHNUMBER)	1 Household members	11	0.16	12	0.14	
	2 Household members	587	8.38	691	8.91	
	3 Household members	1,837	23.01	2,036	22.78	
	4 Household members	2,543	32.58	2,815	32.15	
	5 Household members	1,540	20.36	1,711	19.91	yes
	6 Household members	698	8.95	794	8.98	
	7 Household members	273	3.68	319	4.13	yes
	8 Household members	109	1.46	131	1.55	
	9 Household members	51	0.85	61	0.88	
	10 Household members	21	0.26	25	0.25	
	11 Household members	8	0.04	11	0.06	
	12 Household members	3	0.06	3	0.05	
	13 Household members	2	0.05	2	0.04	yes
	14 Household members	1	0.03	1	0.02	
	One input variable top-coded at 9	9	0.14	9	0.12	

See notes at end of table

Table H-8. Weighted distribution of imputed first follow-up parent variables from parent survey subsample before and after imputation—Continued

Imputation variable	Variable category	Before imputation		After imputation		Significant difference[3]
		Sample size[1]	Weighted percent	Sample size[2]	Weighted percent	
How far parent expects sample member to get in school (X2PAREDEXPCT)	Less than high school completion	60	0.88	64	0.94	
	Complete HS diploma/GED/alternative HS credential	527	7.57	582	7.86	
	Start, but not complete certificate/diploma from school providing occupational training	28	0.41	32	0.44	
	Complete certificate/diploma from school providing occupational training	403	5.16	432	5.16	
	Start, but not complete Associate's degree	49	0.83	53	0.79	
	Complete Associate's degree	610	7.97	645	7.83	
	Start, but not complete Bachelor's degree	91	1.30	98	1.30	
	Complete Bachelor's degree	2,476	29.79	2,623	29.74	
	Start, but not complete Master's degree	47	0.81	49	0.77	
	Complete Master's degree	1,608	17.76	1,707	17.46	
	Start, but not complete Ph.D./M.D./law degree/high level professional degree	69	0.72	72	0.75	
	Complete Ph.D./M.D./law degree/other high level professional degree	1,253	14.52	1,335	14.37	
	Don't know	864	12.29	929	12.59	

[1] Unweighted sample size excludes records with item nonresponse.

[2] Unweighted sample size includes all records with either actual or imputed values.

[3] Rows are flagged where the difference between the before and after estimates is significantly different from zero at the 0.05 significance level.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Table H-9. Weighted distribution of imputed first follow-up parent variables for all first follow-up student respondents before and after imputation

		Before imputation		After imputation		
Imputation variable	Variable category	Sample size[1]	Weighted percent	Sample size[2]	Weighted percent	Significant difference[3]
Parent 1 relationship to sample member (X2P1RELATION)	Biological mother	5,958	73.55	14,899	73.70	
	Biological father	1,694	18.84	4,179	18.80	
	Adoptive mother	174	1.75	373	1.57	
	Adoptive father	58	0.51	128	0.57	
	Stepmother	64	0.65	166	0.71	
	Stepfather	68	0.80	176	0.95	
	Foster mother	7	0.10	20	0.09	
	Foster father	3	0.02	7	0.02	
	Female partner of parent or guardian	6	0.08	10	0.05	
	Male partner of parent or guardian	6	0.08	15	0.05	
	Grandmother	127	1.90	314	1.76	
	Grandfather	20	0.25	43	0.25	
	Other female relative	37	0.48	90	0.51	
	Other male relative	14	0.26	37	0.27	
	Other female guardian	44	0.64	112	0.60	
	Other male guardian	12	0.08	25	0.08	

See notes at end of table

Table H-9. Weighted distribution of imputed first follow-up parent variables for all first follow-up student respondents before and after imputation—Continued

Imputation variable	Variable category	Before imputation		After imputation		
		Sample size[1]	Weighted percent	Sample size[2]	Weighted percent	Significant difference[3]
Parent 2 relationship to sample member (X2P2RELATION)	Not Applicable	1,832	25.44	4,556	24.42	
	Biological mother	1,273	13.77	3,198	14.46	
	Biological father	3,475	40.25	8,747	41.02	
	Adoptive mother	46	0.36	98	0.44	
	Adoptive father	160	1.49	354	1.50	
	Stepmother	160	1.97	407	1.86	
	Stepfather	745	9.47	1,948	9.90	
	Foster mother	4	0.03	13	0.04	
	Foster father	5	0.08	14	0.06	
	Female partner of parent or guardian	41	0.61	93	0.55	
	Male partner of parent or guardian	139	1.60	300	1.45	
	Grandmother	137	1.59	281	1.26	yes
	Grandfather	67	1.03	162	0.89	
	Other female relative	48	0.51	102	0.45	
	Other male relative	49	0.76	102	0.67	
	Other female guardian	32	0.27	57	0.20	
	Other male guardian	61	0.77	162	0.79	
Parent 1 highest level of education (X2PAR1EDU)	Less than high school	680	12.01	1,689	11.27	
	High school diploma or GED	2,744	37.11	7,534	39.44	yes
	Associate's degree	477	6.23	916	4.98	yes
	Bachelor's degree	1,180	14.29	3,178	15.62	yes
	Master's degree	1,916	19.99	4,702	19.38	
	Educational Specialist diploma	801	7.96	1,882	7.10	yes
	Ph.D./M.D./law/other high level professional degree	307	2.41	693	2.20	

See notes at end of table

Table H-9. Weighted distribution of imputed first follow-up parent variables for all first follow-up student respondents before and after imputation—Continued

Imputation variable	Variable category	Before imputation		After imputation		
		Sample size[1]	Weighted percent	Sample size[2]	Weighted percent	Significant difference[3]
Parent 2 highest level of education (X2PAR2EDU)	Not applicable	1,832	26.03	4,556	24.42	yes
	Less than high school	671	10.87	1,690	9.92	yes
	High school diploma or GED	2,470	31.08	6,565	33.35	yes
	Associate's degree	301	3.76	611	3.19	yes
	Bachelor's degree	730	8.64	1,985	9.32	yes
	Master's degree	1,318	12.39	3,221	12.64	
	Educational Specialist diploma	492	4.86	1,221	4.82	
	Ph.D./M.D./law/other high level professional degree	316	2.37	745	2.34	
Highest level of education for Parents (X2PAREDU)	Less than high school	496	9.23	1,064	7.26	yes
	High school diploma or GED	2,335	33.01	6,105	33.74	
	Associate's degree	491	6.46	1,179	6.58	
	Bachelor's degree	1,188	14.94	3,306	16.56	yes
	Master's degree	1,993	21.21	5,097	21.56	
	Educational Specialist diploma	1,039	10.91	2,553	10.16	yes
	Ph.D./M.D./law/other high level professional degree	532	4.24	1,290	4.15	
Parent 1 employment status (X2PAR1EMP)	P1 has never worked for pay	147	2.38	435	2.54	
	P1 not currently working for pay	1,669	22.88	4,564	23.32	
	P1 currently working PT (<35 hrs/wk)	952	12.21	2,682	12.69	
	P1 currently working FT (>=35 hrs/wk)	4,799	62.52	12,913	61.45	
Parent 2 employment status (X2PAR2EMP)	Not applicable	1,832	27.57	4,556	24.42	yes
	P2 has never worked for pay	131	2.15	342	1.97	
	P2 not currently working for pay	913	11.88	2,513	12.87	
	P2 currently working PT (<35 hrs/wk)	427	4.92	1,120	4.96	
	P2 currently working FT (>=35 hrs/wk)	4,407	53.48	12,063	55.78	yes

See notes at end of table

Table H-9. Weighted distribution of imputed first follow-up parent variables for all first follow-up student respondents before and after imputation—Continued

Imputation variable	Variable category	Before imputation		After imputation		Significant difference[3]
		Sample size[1]	Weighted percent	Sample size[2]	Weighted percent	
Parent 1 current/most recent occupation: 2-digit ONET code (X2PAR1OCC2)	Not applicable	147	2.26	435	2.54	
	Management occupations	1,098	12.34	2,731	11.71	
	Business and financial operations occupations	410	4.50	1,003	4.48	
	Computer and mathematical occupations	148	1.43	368	1.52	
	Architecture and engineering occupations	133	1.35	289	1.33	
	Life, physical, and social science occupations	93	0.91	219	0.83	
	Community and social services occupations	214	2.74	548	2.73	
	Legal occupations	92	0.90	230	0.85	
	Education, training, and library occupations	756	8.64	1,948	8.84	
	Arts, design, entertainment, sports, and media occupations	115	1.32	342	1.39	
	Healthcare practitioners and technical occupations	683	7.16	1,697	7.15	
	Healthcare support occupations	316	4.46	855	4.75	
	Protective service occupations	102	1.50	285	1.39	
	Food preparation and serving related occupations	315	4.48	824	4.27	
	Building and grounds cleaning and maintenance occupations	211	3.89	619	3.52	
	Personal care and service occupations	299	4.25	805	4.28	
	Sales and related occupations	555	7.36	1,458	6.96	
	Office and administrative support occupations	1,131	14.61	2,924	14.71	
	Farming, fishing, and forestry occupations	47	0.97	173	1.12	
	Construction and extraction occupations	134	2.14	406	2.19	
	Installation, maintenance, and repair occupations	160	2.31	405	2.08	
	Production occupations	475	6.89	1,308	7.34	
	Transportation and material moving occupations	243	3.29	660	3.72	
	Military specific occupations	22	0.27	62	0.29	

See notes at end of table

Table H-9. Weighted distribution of imputed first follow-up parent variables for all first follow-up student respondents before and after imputation—Continued

Imputation variable	Variable category	Before imputation		After imputation		
		Sample size[1]	Weighted percent	Sample size[2]	Weighted percent	Significant difference[3]
Parent 2 current/most recent occupation: 2-digit ONET code (X2PAR2OCC2)	Not applicable	1,963	28.78	4,898	26.38	yes
	Management occupations	1,029	11.15	2,684	11.44	
	Business and financial operations occupations	245	2.64	643	2.68	
	Computer and mathematical occupations	171	1.74	407	1.77	
	Architecture and engineering occupations	219	2.33	557	2.56	
	Life, physical, and social science occupations	69	0.72	209	0.88	
	Community and social services occupations	82	0.87	214	0.92	
	Legal occupations	60	0.56	153	0.54	
	Education, training, and library occupations	273	2.87	701	3.16	
	Arts, design, entertainment, sports, and media occupations	87	0.94	228	1.03	
	Healthcare practitioners and technical occupations	369	3.07	846	3.34	
	Healthcare support occupations	96	1.11	253	1.15	
	Protective service occupations	144	1.77	408	2.20	yes
	Food preparation and serving related occupations	142	1.78	377	1.91	
	Building and grounds cleaning and maintenance occupations	172	3.19	481	2.88	
	Personal care and service occupations	122	1.46	301	1.35	
	Sales and related occupations	385	4.38	970	4.35	
	Office and administrative support occupations	405	4.81	1,006	4.73	
	Farming, fishing, and forestry occupations	65	1.10	222	1.24	
	Construction and extraction occupations	436	6.69	1,286	7.02	
	Installation, maintenance, and repair occupations	396	5.45	1,073	5.50	
	Production occupations	543	7.03	1,483	7.25	
	Transportation and material moving occupations	420	5.02	1,067	5.21	
	Military specific occupations	49	0.55	127	0.50	

See notes at end of table

Table H-9. Weighted distribution of imputed first follow-up parent variables for all first follow-up student respondents before and after imputation—Continued

Imputation variable	Variable category	Before imputation		After imputation		Significant difference[3]
		Sample size[1]	Weighted percent	Sample size[2]	Weighted percent	
Total family income from all sources 2011 (X2FAMINCOME)	Family income less than or equal to $15,000	754	12.34	2,043	12.32	
	Family income > $15,000 and <= $35,000	1,335	20.58	3,557	20.29	
	Family income > $35,000 and <= $55,000	1,256	17.30	3,540	17.73	
	Family income > $55,000 and <= $75,000	1,064	14.29	2,940	14.08	
	Family income > $75,000 and <= $95,000	810	9.94	2,293	10.32	
	Family income > $95,000 and <= $115,000	678	7.84	1,766	7.95	
	Family income > $115,000 and <= $135,000	477	5.22	1,286	5.32	
	Family income > $135,000 and <= $155,000	313	3.51	866	3.55	
	Family income > $155,000 and <=$175,000	178	1.99	463	1.85	
	Family income > $175,000 and <= $195,000	111	1.36	328	1.36	
	Family income > $195,000 and <= $215,000	167	1.71	433	1.73	
	Family income > $215,000 and <= $235,000	73	0.71	171	0.67	
	Family income > $235,000	364	3.20	908	2.84	
Parent 1 and 2 relationship pattern (X1PARPATTERN)	Two bio/adoptive parents	4,534	53.92	11,680	54.17	
	Bio/adoptive mother and non-bio/adoptive partner	866	11.62	2,327	11.82	
	Bio/adoptive mother and non-partner guardian	204	2.80	497	2.71	
	Bio/adoptive father and non-bio/adoptive partner	198	2.56	548	2.53	
	Bio/adoptive father and non-partner guardian	59	0.68	134	0.60	
	Two other guardians	133	1.64	365	1.76	
	Bio/adoptive mother only	1,316	19.64	3,614	19.27	
	Bio/adoptive father only	209	2.58	593	2.66	
	Other female guardian only	62	0.96	178	0.97	
	Other male guardian only	8	0.18	35	0.32	
	Student lives with P1/P2 less than half the time	240	3.43	623	3.19	

See notes at end of table

Table H-9. Weighted distribution of imputed first follow-up parent variables for all first follow-up student respondents before and after imputation—Continued

Imputation variable	Variable category	Before imputation		After imputation		
		Sample size[1]	Weighted percent	Sample size[2]	Weighted percent	Significant difference[3]
Number of 2012 household members (X2HHNUMBER)	1 Household members	10	0.17	12	0.07	yes
	2 Household members	555	8.24	1,587	7.90	
	3 Household members	1,764	22.66	5,205	24.93	yes
	4 Household members	2,466	32.25	6,315	30.21	yes
	5 Household members	1,494	20.63	4,062	19.64	
	6 Household members	674	9.16	1,982	9.85	
	7 Household members	264	3.81	830	4.47	yes
	8 Household members	107	1.56	333	1.60	
	9 Household members	51	0.90	152	0.80	
	10 Household members	21	0.26	63	0.27	
	11 Household members	8	0.05	21	0.08	
	12 Household members	3	0.11	8	0.05	
	13 Household members	2	0.04	3	0.01	yes
	14 Household members	1	0.03	2	0.01	
	One input variable top-coded at 9	7	0.14	19	0.10	

See notes at end of table

Table H-9. Weighted distribution of imputed first follow-up parent variables for all first follow-up student respondents before and after imputation—Continued

Imputation variable	Variable category	Before imputation		After imputation		
		Sample size[1]	Weighted percent	Sample size[2]	Weighted percent	Significant difference[3]
How far parent expects sample member to get in school (X2PAREDEXPCT)	Less than high school completion	51	0.81	159	1.11	yes
	Complete HS diploma/GED/alternative HS credential	489	7.81	1,349	8.04	
	Start, but not complete certificate/diploma from school providing occupational training	26	0.39	67	0.41	
	Complete certificate/diploma from school providing occupational training	388	5.11	1,058	5.43	
	Start, but not complete Associate's degree	45	0.85	156	0.88	
	Complete Associate's degree	584	7.86	1,536	8.06	
	Start, but not complete Bachelor's degree	86	1.35	240	1.37	
	Complete Bachelor's degree	2,408	29.90	6,246	29.28	
	Start, but not complete Master's degree	43	0.78	136	0.66	
	Complete Master's degree	1,573	17.47	3,927	17.32	
	Start, but not complete Ph.D./M.D./law degree/high level professional degree	68	0.70	169	0.67	
	Complete Ph.D./M.D./law degree/other high level professional degree	1,224	14.40	3,269	14.47	
	Don't know	825	12.57	2,282	12.29	

[1] Unweighted sample size excludes records with item nonresponse.

[2] Unweighted sample size includes all records with either actual or imputed values.

[3] Rows are flagged where the difference between the before and after estimates is significantly different from zero at the 0.05 significance level.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

H.2 Multiple Imputation

Single-value imputation (section H.1) was reserved for important *categorical* variables used in standard analyses. By contrast, three continuous variables were identified for a model-based methodology referred to as multiple imputation (MI): (1) the student ability estimate in mathematics (*theta*), (2) the standard error of measurement (*sem*) for *theta*, and (3) socioeconomic status (SES).

H.2.1 Mathematics Ability Estimates (*theta* and *sem*)

Among the 20,594 students who responded to the questionnaire, 89.9 percent (unweighted) or 18,507 students answered a sufficient number of assessment items to calculate both *theta* and *sem*. The scoring algorithm used to generate *theta* and *sem* is discussed in section 2.3. A set of five imputed values for each variable was generated from a single model for the remaining 2,087 students using SAS® PROC MI. Both *theta* and *sem* were imputed simultaneously within one model to ensure consistency of their values. Highlights of the MI methodology for these variables are provided in section 7.4.1. Table H-10 contains the covariates retained for the *theta*/*sem* MI model. Only covariates associated either with *theta* and *sem* calculated from the 18,507 student records or with the pattern of item nonresponse exhibited in the data were retained for the final MI model, in keeping with the methodology used for the HSLS:09 base year.

The five imputed values for *theta* and *sem* are contained in the HSLS:09 first follow-up variables X2TXMTH1–X2TXMTH5 and X2TXMSEM1–X2TXMSEM5, respectively. The average of the five values (X2TXMTH and X2TXMSEM) is used along with the analysis weights to estimate the population values with appropriate software. Note that records with calculated scores that did not require imputation will have this value replicated within the five variables. The imputation flag X2TXMATH_IM distinguishes the imputed from the non-imputed values.

Table H-10. Covariates include in the *theta* and *sem* multiple imputation model

Characteristic group	Model covariates
Student	Sex (X1SEX)
	Race/ethnicity (X1RACE)
	Language minority status (X1NATIVELANG)
	Postsecondary educational aspirations, base year (X1STUEDEXPCT)
	Postsecondary educational aspirations, first follow-up (X2STUEDEXPCT)
	Student absent from school 4 or more weeks (S2DROPOUTHS)
	Student enrolled at base-year school during first follow-up (S2ENROLLBYHS)
	Spring 2012 high school enrollment status (S2ENROLLHS12)
	Socioeconomic status quintile, base year (X1SESQ5)
	Mathematics ability estimate, base year (X1TXMTH)
	Standard error of measurement for mathematics ability estimate, base year (X1TXSEM)
Parent/guardian (base year)	Highest parent education (X1PAREDU)
	Parent 1 employment status (X1PAR1EMP)
	Parent 2 employment status (X1PAR2EMP)
	Parent 1 occupational prestige score (X1PAR1OCC2)
	Parent 2 occupational prestige score (X1PAR1OCC2)
	Categorized family income (X1FAMINCOME)
	Postsecondary educational aspirations (P1EDUASPIRE)
	Postsecondary educational expectations (P1EDUEXPECT)
	Number in household (X1HHNUMBER)
Parent/guardian (first follow-up)	Highest parent education (X2PAREDU)
	Parent 1 employment status (X2PAR1EMP)
	Parent 2 employment status (X2PAR2EMP)
	Parent 1 occupational prestige score (X2PAR1OCC2)
	Parent 2 occupational prestige score (X2PAR1OCC2)
	Categorized family income (X2FAMINCOME)
	Postsecondary educational aspirations (P2EDUASPIRE)
	Postsecondary educational expectations (P2EDUEXPECT)
	Number in household (X2HHNUMBER)
	Student absent from school 4 or more weeks (P2DROPOUTHS)
School (sampling)	School type (X2CONTROL)
	Division (X1CENDIV)
	Locale (X1LOCALE)
	Augmented-sample state (AUGSMPST)

Note: *theta* = mathematics ability estimate; *sem* = standard error of measurement of *theta*.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

H.2.2 Socioeconomic Status (SES)

Two definitions of SES were used for the HSLS:09 first follow-up to maintain consistency with the base year. One index (X2SES) was calculated with a formula that is equal to the definition used in other NCES studies. The second index (X2SES_U), a slight variant, accounts for differences in the target population by the locale of the base-year school (X1LOCALE). Details of the formulae and the MI methodology are given in section 7.4.2. In the discussions below, the term "SES" refers to both definitions.

Among the 20,919 responding students or responding parents, 10,079 students were included in the parent survey subsample. SES was calculated for 83.2 percent (unweighted) or 8,383 parents using information provided in the parent questionnaire. This number included 7,490 records where SES was calculated from respondent data and 893 records with SES computed from responses plus one to three (single-value) imputed variables (see table 68 in section 7.4.2).

As with *theta* and *sem*, a set of five imputed values was generated from a PROC MI model for 12,536 students. This number included 1,696 students in the parent survey subsample (238 students with insufficient parent responses plus 1,458 students with a nonresponding parent or 8.1 percent unweighted) and 10,840 students (51.8 percent unweighted) not selected for the parent survey subsample (see table 68 in section 7.4.2). The SES MI model was similar to the model used for *theta* and *sem* with the addition of the base-year SES value (X1SES); the complete list of model covariates is shown in table H-11.

The five imputed values for X2SES and X2SES_U are contained in the HSLS:09 first follow-up variables X2SES1– X2SES5 and X2SES1_U – X2SES5_U, respectively. Along with the imputed values, the average of the five values (X2SES and X2SES_U) and the analysis weight is used to estimate the population values with appropriate software. Note that records with calculated scores not requiring MI have this value replicated within the two sets of five variables. The imputation flag (X2SES_IM) indicates if: (1) no imputed values were used to generate SES (X2SES_IM=0); (2) SES was calculated with at least one (single-value) imputed variable (X2SES_IM=2); and (3) SES was multiply imputed (X2SES_IM=3).

Table H-11. Covariates included in the socioeconomic status (SES) multiple imputation model

Characteristic group	Model covariates
Student	Sex (X2SEX)
	Race/ethnicity (X2RACE)
	Hispanic ethnicity indicator (X2HISPANIC)
	Socioeconomic status, HSLS:09 base year (X1SES)
	Socioeconomic status quintile, HSLS:09 base year (X1SESQ5)
	School-motivation scale (X2BEHAVEIN)
	First follow-up questionnaire-incapable status (X2QI)
Parent/guardian, first follow-up	Parent 1 education (X2PAR1EDU)
	Parent 2 education (X2PAR2EDU)
	Parent 1 occupational prestige score (X2PAR1OCC2)
	Parent 2 occupational prestige score (X2PAR2OCC2)
	Mom/female guardian's education (X2MOMEDU)
	Mom/female guardian's occupational prestige score (X2MOMOCC2)
	Dad/male guardian's education (X2DADEDU)
	Dad/male guardian's occupational prestige score (X2MOMOCC2)
	Categorized family income (X2FAMINCOME)
	Number in household (X2HHNUMBER)
	Student absent from school 4 or more weeks (P2DROPOUTHS)
	Poverty indicator (X2POVERTY)
Parent/guardian, base year	Parent 1 education (X1PAR1EDU)
	Parent 2 education (X1PAR2EDU)
	Parent 1 occupational prestige score (X1PAR1OCC2)
	Parent 2 occupational prestige score (X1PAR2OCC2)
	Categorized family income (X1FAMINCOME)
School	School type (X2CONTROL)
	Region (X2REGION)
	Division (X2CENDIV)
	Locale (X2LOCALE)
	State (X2STATE)
	School's percent of students with free lunch (X2FREELUNCH)

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. High School Longitudinal Study of 2009 (HSLS:09) First Follow-up.

Appendix I.
Hard Copy Codebooks: Student and School

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See attached student and school codebook PDFs.

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Appendix J. Comparison of Public- and Restricted-use Files

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Table J-1. Comparison of Public- and Restricted-use Files

Field name	Field label	Treatment
X2UNIV2A	X2 Base year status and how sample member entered F1 sample	"Base year questionnaire incapable" and "Base year nonrespondent" recoded as "Base year nonparticipant" on the public use file.
X2UNIV2B	X2 Sample member F1 status	"Questionnaire incapable" and "Nonrespondent" recoded as "Nonparticipant" on the public use file.
X2ENROLSTAT	X2 Student enrollment status	"Deceased" recoded as "Out of scope" on the public use file.
X2ENRSTATSCH	X2 School provided student enrollment status	"Deceased" recoded as "Out of scope" and "Early graduate" recoded as "Not in base year school/reason unknown" on the public use file.
X2ASIAN	X2 Student is Asian-composite	Variable suppressed with -5 values on the public use file.
X2PACISLE	X2 Student is Native Hawaiian/ Pacific Islander-composite	Variable suppressed with -5 values on the public use file.
X2AMINDIAN	X2 Student is American Indian/ Alaska Native-composite	Variable suppressed with -5 values on the public use file.
X2HISPTYPE	X2 Student's Hispanic/Latino/Latina subgroup-composite	Variable suppressed with -5 values on the public use file.
X2ASIANTYPE	X2 Student's Asian subgroup-composite	Variable suppressed with -5 values on the public use file.
X2NATIVELANG	X2 Student's native language	Variable suppressed with -5 values on the public use file.
X2STDOB	X2 Student's date of birth (YYYYMM)	Dates recoded on the public use file as follows: 1992 or earlier are recoded as 1992MM and 1996 or later are recoded as 1996MM. For dates where the year is bottom or top coded, the month value is left intact.
X2PARRESP	X2 Whether parent questionnaire respondent is Parent 1	Variable suppressed with -5 values on the public use file.
X2P1RELATION	X2 Parent 1: relationship to sample member	Non-partner guardian relationships recoded as other guardian on the public use file. ("Other guardian" includes foster parent, partner, grandparent, and other relative, as well as other guardian.)
X2PAR1OCC6	X2 Parent 1: current/most recent occupation: 6-digit ONET code	Variable suppressed with -5 values on the public use file.
X2PAR1RACE	X2 Parent 1: race/ethnicity	"Amer. Indian/Alaska Native, non-Hispanic" and "Native Hawaiian/ Pacific Islander, non-Hispanic" recoded as "Other, non-Hispanic" on the public use file.
X2P2RELATION	X2 Parent 2: spouse's relationship to sample member	Non-partner guardian relationships recoded as other guardian on the public use file. ("Other guardian" includes foster parent, partner, grandparent, and other relative, as well as other guardian.)
X2PAR2OCC6	X2 Parent 2: current/most recent occupation: 6-digit ONET code	Variable suppressed with -5 values on the public use file.
X2PAR2RACE	X2 Parent 2: race/ethnicity	"Amer. Indian/Alaska Native, non-Hispanic" and "Native Hawaiian/ Pacific Islander, non-Hispanic" recoded as "Other, non-Hispanic" on the public use file.

Table J-1. Comparison of Public- and Restricted-use Files—Continued

FieldName	FieldLabel	Treatment
X2MOMOCC6	X2 Mother/female guardian's current/most recent occupation: 6-digit ONET code	Variable suppressed with -5 values on the public use file.
X2MOMRACE	X2 Mother's race/ethnicity	"Amer. Indian/Alaska Native, non-Hispanic" and "Native Hawaiian/ Pacific Islander, non-Hispanic" recoded as "Other, non-Hispanic" on the public use file.
X2DADOCC6	X2 Father/male guardian's current/ most recent occupation: 6-digit ONET code	Variable suppressed with -5 values on the public use file.
X2DADRACE	X2 Father's race/ethnicity	"Amer. Indian/Alaska Native, non-Hispanic" and "Native Hawaiian/ Pacific Islander, non-Hispanic" recoded as "Other, non-Hispanic" on the public use file.
X2HHNUMBER	X2 Number of 2009 household members	Households with more than 11 members recoded as "11+ Household members" and 1 member as "2 or less" on the public use file.
X2STU30OCC6	X2 Student occupation at age 30: 6-digit ONET code	Variable suppressed with -5 values on the public use file.
X2STU30OCC2	X2 Student occupation at age 30: 2-digit ONET code	Occupations with low counts set to uncodeable on the public use file.
X2S2EARNNOHS	X2 S2 Earnings without HS diploma standardized by year	Sparse values recoded to similar values on the public use file.
X2S2EARNHS	X2 S2 Earnings with HS diploma standardized by year	Sparse values recoded to similar values on the public use file.
X2S2EARNOCC	X2 S2 Earnings with occupational training diploma standardized by year	Sparse values recoded to similar values on the public use file.
X2S2EARN2YPUB	X2 S2 Earnings with two year college degree standardized by year	Sparse values recoded to similar values on the public use file.
X2S2EARN4Y	X2 S2 Earnings with four year college degree standardized by year	Sparse values recoded to similar values on the public use file.
X2PEARNNOHS	X2 Parent questionnaire earnings without HS diploma standardized by year	Sparse values recoded to similar values on the public use file.
X2PEARNHS	X2 Parent questionnaire earnings with HS diploma standardized by year	Sparse values recoded to similar values on the public use file.
X2PEARNOCC	X2 Parent questionnaire earnings with occupational training diploma standardized by year	Sparse values recoded to similar values on the public use file.
X2PEARN2YPUB	X2 Parent questionnaire earnings with two year college degree standardized by year	Sparse values recoded to similar values on the public use file.
X2PEARN4Y	X2 Parent questionnaire earnings with four year college degree standardized by year	Sparse values recoded to similar values on the public use file.

Table J-1. Comparison of Public- and Restricted-use Files—Continued

FieldName	FieldLabel	Treatment
X2TESTSTAT	X2 Student mathematics assessment status	Questionnaire Incapable students have been recoded as nonrespondents on the public use file.
X2SQSTAT	X2 Student questionnaire status	Questionnaire Incapable students have been recoded as nonrespondents on the public use file.
X2SQINCAPABL	X2 Student questionnaire incapable	Variable suppressed with -5 values on the public use file.
X2PQDATE	X2 Parent questionnaire date (YYYYMM)	Dates recoded on the public use file as follows: 201211 as 201210.
X2CONTROL	X2 School control	"Catholic" and "Other private" recoded as one category "Catholic or other private" on the public use file.
X2CENDIV	X2 School census geographic division	Variable suppressed with -5 values on the public use file.
X2STATE	X2 State code for school	Variable suppressed with -5 values on the public use file.
X2FREELUNCH	X2 Grade 11 percent free lunch-categorical	Variable suppressed with -5 values on the public use file.
X2AQSTAT	X2 administrator questionnaire status	Variable suppressed with -5 values on the public use file.
X2AQDESIGNEE	X2 administrator questionnaire designee respondent (designee resp v. no designee)	Variable suppressed with -5 values on the public use file.
X2CQSTAT	X2 counselor questionnaire status	Variable suppressed with -5 values on the public use file.
S2HSID	S2 A03D NCESID of spring 2012 high school	Variable suppressed with -5 values on the public use file.
S2CURCONTROL	S2 Currently enrolled transfer school control	Variable suppressed with -5 values on the public use file.
S2CURLOCALE	S2 Currently enrolled transfer school locale (urbanicity)	Variable suppressed with -5 values on the public use file.
S2CURREGION	S2 Currently enrolled transfer school geographic region	Variable suppressed with -5 values on the public use file.
S2CURCENDIV	S2 Currently enrolled transfer school census geographic division	Variable suppressed with -5 values on the public use file.
S2CURSTATE	S2 Currently enrolled transfer school state code	Variable suppressed with -5 values on the public use file.
S2HSCREDMO	S2 A06A Month teenager received diploma/GED/alternative credential	Variable suppressed with -5 values on the public use file.
S2HSCREDYR	S2 A06B Year teenager received diploma/GED/alternative credential	2009 and 2010 recoded as "2011 and before" on the public use file.
S2LASTHSMO	S2 A07A Month teenager last attended high school	Months recoded into Jan-Mar, Apr-Jun, Jul-Sep, and Oct-Dec categories on the public use file.
S2LASTHSYR	S2 A07B Year teenager last attended high school	2009 recoded as "2010 and before" on the public use file.
S2LASTATTEND	S2 A08 Teenager stopped attending high school four or more weeks ago	Variable suppressed with -5 values on the public use file.

Table J-1. Comparison of Public- and Restricted-use Files—Continued

FieldName	FieldLabel	Treatment
S2LASTHS	S2 A09 Teenager last attended BY school, another school, or homeschool	"Homeschooled" recoded as "Another high school or homeschooled" on the public use file.
S2LASTHSID	S2 A10D NCESID of last school teenager attended (other than BY school)	Variable suppressed with -5 values on the public use file.
S2LASTCONTROL	S2 Last transfer school control	Variable suppressed with -5 values on the public use file.
S2LASTLOCALE	S2 Last transfer school locale (urbanicity)	Variable suppressed with -5 values on the public use file.
S2LASTREGION	S2 Last transfer school geographic region	Variable suppressed with -5 values on the public use file.
S2LASTCENDIV	S2 Last transfer school census geographic division	Variable suppressed with -5 values on the public use file.
S2LASTSTATE	S2 Last transfer school state code	Variable suppressed with -5 values on the public use file.
S2OTHHSID1	S2 A12DA NCESID of first other high school attended	Variable suppressed with -5 values on the public use file.
S2OTH1CONTROL	S2 First other transfer school control	Variable suppressed with -5 values on the public use file.
S2OTH1LOCALE	S2 First other transfer school locale (urbanicity)	Variable suppressed with -5 values on the public use file.
S2OTH1REGION	S2 First other transfer school geographic region	Variable suppressed with -5 values on the public use file.
S2OTH1CENDIV	S2 First other transfer school census geographic division	Variable suppressed with -5 values on the public use file.
S2OTH1STATE	S2 First other transfer school state code	Variable suppressed with -5 values on the public use file.
S2OTHHSID2	S2 A12DB NCESID of second other high school attended	Variable suppressed with -5 values on the public use file.
S2OTH2CONTROL	S2 Second other transfer school control	Variable suppressed with -5 values on the public use file.
S2OTH2LOCALE	S2 Second other transfer school locale (urbanicity)	Variable suppressed with -5 values on the public use file.
S2OTH2REGION	S2 Second other transfer school geographic region	Variable suppressed with -5 values on the public use file.
S2OTH2CENDIV	S2 Second other transfer school census geographic division	Variable suppressed with -5 values on the public use file.
S2OTH2STATE	S2 Second other transfer school state code	Variable suppressed with -5 values on the public use file.
S2GRD1011	S2 A13 Grade level in 2010-2011 school year	"Ungraded program" and "Not attending during 2010-2011 school year" recoded as missing on the public use file.
S2GRD1112	S2 A14 Grade level in spring 2012 or last 2011-2012 attendance	"Ungraded program" and "Not attending during 2011-2011 school year" recoded as missing on the public use file.
S2DISCIPLINE	S2 A18B Times transferred for discipline in last 6 months of school	"More than once" recoded as "Once or more" on the public use file.
S2EXPELLED	S2 A18C Times expelled in last 6 months of school	"More than once" recoded as "Once or more" on the public use file.

Table J-1. Comparison of Public- and Restricted-use Files—Continued

FieldName	FieldLabel	Treatment
S2ARRESTED	S2 A18D Times arrested in last 6 months of school	"More than once" recoded as "Once or more" on the public use file.
S2JUVHOME	S2 A18E Times in juvenile detention in last 6 months of school	"More than once" recoded as "Once or more" on the public use file.
S2ENROCCTRN	S2 A23A Took course at school providing occupational training	Variable suppressed with -5 values on the public use file.
S2ENR2YPUB	S2 A23B Took course at 2-year community college	Variable suppressed with -5 values on the public use file.
S2ENR4Y	S2 A23C Took course at 4-year college	Variable suppressed with -5 values on the public use file.
S2HISPANIC	S2 B02 Teenager is Hispanic/ Latino/Latina	Variable suppressed with -5 values on the public use file.
S2HISPOR	S2 B03 Teenager's Hispanic/ Latino/Latina origin	Variable suppressed with -5 values on the public use file.
S2WHITE	S2 B04A Teenager is White	Variable suppressed with -5 values on the public use file.
S2BLACK	S2 B04B Teenager is Black/African American	Variable suppressed with -5 values on the public use file.
S2ASIAN	S2 B04C Teenager is Asian	Variable suppressed with -5 values on the public use file.
S2PACISLE	S2 B04D Teenager is Native Hawaiian/Pacific Islander	Variable suppressed with -5 values on the public use file.
S2AMINDIAN	S2 B04E Teenager is American Indian or Alaska Native	Variable suppressed with -5 values on the public use file.
S2ASIANOR	S2 B05 Teenager's Asian origin	Variable suppressed with -5 values on the public use file.
S2BIRTHYR	S2 B06C Teenager's year of birth	Years earlier than 1992 recoded to 1992 or earlier and years later than 1996 recoded to 1996 or later on the public use file.
S2LANG1STOS	S2 B08 Non-English language teenager first learned to speak as a child	Variable suppressed with -5 values on the public use file.
S2LANGMOM	S2 B09 How often teenager speaks first language with mother/ female guardian	"No mother/female guardian in household" recoded as "Missing" on the public use file.
S2PARREL1	S2 B11 Teenager's relationship to 1st parent in parent question series	Variable suppressed with -5 values on the public use file.
S2JOBDV1	S2 B16B Teenager's 1st parent's job duties - verbatim	Variable suppressed with -5 values on the public use file.
S2JOBTV1	S2 B16A Teenager's 1st parent's job title - verbatim	Variable suppressed with -5 values on the public use file.
S2JOB2ONET1	S2 B16C Teenager's 1st parent's job: 2-digit ONET code	Variable suppressed with -5 values on the public use file.
S2JOB6ONET1	S2 B16D Teenager's 1st parent's job: 6-digit ONET code	Variable suppressed with -5 values on the public use file.
S2PARREL2	S2 B18 Teenager's relationship to 2nd parent in parent question series	Variable suppressed with -5 values on the public use file.

Table J-1. Comparison of Public- and Restricted-use Files—Continued

FieldName	FieldLabel	Treatment
S2STARTDEG2	S2 B20 Teenager's 2nd parent has started but not completed more advanced degree	"Ph.D./M.D./law degree/other high level professional degree" recoded as "Master's degree or Ph.D./M.D./law degree/other high level professional degree" on the public use file.
S2JOBDV2	S2 B23B Teenager's 2nd parent's job duties - verbatim	Variable suppressed with -5 values on the public use file.
S2JOBTV2	S2 B23A Teenager's 2nd parent's job title - verbatim	Variable suppressed with -5 values on the public use file.
S2JOB2ONET2	S2 B23C Teenager's 2nd parent's job: 2-digit ONET code	Variable suppressed with -5 values on the public use file.
S2JOB6ONET2	S2 B23D Teenager's 2nd parent's job: 6-digit ONET code	Variable suppressed with -5 values on the public use file.
S2LIKELYCLGID	S2 C22 IPEDS ID of teen's most likely college/school to attend in 2013	Variable suppressed with -5 values on the public use file.
S2CHOICECLGID	S2 C25 IPEDS ID of teen's first choice college/school not considering cost	Variable suppressed with -5 values on the public use file.
S2COST2YPUB	S2 C27 Cost of tuition/mandatory fees at public in-state 2-year college	Sparse values recoded to similar values on the public use file.
S2COST4YPUB	S2 C28 Cost of tuition/mandatory fees at public in-state 4-year college	Sparse values recoded to similar values on the public use file.
S2COST4YPRV	S2 C29 Cost of tuition/mandatory fees at typical private 4-year college	Sparse values recoded to similar values on the public use file.
S2EARNNOHS	S2 C40AA Expected earnings if left HS without a diploma	Variable suppressed with -5 values on the public use file.
S2EARNNOHSUN	S2 C40AB Unit for expected earnings if left HS without a diploma	Variable suppressed with -5 values on the public use file.
S2EARNHS	S2 C40BA Expected earnings if completed a HS diploma	Variable suppressed with -5 values on the public use file.
S2EARNHSUN	S2 C40BB Unit for expected earnings if completed a HS diploma	Variable suppressed with -5 values on the public use file.
S2EARNOCC	S2 C40CA Expected earnings if completed certificate from school for occ training	Variable suppressed with -5 values on the public use file.
S2EARNOCCUN	S2 C40CB Unit for expected earnings-certificate from school for occ training	Variable suppressed with -5 values on the public use file.
S2EARN2YPUB	S2 C40DA Expected earnings if completed 2-year community college degree	Variable suppressed with -5 values on the public use file.

Table J-1. Comparison of Public- and Restricted-use Files—Continued

FieldName	FieldLabel	Treatment
S2EARN2YPUBUN	S2 C40DB Unit for expected earnings if completed 2-year community college degree	Variable suppressed with -5 values on the public use file.
S2EARN4Y	S2 C40EA Expected earnings if completed 4-year college degree	Variable suppressed with -5 values on the public use file.
S2EARN4YUN	S2 C40EB Unit for expected earnings if completed 4-year college degree	Variable suppressed with -5 values on the public use file.
S2OCC30	S2 C41 Occupation teenager expects to have at age 30	Variable suppressed with -5 values on the public use file.
S2OCC30EARN	S2 C44 Expected earnings for choice of occupation at age 30	Sparse values recoded to similar values on the public use file.
S2ALG1WHEN	S2 D02 Grade teenager was in when he/she took algebra I	"12th grade" recoded as "11th or 12th grade" on the public use file.
S2IBMATHSTD12	S2 D15P Taking IB mathematics standard level spring 2012	Variable suppressed with -5 values on the public use file.
S2IBMATHHI12	S2 D15Q Taking IB mathematics higher level spring 2012	Variable suppressed with -5 values on the public use file.
S2OTHM12	S2 D15S Taking other math course spring 2012	"Liberal Arts Math" and "Math Topics" recoded as "Other Math" on the public use file.
S2OTHM12SP	S2 D15T Specific other math course spring 2012	Variable suppressed with -5 values on the public use file.
S2HIMATH12	S2 D16 Most challenging math course spring 2012	"IB mathematics higher level" recoded as "IB mathematics standard or higher level" on the public use file.
S2IBENVS12	S2 D22N Taking IB Environmental Systems and Societies spring 2012	Variable suppressed with -5 values on the public use file.
S2TECHS12	S2 D22U Taking principles of technology spring 2012	Variable suppressed with -5 values on the public use file.
S2IBTECH12	S2 D22CC Taking IB Design Technology spring 2012	Variable suppressed with -5 values on the public use file.
S2OTHS12	S2 D22FF Taking other science, computer science, or engineering course spring 2012	Variable suppressed with -5 values on the public use file.
S2OTHS12SP	S2 D22GG Specific other science course spring 2012	Variable suppressed with -5 values on the public use file.
S2HISCIENCE12	S2 D23 Most challenging science course spring 2012	"IB Environmental Systems and Societies" and "Principles of Technology" recoded as "Other science/technology/ engineering/computer science course" on the public use file.
S2HSJOBHR	S2 F09 Hours per week working spring 2012/most recent school year job	Sparse values recoded to similar values on the public use file.
S21STJOBMO	S2 F12A Month dropout/early grad started working 1st job since leaving HS	Months recoded into Jan-Mar, Apr-Jun, Jul-Sep, and Oct-Dec categories on the public use file.

Table J-1. Comparison of Public- and Restricted-use Files—Continued

FieldName	FieldLabel	Treatment
S21STJOBYR	S2 F12B Year dropout/early grad started working 1st job since leaving HS	"2008" recoded as "2009 or earlier" on the public use file.
S2JOBMO	S2 F15A Month dropout/early grad started current/most recent job	Variable suppressed with -5 values on the public use file.
S2JOBYR	S2 F15B Year dropout/early grad started current/most recent job	"2008", "2009", "2010" recoded as "2011 or earlier" on the public use file.
S2JOBHR	S2 F16 Hours per week dropout/ early grad worked on current/ most recent job	Sparse values recoded to similar values on the public use file.
S2JOBEARN	S2 F17A Dropout/early grad's current/most recent earnings since leaving HS	Variable suppressed with -5 values on the public use file.
S2JOBUNIT	S2 F17B Unit for dropout/early grad's current/most recent earnings	Variable suppressed with -5 values on the public use file.
S2JOBLEFTRSN	S2 F19 How dropout/early grad's most recent job since leaving HS ended	Variable suppressed with -5 values on the public use file.
S2NUMCHILD	S2 F20 How many children dropout/ early grad has	"More than one" child recoded as "One or more" children on the public use file.
S2CHILDBORNMO	S2 F21A Month dropout/early grad's first child was born	Variable suppressed with -5 values on the public use file.
S2CHILDBORNYR	S2 F21B Year dropout/early grad's first child was born	2004 through 2009 recoded as "2010 or earlier" on the public use file.
S2LIVECHILD	S2 F22 Dropout/early grad's child(ren) live with him/her	Variable suppressed with -5 values on the public use file.
S2LIVESPOUSE	S2 F23C Dropout/early grad lives with spouse	Variable suppressed with -5 values on the public use file.
S2LIVEALONE	S2 F23F Dropout/early grad lives by himself/herself	Variable suppressed with -5 values on the public use file.
P2RELSHP	P2 A03 Respondent's relationship to teenager	Variable suppressed with -5 values on the public use file.
P2HHPARENT	P2 A05 Teen has parent(s) living in household	"One parent in household" recoded as "One or two parents in household" on the public use file.
P2HHPARREL1	P2 A06A First resident parent's relationship to teenager	Variable suppressed with -5 values on the public use file.
P2HHPARREL2	P2 A06B Second resident parent's relationship to teenager	Variable suppressed with -5 values on the public use file.
P2SPSREL	P2 A09 Respondent's spouse/ partner's relationship to teenager	Variable suppressed with -5 values on the public use file.
P2OTHREL	P2 A12 Other parental adult's relationship to teenager	Variable suppressed with -5 values on the public use file.

Table J-1. Comparison of Public- and Restricted-use Files—Continued

FieldName	FieldLabel	Treatment
P2HHLT18	P2 A14A Number of household residents less than 18 years of age	Variable suppressed with -5 values on the public use file.
P2HHGE18	P2 A14B Number of household residents 18 years or older	Variable suppressed with -5 values on the public use file.
P2SKIPGK	P2 B02A Teenager skipped kindergarten	Variable suppressed with -5 values on the public use file.
P2SKIPG1	P2 B02B Teenager skipped 1st grade	Variable suppressed with -5 values on the public use file.
P2SKIPG2	P2 B02C Teenager skipped 2nd grade	Variable suppressed with -5 values on the public use file.
P2SKIPG3	P2 B02D Teenager skipped 3rd grade	Variable suppressed with -5 values on the public use file.
P2SKIPG4	P2 B02E Teenager skipped 4th grade	Variable suppressed with -5 values on the public use file.
P2SKIPG5	P2 B02F Teenager skipped 5th grade	Variable suppressed with -5 values on the public use file.
P2SKIPG6	P2 B02G Teenager skipped 6th grade	Variable suppressed with -5 values on the public use file.
P2SKIPG7	P2 B02H Teenager skipped 7th grade	Variable suppressed with -5 values on the public use file.
P2SKIPG8	P2 B02I Teenager skipped 8th grade	Variable suppressed with -5 values on the public use file.
P2SKIPG10	P2 B02K Teenager skipped 10th grade	Variable suppressed with -5 values on the public use file.
P2SKIPG11	P2 B02L Teenager skipped 11th grade	Variable suppressed with -5 values on the public use file.
P2HSDIPGED	P2 B04 Teenager has earned a high school credential	Variable suppressed with -5 values on the public use file.
P2EDUASP	P2 C04 How far in school would like teenager to go	“Less than high school completion” recoded as “Less than HS completion or complete HS diploma/GED/alternative HS credential” on the public use file.
P2EDUEXP	P2 C05 How far in school teenager will go	“Start certificate/diploma from school providing occupational training” recoded as “Start or complete certificate/diploma from school providing occupational training” on the public use file.
P2LIKELYCLGID	P2 C13F IPEDS ID of postsecondary institution teen most likely to attend in 2013	Variable suppressed with -5 values on the public use file.
P2CHOICECLGID	P2 C16F IPEDS ID of parent’s first choice postsecondary institution	Variable suppressed with -5 values on the public use file.
P2COST2YPUB	P2 C19 Cost of tuition/required fees at public in-state 2-year college	Sparse values recoded to similar values on the public use file.
P2COST4YPUB	P2 C21 Cost of tuition/required fees at public in-state 4-year college	Sparse values recoded to similar values on the public use file.
P2COST4YPRV	P2 C23 Cost of tuition/required fees at typical private 4-year college	Sparse values recoded to similar values on the public use file.

Table J-1. Comparison of Public- and Restricted-use Files—Continued

FieldName	FieldLabel	Treatment
P2EARNNOHS	P2 C41AA Expected earnings if left HS without a diploma	Variable suppressed with -5 values on the public use file.
P2EARNNOHSUN	P2 C41AB Unit for expected earnings if left HS without a diploma	Variable suppressed with -5 values on the public use file.
P2EARNHS	P2 C41BA Expected earnings if completed a HS diploma	Variable suppressed with -5 values on the public use file.
P2EARNHSUN	P2 C41BB Unit for expected earnings if completed a HS diploma	Variable suppressed with -5 values on the public use file.
P2EARNOCC	P2 C41CA Expected earnings if completed certificate from school for occ training	Variable suppressed with -5 values on the public use file.
P2EARNOCCUN	P2 C41CB Unit for expected earnings-certificate from school for occ training	Variable suppressed with -5 values on the public use file.
P2EARN2YPUB	P2 C41DA Expected earnings if completed 2-year community college degree	Variable suppressed with -5 values on the public use file.
P2EARN2YPUBUN	P2 C41DB Unit for expected earnings if completed 2-year community college degree	Variable suppressed with -5 values on the public use file.
P2EARN4Y	P2 C41EA Expected earnings if completed 4-year college degree	Variable suppressed with -5 values on the public use file.
P2EARN4YUN	P2 C41EB Unit for expected earnings if completed 4-year college degree	Variable suppressed with -5 values on the public use file.
P2HIMAJV1	P2 D02A Parent 1's major for highest level of education-verbatim	Variable suppressed with -5 values on the public use file.
P2HIMAJ21	P2 D02B Parent 1's major for highest level of education 2-digit CIP code	Majors with low counts set to uncodeable on the public use file.
P2HIMAJ61	P2 D02C Parent 1's major for highest level of education 6-digit CIP code	Variable suppressed with -5 values on the public use file.
P2JOBDV1	P2 D07A Parent 1's job duties-verbatim	Variable suppressed with -5 values on the public use file.
P2JOBTV1	P2 D07B Parent 1's job title-verbatim	Variable suppressed with -5 values on the public use file.
P2JOB2ONET1	P2 D07C Parent 1's current/most recent occupation: 2-digit ONET code	Variable suppressed with -5 values on the public use file.
P2JOB6ONET1	P2 D07D Parent 1's current/most recent occupation: 6-digit ONET code	Variable suppressed with -5 values on the public use file.

Table J-1. Comparison of Public- and Restricted-use Files—Continued

FieldName	FieldLabel	Treatment
P2HOURS1	P2 D08 Hours parent 1 works/ worked per week	Sparse values recoded to similar values on the public use file.
P2HIMAJV2	P2 D10A Parent 2's major for highest level of education-verbatim	Variable suppressed with -5 values on the public use file.
P2HIMAJ22	P2 D10B Parent 2's major for highest level of education 2-digit CIP code	Majors with low counts set to uncodeable on the public use file.
P2HIMAJ62	P2 D10C Parent 2's major for highest level of education 6-digit CIP code	Variable suppressed with -5 values on the public use file.
P2JOBDV2	P2 D15B Parent 2's job duties-verbatim	Variable suppressed with -5 values on the public use file.
P2JOBTV2	P2 D15A Parent 2's job title-verbatim	Variable suppressed with -5 values on the public use file.
P2JOB2ONET2	P2 D15C Parent 2's current/most recent occupation: 2-digit ONET code	Variable suppressed with -5 values on the public use file.
P2JOB6ONET2	P2 D15D Parent 2's current/most recent occupation: 6-digit ONET code	Variable suppressed with -5 values on the public use file.
P2HOURS2	P2 D16 Hours Parent 2 works/ worked per week	Sparse values recoded to similar values on the public use file.
P2INCOME	P2 D17 Household income in 2011-continuous form	Variable suppressed with -5 values on the public use file.
P2INCOMECAT	P2 D18 Household income in 2011-categorical form	Variable suppressed with -5 values on the public use file.
P2HISP1	P2 E01 Parent 1 is Hispanic/Latino/ Latina	Variable suppressed with -5 values on the public use file.
P2HISPOR1	P2 E02 Parent 1's Hispanic/Latino/ Latina origin	Variable suppressed with -5 values on the public use file.
P2WHITE1	P2 E03A Parent 1 is White	Variable suppressed with -5 values on the public use file.
P2BLACK1	P2 E03B Parent 1 is Black/African American	Variable suppressed with -5 values on the public use file.
P2ASIAN1	P2 E03C Parent 1 is Asian	Variable suppressed with -5 values on the public use file.
P2PACISLE1	P2 E03D Parent 1 is Native Hawaiian/Pacific Islander	Variable suppressed with -5 values on the public use file.
P2AMINDIAN1	P2 E03E Parent 1 is American Indian/Alaska Native	Variable suppressed with -5 values on the public use file.
P2ASIANOR1	P2 E04 Parent 1's Asian origin	Variable suppressed with -5 values on the public use file.
P2YRBORN1	P2 E05 Parent 1's birth year	Years before 1944 recoded as 1944 and years after 1981 recoded as 1981 on the public use file.
P2USYR1	P2 E07 Year Parent 1 came to U.S. to stay	Years before 1973 recoded as 1973, years after 2009 recoded as 2009, and sparse years between 1973 and 2009 recoded to similar years on the public use file.

Table J-1. Comparison of Public- and Restricted-use Files—Continued

FieldName	FieldLabel	Treatment
P2HISP2	P2 E08 Parent 2 is Hispanic/Latino/ Latina	Variable suppressed with -5 values on the public use file.
P2HISPOR2	P2 E09 Parent 2's Hispanic/Latino/ Latina origin	Variable suppressed with -5 values on the public use file.
P2WHITE2	P2 E10A Parent 2 is White	Variable suppressed with -5 values on the public use file.
P2BLACK2	P2 E10B Parent 2 is Black/African American	Variable suppressed with -5 values on the public use file.
P2ASIAN2	P2 E10C Parent 2 is Asian	Variable suppressed with -5 values on the public use file.
P2PACISLE2	P2 E10D Parent 2 is Native Hawaiian/Pacific Islander	Variable suppressed with -5 values on the public use file.
P2AMINDIAN2	P2 E10E Parent 2 is American Indian or Alaska Native	Variable suppressed with -5 values on the public use file.
P2ASIANOR2	P2 E11 Parent 2's Asian origin	Variable suppressed with -5 values on the public use file.
P2YRBORN2	P2 E12 Parent 2's birth year	Years before 1944 recoded as 1944 and years after 1981 recoded as 1981 on the public use file.
P2USYR2	P2 E14 Year Parent 2 came to U.S. to stay	Years before 1973 recoded as 1973, years after 2009 recoded as 2009, and sparse years between 1973 and 2009 recoded to similar years on the public use file.
P2USBORNT	P2 E15 Whether teenager was born in the U.S.	"Puerto Rico or another U.S. territory" recoded as "United States, Puerto Rico or another U.S. territory" on the public use file.
P2COUNTRYT	P2 E16 Country in which teenager was born	Variable suppressed with -5 values on the public use file.
P2USYRT	P2 E17 Year teenager came to the U.S. to stay	Years before 1995 recoded as 1995, 2003 recoded as 2002, and years after 2008 recoded as 2008 on the public use file.
P2USGRADE	P2 E18 Grade level teenager was placed in when started school in U.S.	"8th grade" recoded as "7th or 8th grade" on the public use file.
P2SPANISH	P2 E20A Spanish is regularly spoken in home	Variable suppressed with -5 values on the public use file.
P2EUROLANG	P2 E20B Other European language is regularly spoken in home	Variable suppressed with -5 values on the public use file.
P2CHINESE	P2 E20C Chinese language regularly spoken in home	Variable suppressed with -5 values on the public use file.
P2FILIPINO	P2 E20D Filipino language regularly spoken in home	Variable suppressed with -5 values on the public use file.
P2SEASIAN	P2 E20E Southeast Asian language regularly spoken in home	Variable suppressed with -5 values on the public use file.
P2SASIAN	P2 E20F South Asian language regularly spoken in home	Variable suppressed with -5 values on the public use file.
P2OTHRASIAN	P2 E20G Other Asian language regularly spoken in home	Variable suppressed with -5 values on the public use file.
P2MIDEAST	P2 E20H Middle Eastern language regularly spoken in home	Variable suppressed with -5 values on the public use file.
P2OTHRLANG	P2 E20I Other language regularly spoken in home	Variable suppressed with -5 values on the public use file.

Table J-1. Comparison of Public- and Restricted-use Files—Continued

FieldName	FieldLabel	Treatment
P2RSPLANG	P2 E22 Language respondent usually speaks to teenager in home	Variable suppressed with -5 values on the public use file.
P2LANGTEEN	P2 E23 Language teenager usually speaks to respondent in home	Variable suppressed with -5 values on the public use file.
P2QHELP3	P2 F02C Respondent's friend helped respondent complete questionnaire	Variable suppressed with -5 values on the public use file.
A2SCHTYPE	A2 A01 School type	Variable suppressed with -5 values on the public use file.
A2MAGNET	A2 A02 School has a schoolwide magnet program or program only for some students	Variable suppressed with -5 values on the public use file.
A2STEMFOCUS	A2 A03 School's magnet program/ special focus is STEM or something else	Variable suppressed with -5 values on the public use file.
A2CHOICEIN	A2 A06A School's students can enroll in another school within district	Variable suppressed with -5 values on the public use file.
A2CHOICEOUT	A2 A06B School's students can enroll in a school in another district at no cost	Variable suppressed with -5 values on the public use file.
A2CHOICESCH	A2 A06C Students from other districts can enroll in school at no tuition cost	Variable suppressed with -5 values on the public use file.
A2CHOICEPRIV	A2 A06D School's students can enroll in private school using state/district fund	Variable suppressed with -5 values on the public use file.
A2YRROUND	A2 A07 Whether school is a year round school	Variable suppressed with -5 values on the public use file.
A2CALENDAR	A2 A08 Academic calendar type	Variable suppressed with -5 values on the public use file.
A2CLASSHRS	A2 A09A Average instruction hours per day	Variable suppressed with -5 values on the public use file.
A2HRSINSMIN	A2 A09B WILL BE FOLDED INTO A2CLASSHRS - minutes of instruction per day	Variable suppressed with -5 values on the public use file.
A2SCHEDULE	A2 A10 Course schedule type	Variable suppressed with -5 values on the public use file.
A2CTESHSCH	A2 A11 % of HS students who attend shared-time area career-technical school	Sparse values recoded to similar values on the public use file.
A2HSSIZE	A2 B01 High school enrollment	Sparse values recoded to similar values on the public use file.
A2CAPACITY	A2 B02 Percent capacity to which school is filled	Variable suppressed with -5 values on the public use file.
A2FREELUNCH	A2 B03A % of HS students receiving free or reduced-price lunch	Variable suppressed with -5 values on the public use file.
A2ELL	A2 B03B % of HS students who are limited English proficient	Variable suppressed with -5 values on the public use file.

Table J-1. Comparison of Public- and Restricted-use Files—Continued

FieldName	FieldLabel	Treatment
A2SPECIALED	A2 B03C % of HS students receiving special education services for disabilities	Variable suppressed with -5 values on the public use file.
A2ADA9	A2 B04A Average daily attendance for 9th graders in terms of a percentage	Sparse values recoded to similar values on the public use file.
A2ADA10	A2 B04B Average daily attendance for 10th graders in terms of a percentage	Sparse values recoded to similar values on the public use file.
A2ADA11	A2 B04C Average daily attendance for 11th graders in terms of a percentage	Sparse values recoded to similar values on the public use file.
A2ADA12	A2 B04D Average daily attendance for 12th graders in terms of a percentage	Sparse values recoded to similar values on the public use file.
A2REPEATG11	A2 B08 % of 2010-2011 11th graders not academically promoted to 12th grade	Sparse values recoded to similar values on the public use file.
A2PCTRECOVERY	A2 B11 % of 11th/12th graders participated in credit recovery program	50% or more recoded as 25% or more on the public use file.
A2RETURN11	A2 B12 % of Sept 2010 11th graders returned in Sept 2011	Sparse values recoded to similar values on the public use file.
A2TRANSFRALT	A2 B13 % of 2010-2011 students transferred out to an alternative program/school	Variable suppressed with -5 values on the public use file.
A2PCTDOPRVON	A2 B15A % of HS students enrolled in dropout prevention program on-site	Sparse values recoded to similar values on the public use file.
A2PCTDOPRVOFF	A2 B15B % of HS students enrolled in dropout prevention program off-site	Values greater than 6 coded as 6 on the public use file.
A2ENGREQHS	A2 B17A Years of English coursework required for hs graduation 2012	Less than 4 years grouped as one category on the public use file.
A2MTHREQHS	A2 B17B Years of Mathematics coursework required for hs graduation 2012	Less than 3 years grouped as one category on the public use file.
A2HISTREQHS	A2 B17D Years of History/Social Studies required for hs graduation 2012	Less than 3 years grouped as one category on the public use file.
A2LANGREQHS	A2 B17E Years of Foreign Language required for hs graduation 2012	3 or more years grouped as one category on the public use file.
A2HIGHERED	A2 B19A % of 2010-2011 seniors entered higher education programs	Sparse values recoded to similar values on the public use file.

Table J-1. Comparison of Public- and Restricted-use Files—Continued

FieldName	FieldLabel	Treatment
A2WORK	A2 B19B % of 2010-2011 seniors entered labor market	Sparse values recoded to similar values on the public use file.
A2MILITARY	A2 B19C % of 2010-2011 seniors joined military	Sparse values recoded to similar values on the public use file.
A2FTTCHRS	A2 C01A Total number of full-time high school teachers	Variable suppressed with -5 values on the public use file.
A2PTTCHRS	A2 C01B Total number of part-time high school teachers	Variable suppressed with -5 values on the public use file.
A2FTMTCHRS	A2 C02A Number of full-time high school math teachers	Variable suppressed with -5 values on the public use file.
A2PTMTCHRS	A2 C02B Number of part-time high school math teachers	Variable suppressed with -5 values on the public use file.
A2FTSTCHRS	A2 C02C Number of full-time high school science teachers	Variable suppressed with -5 values on the public use file.
A2PTSTCHRS	A2 C02D Number of part-time high school science teachers	Values greater than 5 recoded as 5 on the public use file.
A2FTOTHTCHRS	A2 C02E Number of full-time high school teachers of all other subject areas	Variable suppressed with -5 values on the public use file.
A2PTOTHTCHRS	A2 C02F Number of part-time high school teachers of all other subject areas	Variable suppressed with -5 values on the public use file.
A2PTALLTCHRS	A2 C02G Total number of part-time teachers - sum of math, science, other	Values greater than 13 recoded as 13 on the public use file.
A2FTALLTCHRS	A2 C02H Total number of full-time teachers - sum of math, science, other	Sparse values recoded to similar values on the public use file.
A2PENSION	A2 C03 Number of teachers collecting pension/drawing from 401(k) or 403(b)	Variable suppressed with -5 values on the public use file.
A2MTNORETURN	A2 C04 # of 2010-2011 FT math teachers who did not return in 2011-2012	Variable suppressed with -5 values on the public use file.
A2STNORETURN	A2 C05 # of 2010-2011 FT science teachers who did not return in 2011-2012	Variable suppressed with -5 values on the public use file.
A2ABSENTTCHR	A2 C06 % of high school's teachers absent on an average day	Variable suppressed with -5 values on the public use file.
A2MSINDUCTION	A2 C07A Formal new teacher induction program for new hs math/science teachers	"Don't know" recoded with "Missing" on the public use file.
A2MSREDUCETCH	A2 C07B Reduced teaching schedule/# preparations for new hs math/science teacher	"Don't know" recoded with "Missing" on the public use file.

Table J-1. Comparison of Public- and Restricted-use Files—Continued

FieldName	FieldLabel	Treatment
A2MSPLANNING	A2 C07C Planning time w/other math/science teachers for new hs math/sci teachers	"Don't know" recoded with "Missing" on the public use file.
A2MSRELEASE	A2 C07D Release for professional dev/observation for new math/science teachers	"Don't know" recoded with "Missing" on the public use file.
A2MSSEMINAR	A2 C07E Seminars/classes for beginning teachers for new hs math/science teachers	"Don't know" recoded with "Missing" on the public use file.
A2MSMENTORMS	A2 C07F Guidance from same subject mentor for new hs math/science teachers	"Don't know" recoded with "Missing" on the public use file.
A2MSPROFDEVMS	A2 C07H Subject-specific professional dev for new hs math/science teachers	"Don't know" recoded with "Missing" on the public use file.
A2FILLMTH	A2 D04 Ease of filling high school mathematics teaching vacancies	"Could not fill math department" recoded with "Very difficult" on the public use file.
A2FILLSCI	A2 D05 Ease of filling high school science teaching vacancies	"Could not fill science department" recoded with "Very difficult" on the public use file.
A2STUABSENT	A2 D07B Student absenteeism is a problem at this school	Variable suppressed with -5 values on the public use file.
A2CUT	A2 D07C Student class cutting is a problem at this school	Variable suppressed with -5 values on the public use file.
A2DROPOUT	A2 D07D Students dropping out is a problem at this school	Variable suppressed with -5 values on the public use file.
A2HEALTH	A2 D07H Poor student health is a problem at this school	"Serious problem" recoded as "Moderate to serious problem" on the public use file.
A2CONFLICT	A2 D08A Frequency of physical conflicts among students at this school	Variable suppressed with -5 values on the public use file.
A2ROBBERY	A2 D08B Frequency of robbery or theft at this school	Variable suppressed with -5 values on the public use file.
A2VANDALISM	A2 D08C Frequency of vandalism at this school	Variable suppressed with -5 values on the public use file.
A2DRUGUSE	A2 D08D Frequency of student illegal drug use at this school	Variable suppressed with -5 values on the public use file.
A2ALCOHOL	A2 D08E Frequency of students use of alcohol while at school	Variable suppressed with -5 values on the public use file.
A2DRUGSALE	A2 D08F Frequency of drug sales on the way to/from school or on school grounds	Variable suppressed with -5 values on the public use file.
A2WEAPONS	A2 D09A Frequency of student possession of weapons at this school	Variable suppressed with -5 values on the public use file.

Table J-1. Comparison of Public- and Restricted-use Files—Continued

FieldName	FieldLabel	Treatment
A2PHYSABUSE	A2 D09B Frequency of physical abuse of teachers at this school	Variable suppressed with -5 values on the public use file.
A2TENSION	A2 D09C Frequency of student racial tensions at this school	Variable suppressed with -5 values on the public use file.
A2VERBAL	A2 D09F Frequency of student verbal abuse of teachers at this school	Variable suppressed with -5 values on the public use file.
A2MISBEHAVE	A2 D09G Frequency of student in-class misbehavior at this school	Variable suppressed with -5 values on the public use file.
A2DISRESPECT	A2 D09H Frequency of student acts of disrespect for teachers at this school	Variable suppressed with -5 values on the public use file.
A2GANG	A2 D09I Frequency of student gang activities at this school	Variable suppressed with -5 values on the public use file.
A2SEX	A2 D10 Principal's sex	Variable suppressed with -5 values on the public use file.
A2HISP	A2 D11 Principal is of Hispanic/ Latino/Latina origin	Variable suppressed with -5 values on the public use file.
A2WHITE	A2 D12A Principal is White	Variable suppressed with -5 values on the public use file.
A2BLACK	A2 D12B Principal is Black or African American	Variable suppressed with -5 values on the public use file.
A2ASIAN	A2 D12C Principal is Asian	Variable suppressed with -5 values on the public use file.
A2PACISLE	A2 D12D Principal is Native Hawaiian/Pacific Islander	Variable suppressed with -5 values on the public use file.
A2AMINDIAN	A2 D12E Principal is American Indian/Alaska Native	Variable suppressed with -5 values on the public use file.
A2HIDEG	A2 D13 Principal's highest degree earned	Variable suppressed with -5 values on the public use file.
A2HIMAJV	A2 D14A Principal's major for highest level of education-verbatim	Variable suppressed with -5 values on the public use file.
A2HIMAJ6	A2 D14B Principal's major for highest level of education 6-digit CIP code	Variable suppressed with -5 values on the public use file.
A2HIMAJ2	A2 D14C Principal's major for highest level of education 2-digit CIP code	Variable suppressed with -5 values on the public use file.
A2BAMAJV	A2 D15A Principal's major for Bachelor's degree-verbatim	Variable suppressed with -5 values on the public use file.
A2BAMAJ6	A2 D15B Principal's major for Bachelor's degree 6-digit CIP code	Variable suppressed with -5 values on the public use file.
A2BAMAJ2	A2 D15C Principal's major for Bachelor's degree 2-digit CIP code	Variable suppressed with -5 values on the public use file.

Table J-1. Comparison of Public- and Restricted-use Files—Continued

FieldName	FieldLabel	Treatment
A2MANAGEMENT	A2 D16 Prior management experience outside of the field of education	Variable suppressed with -5 values on the public use file.
A2INSTLDRS	A2 D17F Amount of training principal has received in instructional leadership	"No training" recoded with "Missing" on the public use file.
A2ALTPREP	A2 D18 Whether became a principal through alternative prep program	Variable suppressed with -5 values on the public use file.
A2CERTIFIED	A2 D19 Principal is certified as a principal in this state	Variable suppressed with -5 values on the public use file.
A2YRSADMIN	A2 D20 Years served as principal of any school	Recoded 13 and 15 as 14, 16 and 18 as 17, and greater than 19 as 19 on the public use file.
A2YRSHSLSSCH	A2 D21 Years served as principal of this school	Variable suppressed with -5 values on the public use file.
A2TEACHING	A2 D22 Principal is currently teaching in this school	Variable suppressed with -5 values on the public use file.
A2YRSMSTCHR	A2 D23A Principal's years of middle school teaching experience	Variable suppressed with -5 values on the public use file.
A2YRSHSTCHR	A2 D23B Principal's years of high school teaching experience	Variable suppressed with -5 values on the public use file.
A2TCHSUBJO	A2 D24B Other subject taught	Variable suppressed with -5 values on the public use file.
C2FTCNSL	C2 A01A Number of full-time high school counselors	Variable suppressed with -5 values on the public use file.
C2PTCNSL	C2 A01B Number of part-time high school counselors	Variable suppressed with -5 values on the public use file.
C2CASELOAD	C2 A02 Average caseload for school's counselors	Sparse values recoded to similar values on the public use file.
C2HRSJOBSKLL	C2 A04G % hours counseling staff spent on job placement/job skill development	More than 50% recoded as More than 20% on the public use file.
C2HRSNONCNSL	C2 A04J % hours counseling staff spent on non-counseling activities	More than 50% recoded as More than 20% on the public use file.
C2REVIEWPLAN	C2 B05 How often students meet with adult in school to review/ revise plan	"Never" recoded with "Less than once each school year" on the public use file.
C2DUALCLGCRED	C2 B07A Students can earn college credit in dual enrollment program	Variable suppressed with -5 values on the public use file.
C2DUALENRACA	C2 B08A Enrollment in dual enrollment courses with academic focus	Variable suppressed with -5 values on the public use file.
C2DUALENRCTE	C2 B08B Enrollment in dual enrollment courses with career/ tech/vocational focus	Variable suppressed with -5 values on the public use file.

Table J-1. Comparison of Public- and Restricted-use Files—Continued

FieldName	FieldLabel	Treatment
C2DUALGRAD	C2 B09 Number of graduates with dual enrollment designation on diploma	Variable suppressed with -5 values on the public use file.
C2GETAHEAD	C2 B11A Summer enrichment courses that allow students to progress academically	Variable suppressed with -5 values on the public use file.
C2UPBOUND	C2 B13D School offers college prep program - Upward Bound/GEAR UP/AVID/MESA	Variable suppressed with -5 values on the public use file.
C2INDSTD	C2 B15A % students taking independent study course	"More than 5%" grouped as one category on the public use file.
C2DISTANCE	C2 B15B % students taking online/ distance learning course	50-100% grouped as one category on the public use file.
C2OTHHS	C2 B15C % students taking course at another traditional high school in district	11-100% grouped as one category on the public use file.
C2TECHSC	C2 B15D % students taking course at local career or technical school	25-100% grouped as one category on the public use file.
C2COMCOL	C2 B15E % students taking courses at community college	50-100% grouped as one category on the public use file.
C24YRCOL	C2 B15F % students taking course at 4-year college	25-100% grouped as one category on the public use file.
C2CLGEXAMINFO	C2 B21A School provides information on date/location of college entrance exams	Variable suppressed with -5 values on the public use file.
C2CLGINFO	C2 B23D School provides access to information on colleges	Variable suppressed with -5 values on the public use file.
C2PERSISTYR1	C2 B27 % of high school's college enrollees persisted past 1st year	Less than 25% grouped as one category on the public use file.
C2UPMGRD	C2 C02A Importance of prior grades for 10th-12th grade math placement	"Not applicable" recoded with "Missing" and "Not at all important" recoded with "Somewhat important" on the public use file.
C2UPMTEACHER	C2 C02E Importance of teacher's recommendation for 10-12th math placement	"Not applicable" recoded with "Missing" and "Not at all important" recoded with "Somewhat important" on the public use file.
C2UPMGRADREQ	C2 C02I Importance of graduation requirements for 10-12th math placement	"Not applicable" recoded with "Missing" and "Not at all important" recoded with "Somewhat important" on the public use file.
C2UPMCLGREQ	C2 C02J Importance of college entry requirements for 10-12th math placement	"Not applicable" recoded with "Missing" on the public use file.
C2UPSGRD	C2 C04A Importance of prior grades for 10th-12th grade science placement	"Not applicable" recoded with "Missing" and "Not at all important" recoded with "Somewhat important" on the public use file.

Table J-1. Comparison of Public- and Restricted-use Files—Continued

FieldName	FieldLabel	Treatment
C2UPSGRADREQ	C2 C04I Importance of graduation requirements for 10-12th science placement	"Not applicable" recoded with "Missing" and "Not at all important" recoded with "Somewhat important" on the public use file.
C2PCTCALC	C2 C06A % 12th graders who have taken calculus	Sparse values recoded to similar values on the public use file.
C2PCTPHYS	C2 C06B % 12th graders who have taken physics	Sparse values recoded to similar values on the public use file.
C2NUMAP	C2 C07 Number of AP courses offered	Values of 0 recoded as 1 and values greater than 23 recoded as 23 on the public use file.
C2NUMAPSCI	C2 C08A Number of AP science courses offered	Values greater than 6 recoded as 6 on the public use file.
C2NUMAPMATH	C2 C08B Number of AP math courses offered	Values greater than 4 recoded as 4 on the public use file.
C2NUMAPCOMP	C2 C08C Number of AP computer science courses offered	Values greater than 2 recoded as 2 on the public use file.
C2PCTAP	C2 C09 % 12th graders who have taken in AP course(s)	Sparse values recoded to similar values on the public use file.
C2NUMAPEXAM	C2 C10 Number of AP exams taken by 9th-12th graders	Variable suppressed with -5 values on the public use file.
C2NUMAP3PLUS	C2 C11 Number of AP exam scores that were 3 or higher	Variable suppressed with -5 values on the public use file.
C2PCTEQUITY	C2 C12A Equity and Excellence percentage	Sparse values recoded to similar values on the public use file.
C2NUMIB	C2 C13 Number of higher level IB courses offered	Sparse values recoded to similar values on the public use file.
C2NUMIBSCI	C2 C14A Number of higher level IB science courses offered	Values greater than 6 recoded as 6 on the public use file.
C2NUMIBMATH	C2 C14B Number of higher level IB math courses offered	Values greater than 3 recoded as 3 on the public use file.
C2PCTIB	C2 C15 % 12th graders in IB program	Sparse values recoded to similar values on the public use file.
C2NUMIBEXAM	C2 C16 Number of IB exams taken by 9th-12th graders	Variable suppressed with -5 values on the public use file.
C2NUMIB4PLUS	C2 C17 Number of IB exam scores that were 4 or higher	Variable suppressed with -5 values on the public use file.
C2NUMAPANDIB	C2 C18 Number of 9th-12th graders who have taken AP and IB exam	Variable suppressed with -5 values on the public use file.
C2NUMGRADS	C2 C19 Number of seniors graduated, 2010-2011	Sparse values recoded to similar values on the public use file.
C2AVGSATREAD	C2 C20A Average SAT critical reading score	Sparse values recoded to similar values on the public use file.
C2AVGSATMATH	C2 C20B Average SAT mathematics score	Sparse values recoded to similar values on the public use file.
C2AVGSATWRIT	C2 C20C Average SAT writing score	Sparse values recoded to similar values on the public use file.

Table J-1. Comparison of Public- and Restricted-use Files—Continued

FieldName	FieldLabel	Treatment
C2AVGACTENG	C2 C21A Average ACT English score	Values less than 15 recoded as 15 and values greater than 27 recoded as 27 on the public use file.
C2AVGACTMATH	C2 C21B Average ACT mathematics score	Values less than 16 recoded as 16 and values greater than 27 recoded as 27 on the public use file.
C2AVGACTREAD	C2 C21C Average ACT reading score	Values less than 16 recoded as 16 and values greater than 26 recoded as 26 on the public use file.
C2AVGACTSCI	C2 C21D Average ACT science score	Values less than 16 recoded as 16 and values greater than 26 recoded as 26 on the public use file.
C2AVGACTCOMP	C2 C21E Average ACT composite score	Values less than 16 recoded as 16 and values greater than 28 recoded as 28 on the public use file.

*Note on "Sparse values recoded to similar values on the public use file." As in the base year and as on the ECB, this notation means that sparse values were re-coded to values that had counts that were close to it, e.g. changed to similar near-neighbors.

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