Research Notes

Office of Research and Development **RN-02, November 1997**

The Relationship of PSAT/NMSQT Scores and AP® Examination Grades

The PSAT/NMSQT, which measures developed verbal and quantitative reasoning, as well as writing skills generally associated with academic achievement in college, is administered each October to nearly two million students, the vast majority of whom are high school juniors and sophomores. PSAT/NMSQT information has been used by high school counselors to assist in advising students in college planning, high school course selection, and for scholarship awards. Information from the PSAT/NMSQT can also be very useful for high schools in identifying additional students who may be successful in Advanced Placement courses, and assisting schools in determining whether to offer additional Advanced Placement courses.

Using the PSAT/NMSQT to Identify Additional Students Who May Be Successful in AP

High schools that offer Advanced Placement (AP) courses are confronted with the need to identify students who may be successful in these courses. As college-level courses, AP courses are intended for students who have already completed relevant secondary school work in the subject and have the skills and motivation to complete college-level course work during their high school studies. Teacher recommendations, self-nomination, previous courses completed, grades in relevant previous high school courses, discussions with students, and scores on achievement tests are successfully used to varying degrees by schools in identifying students for placement in AP courses. However, such procedures may not identify all students who can potentially benefit from AP courses and be successful in those courses.

KEYWORDS
PSAT/NMSQT
AP
Advanced Placement
Placement

Recent analyses have shown that student performance on the PSAT/NMSQT can be useful in identifying additional students who may be successful in AP courses. PSAT/NMSQT scores can identify students who may not have been initially considered for an AP course through teacher or self-nomination or other local procedures. For many AP courses, students with moderate scores on the PSAT/NMSQT have a high probability of success on the examinations. For example, a majority of students with PSAT/NMSQT verbal scores of 46–50 received grades of 3 or above on nearly all of the 29 AP Examinations studied, while over one-third of students with scores of 41–45 achieved grades of 3 or above on five AP Examinations.

There are substantial variations across AP subjects that must be considered. For example, a smaller proportion of students with PSAT/NMSQT mathematics scores below 56 attained scores of 3 or above on AP Physics and Chemistry Examinations than for most other AP Exams, while a larger proportion of students with PSAT/NMSQT verbal scores of 41 and above reached grades of 3 or higher on AP Art History, Psychology, and English Literature Examinations.

Using the Tables in the Report

The tables in this report provide the proportion of students attaining grades of 3 or more and 4 or more on each AP Examination across the range of scores on the PSAT/NMSQT. The data in these analyses:

- Include all students who completed the new PSAT/NMSQT in November 1993 or 1994 and subsequently completed an AP Examination in the spring of 1995 or 1996—records of over 659,825 separate AP Examinations for students completing the PSAT/NMSQT as well as one or more AP Examinations.
- Use recentered PSAT/NMSQT scores.

- Include students who completed the PSAT/NMSQT one year prior to enrolling in an AP course (about 70 percent of the sample) as well as students who completed the PSAT/NMSQT during the same year they completed the AP Examination. In the former case, there was about an 18-month duration between tests, while the gap was reduced to six months in the latter situation.
- Demonstrate that while the relationships (correlation coefficients) were somewhat stronger for students taking both examinations during the same year, these correlations decreased only slightly for students completing the PSAT/NMSQT a year prior to enrolling in AP courses. This finding in particular demonstrated the utility of using PSAT/NMSQT scores to assist in identifying potential students for AP courses.

PSAT/NMSQT scores can supplement existing procedures used by schools to identify additional students who may be successful in specific AP courses, but should **never** be used as the sole, or even the primary, indicator. Schools should not establish minimum "cut scores" on the PSAT/NMSQT or any other assessment for placing students into AP courses—such practices are a clear misuse of assessment scores. Faculty and counselors should be cautious in using these tables. First, many students with PSAT/NMSQT scores that place them at the upper ranges of probable success (grades of 3 or higher) for a specific AP Examination may not have fulfilled the appropriate prerequisite courses and would clearly be unprepared for some AP courses. Second, student performance (grades, teacher recommendations) in previous courses in the content area as well as motivation and interest will be key determinants of their success in AP courses and must be considered. Third, the sample of students used in the analysis was restricted to students who did complete an AP Examination. That is, while the sample of students was quite large, it did not include the large number of PSAT/NMSQT test takers who do not complete any AP Examinations. It is impossible to know how students would have performed on AP Examinations when they have not enrolled in AP courses. It is quite likely that students who completed AP Examinations differ in meaningful ways from students who did not complete AP Examinations, even when they attain the same PSAT/NMSQT scores and complete the same courses with equal proficiency. Therefore, these tables have not been developed to provide the precise probability for an individual student's attaining a specific AP Examination grade, but rather to provide the probability of success in AP courses for the group of students attaining PSAT/NMSQT scores within a given range.

Nevertheless, students with moderate PSAT/NMSQT scores are typically successful when completing many AP Examinations. Students who have completed the prerequisite secondary school courses and have not considered AP courses can be identified for further consideration by faculty and counselors with the use of performance data from the PSAT/NMSQT.

To use these tables you would first find the appropriate AP Examination. Then you would determine which PSAT/NMSQT scale to use (verbal, mathematics, or V + M for biology only). Next, you would identify students' respective scores on the appropriate PSAT/NMSQT scale and find the proportion expected to attain grades of 3 or more (or 4 or more if appropriate). This is clearly labeled on the tables. Table 1 lists AP courses that use the PSAT/NMSQT verbal scale, Table 2 lists AP courses using the PSAT/NMSQT mathematics scale, and a separate table is provided for biology (Table 3), which combines both scales. There should be no absolute rules for interpreting or using these tables. For example, with U.S. History, you may use score ranges of 41–45, 46–50, or 51–55 to begin to identify potential students because at these points sizable numbers of students have received grades of 3 or more in the past. Many students identified through this means may have already been considered for AP U.S. History through other procedures already instituted in the school (e.g., teacher recommendations). Yet the use of the

Course Selection Patterns in Math and Science*

Exams that correlate best with PSAT/NMSQT Verbal

Art History
Comparative Government and Politics
English Language
English Literature
European History
French Language
French Literature
Latin Literature
Latin Vergil
Psychology
Spanish Literature
U.S. Government and Politics
U.S. History

Exams that correlate best with PSAT/NMSQT Verbal & Math

Biology

Exams that correlate best with PSAT/NMSQT Math

Calculus AB
Calculus BC
Chemistry
Computer Science A
Computer Science AB
Macroeconomics
Microeconomics
Music
Physics B
Physics C: Mechanics
Physics C: Electricity & Magnetism

Exams that have no meaningful correlation with PSAT/NMSQT

German Language
Spanish Language
Studio Art: Design
Studio Art: Drawing

* In 1997, the PSAT/NMSQT introduced a writing skills section. Correlations with writing cannot be examined at this time because there are no operational data available on student performance.

PSAT/NMSQT score range can help identify additional potential students who may be considered for the course. Counselors and teachers would need to determine if these students have had the appropriate prerequisite courses and would also need to consider their performance in these courses, as well as student interest and motivation for completing a rigorous college-level AP course. In essence, these tables cannot provide one-stop shopping in curriculum planning, but can serve as useful aids and supplements to other methods used in the school.

Strength of the Relationship Between AP Examinations and PSAT/NMSQT

There is a strong and consistent relationship between PSAT/NMSQT scores and AP Examination grades for nearly all courses—higher scores on the PSAT/NMSQT indicate a higher probability of success on AP Examinations. PSAT/NMSQT verbal or mathematics scores are often more highly related to AP Examination grades than overall high school GPA, number of courses in the subject area, and even previous high school grades in the subject for some examinations. The PSAT/NMSQT verbal scale correlates most strongly with student performance on 13 AP Examinations in the humanities, social sciences, and foreign language areas (see Table 4). The PSAT/NMSQT mathematics scale correlates most strongly with 11 additional AP Examinations in mathematics, science, and music. AP Biology correlates most strongly with combined scores across the verbal and mathematics scales for the PSAT/NMSQT.

Finally, the relationships between four AP Examinations and PSAT/NMSQT test scores are too low to be useful. Performance on the PSAT/NMSQT is not strongly related to AP Examination grades for studio art: design, studio art: drawing, German language, and Spanish language. The studio art courses are graded exclusively with student-produced portfolios and traditional examinations are not used. The relationship with most language examinations appears weaker than it is for other content areas, but the lack of any relationship for Spanish language may be attributed to the large proportion of students enrolled in this specific

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TABLE 1

AP Examinations Using PSAT/NMSQT Verbal Scores

Percentage of Students with a Particular PSAT/NMSQT Verbal Score Receiving an AP Examination Grade at or Above 3 or 4

AP ART HISTORY

	ART HISTORY		
	AP GRADE		
PSAT V Score	≥ 3	≥ 4	n
80–76	100.0	90.4	52
75–71	97.9	81.7	235
70–66	93.8	72.6	391
65–61	92.4	61.7	781
60–56	88.6	49.5	893
55–51	82.8	42.4	1,115
50–46	77.6	29.1	1,043
45–41	67.5	20.9	831
40–36	53.4	12.4	412
35–31	39.5	5.4	185
30–26	37.1	3.2	62
25–20	30.7	5.1	39
Total	**—**	**—**	**6,039**

AP COMPARATIVE GOVERNMENT AND POLITICS

	COMPARATIVE GOVERNMENT AND POLITICS		
	AP GRADE		
PSAT V Score	≥ 3	≥ 4	n
80–76	94.7	67.9	56
75–71	92.9	66.2	266
70–66	88.2	57.1	469
65–61	82.0	46.3	922
60–56	74.5	34.4	916
55–51	67.6	23.7	1,321
50–46	53.9	16.4	1,057
45–41	42.4	9.8	662
40–36	28.5	5.4	333
35–31	21.2	2.9	104
30–26	18.2	—	33
25–20	—	—	18
Total	**—**	**—**	**6,157**

AP ENGLISH LANGUAGE

	ENGLISH LANGUAGE		
	AP GRADE		
PSAT V Score	≥ 3	≥ 4	n
80–76	99.3	91.7	446
75–71	97.9	85.4	1,826
70–66	95.9	73.0	3,763
65–61	90.3	58.8	7,784
60–56	77.7	39.1	9,031
55–51	66.5	23.9	12,922
50–46	48.0	10.9	12,363
45–41	28.2	3.6	8,206
40–36	12.6	1.0	4,501
35–31	4.8	0.6	1,797
30–26	2.8	1.0	512
25–20	2.4	1.2	257
Total	**—**	**—**	**63,408**

AP ENGLISH LITERATURE

	ENGLISH LITERATURE		
	AP GRADE		
PSAT V Score	≥ 3	≥ 4	n
80–76	99.6	95.5	485
75–71	99.2	91.3	3,652
70–66	97.9	82.5	7,275
65–61	95.8	69.9	16,211
60–56	90.6	52.9	17,774
55–51	80.4	35.3	26,880
50–46	62.2	17.7	25,267
45–41	39.4	7.0	16,063
40–36	20.2	2.1	8,117
35–31	6.8	0.8	3,060
30–26	3.8	0.6	888
25–20	2.6	0.3	400
Total	**—**	**—**	**126,072**

TABLE 1 *(continued)*

AP Examinations Using PSAT/NMSQT Verbal Scores

Percentage of Students with a Particular PSAT/NMSQT Verbal Score Receiving an AP Examination Grade at or Above 3 or 4

AP EUROPEAN HISTORY

	EUROPEAN HISTORY		
	AP GRADE		
PSAT V Score	≥ 3	≥ 4	n
80–76	98.7	83.9	799
75–71	97.8	78.0	2,533
70–66	95.7	64.1	5,030
65–61	90.8	51.6	8,965
60–56	83.2	38.1	9,688
55–51	75.4	28.3	11,742
50–46	65.0	19.5	9,740
45–41	51.7	11.2	5,854
40–36	37.2	6.5	2,758
35–31	25.3	3.0	971
30–26	23.0	4.1	270
25–20	17.0	7.8	141
Total	**—**	**—**	**58,491**

AP FRENCH LANGUAGE

	FRENCH LANGUAGE		
	AP GRADE		
PSAT V Score	≥ 3	≥ 4	n
80–76	96.3	74.1	212
75–71	91.9	68.2	864
70–66	84.8	53.4	1,404
65–61	79.2	44.9	2,256
60–56	67.7	33.0	2,075
55–51	61.0	26.9	2,574
50–46	53.1	22.3	2,084
45–41	45.5	20.4	1,243
40–36	43.6	21.8	661
35–31	44.6	28.8	278
30–26	—	—	105
25–20	—	—	78
Total	**—**	**—**	**13,834**

AP FRENCH LITERATURE

	FRENCH LITERATURE		
	AP GRADE		
PSAT V Score	≥ 3	≥ 4	n
80–76	97.6	85.7	42
75–71	96.6	78.2	175
70–66	92.0	66.5	201
65–61	81.0	54.3	305
60–56	70.3	39.6	225
55–51	66.4	31.2	271
50–46	53.6	21.2	177
45–41	47.4	13.4	97
40–36	31.6	7.7	60
35–31	—	—	19
30–26	—	—	9
25–20	—	—	7
Total	**—**	**—**	**1,588**

AP LATIN LITERATURE

	LATIN LITERATURE		
	AP GRADE		
PSAT V Score	≥ 3	≥ 4	n
80–76	90.7	68.8	32
75–71	88.1	60.5	185
70–66	86.5	56.5	230
65–61	75.0	40.1	384
60–56	62.4	26.4	314
55–51	51.3	18.5	355
50–46	50.4	14.5	302
45–41	38.8	8.6	139
40–36	27.7	1.5	65
35–31	18.5	—	27
30–26	—	—	5
25–20	—	—	3
Total	**—**	**—**	**2,041**

TABLE 1 *(continued)*

AP Examinations Using PSAT/NMSQT Verbal Scores

Percentage of Students with a Particular PSAT/NMSQT Verbal Score Receiving an AP Examination Grade at or Above 3 or 4

AP LATIN VERGIL

	LATIN VERGIL		
	AP GRADE		
PSAT V Score	≥ 3	≥ 4	n
80–76	93.8	80.0	65
75–71	89.8	67.6	306
70–66	86.2	57.5	442
65–61	77.7	43.6	660
60–56	68.0	31.8	616
55–51	57.2	23.5	697
50–46	50.6	17.7	554
45–41	36.0	6.7	345
40–36	27.6	8.2	134
35–31	17.1	4.3	47
30–26	—	—	5
25–20	—	—	7
Total	**—**	**—**	**3,878**

AP PSYCHOLOGY

	PSYCHOLOGY		
	AP GRADE		
PSAT V Score	≥ 3	≥ 4	n
80–76	98.0	94.1	51
75–71	98.1	92.5	266
70–66	97.6	86.8	554
65–61	95.1	79.0	1,326
60–56	91.0	67.9	1,479
55–51	84.9	55.2	2,306
50–46	73.6	42.3	2,272
45–41	59.3	27.7	1,742
40–36	42.1	16.5	1,009
35–31	28.1	9.2	380
30–26	15.0	4.5	133
25–20	20.7	4.8	63
Total	**—**	**—**	**11,581**

AP U.S. HISTORY

	U.S. HISTORY		
	AP GRADE		
PSAT V Score	≥ 3	≥ 4	n
80–76	95.1	83.0	1,480
75–71	93.6	78.2	5,448
70–66	87.7	66.5	11,863
65–61	80.3	54.3	23,977
60–56	68.1	39.6	28,211
55–51	59.9	31.2	38,472
50–46	47.4	21.2	36,164
45–41	35.0	13.4	24,278
40–36	23.8	7.7	13,165
35–31	14.7	4.8	5,167
30–26	9.6	2.9	1,543
25–20	7.8	2.4	744
Total	**—**	**—**	**190,512**

AP U.S. GOVERNMENT AND POLITICS

	U.S. GOVERNMENT AND POLITICS		
	AP GRADE		
PSAT V Score	≥ 3	≥ 4	n
80–76	98.2	84.6	162
75–71	97.4	81.8	1,083
70–66	94.7	69.0	2,084
65–61	90.1	55.8	4,523
60–56	82.7	43.4	4,699
55–51	74.0	32.7	7,160
50–46	59.9	19.5	6,752
45–41	42.8	11.0	4,540
40–36	27.1	5.3	2,325
35–31	15.8	2.6	912
30–26	12.0	2.6	308
25–20	6.9	2.3	131
Total	**—**	**—**	**34,679**

TABLE 1 *(continued)*

AP SPANISH LITERATURE

	SPANISH LITERATURE		
	AP GRADE		
PSAT V Score	≥ 3	≥ 4	n
80–76	100.0	82.6	23
75–71	97.0	80.1	136
70–66	95.7	68.1	210
65–61	91.1	61.2	415
60–56	90.7	53.6	407
55–51	84.3	47.8	550
50–46	77.9	43.0	581
45–41	76.1	39.6	523
40–36	77.2	37.1	461
35–31	73.9	31.3	326
30–26	70.4	30.1	216
25–20	55.9	17.6	193
Total	—	—	4,041

course who may have acquired language skills outside of the classroom (native speakers or students for whom Spanish is spoken at home). The remaining relationships between specific AP Examinations and PSAT/NMSQT scales are consistent across content areas.

Of the 25 AP Examinations included in this report, 16 examinations have a correlation of greater than .50 with PSAT/NMSQT scales, with median and mean correlations across all examinations of .52. Samples sizes ranged from 1,588 (French literature) to 190,512 (U.S. history) and averaged 33,077 across all examinations. The relationship between AP Examination grades and PSAT/NMSQT scores is substantially stronger, using this data, for 11 of the 12 subjects previously examined by Carl Haag in 1989 in an unpublished paper, "Using the PSAT/NMSQT to Help Identify Advanced Placement Students." In addition, those analyses were based on much smaller samples of only a few hundred students in 1982.

Determining Whether AP Courses Can Be Offered in a School

PSAT/NMSQT scores can also be useful for schools considering offering additional AP courses. Using PSAT/NMSQT score ranges, schools can quickly identify the potential number of students who may be successful in specific AP courses if these were offered or enrollment was expanded. Schools would first determine the appropriate proportion of students with a probability of achieving an AP grade of 3 or higher to offer or expand an AP course at their school. Some schools may believe a 50 percent success rate is adequate, other schools may prefer a slightly lower or slightly higher proportion. Next, the school would determine the number of students who attain the corresponding PSAT/NMSQT score. Finally, the school would estimate the approximate number of these students who would likely have completed the prerequisite courses and be interested in AP. This information can be extremely useful for schools considering offering additional AP courses, as well as those interested in offering additional AP sections of the same course.

Additional Thoughts

In some schools and for certain subjects, PSAT/NMSQT scores may not be available in time to make decisions about entry into AP courses. This is certainly the case where students complete the PSAT/NMSQT in October of their junior year and a full-year AP course is offered exclusively to juniors. In addition, scores obtained in eleventh grade cannot be used if the mathematics or foreign language sequence begins in the eighth or ninth grades and students have not taken the required prerequisite courses. Of course, increasing proportions of students are completing the PSAT/NMSQT as sophomores and their scores can be helpful for placement in AP courses that begin after the receipt of student score reports.

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TABLE 2

AP Examinations Using PSAT/NMSQT Math Scores

Percentage of Students with a Particular PSAT/NMSQT Math Score Receiving an AP Examination Grade at or Above 3 or 4

AP CALCULUS AB

	CALCULUS AB		
	AP GRADE		
PSAT M Score	≥ 3	≥ 4	n
80–76	97.1	87.0	2,539
75–71	92.1	71.7	9,846
70–66	82.1	52.2	17,984
65–61	68.3	33.8	23,844
60–56	52.9	19.9	17,286
55–51	38.2	11.0	11,011
50–46	24.5	5.3	6,873
45–41	15.6	2.8	3,051
40–36	9.1	2.0	1,175
35–31	6.0	1.3	383
30–26	9.2	4.6	109
25–20	—	—	13
Total	**—**	**—**	**94,114**

AP CALCULUS BC

	CALCULUS BC		
	AP GRADE		
PSAT M Score	≥ 3	≥ 4	n
80–76	97.1	86.9	3,087
75–71	92.1	70.4	5,716
70–66	82.4	51.1	5,315
65–61	69.6	33.2	3,621
60–56	58.2	23.1	1,460
55–51	42.7	12.3	612
50–46	35.0	12.8	257
45–41	30.0	10.0	90
40–36	17.6	0.0	34
35–31	—	—	7
30–26	—	—	4
25–20	—	—	1
Total	**—**	**—**	**20,204**

AP CHEMISTRY

	CHEMISTRY		
	AP GRADE		
PSAT M Score	≥ 3	≥ 4	n
80–76	95.4	81.2	2,812
75–71	89.9	63.9	6,313
70–66	79.8	45.5	8,457
65–61	64.4	27.8	9,502
60–56	49.9	16.8	7,107
55–51	36.6	9.5	4,937
50–46	21.7	4.6	2,952
45–41	13.5	1.7	1,540
40–36	8.9	1.0	619
35–31	5.9	1.6	257
30–26	6.8	2.7	73
25–20	—	—	12
Total	**—**	**—**	**44,581**

AP MUSIC

	MUSIC		
	AP GRADE		
PSAT M Score	≥ 3	≥ 4	n
80–76	96.3	82.7	110
75–71	93.1	64.9	259
70–66	90.3	62.7	359
65–61	84.8	53.3	428
60–56	76.5	41.3	395
55–51	71.5	33.5	316
50–46	64.9	28.0	268
45–41	47.4	20.6	194
40–36	28.4	8.4	95
35–31	36.4	15.9	44
30–26	—	—	16
25–20	—	—	3
Total	**—**	**—**	**2,487**

TABLE 2 *(continued)*

AP Examinations Using PSAT/NMSQT Math Scores

Percentage of Students with a Particular PSAT/NMSQT Math Score Receiving an AP Examination Grade at or Above 3 or 4

AP COMPUTER SCIENCE A

	COMPUTER SCIENCE A		
	AP GRADE		
PSAT M Score	≥ 3	≥ 4	n
80–76	90.4	73.0	403
75–71	81.4	56.4	1,028
70–66	71.3	44.1	1,500
65–61	56.0	28.5	1,836
60–56	38.1	15.6	1,412
55–51	25.9	7.2	951
50–46	16.9	4.2	600
45–41	9.6	2.5	353
40–36	7.5	5.0	161
35–31	—	—	50
30–26	—	—	10
25–20	—	—	4
Total	**—**	**—**	**8,308**

AP COMPUTER SCIENCE AB

	COMPUTER SCIENCE AB		
	AP GRADE		
PSAT M Score	≥ 3	≥ 4	n
80–76	93.7	79.1	918
75–71	88.2	68.6	1,352
70–66	78.4	49.9	1,341
65–61	73.7	35.0	1,065
60–56	54.0	23.5	584
55–51	35.9	16.6	301
50–46	28.7	11.1	153
45–41	25.4	9.5	63
40–36	—	—	21
35–31	—	—	7
30–26	—	—	2
25–20	—	—	2
Total	**—**	**—**	**5,809**

AP MACROECONOMICS

	MACROECONOMICS		
	AP GRADE		
PSAT M Score	≥ 3	≥ 4	n
80–76	93.6	83.7	583
75–71	88.4	73.4	1,476
70–66	79.7	60.9	2,064
65–61	72.8	48.0	2,545
60–56	60.8	36.5	1,955
55–51	48.0	25.8	1,511
50–46	35.4	15.3	1,122
45–41	19.2	11.7	691
40–36	14.9	7.1	309
35–31	9.0	2.7	112
30–26	2.1	—	48
25–20	—	—	8
Total	**—**	**—**	**12,424**

AP MICROECONOMICS

	MICROECONOMICS		
	AP GRADE		
PSAT M Score	≥ 3	≥ 4	n
80–76	85.4	78.1	503
75–71	87.8	69.7	1,141
70–66	79.9	54.6	1,733
65–61	74.1	43.7	2,052
60–56	61.5	30.4	1,583
55–51	51.9	21.6	1,200
50–46	37.8	11.5	882
45–41	29.3	8.0	503
40–36	16.9	3.7	219
35–31	10.4	2.6	77
30–26	3.2	—	31
25–20	—	—	2
Total	**—**	**—**	**9,926**

TABLE 2 *(continued)*

AP Examinations Using PSAT/NMSQT Math Scores

Percentage of Students with a Particular PSAT/NMSQT Math Score Receiving an AP Examination Grade at or Above 3 or 4

AP PHYSICS B

	PHYSICS B		
	AP GRADE		
PSAT M Score	≥ 3	≥ 4	n
80–76	95.4	76.6	1,120
75–71	88.5	58.4	2,929
70–66	77.2	42.0	4,265
65–61	64.1	27.1	4,603
60–56	51.2	16.6	3,043
55–51	40.0	9.8	1,961
50–46	28.8	4.6	1,076
45–41	19.0	3.6	551
40–36	13.7	1.0	204
35–31	1.4	1.4	69
30–26	9.0	4.5	22
25–20	—	—	3
Total	**—**	**—**	**19,846**

AP PHYSICS C: MECHANICS

	PHYSICS C: MECHANICS		
	AP GRADE		
PSAT M Score	≥ 3	≥ 4	n
80–76	95.9	88.3	1,219
75–71	89.9	70.0	2,341
70–66	79.6	50.7	2,244
65–61	63.3	32.3	1,877
60–56	45.8	17.6	1,066
55–51	34.3	12.1	531
50–46	19.7	3.9	284
45–41	13.5	3.4	149
40–36	8.0	4.0	50
35–31	—	—	15
30–26	—	—	6
25–20	—	—	2
Total	**—**	**—**	**9,784**

AP PHYSICS C: ELECTRICITY AND MAGNETISM

	PHYSICS C: ELECTRICITY AND MAGNETISM		
	AP GRADE		
PSAT M Score	≥ 3	≥ 4	n
80–76	88.4	79.8	815
75–71	76.9	64.5	1,360
70–66	65.2	48.9	1,158
65–61	49.0	31.2	844
60–56	33.9	23.0	387
55–51	32.5	18.3	169
50–46	23.1	8.5	82
45–41	11.7	4.7	43
40–36	—	—	21
35–31	—	—	6
30–26	—	—	2
25–20	—	—	
Total	**—**	**—**	**4,887**

TABLE 3

AP Examinations Using PSAT/NMSQT Verbal and Math Scores

Percentage of Students with a Particular PSAT/NMSQT Sum of Verbal and Math Scores Receiving an AP Examination Grade at or Above 3 or 4

AP BIOLOGY

	AP GRADE		
PSAT V + M Score	≥ 3	≥ 4	n
156–160	100%	98.9%	92
151–155	99.6	98.4	365
146–150	99.4	95.4	783
141–145	98.5	91.9	1,548
136–140	97.8	88.9	2,700
131–135	96.3	82.2	3,567
126–130	93.1	74.6	5,168
121–125	89.8	66.3	6,378
116–120	85.4	57.1	7,427
111–115	77.4	47.9	7,705
106–110	70.5	38.6	7,783
101–105	62.8	29.5	7,168
96–100	51.6	22.1	5,963
91–95	44.6	16.1	4,968
86–90	34.7	11.2	3,709
81–85	26.6	7.5	2,680
76–80	20.4	5.1	1,773
71–75	13.1	3.6	1,086
66–70	10.3	1.8	658
61–65	10.0	3.0	334
56–60	6.6	2.9	244
51–55	6.8	2.3	88
46–50	—	—	42
40–45	—	—	12
Total	**—**	**—**	**72,241**

TABLE 4

Correlations of AP Examinations with PSAT/NMSQT

AP Examination	sample size	PSAT V	PSAT M	PSAT V + M
Art History	6,039	**.4838**	.3599	.4764
Biology	72,241	.5398	.5678	**.6246**
Calculus AB	94,114	.3689	**.5584**	.5197
Calculus BC	20,204	.3247	**.5087**	.4539
Chemistry	44,581	.4431	**.5858**	.5797
Comparative Government & Politics	6,157	.4758	.3704	**.4767**
Computer Science A	8,308	.4089	**.5508**	.5410
Computer Science AB	5,809	.4224	.5083	**.5247**
English Language	63,408	**.6537**	.4897	.6425
English Literature	126,072	**.6678**	.4641	.6311
European History	58,491	.5120	.4157	**.5282**
French Language	13,834	**.3494**	.2465	.3326
French Literature	1,588	**.4423**	.3128	.4249
German Language*	3,064	**.1196**	.0365	.0878
Latin Literature	2,041	.4631	.4100	**.4968**
Latin Vergil	3,878	.4776	.4167	**.5075**
Macroeconomics	12,424	.4718	.5212	**.5614**
Microeconomics	9,926	.4585	.5232	**.5569**
Music	2,487	.3361	**.4660**	.4471
Physics B	19,846	.3735	**.5199**	.5051
Physics C: Mechanics	9,784	.4099	**.5940**	.5561
Physics C: Electricity & Magnetism	4,887	.3516	**.4761**	.4610
Psychology	11,581	.5583	.4991	**.5948**
Spanish Language*	34,904	-.0063	-.0919	-.0545
Spanish Literature	4,041	**.3134**	.2287	.2874
Studio Art: Design*	4,026	.0899	**.1359**	.1269
Studio Art: Drawing*	1,892	.1182	**.1792**	.1667
U.S. Government and Politics	34,679	.5581	.4668	**.5772**
U.S. History	190,512	**.5513**	.4137	.5475

* Correlations too low to be useful

Bold number indicates highest correlation among PSAT scores

Boxed number indicates one preferred model for estimating expected grades on AP Exams from PSAT/NMSQT V, M, or V+M

A more complete report on other AP Examinations and how to use PSAT/NMSQT scores will be available from the College Board in 1998. For more information or additional copies of this report, please write to Office of Research, The College Board, 45 Columbus Avenue, New York, NY 10023-6992, or contact us by e-mail at *research@collegeboard.org*.

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