Longitudinal Description of Students in California Partnership Academies

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EXECUTIVE SUMMARY

This is the third in a series of three reports analyzing data on students in California Partnership Academies (CPAs). The first, *Profile of the California Partnership Academies, 2009-2010*,[1] gave an overview of California Partnerships Academies (CPAs), and included some comparisons between CPA students and all high school students in California. Salient findings included higher graduation rates for CPA seniors, and higher a-g course completion rates for CPA graduates, compared to the state as a whole. These are encouraging results, given that at least half of the students entering each CPA in grade 10 must meet "at-risk" criteria defined in the law.

The second report, *Comparing Students in Each Academy with Non-Academy Students at the Same High School, 2009-10*,[2] examined whether CPA students really come from more challenging circumstances than other students at the same high schools. CPAs are typically located in high schools where many or most students would satisfy the "at-risk" criteria stated in the law. The second report therefore compared students in each CPA with non-academy students at the same high school. Results indicated that CPAs generally do enroll students who face greater challenges than other students at the same school, but considerable numbers of individual CPAs are exceptions to this general finding. Administrators and teachers can use this kind of information to identify and replicate effective practices, or to guide improvement of individual CPAs.

Although the second report analyzed data on students in grades 10 and 11 in 2009-10, it was not a longitudinal study. The present report now provides, for the first time, a truly longitudinal analysis of what happened to individual students in a set of CPAs that enrolled students from grades 10 through 12. We analyzed two cohorts:

- cohort 1 begins with 10th grade CPA students in 2008-09;
- cohort 2 begins with 10th grade CPA students in 2009-10.

For each cohort, we could determine how many students remained in the same academy from one year to the next, and how many stayed in the same school from grade 10 to 11. Of those students who remained in the same CPA from grade 10 to 12, we could also determine how many graduated, and how many graduates reportedly completed the a-g course requirements for admission to California State University or the University of California. We could compare all these transition, graduation, and a-g completion rates across different subgroups of CPA students. For cohort 2, we were also able to compare transition patterns from grade 10 to 11 for academy students versus non-academy students in the same high school. Finally, we also

[1] Charles Dayton, Candace Hamilton Hester, and David Stern, *Profile of the California Partnership Academies, 2009-2010.* College & Career Academy Support Network, UC Berkeley, October 2011. Available at http://casn.berkeley.edu/resources.php?r=293&c=1

[2] David Stern, Phil Saroyan, and Candace Hamilton Hester, *Comparing Students in Each Academy with Non-Academy Students at the Same High School, 2009-10.* College & Career Academy Support Network, UC Berkeley, August 2012. Available at http://casn.berkeley.edu/resources.php?r=337&c=1

analyzed year-to-year changes in individual CPA students' attendance, credits earned during the year, and grades.

Results are presented in three main sections: (1) promotion, graduation, and a-g course completion; (2) changes in attendance, credits, and grades; and (3) differences among academies.

Promotion, graduation, and a-g course completion

Table 1 summarizes results on how many students stay in the same academy, graduate, and reportedly complete the a-g course sequence.

Table 1. Summary of promotion, graduation and a-g completion rates, cohorts 1 and 2

	Cohort 1	Cohort 2
Enrolled in academy, grade 10	13,822	18,812
In same academy, grade 11	8,981	12,432
Percent in same academy, grade 11	*65.0*	*66.1*
Same academy, grade 12	7,446	10,371
Percent of grade 11 students in same academy, grade 12	*82.9*	*83.4*
Percent of grade 10 students in same academy, grade 12	*53.9*	*55.1*
Graduated at end of grade 12	7,203	9,998
Percent of grade 12 students graduating from academy	*96.7*	*96.4*
Percent of grade 10 students graduating from academy	*52.1*	*53.1*
Met a-g requirements	4,355	6,451
Percent of academy graduates meeting a-g requirements	*60.5*	*64.5*
Percent of grade 10 students graduating from academy and meeting a-g requirements	*31.5*	*34.3*

The greatest attrition among CPA students occurs between grades 10 and 11, when about one-third of students leave the academy. More than 80 percent of academy 11th graders remain in the same academy in grade 12. More than 96 percent of students who start a CPA in grade 10 and remain to grade 12 succeed in graduating at the end of grade 12. More than 60 percent of these CPA graduates reportedly complete the a-g course sequence.

We were able to shed some additional light on transitions from grade 10 to 11. Most 10th graders who leave a CPA remain in the same high school for grade 11. Others move to a different California public school. Some cannot be found in our data, possibly because their

student ID numbers were not recorded correctly, or because they moved to a California non-public school or to another state, or because they dropped out of school entirely.

Table 2. Cohort 2 transition from grade 10 to 11, academy and non-academy students, total and selected subgroups

	Academy Students	Non-Academy Students
Enrolled in grade 10, 2009-10	18,812	494,763
Enrolled in same school, grade 11, 2010-11	15,637	378,593
Percent enrolled in same school, grade 11		
Total	*83.1*	*76.5*
Hispanic	*82.8*	*72.7*
White	*84.4*	*81.5*
Asian	*90.3*	*90.7*
Black	*74.7*	*64.5*
Female	*84.4*	*78.4*
Male	*81.7*	*74.8*
Subsidized lunch eligible in grade 10	*84.0*	*72.2*
Ever English learner as of grade 10	*86.1*	*77.4*
Special education in grade 10	*82.0*	*73.0*
Not found in 2010-11	1,139	53,334
Percent not found in 2010-11		
Total	*6.1*	*10.8*
Hispanic	*11.1*	*14.4*
White	*10.3*	*10.6*
Asian	*6.0*	*5.2*
Black	*15.8*	*18.5*
Female	*5.5*	*9.7*
Male	*6.6*	*11.8*
Subsidized lunch eligible in grade 10	*5.7*	*12.7*
Ever English learner as of grade 10	*5.0*	*10.6*
Special education in grade 10	*6.9*	*14.0*

Table 2 compares transitions from grade 10 to 11 for CPA students in cohort 2 and all non-academy 10th graders in the state, during the same year. CPA 10th graders were more likely than non-academy 10th graders to enroll at the same high school in grade 11 (including both those who did and those who did not remain in the academy), and more of the CPA 10th graders could be found somewhere in a California public school. Students who move from one school to another may face challenges as a result; such mobility is associated with a higher risk of not graduating from high school. Students in the "not found" category may face the most serious challenges, especially if they are moving to a school in another state or dropping out of school entirely. The pattern of transition from grade 10 to 11 is therefore likely to be more advantageous for academy than non-academy students. Table 2 shows the academy advantage is greatest for the most vulnerable groups: students who were eligible for subsidized lunch, ever been classified as English language learners, or were in special education.

Comparing transitions from grade 10 to 11 for various groups of CPA students in cohorts 1 and 2 revealed:

- Asian, Filipino, mixed race, and white 10th grade CPA students are most likely to remain in the same academy in grade 11, and most likely to be found in a California public school. Black, American Indian, and Pacific Islander students are least likely to remain in the same academy in grade 11, and least likely to be found in a California public school.
- Girls are more likely than boys to remain in the same academy, and more likely to be found in a California public school.
- 10th graders who were deemed "at risk" were less likely to remain in the same academy in grade 11, and less likely to be found in a California public school.
- In cohort 2, students who had ever been classified as English language learners were more likely to stay in the same academy in grade 11, and also more likely to be found in a California public school.
- In cohort 2, special education students were less likely to stay in the same academy or to be found in a California public school.

Comparing transitions from grades 11 to 12 for various groups of CPA students revealed that differences among racial or ethnic groups in the percentages who stay in the same academy are generally smaller than the differences from grade 10 to 11. In particular, the percentage of African American 10th graders who stayed in the same academy in grade 11 was relatively low compared to other groups, but that difference is greatly attenuated in the transition from grade 11 to 12. Differences by gender and at-risk status are about the same in the transition from grade 11 to 12 as in the transition from grade 10 to 11. Again boys and students who were designated at-risk in grade 10 are somewhat less likely to stay in the same academy from one year to the next. In cohort 2, students who had ever been classified as English language learners are somewhat more likely to stay in the same in academy from grade 11 to 12. Special education students are slightly less likely. These differences are similar to the patterns from

grades 10 to 11, but all groups have higher percentages of students remaining in the same academy from grade 11 to 12 than from grade 10 to 11.

Graduation rates for students who began as academy students in grade 10 and remained in the same academy until grade 12 were well above 90 percent for students in every category of race or ethnicity, gender, at-risk designation, English Language Learner status, and Special Education. Senior graduation rates were relatively low, but still greater than 90 percent, for African Americans, Pacific Islanders, males, students who had been designated "at risk" in grade 10, special education students, and students who had ever been classified as English language learners.

Among these CPA graduates, reported a-g completion rates were better than 50 percent for every category of race or ethnicity, gender, at-risk designation, English language learner status, and special education. Relatively low rates, but still better than 50 percent, were reported for African Americans, Pacific Islanders, Hispanics, whites in cohort 1, American Indians in cohort 2, males, students who had been designated "at risk" in grade 10, and special education students.

Changes in attendance, credits, and grades

In addition to describing student progress from one grade to the next through graduation, longitudinal data also let us describe changes in academy students' performance over time. CPA annual reports to CDE include information on attendance, credits, and grades for individual students. By linking information on individual students from one year to the next, we are able to measure change in students' performance on these measures. We found:

- Overall, attendance declined slightly or did not change. The decline was a little greater in cohort 1 than in cohort 2, and a little greater between grades 11 and 12 than between grades 10 and 11. The largest drop was 5 percentage points, for mixed race students in cohort 1 between grades 11 and 12.
- Generally the number of credits earned declined slightly or did not change. There were no consistent differences between cohorts 1 and 2, or between the changes from grade 10 to 11 versus 11 to 12. The biggest decline for any subgroup was 6 credits, equivalent to a little more than one semester's worth of credit in one course.
- Overall, changes in GPA are slightly positive, except for a slight decline in cohort 1 from grade 9 to 10. The maximum increase or decrease for any subgroup was ±0.2 on a 5-point scale.

Due to lack of available data on non-academy students, we are not able to determine how these changes for academy students compared with their non-academy counterparts.

Differences among academies

For practical purposes, some of the most useful information to be obtained from longitudinal data is about how much difference there is among individual CPAs. If a particular academy consistently shows high rates of promotion, graduation, and a-g course completion, as well as positive changes in student performance from one year to the next, teachers can take pride

and administrators can take note. Other academies might be able to learn what that academy has been doing to produce positive results, and emulate those practices. On the other hand, if students in a particular academy are leaving in large numbers, failing to graduate, or showing consistent declines in performance from one year to the next, and if these patterns persist for several years, then teachers and administrators should ask what can be done to improve those results. The data is seldom definitive by itself, but it can become a useful part of ongoing conversations about continuous improvement. We found:

- A substantial majority of CPAs had more than 60 percent of 10th graders returning to the same academy in grade 11. However, a few dozen academies had return rates that would presumably be seen as unsustainable –– less than 40 percent.
- The great majority of CPAs show more than 65 percent of students remaining in the same academy from grade 11 to 12, but again there are a few exceptions.
- In the large majority of CPAs, more than 95 percent of seniors graduate at the end of the year, and in almost all academies the senior graduation rate tops 90 percent. Again there are a small number of exceptions.
- Comparing academies according to the percentage of graduates who reportedly completed the a-g course requirements gives a more even distribution from low to high. A substantial number of CPAs show a-g completion rates above 75 percent, but a considerable number of academies have a-g completion rates of 25 percent or less, and there are quite a few academies in the middle range between 25 and 75 percent.
- Comparing average changes in attendance, credits, and grades revealed that in the large majority of CPAs:
    - the average change in students' attendance was less than ±5 percentage points,
    - the average change in credits earned during one year was less than ±10, the equivalent of one course, and
    - the average change in one-year GPA was less than ±0.33, about equivalent to the difference between a B and a B+.

  Again, considerable numbers of academies fell outside these ranges. Academies with large improvements in student performance, especially over a period of several years, could provide valuable lessons for the field. Academies with large declines in student performance, especially over a period of several years, could potentially benefit from those lessons.

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INTRODUCTION

This is the third in a series of three reports analyzing data on students in California Partnership Academies (CPAs). The first, *Profile of the California Partnership Academies, 2009-2010*,[3] gave an overview of California Partnerships Academies (CPAs), and included some comparisons between CPA students and all high school students in California. Salient findings included higher graduation rates for CPA seniors, and higher a-g course completion rates for CPA graduates, compared to the state as a whole. These are encouraging results, given that at least half of the students entering each CPA in grade 10 must meet "at-risk" criteria defined in the law.

The second report, *Comparing Students in Each Academy with Non-Academy Students at the Same High School, 2009-10*,[4] examined whether CPA students really come from more challenging circumstances than other students at the same high schools. CPAs are typically located in high schools where many or most students would satisfy the "at-risk" criteria stated in the law. The second report therefore compared students in each CPA with non-academy students at the same high school. Overall, CPA students in grade 10 are more likely to be eligible for subsidized lunch, have parents with less education, and are more likely to be Hispanic, compared to other 10th graders at the same school. The same is true at grade 11. These findings indicate that CPAs generally do enroll students who face greater challenges, compared to other students at the same school. An exception is special education students, who are generally under-represented in CPAs. This is perhaps not surprising, since being in special education is not one of the "at-risk" criteria specified in the law.

Although the overall comparisons between academy and non-academy students indicate that CPAs are generally enrolling students who face greater challenges, the second report found considerable numbers of individual CPAs that are exceptions to the general finding. For instance, in some CPAs, the percentage of 10th graders who are eligible for subsidized lunch is significantly *smaller* than among non-academy 10th graders at the same school. Administrators and teachers can use this information to guide improvement of individual CPAs.

The second report analyzed data on students in grades 10 and 11 in 2009-10. Comparing patterns in grade 10 and 11 gives some sense of what happens to academy students over time, but it is really a comparison of different cohorts of students. Also, some of the academies were just starting up in 2009-10, and only enrolled students in grade 10, so the analyses of grades 10 and 11 did not use exactly the same set of academies.

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[3] Charles Dayton, Candace Hamilton Hester, and David Stern, *Profile of the California Partnership Academies, 2009-2010.* College & Career Academy Support Network, UC Berkeley, October 2011. Available at http://casn.berkeley.edu/downloads/CPA_Report_2009-10.pdf

[4] David Stern, Phil Saroyan, and Candace Hamilton Hester, *Comparing Students in Each Academy with Non-Academy Students at the Same High School, 2009-10.* College & Career Academy Support Network, UC Berkeley, August 2012. Available at http://casn.berkeley.edu/resources.php?r=337&c=1

The present report now provides, for the first time, a truly longitudinal analysis of what happened to individual students in a set of CPAs that enrolled students from grades 10 through 12.[5] We analyzed two cohorts:

- cohort 1 begins with 10th grade CPA students in 2008-09;
- cohort 2 begins with 10th grade CPA students in 2009-10.

For each cohort, we could determine how many students remained in the same academy from one year to the next, and how many stayed in the same school from grade 10 to 11.[6] Of those students who remained in the same CPA from grade 10 to 12, we could also determine how many graduated, and how many graduates reportedly completed the a-g course requirements for admission to California State University or the University of California. We could compare all these transition, graduation, and a-g completion rates across different subgroups of CPA students. For cohort 2, we were also able to compare transition rates from grade 10 to 11 for academy students versus all non-academy students in the state, during the same year. Finally, we also analyzed year-to-year changes in individual student attendance, credits earned during the year, and grades.

Like the two previous reports, this report uses data on academy students submitted by each CPA in October each year to the California Department of Education (CDE), providing information for the preceding school year. In addition, this report also uses information from the Standardized Testing and Reporting (STAR) program to compare the characteristics of academy and non-academy students.

The remainder of this report presents results: first patterns of transition and completion, then changes in attendance, credits, and grades. For readers who do not have one of the two previous reports, the remainder of this Introduction reproduces paragraphs providing background on the California Partnership Academies.

Background on California Partnership Academies

In 1984, the California State Legislature passed Assembly Bill 3104, launching the California Partnership Academies (CPAs). The authorization was renewed by Senate Bill 605 in 1987, Senate Bill 44 in 1993, and Senate Bill 1354 in 2010. Additional funding came as a result of Senate Bill 70 in 2006 for career-technical pathways, and Assembly Bill 519 in 2009 for "green" academies. With each round of additional funding, CDE has issued a request for proposals, and

[5] Some CPAs are not included in the analysis because they ceased operation before the 10th graders could enroll in grade 12. Others are excluded because the student ID codes for entire academies could not be matched from one year to the next; this mainly occurred between 2008-09 and 2009-10, when a new data reporting system was implemented. In addition, some individual students are excluded because the school where they were enrolled in a CPA was different than the school where they took STAR tests; this created ambiguity in determining whether a student remained enrolled in the same school from one year to the next.

[6] The analysis merged two data sets: one for CPA students and one for all high school students (STAR). However, the STAR data does not include grade 12, so all we had for grade 12 was data on CPA students.

has awarded grants after a review of competing applications. In 2009-10 there were almost 500 CPAs, enrolling close to 50,000 students in high schools located in 36 different counties.

CPAs have served as a model for high school reform within and beyond California. Many of the districts that received federal Small Learning Community (SLC) grants employed "career academies" often based on California's CPAs, in some or all of their SLCs. More recently, in school districts receiving grants from the James Irvine Foundation under its Linked Learning initiative, most of the Linked Learning pathways have been career academies. It is estimated that roughly 700 career academies exist in California and 7,000 in the nation, with both numbers continuing to grow.

More than two decades of evaluations, beginning in the 1980s, have consistently found that career academies, including CPAs, produce positive outcomes for high school students (for a summary of the research, see Stern, Dayton, & Raby 2010). While not all comparisons between academy and non-academy students have been statistically significant, virtually all of the statistically significant differences have indicated better results for academy students.

Several studies, comparing academy students with similar students in the same high schools, found that academy students over the course of their high school years had significantly improved attendance, earned better grades, completed more course credits, and were less likely to leave high school. A major study by MDRC, using a strong random-assignment design, found that academy students not only improved their performance while in high school but also had significantly greater earnings eight years after high school (Kemple 2008). Other studies also have found that career academies do, in fact, effectively prepare students for careers.

At the same time, studies have found that career academy students also perform well in postsecondary education. The MDRC study found high rates of postsecondary educational attainment among former career academy students.[7] Another notable study, by Maxwell (2001), found that career academy graduates who went on to one of the large California public university campuses were more likely to complete bachelor's degrees, and less likely to need remedial classes along the way, than other graduates from the same urban school district. The strong and consistent track record of career academies is one reason for their continued growth.

CPAs combine a number of features. They:

- Are usually organized as smaller learning communities within large high schools.
- Group 10th- through 12th-grade students into several related classes each year.
- Organize cross-curricular teacher teams, both academic and career-technical.
- Frame the academic classes within a broadly defined career theme, while in most cases still enabling students to complete the a-g course sequence required for UC and CSU.
- Show students connections between their academic subjects and this career theme.

[7] The control group in the MDRC study also had high rates of participation in postsecondary education, and differences between the academy and control groups were not statistically significant.

- Show students connections between their coursework and activities outside the high school.
- Incorporate employer and community support through advisory groups, speakers, field trips, job shadowing, mentors, and internships.

Details of this model are available at the CASN website (http://casn.berkeley.edu), as well as the CDE website (http://www.cde.ca.gov/ci/gs/hs/cpagen.asp).

Among other features of the law that governs CPAs, at least 50% of the students in each incoming class of CPA sophomores must meet three of the following six "at-risk" criteria (defined more precisely in the law): having a poor attendance record, being significantly behind in credits, demonstrating low motivation for the regular school program, being economically disadvantaged, having low state test scores, and having a low grade point average.

CPAs also are required to match their state grant with either funding or in-kind support from both the receiving district and the academy's supporting employers, thereby substantially increasing the value of the state grant. Furthermore, CPA funding is performance-based, dependent on how many students meet specified targets for attendance, credits and graduation. CPAs are required to submit yearly performance data for each enrolled student, and they receive funding only for students who have met or exceeded the performance targets, up to a stated maximum. The maximum annual state grant allows for 90 funded students, up to a total amount in 2009-10 of either $69,120 or $81,000, depending on which state law authorized the funding.

PROMOTION, GRADUATION, AND A-G COURSE COMPLETION

This section describes how many students stayed in the same CPA from one year to the next, how many of those who reached grade 12 graduated at the end of the year, and how many graduates reportedly completed the a-g course sequence required for admission to CSU or UC. Table 1 summarizes some of the results, for both cohort 1 (grade 10 in 2008-09) and cohort 2 (grade 10 in 2009-10). Differences between the two cohorts turn out to be fairly small; this is reassuring, since we would not expect sharp fluctuations in these patterns from one year to the next.

Table 1. Summary of promotion, graduation and a-g completion rates, cohorts 1 and 2

	Cohort 1	Cohort 2
Enrolled in academy, grade 10	13,822	18,812
In same academy, grade 11	8,981	12,432
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Percent of grade 10 students graduating from academy	*52.1*	*53.1*
Met a-g requirements	4,355	6,451
Percent of academy graduates meeting a-g requirements	*60.5*	*64.5*
Percent of grade 10 students graduating from academy and meeting a-g requirements	*31.5*	*34.3*

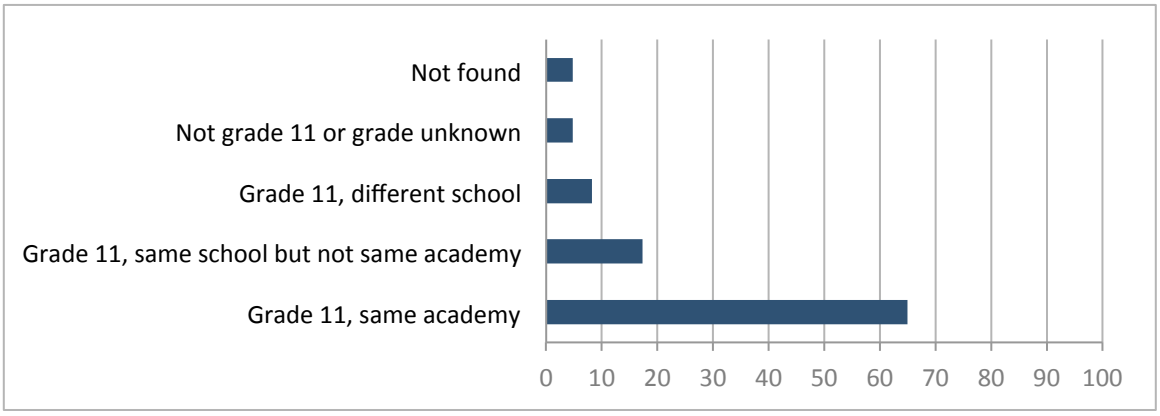
The first finding is that about one-third of academy 10th graders do not enroll in the same academy in grade 11. We do not have data to explain this attrition. Anecdotal reports suggest that some 10th grade academy students simply decide they do not really want a career-themed program; others may want to pursue Advanced Placement or other specialized courses that conflict with the academy schedule. Many CPAs anticipate this attrition, and deliberately enroll more than the number of 10th graders for which they can receive extra funds from the state, to ensure that they will enroll in grades 10-12 the total of 90 students for which they can receive state funding. Perhaps this attrition therefore becomes a self-fulfilling prophecy.

By grade 12, a little more than half of the original 10th graders remain enrolled in the same academy. Among these seniors, more than 96 percent graduate by the end of the year, and more than 60 percent of these graduates reportedly fulfill the complete set of a-g course requirements –– a total of 15 year-long courses. Both the senior graduation rates and the a-g completion rates are substantially higher than for the state as a whole.[8]

Transitions from grade 10

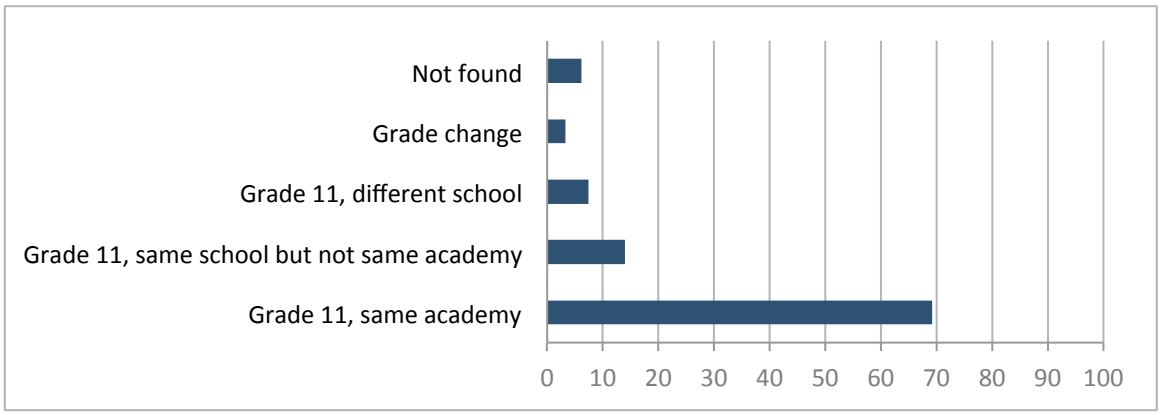
Of the 10th graders who leave their academy, the largest share enroll in grade 11 at the same school, as shown in Figure 1a (for cohort 1) and 1b (cohort 2). The next largest group of students enroll in grade 11 at a different California public school. A few show up as enrolled in some grade level other than 11, and a few are not found. There are several reasons why students are not found: there may have been an error in recording their student ID number, they may have gone to a school other than a California public school, or they may have dropped out of school entirely. Our data do not allow us to discern the various reasons why students are not found.

Figure 1a. Where academy grade 10 students in 2008-09 were enrolled in 2009-10 (percentage)



[8] For this comparison, see Charles Dayton, Candace Hamilton Hester, and David Stern, *Profile of the California Partnership Academies, 2009-2010.* College & Career Academy Support Network, UC Berkeley, October 2011. Available at http://casn.berkeley.edu/downloads/CPA_Report_2009-10.pdf

Figure 1b. Where academy grade 10 students in 2009-10 were enrolled in 2010-11 (percentage)



Leaving the academy while remaining at the same school probably does not jeopardize students' academic futures. On the other hand, students who move from one school to another may face challenges in making that transition; such mobility is associated with a higher risk of not graduating from high school. Students in the "not found" category may face the most serious challenges, if they are moving to a school in another state or dropping out of school entirely.

Table 2 focuses on 10th graders who remained at the same school in grade 11, and those who were not found in the subsequent year. For cohort 2, we were able to compare these transitions for academy 10th graders and all non-academy 10th graders in the state during the same year.[9] Academy 10th graders who enrolled in the same academy in grade 11 are, of course, counted as remaining at the same school. We can see that 83.1 percent of academy 10th graders were enrolled at the same school in grade 11 (whether in the academy or not), compared to 76.5 percent of non-academy students. Conversely, 6.1 percent of academy 10th graders were not found in the subsequent year, compared to 10.8 percent of non-academy students. Overall, the transition pattern from grade 10 to the next year is more favorable for academy students.

Table 2 shows the academy advantage is greatest for the most vulnerable groups. The difference between the percentages of academy and non-academy students who remain enrolled at the same school is greater than average for students who were eligible for subsidized lunch, ever been classified as English language learners, or were in special education. For instance, the difference is 9 percentage points (82 versus 73 percent) for special education students, compared to an overall difference of 6.6 percentage points (83.1 versus 76.5). Likewise, these same groups of students were relatively less likely to be "not found."

[9] We did not do this comparison for cohort 1 because it would have required merging 2008-09 data for CPA students with 2009 STAR data for all students in grade 10. As mentioned in a previous footnote, the CPA data for 2008-09 was reported using an older system, and about 100 academies did not enter state student ID numbers needed for matching with STAR data.

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Total	*6.1*	*10.8*
Hispanic	*11.1*	*14.4*
White	*10.3*	*10.6*
Asian	*6.0*	*5.2*
Black	*15.8*	*18.5*
Female	*5.5*	*9.7*
Male	*6.6*	*11.8*
Subsidized lunch eligible in grade 10	*5.7*	*12.7*
Ever English learner as of grade 10	*5.0*	*10.6*
Special education in grade 10	*6.9*	*14.0*

We cannot tell why the transition patterns from grade 10 are more favorable for academy students, especially in groups facing greater challenges. Perhaps the students who initially enroll in academies have a pre-existing tendency to be less mobile. But it is clear that more students remain at the same high school the year after grade 10, and more can be found in a California public school, if they spent 10th grade in a CPA. This is especially true for students in more vulnerable groups.

Figures 2a and b, 3a and b, and 4a and b compare transitions from grade 10 to 11 for CPA students classified by race or ethnicity, gender, and whether they met the statutory "at-risk" criteria in grade 10. The "a" figures show results for cohort 1 (grade 10 in 2008-09), and the "b" figures show the corresponding results for cohort 2 (grade 10 in 2009-10). Patterns are generally similar for the two cohorts.

Figure 2a. Where academy grade 10 students in 2008-09 were enrolled in 2009-10, by race or ethnicity (percentage)

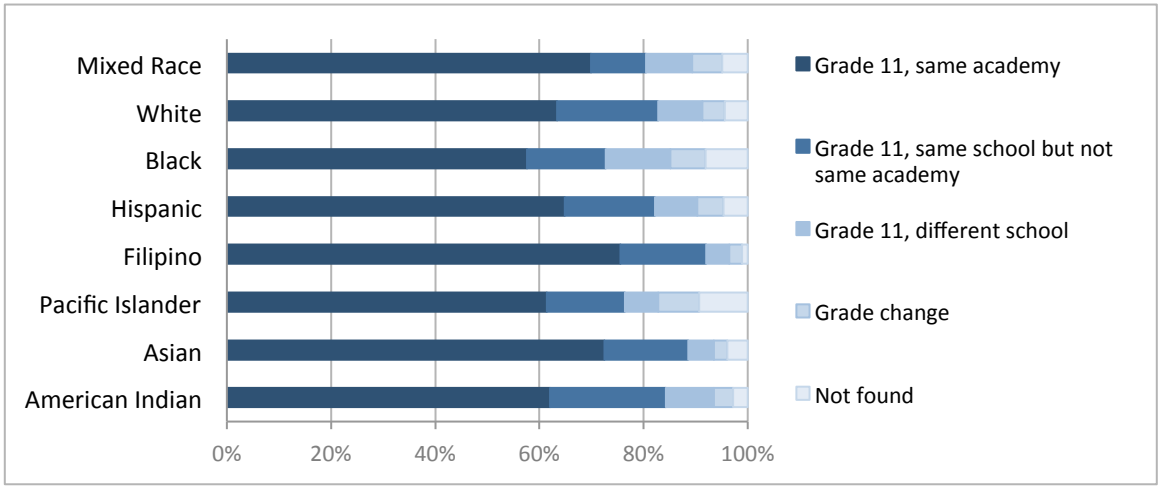
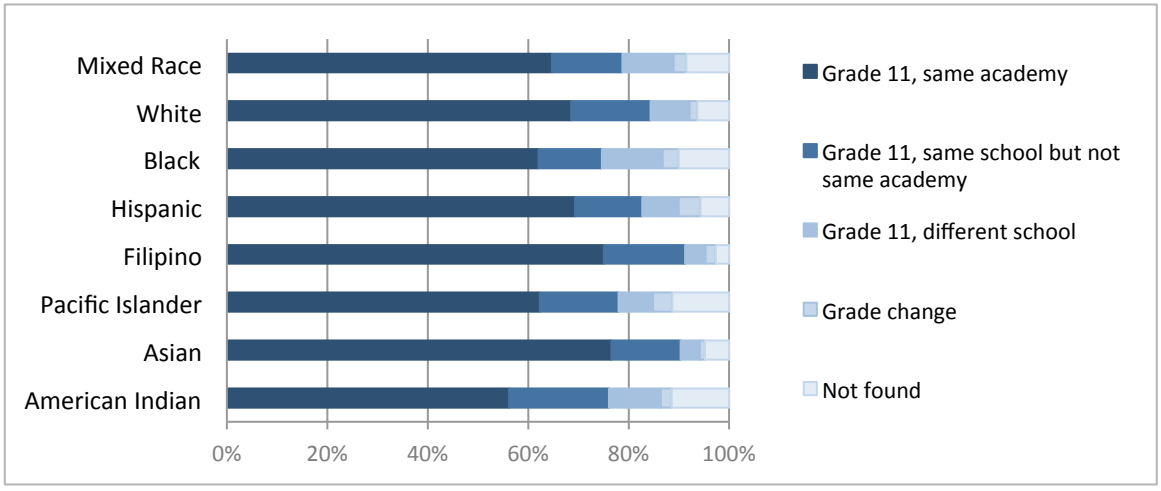


Figure 2b. Where academy grade 10 students in 2009-10 were enrolled in 2010-11, by race or ethnicity (percentage)



Figures 2a and b show Asian, Filipino, mixed race, and white 10th grade CPA students are most likely to remain in the same academy in grade 11, and least likely to be "not found" in a California public school. Black, American Indian, and Pacific Islander students are least likely to remain in the same academy in grade 11, and most likely to be "not found" in a California public school.

In Figures 3a and b, girls are more likely than boys to remain in the same academy, and more likely to be found in a California public school. Figures 4a and b show that 10th graders who were deemed "at risk" were less likely to remain in the same academy in grade 11, and less likely to be found in a California public school.

Figures 5 and 6 provide information only for cohort 2.[10] Figure 5 indicates that students who had ever been classified as English language Learners were more likely to stay in the same academy in grade 11, and also more likely to be found in a California public school. However, Figure 6 shows that special education students were less likely to stay in the same academy or to be found in a California public school.

Figure 3a. Where academy grade 10 students in 2008-09 were enrolled in 2009-10, by gender (percentage)

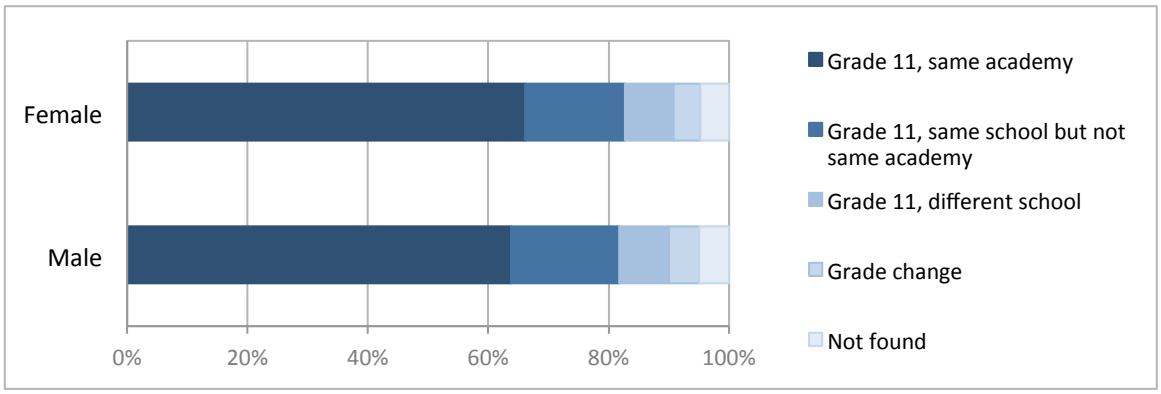
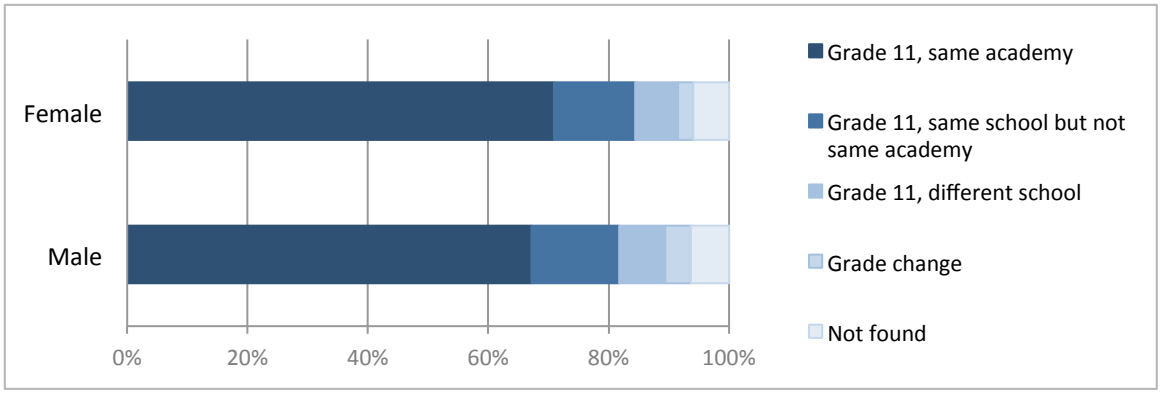


Figure 3b. Where academy grade 10 students in 2009-10 were enrolled in 2010-11, by gender (percentage)



[10] The comparisons in Figures 5 and 6 could not be made for cohort 1 because information on ELL and special education status was not available in the 2008-09 CPA data.

Figure 4a. Where academy grade 10 students in 2008-09 were enrolled in 2009-10, by at-risk designation in grade 10 (percentage)

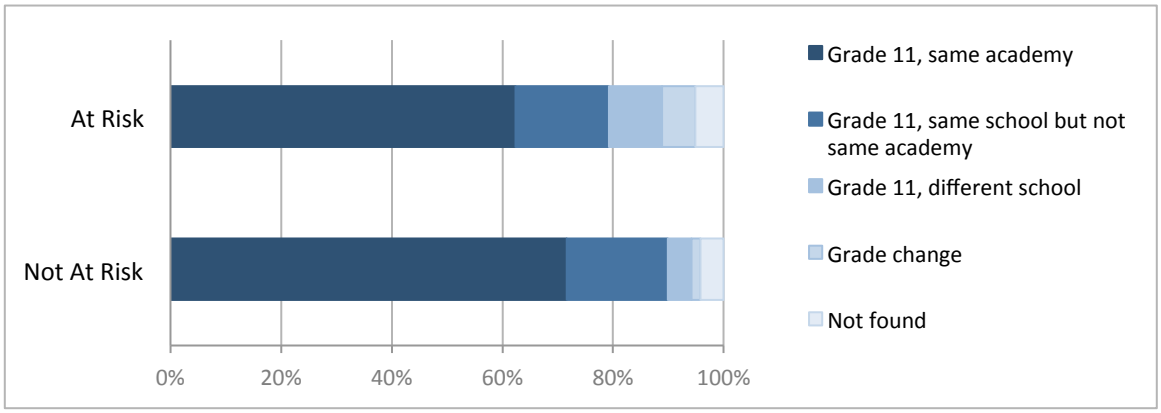


Figure 4b. Where academy grade 10 students in 2009-10 were enrolled in 2010-11, by at-risk designation in grade 10 (percentage)

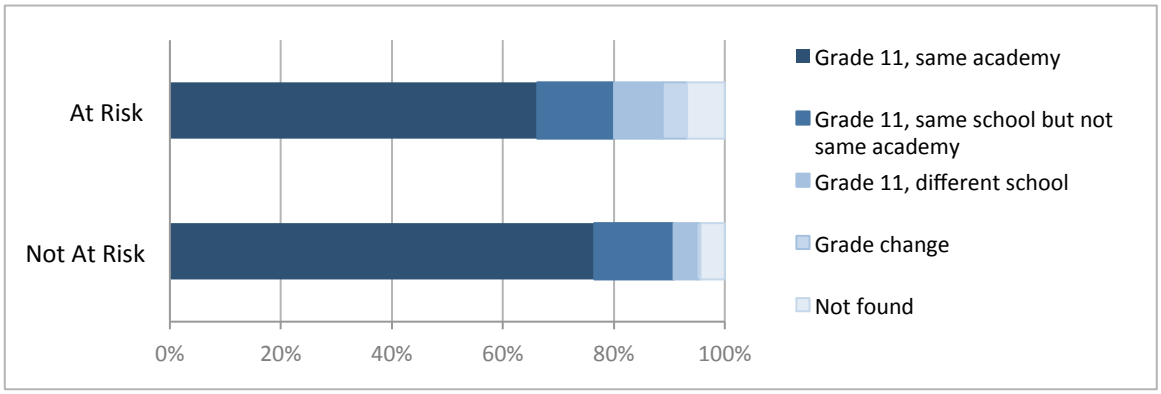


Figure 5. Where academy grade 10 students in 2009-10 were enrolled in 2010-11, by English language learner status in grade 10 (percentage)

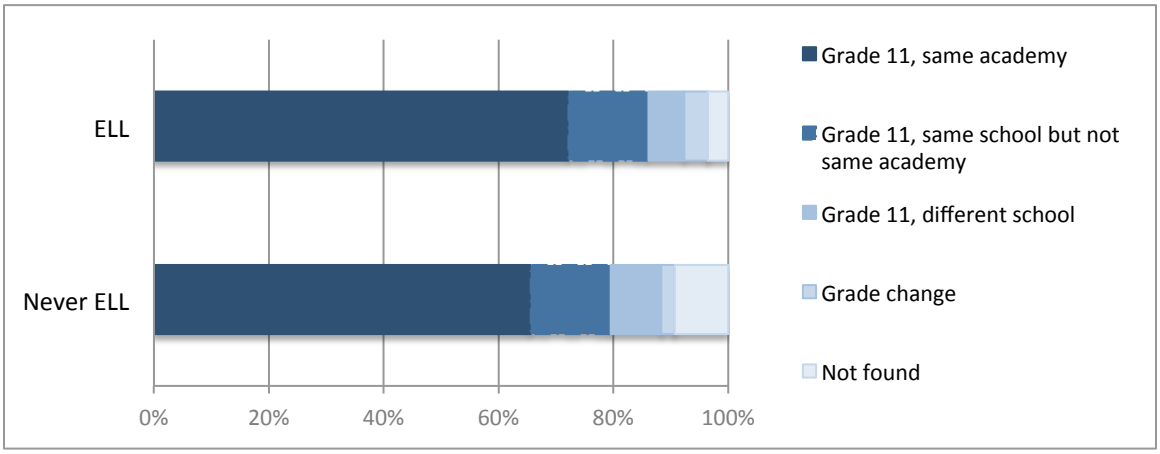
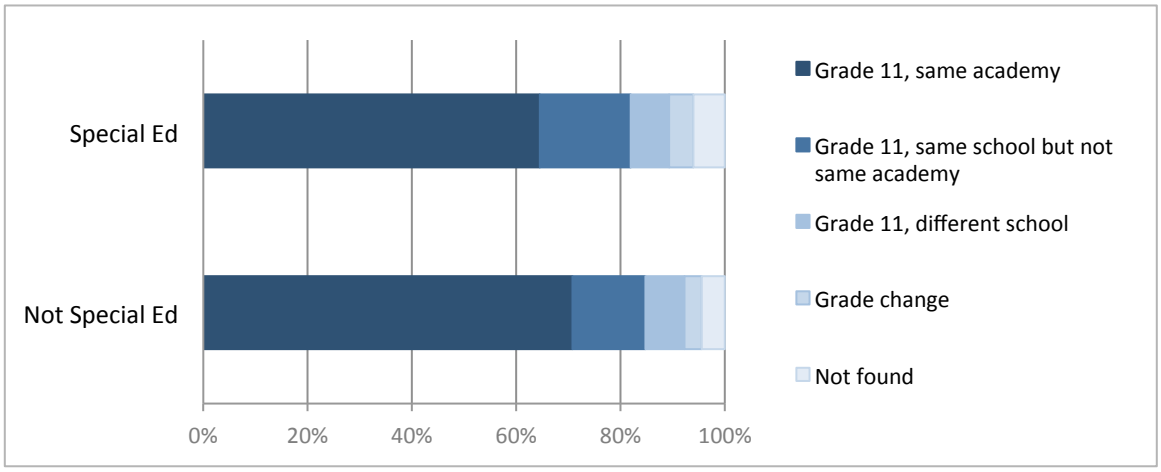


Figure 6. Where academy grade 10 students in 2009-10 were enrolled in 2010-11, by special education status in grade 10 (percentage)



Figures 7 through 12b provide more detail on the comparison of academy and non-academy 10th graders in cohort 2, which was summarized in Table 2 above. Table 2 showed that academy 10th graders were more likely than non-academy 10th graders to remain in the same school in grade 11, and more likely to be found in a California public school. Figures 7 through 12b show that this generalization is true for all subgroups, whether classified by race or ethnicity (except for Asians), gender, eligibility for subsidized lunch (NSLP = National School Lunch Program), English language learner status, or special education. As noted earlier, this may be due to a pre-existing tendency of academy 10th graders to be less mobile than non-academy 10th graders. Nevertheless, the difference is remarkably consistent across all categories.

Figure 7. Where grade 10 students in 2009-10 were enrolled in 2010-11, academy vs. non-academy (percentage)

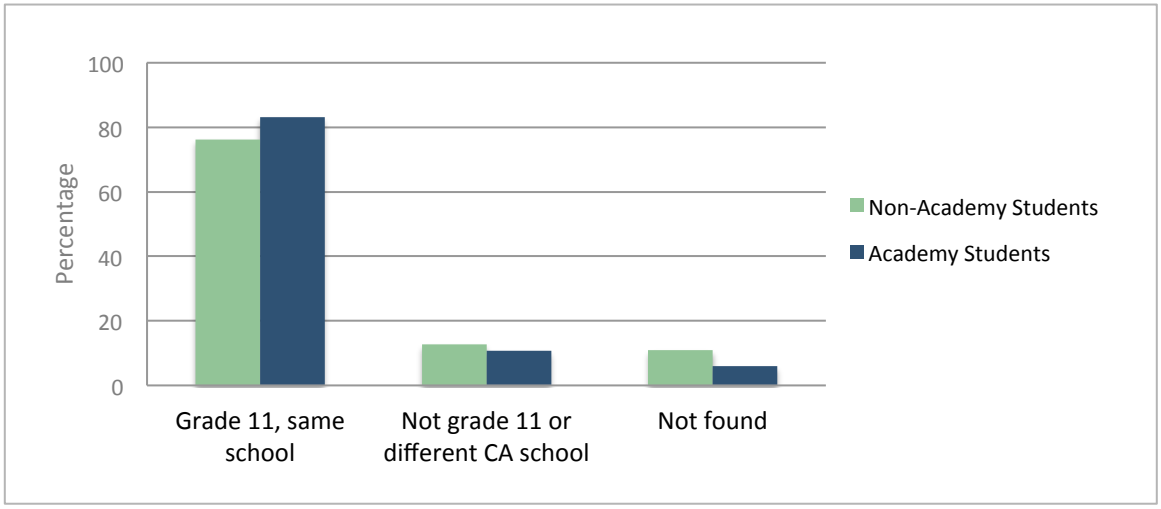


Figure 8a. Where grade 10 students in 2009-10 were enrolled in 2010-11, academy vs. non-academy, by race or ethnicity: percentage who were in the same school in grade 11

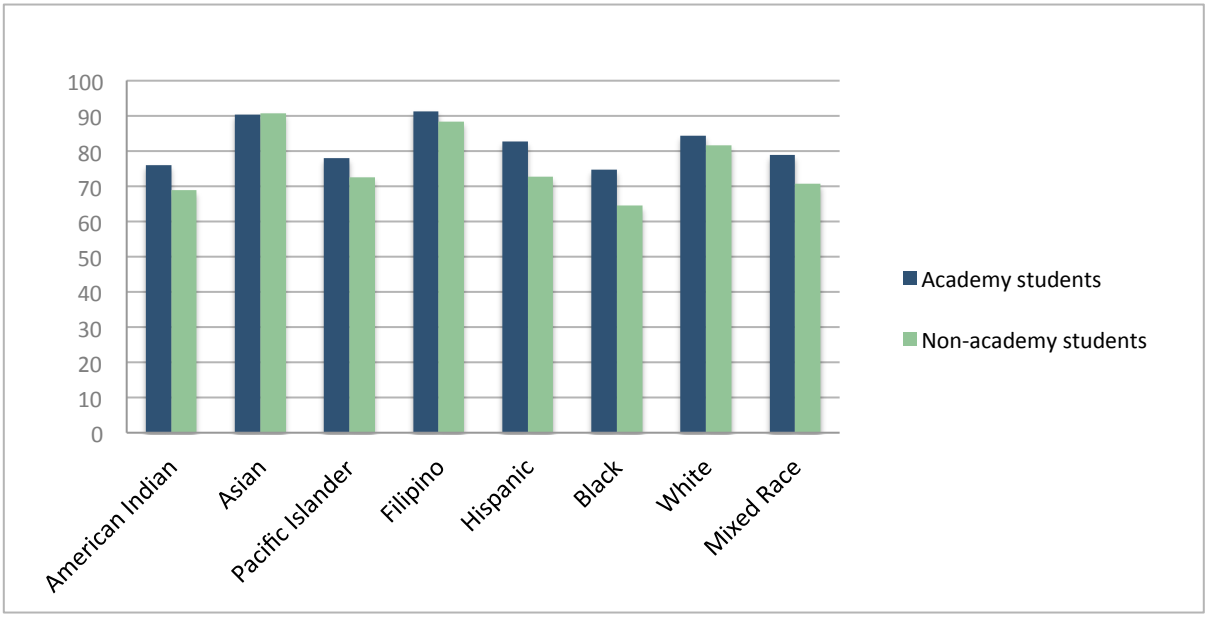


Figure 8b. Where grade 10 students in 2009-10 were enrolled in 2010-11, academy vs. non-academy, by race or ethnicity: percentage who were not found

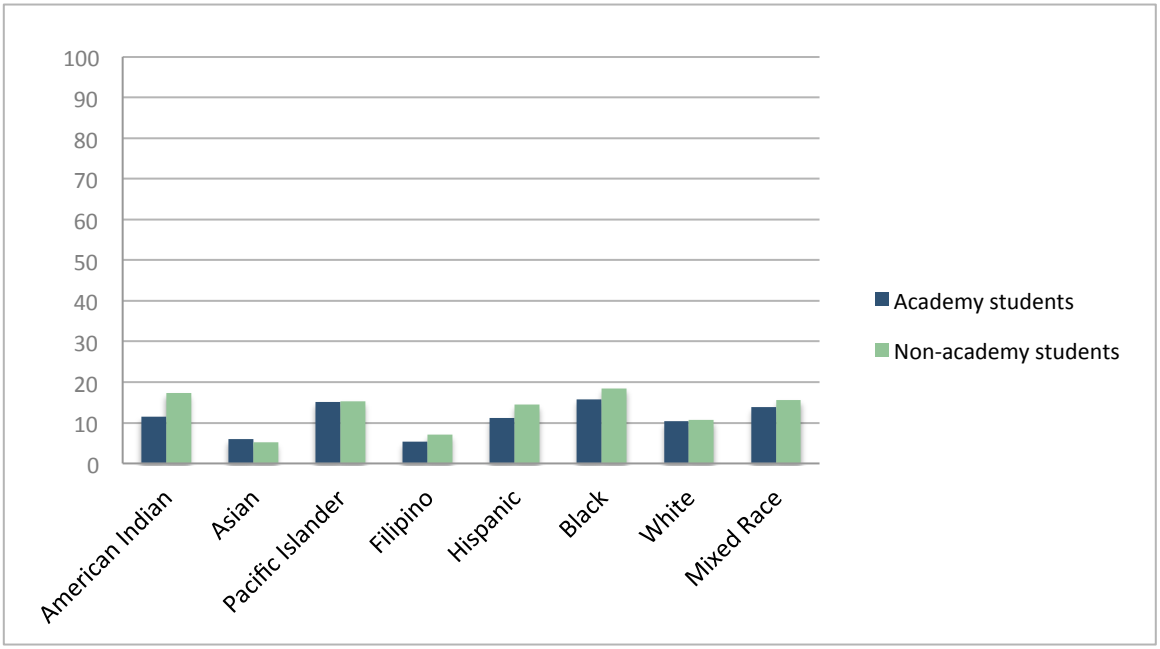


Figure 9a. Where grade 10 students in 2009-10 were enrolled in 2010-11, academy vs. non-academy, by gender: percentage who were in the same school in grade 11

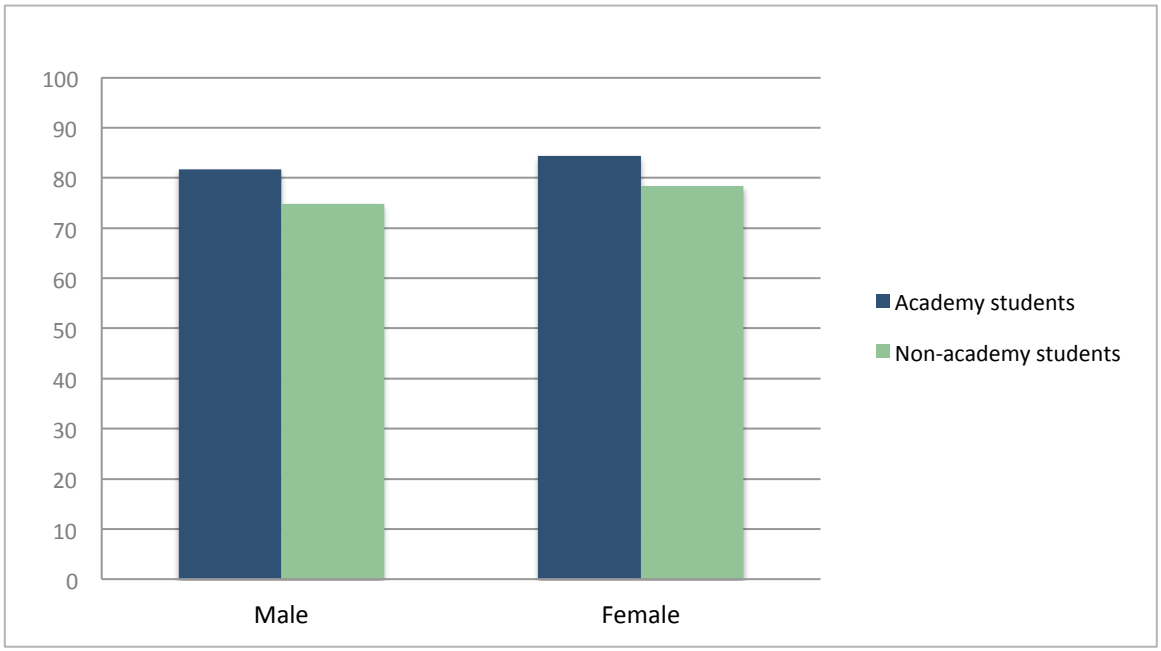


Figure 9b. Where grade 10 students in 2009-10 were enrolled in 2010-11, academy vs. non-academy, by gender: percent who were not found

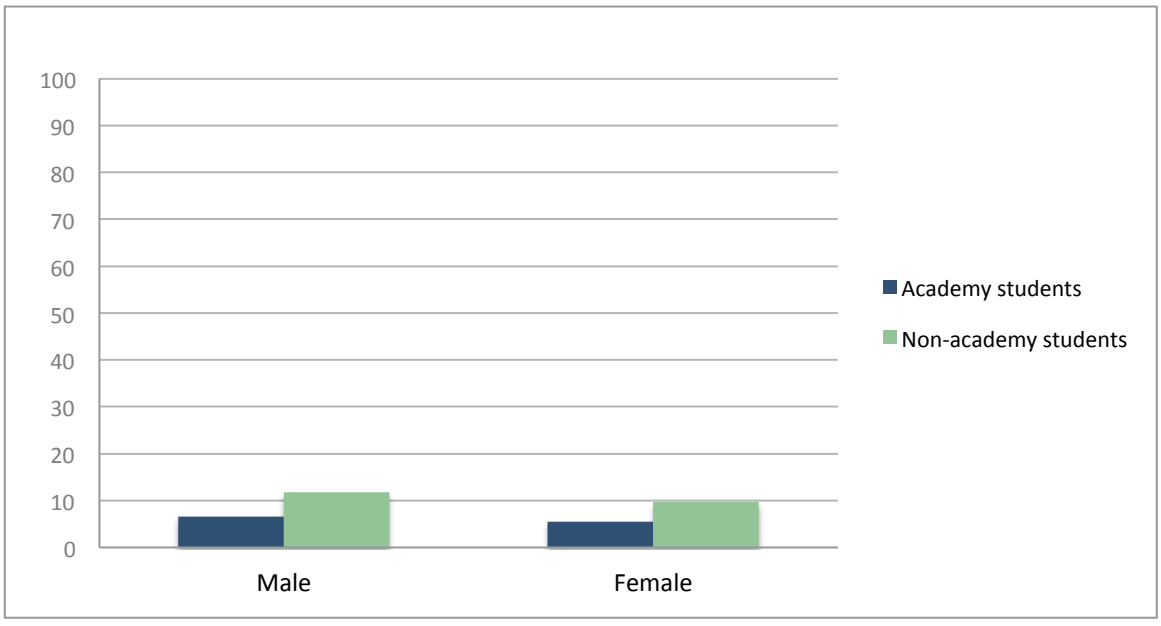


Figure 10a. Where grade 10 students in 2009-10 were enrolled in 2010-11, academy vs. non-academy, by eligibility for free or subsidized lunch in grade 10: percentage who were in the same school in grade 11

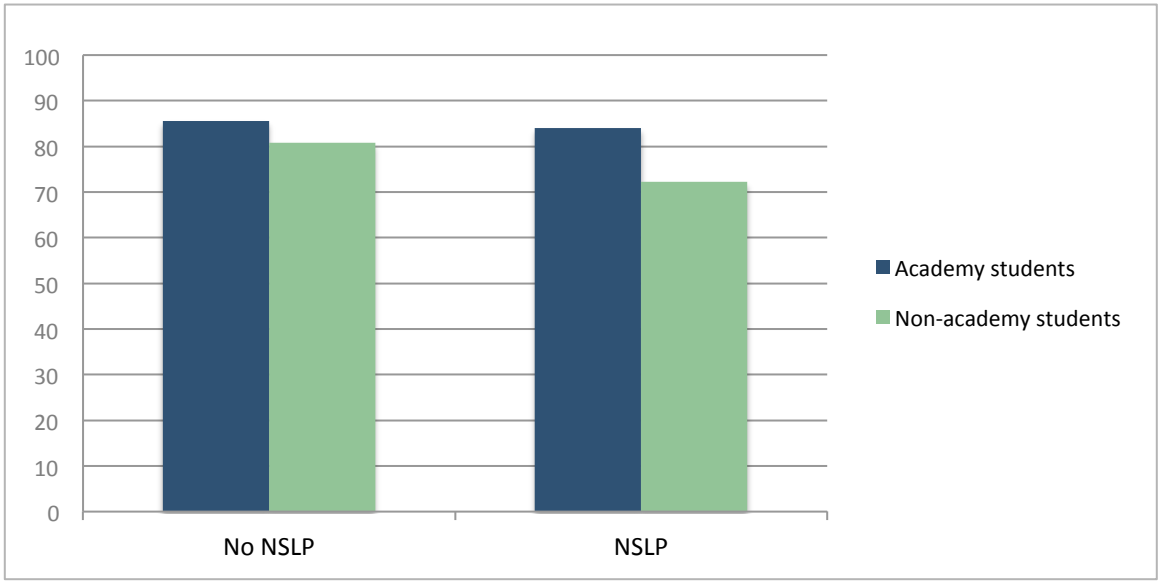


Figure 10b. Where grade 10 students in 2009-10 were enrolled in 2010-11, academy vs. non-academy, by eligibility for free or subsidized lunch in grade 10: percentage who were not found in grade 11

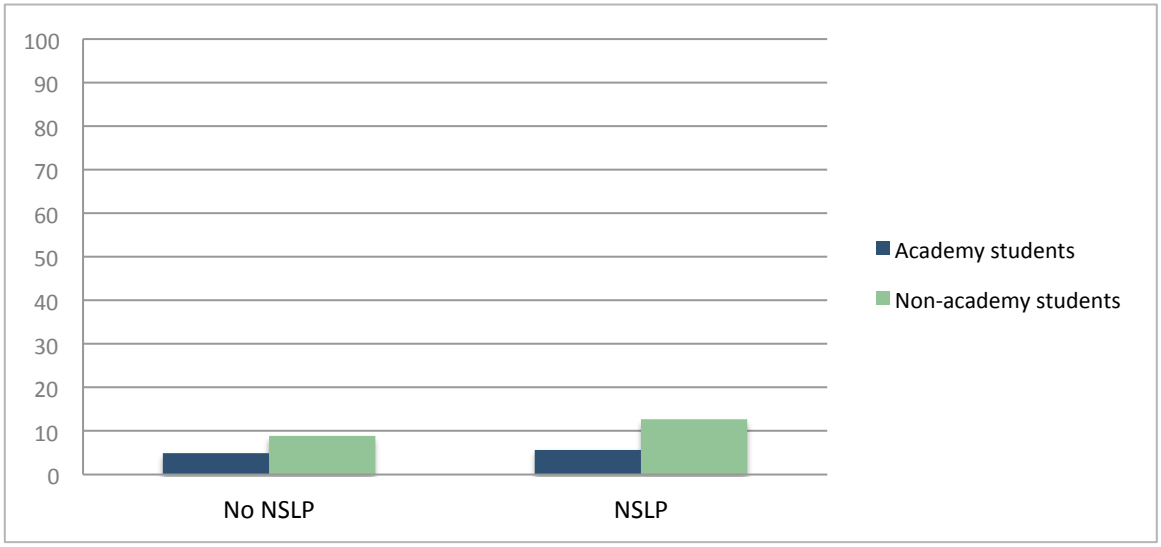


Figure 11a. Where grade 10 students in 2009-10 were enrolled in 2010-11, academy vs. non-academy, by English language learner status: percentage who were in the same school in grade 11

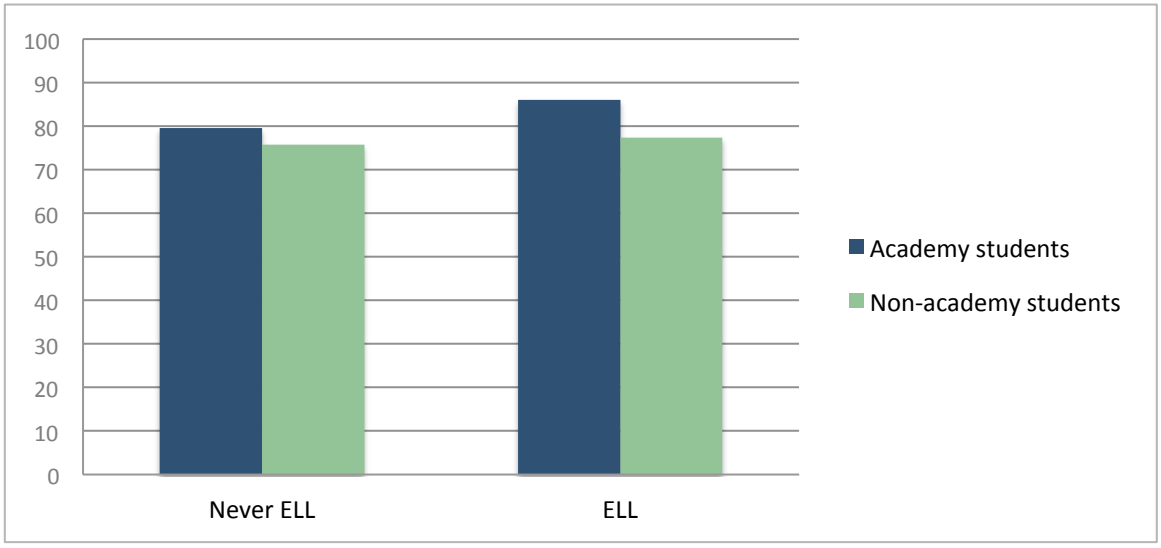


Figure 11b. Where grade 10 students in 2009-10 were enrolled in 2010-11, academy vs. non-academy, by English language learner status: percentage who were not found

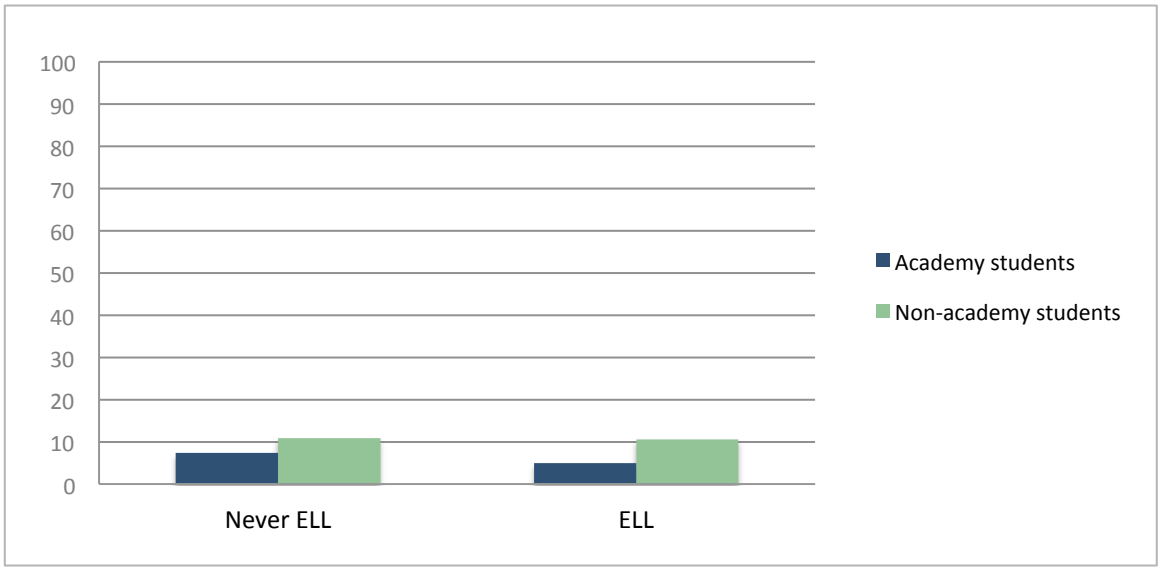


Figure 12a. Where grade 10 students in 2009-10 were enrolled in 2010-11, academy vs. non-academy, by special education status: percentage who were in the same school in grade 11

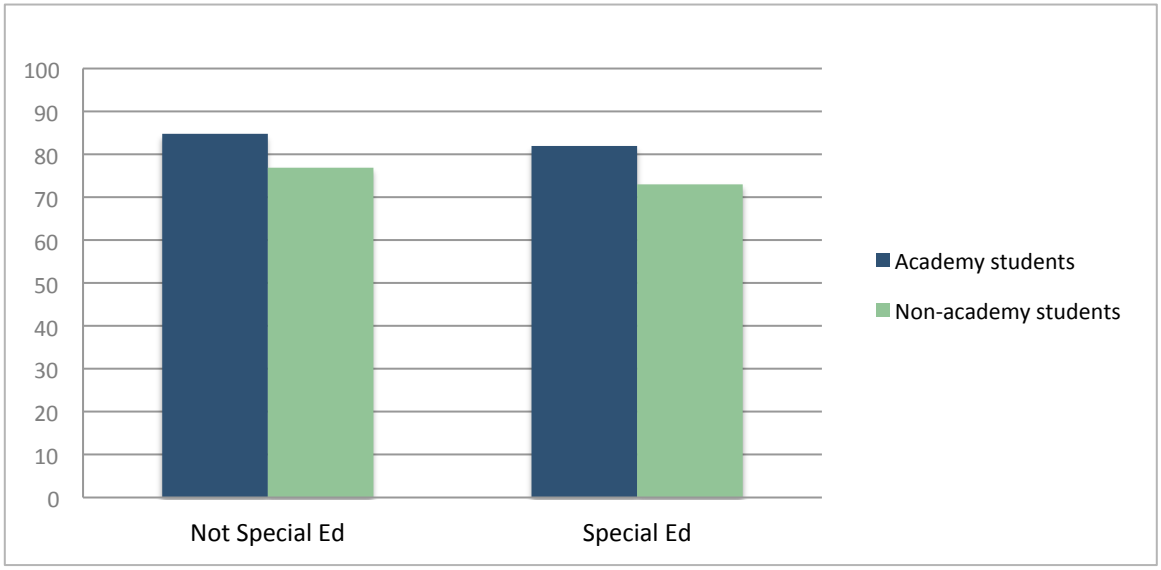
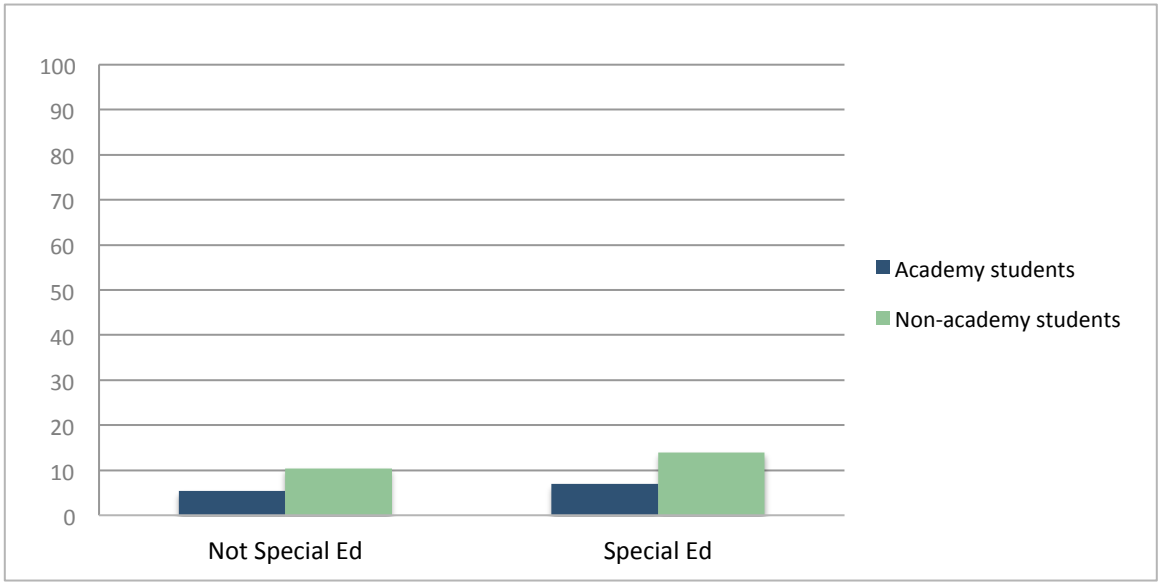


Figure 12b. Where grade 10 students in 2009-10 were enrolled in 2010-11, academy vs. non-academy, by special education status: percentage who were not found



Transitions from Grade 11

Figures 13 through 18 show what happened to academy 11th graders in the following year. Again the "a" figures pertain to cohort 1, and the "b" figures to cohort 2. Again the patterns are generally similar for both cohorts.

Because STAR data is not collected in grade 12, we are limited to CPA data for grade 12. All we know about grade 11 academy students in the subsequent year is whether or not they were enrolled in the same academy in grade 12.[11]

Figures 13a and b depict numbers already shown in Table 1. About 83 percent of grade 11 academy students enroll in the same academy for grade 12. This is considerably higher than the 65 or 66 percent of academy 10th graders who enroll in the same academy in grade 11. Again, we do not have data to explain this. A simple explanation would be that some students who enroll in academies in grade 10 decide they do not want to stay, but those who do stay in the academy for grade 11 are more committed to completing the program.

Figure 13a. Where academy grade 11 students in 2009-10 were enrolled in 2010-11 (percentage)

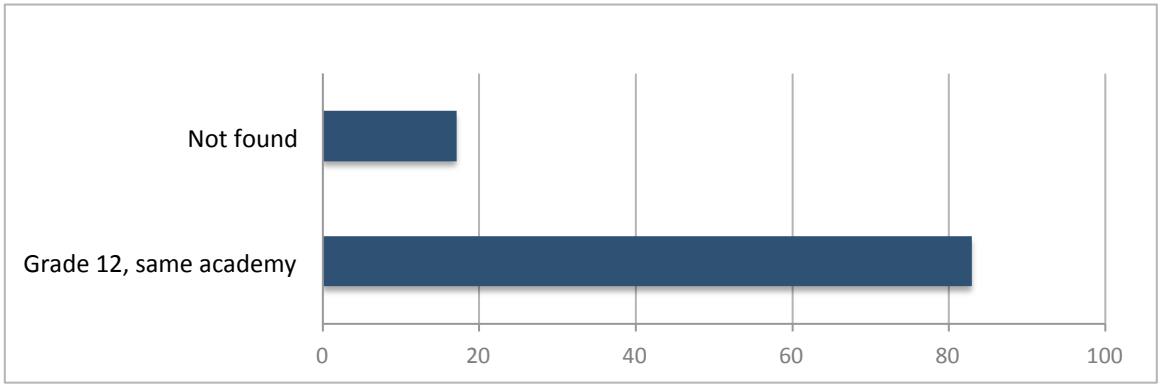
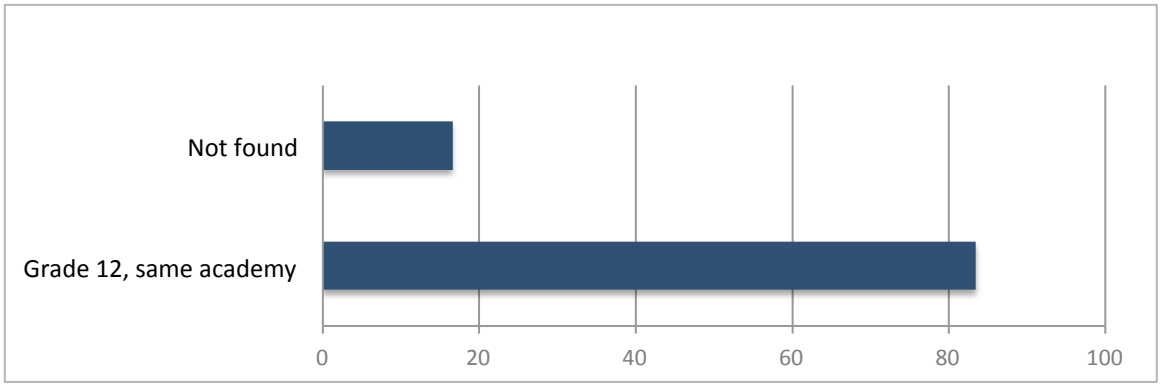


Figure 13b. Where academy grade 11 students in 2010-11 were enrolled in 2011-12 (percentage)



[11] A few students may have transferred from one academy in grade 11 to a different academy in grade 12, and a few others may have remained in grade 11 in the same academy, but if there are any such students they would be included in the "not found" category.

Differences among racial or ethnic groups in the percentages who stay in the same academy from grade 11 to 12 (Figures 14a and b) are generally smaller than the differences from grade 10 to 11 (Figures 2a and b). In particular, the percentage of African American 10th graders who stayed in the same academy in grade 11 was relatively low compared to other groups, but that difference is greatly attenuated in the transition from grade 11 to 12.

Figure 14a. Where academy grade 11 students in 2009-10 were enrolled in 2010-11, by race or ethnicity (percentage)

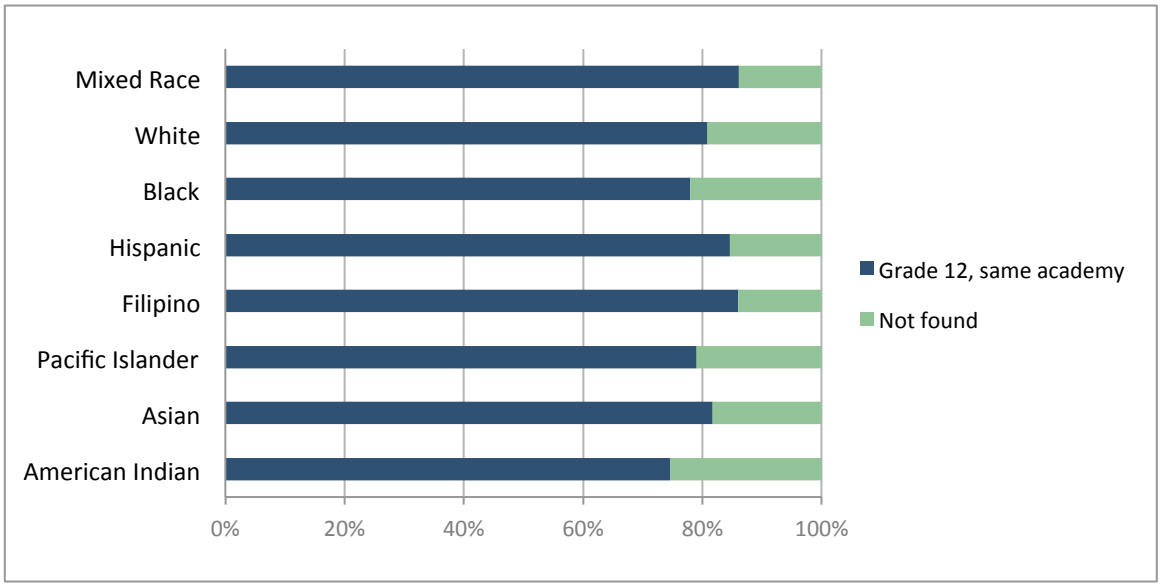
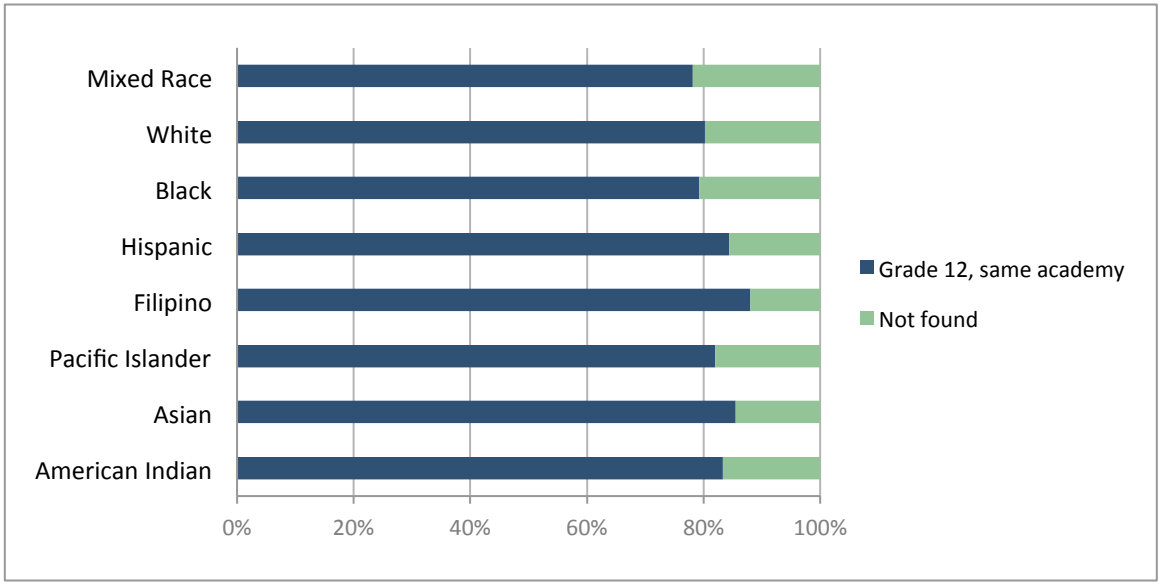


Figure 14b. Where academy grade 11 students in 2010-11 were enrolled in 2011-12, by race or ethnicity (percentage)



Differences by gender (Figures 15a and b) and at-risk status (Figures 16a and b) are about the same in the transition from grade 11 to 12 as in the transition from grade 10 to 11 (Figures 3 and 4). Again boys and students who were designated at-risk in grade 10 are somewhat less likely to stay in the same academy from one year to the next.

Figure 15a. Where academy grade 11 students in 2009-10 were enrolled in 2010-11, by gender (percentage)

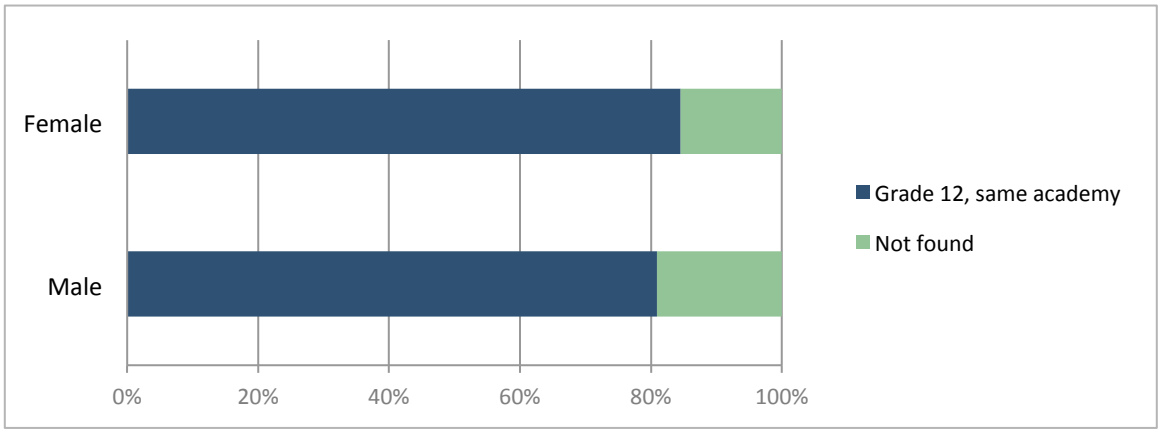


Figure 15b. Where academy grade 11 students in 2010-11 were enrolled in 2011-12, by gender (percentage)

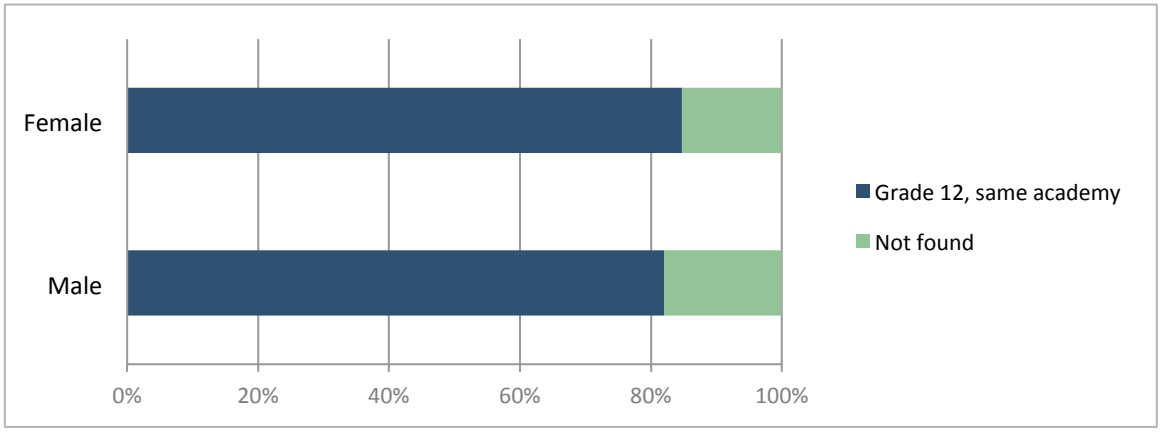


Figure 16a. Where academy grade 11 students in 2009-10 were enrolled in 2010-11, by at-risk designation in grade 10 (percentage)

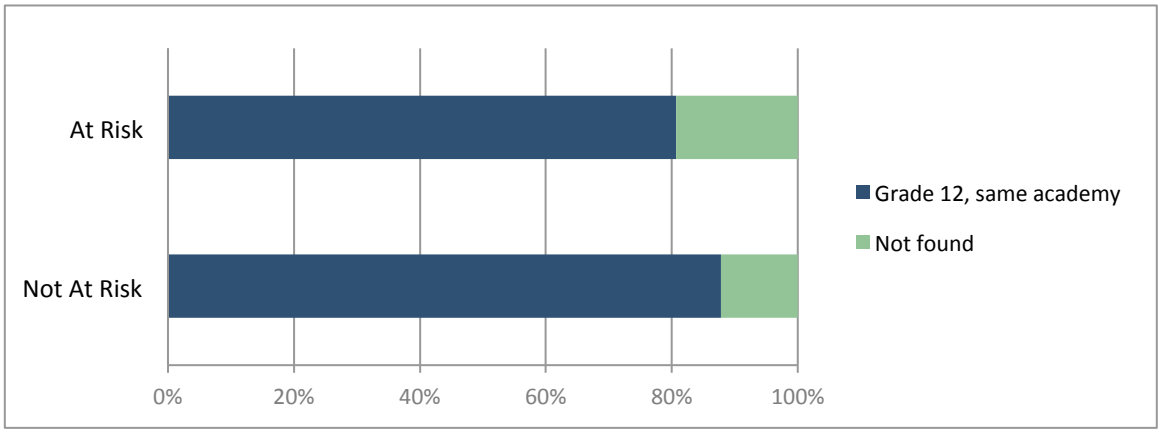
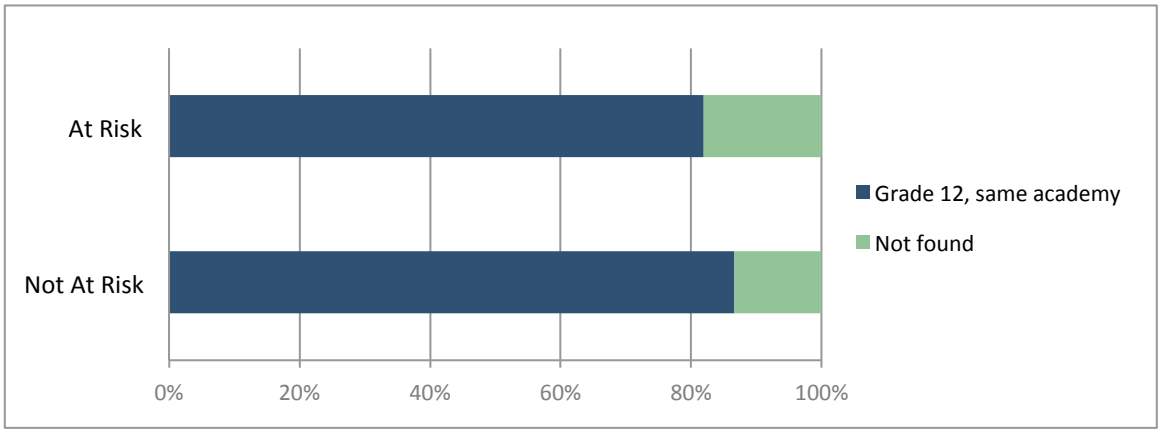


Figure 16b. Where academy grade 11 students in 2010-11 were enrolled in 2011-12, by at-risk designation in grade 10 (percentage)



Figures 17 and 18 show comparisons for cohort 2.[12] Students who had ever been classified as English Language Learners are somewhat more likely to stay in the same in academy from grade 11 to 12. Special education students are slightly less likely. These differences are similar to the patterns from grades 10 to 11, but all groups have higher percentages of students remaining in the same academy from grade 11 to 12 than from grade 10 to 11.

Figure 17. Where academy grade 11 students in 2010-11 were enrolled in 2011-12, by English language learner status in grade 10 (percentage)

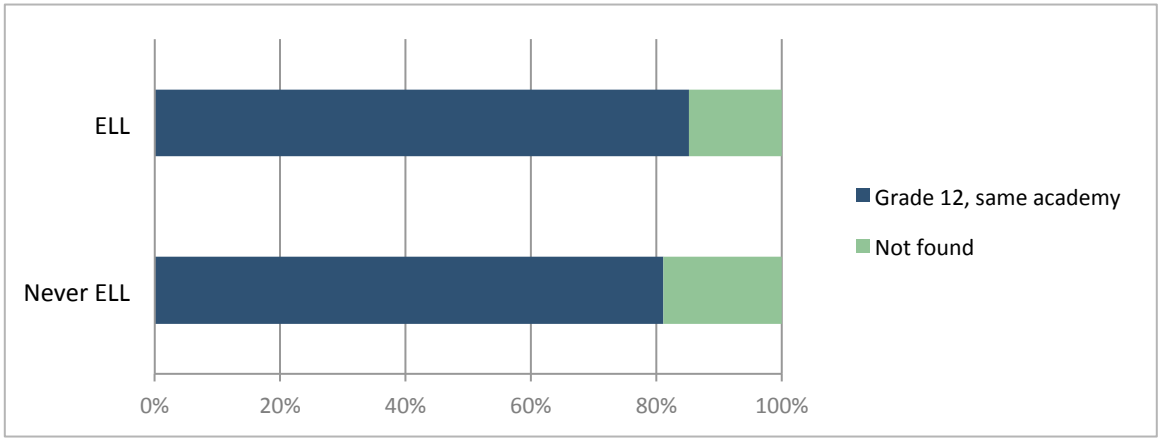
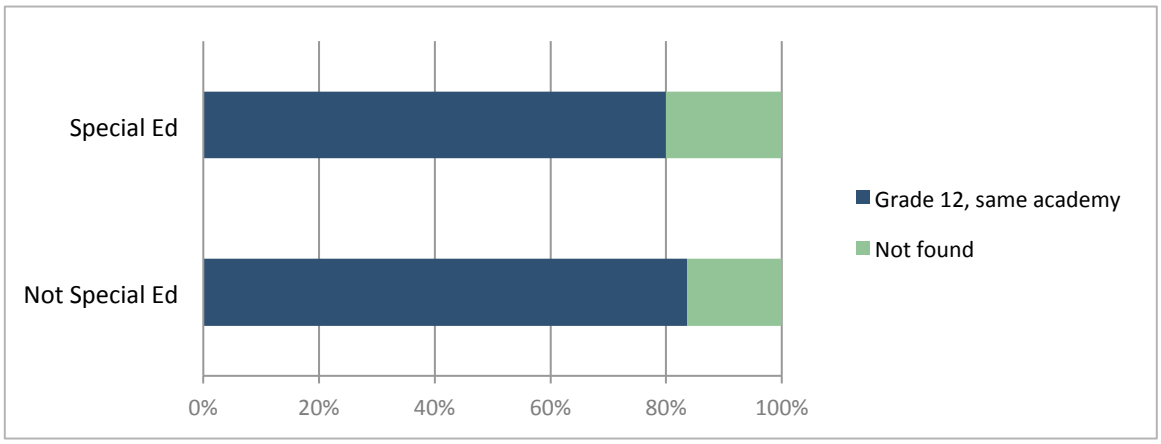


Figure 18. Where academy grade 11 students in 2010-11 were enrolled in 2011-12, by special education status in grade 10 (percentage)



[12] The comparisons in Figures 17 and 18 could not be made for cohort 1 because information on ELL and special education status was not available in the 2008-09 CPA data.

Percentage of seniors who graduate at end of grade 12

Figures 19 through 24 show percentages of seniors who graduated at the end of the year. The "a" figures again show cohort 1, and the "b" figures cohort 2. Figures 19a and b depict numbers shown in Table 1: overall, more than 96 percent of seniors graduated at the end of the year.[13]

Figure 19a. Whether academy grade 12 students in 2010-11 graduated in spring 2011 (percentage)

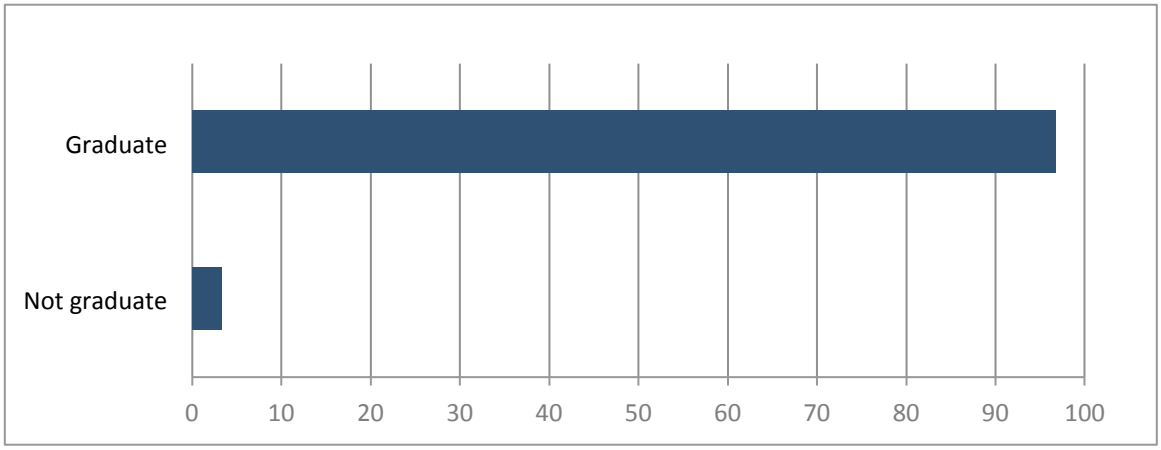
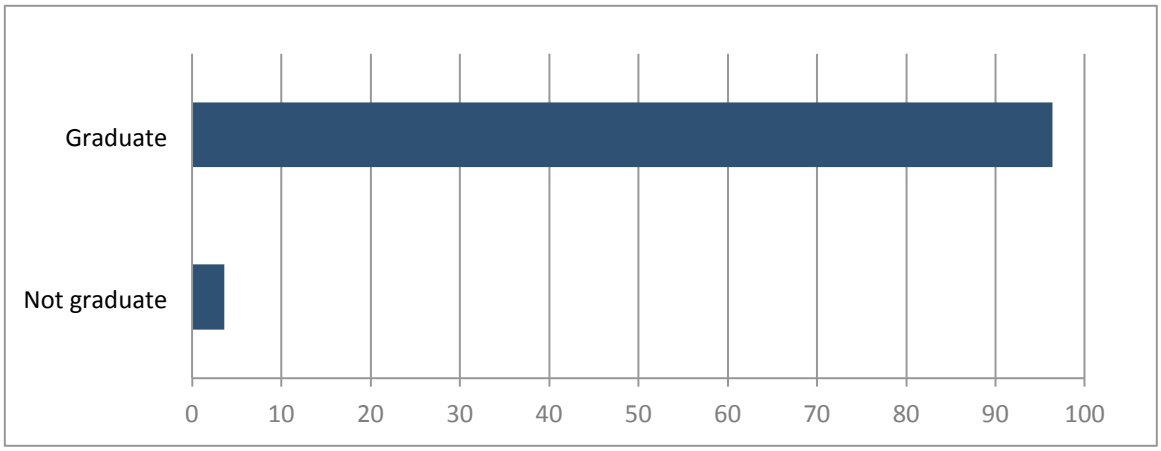


Figure 19b. Whether academy grade 12 students in 2011-12 graduated in spring 2012 (percentage)



[13] The graduation rate for CPA seniors in 2009-10 was 95 percent (see Charles Dayton, Candace Hamilton Hester, and David Stern, *Profile of the California Partnership Academies, 2009-2010.* College & Career Academy Support Network, UC Berkeley, October 2011. Available at http://casn.berkeley.edu/downloads/CPA_Report_2009-10.pdf). The slightly higher rates here may reflect a slight upward trend, or may reflect the fact that all students analyzed in Figure 19 had been in the academy for three years, while some seniors in 2009-10 may have joined the academy in grade 11 or 12.

Figures 20 through 24 show senior graduation rates well above 90 percent for students in every category of race or ethnicity, gender, at-risk designation, English Language Learner status, and Special Education.[14] Senior graduation rates were relatively low, though still better than 90 percent, for African Americans, Pacific Islanders, males, students who had been designated "at risk" in grade 10, special education students, and students who had ever been classified as English language learners.

Figure 20a. Whether academy grade 12 students in 2010-11 graduated in spring 2011, by race or ethnicity (percentage)

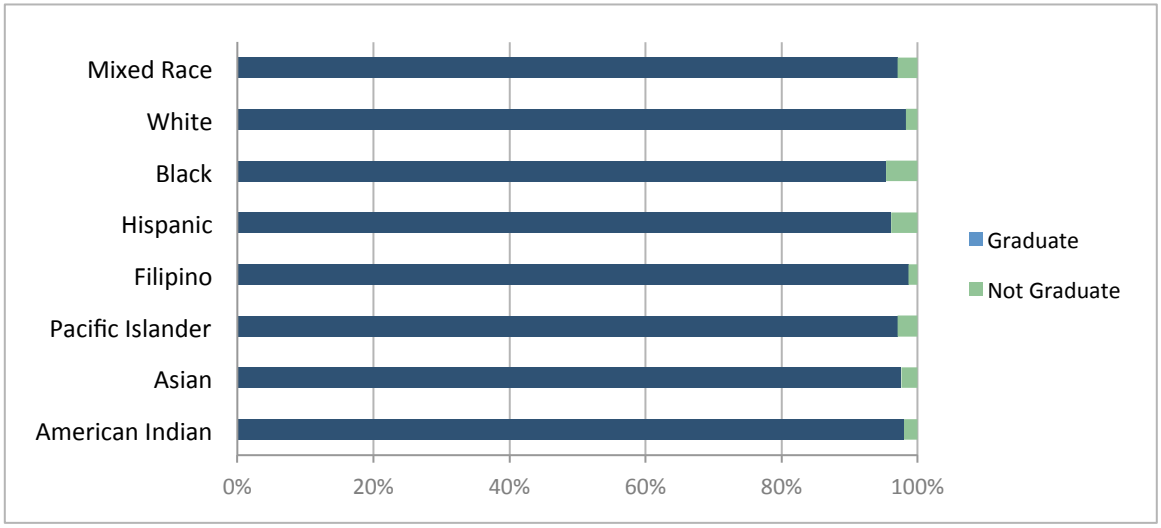
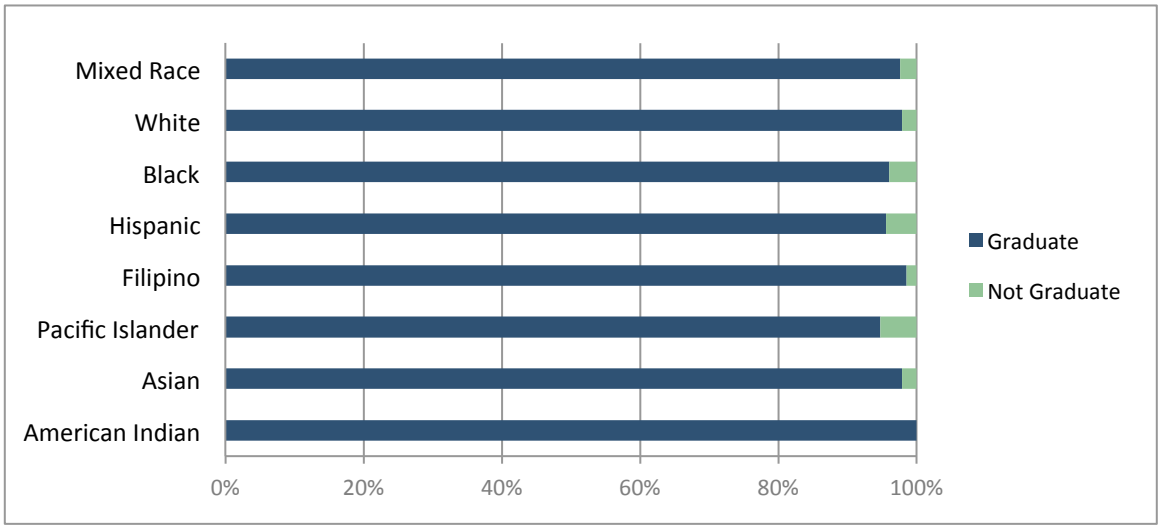


Figure 20b. Whether academy grade 12 students in 2011-12 graduated in spring 2012, by race or ethnicity (percentage)



[14] Figures 23 and 24 show comparisons for cohort 2. These comparisons could not be made for cohort 1 because information on ELL and special education status was not available in the 2008-09 CPA data.

Figure 21a. Whether academy grade 12 students in 2010-11 graduated in spring 2011, by gender (percentage)

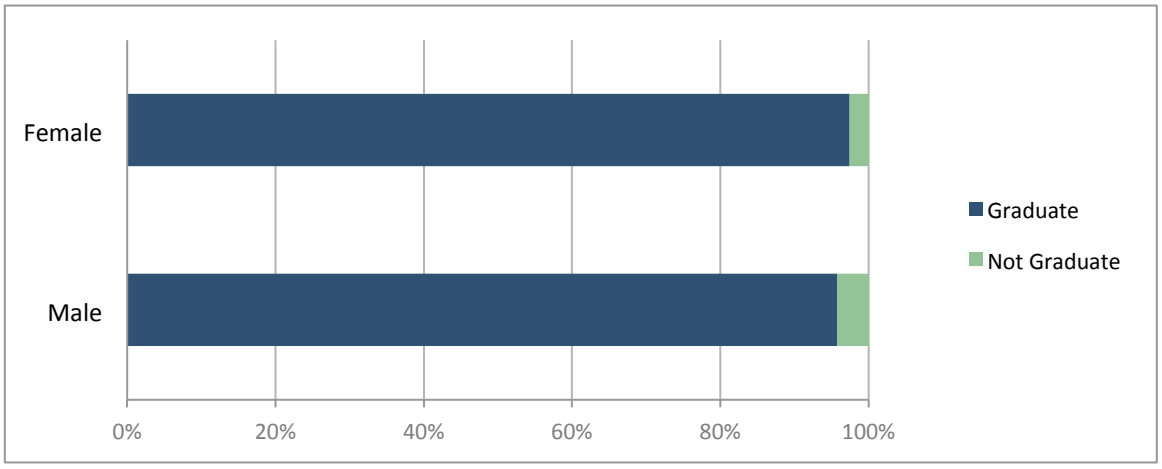


Figure 21b. Whether academy grade 12 students in 2011-12 graduated in spring 2012, by gender (percentage)

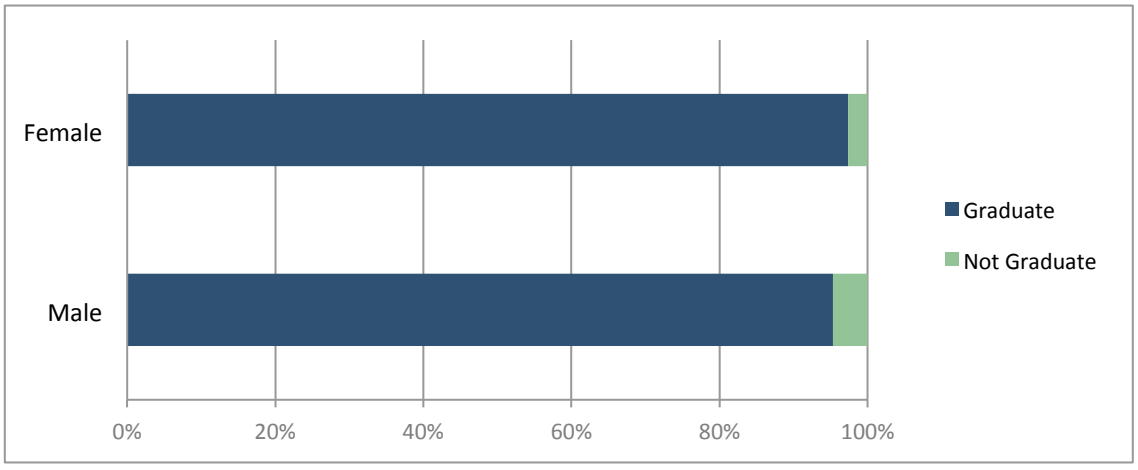


Figure 22a. Whether academy grade 12 students in 2010-11 graduated in spring 2011, by at-risk designation in grade 10 (percentage)

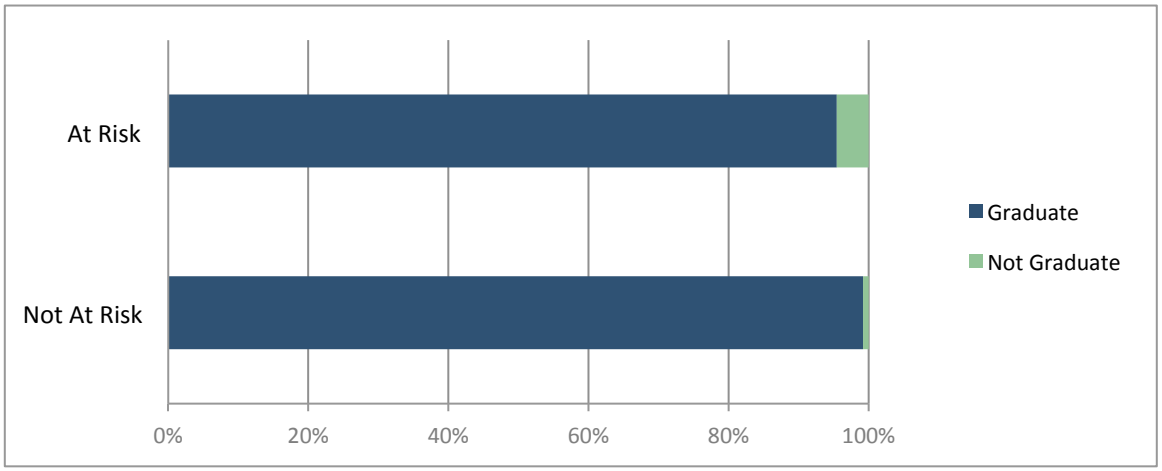


Figure 22b. Whether academy grade 12 students in 2011-12 graduated in spring 2012, by at-risk designation in grade 10 (percentage)

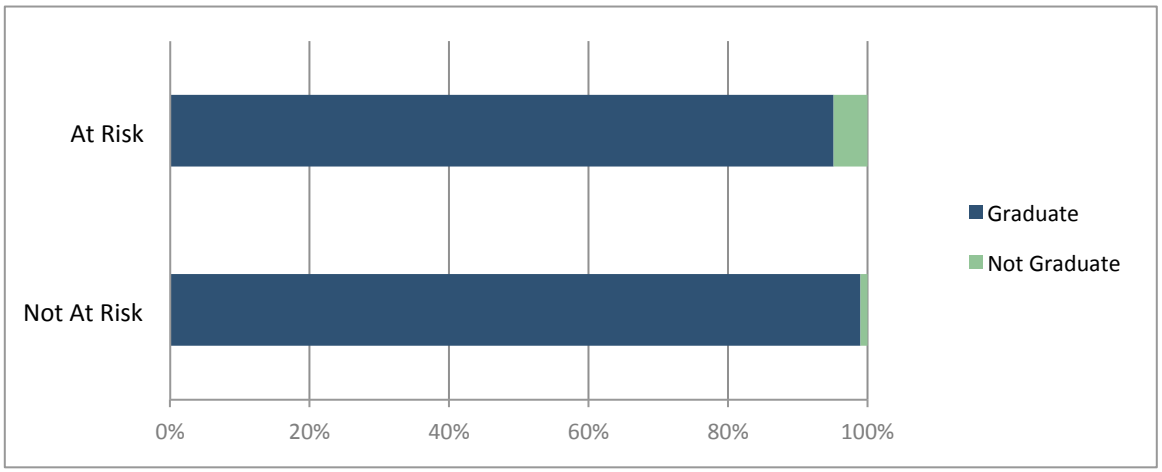


Figure 23. Whether academy grade 12 students in 2011-12 graduated in spring 2012, by English language learner status in grade 10 (percentage)

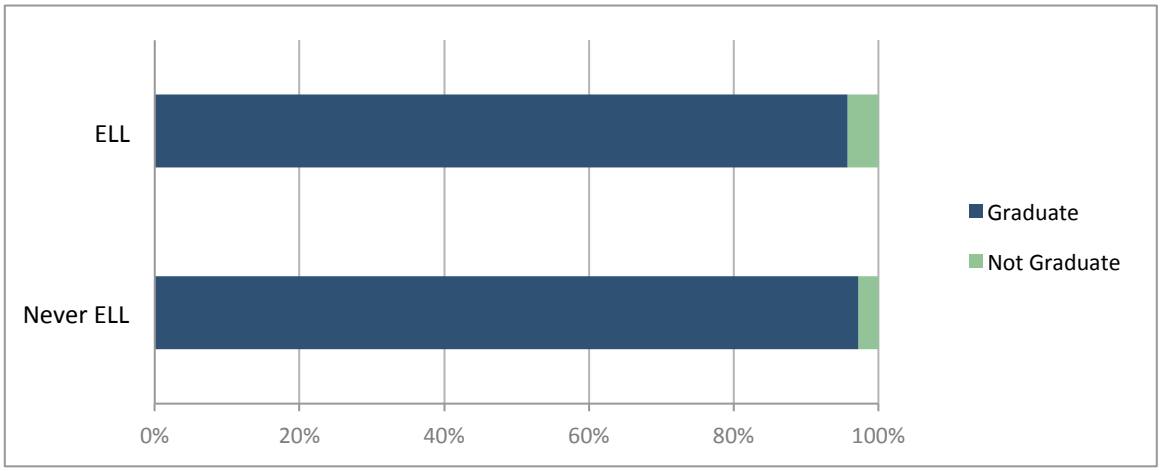
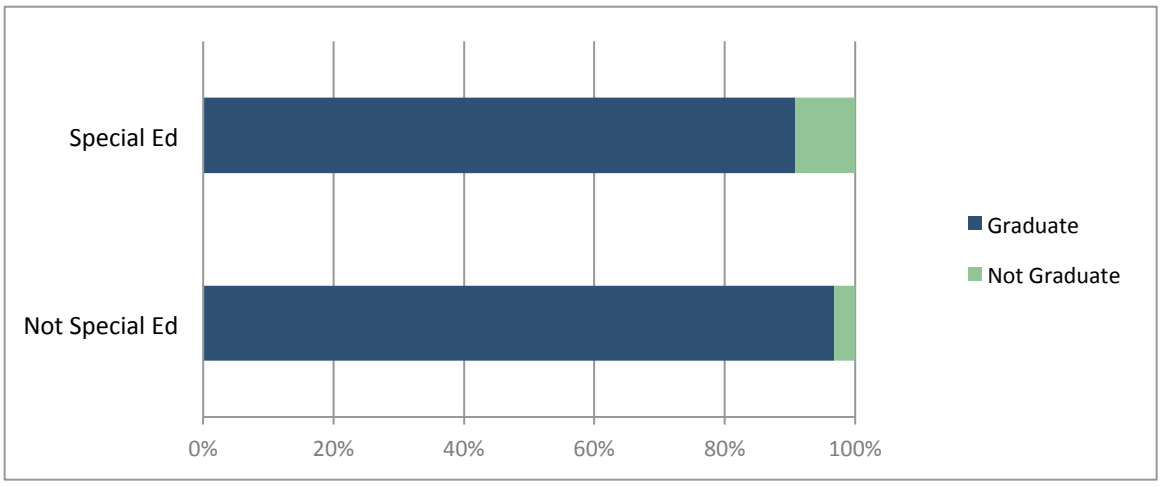


Figure 24. Whether academy grade 12 students in 2011-12 graduated in spring 2012, by special education status in grade 10 (percentage)



Percentage of graduates who complete a-g course requirements

Figures 25 through 30 show the percentage of CPA graduates who completed the a-g course requirements for admission to CSU and UC; "a" figures refer to cohort 1 and "b" figures to cohort 2.[15] Figures 25a and b depict numbers presented in Table 1. Overall, more than 60 percent of graduates reportedly completed the full sequence of at least 15 a-g courses.

Figure 25a. Whether academy graduates in spring 2011 completed a-g course requirements (percentage)

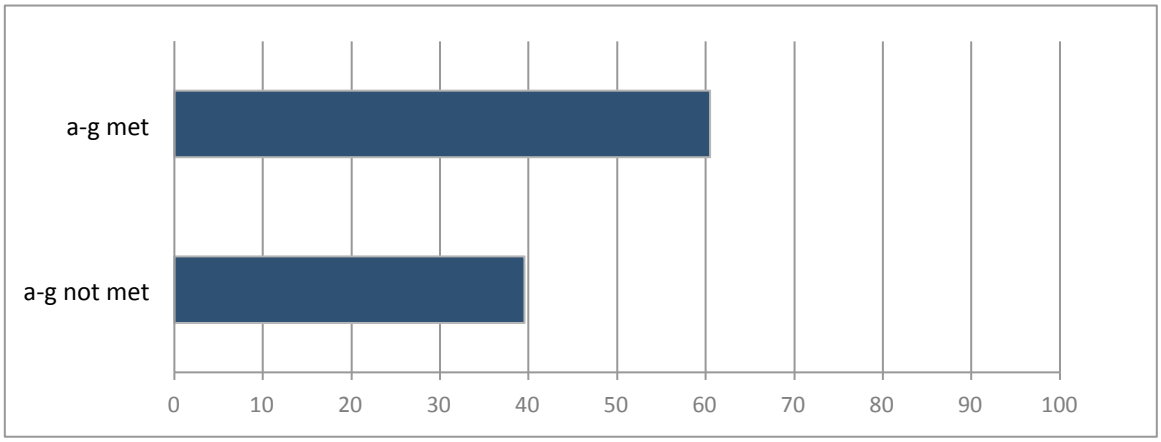
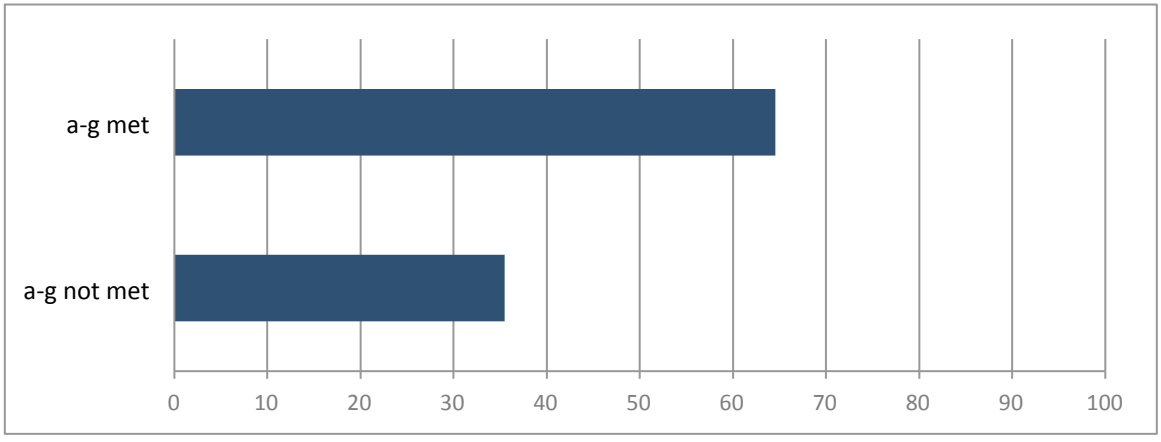


Figure 25b. Whether academy graduates in spring 2012 completed a-g course requirements (percentage)



[15] Figures 29 and 30 show comparisons for cohort 2. These comparisons could not be made for cohort 1 because information on ELL and special education status was not available in the 2008-09 CPA data.

Figures 26 through 30 show a-g completion rates better than 50 percent for graduates in every category of race or ethnicity, gender, at-risk designation, English language learner status, and special education. Relatively low rates, though still above 50 percent, were reported for African Americans, Pacific Islanders, Hispanics, whites in cohort 1, American Indians in cohort 2, males, students who had been designated "at risk" in grade 10, and special education students.

Figure 26a. Whether academy graduates in spring 2011 completed a-g course requirements, by race or ethnicity (percentage)

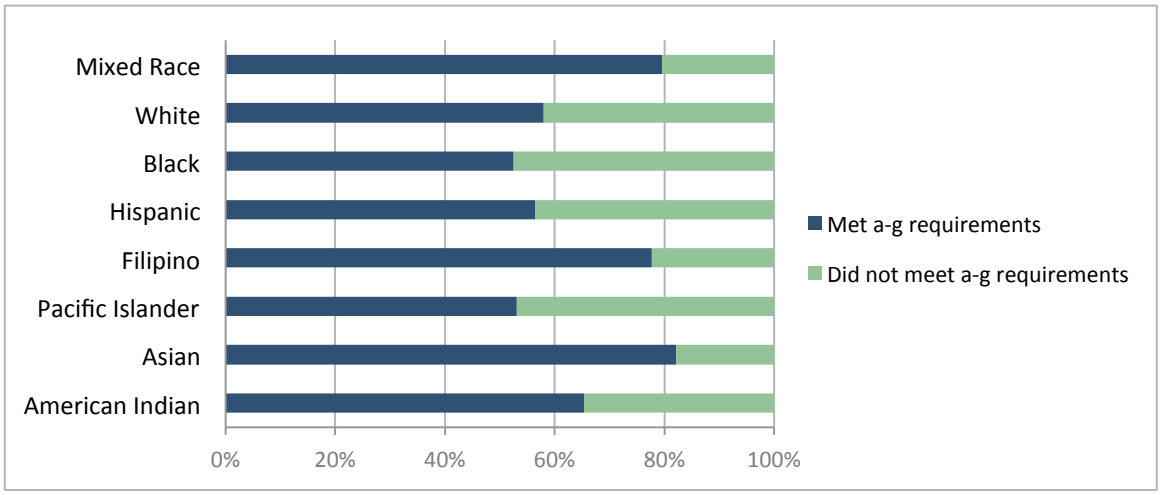


Figure 26b. Whether academy graduates in spring 2012 completed a-g course requirements, by race or ethnicity (percentage)

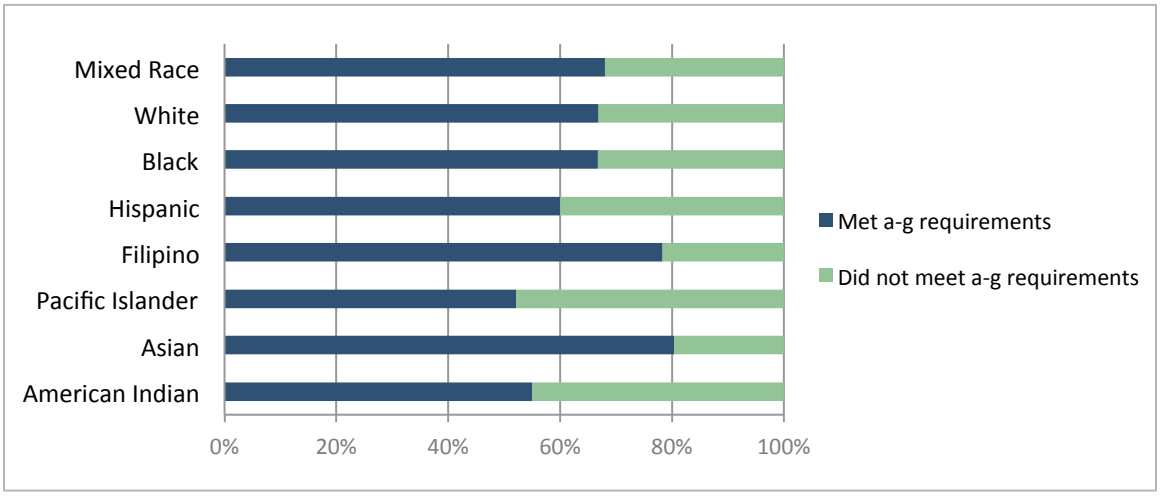


Figure 27a. Whether academy graduates in spring 2011 completed a-g course requirements, by gender (percentage)

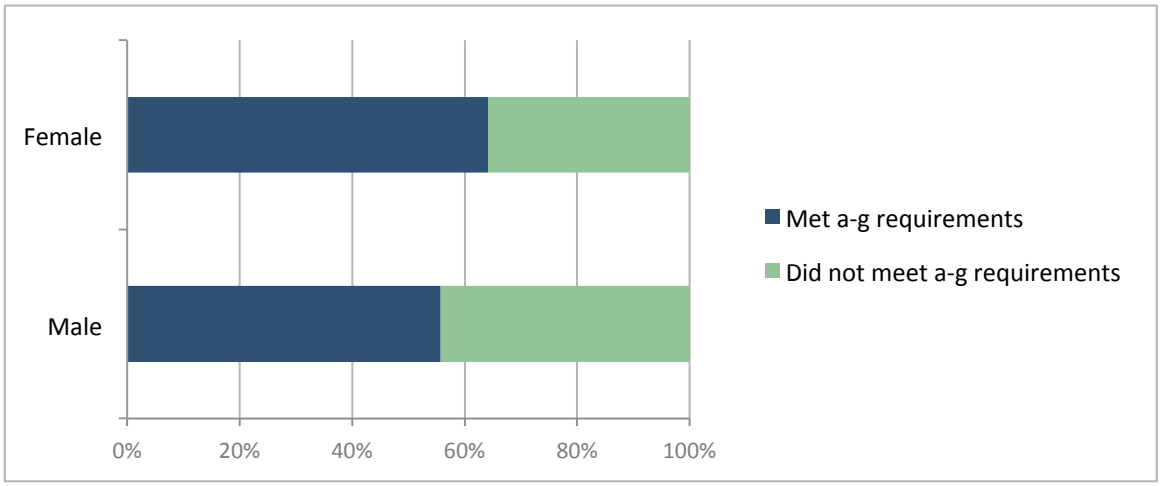


Figure 27b. Whether academy graduates in spring 2012 completed a-g course requirements, by gender (percentage)

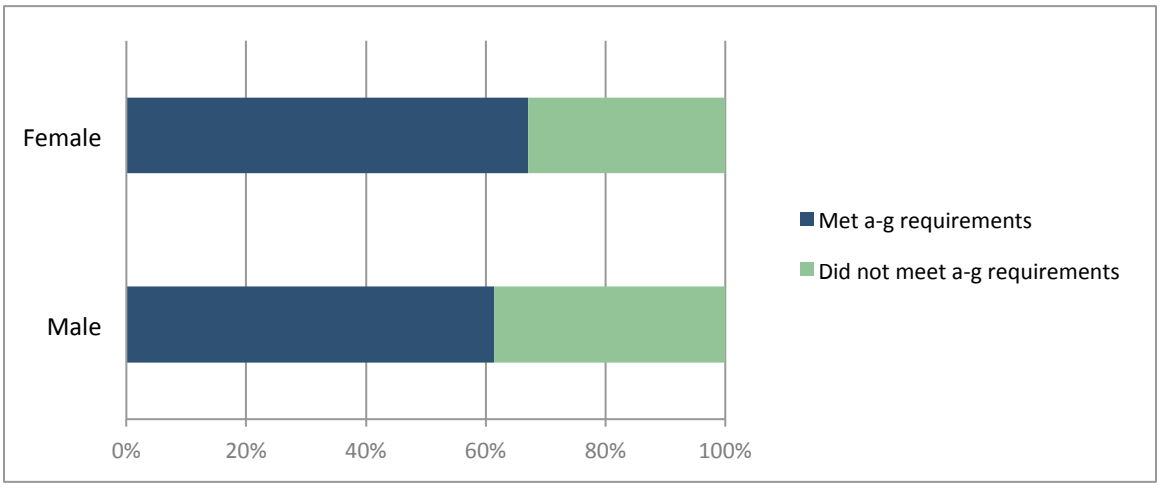


Figure 28a. Whether academy graduates in spring 2011 completed a-g course requirements, by at-risk designation in grade 10 (percentage)

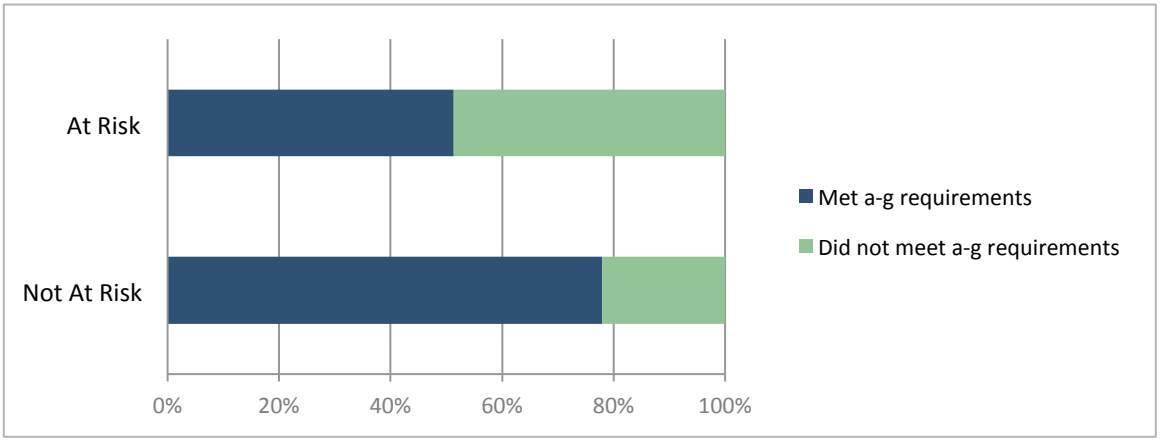


Figure 28b. Whether academy graduates in spring 2012 completed a-g course requirements, by at-risk designation in grade 10 (percentage)

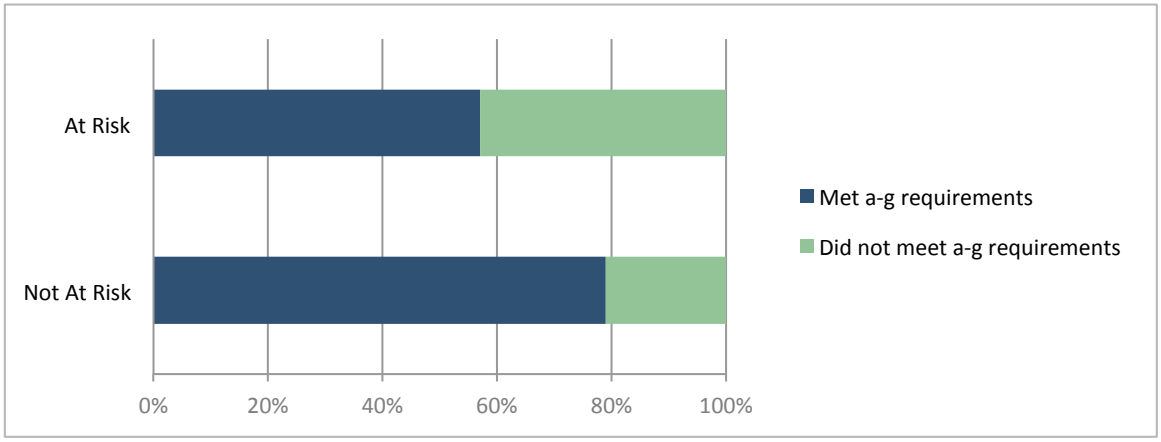


Figure 29. Whether academy graduates in spring 2012 completed a-g course requirements, by English language learner status in grade 10 (percentage)

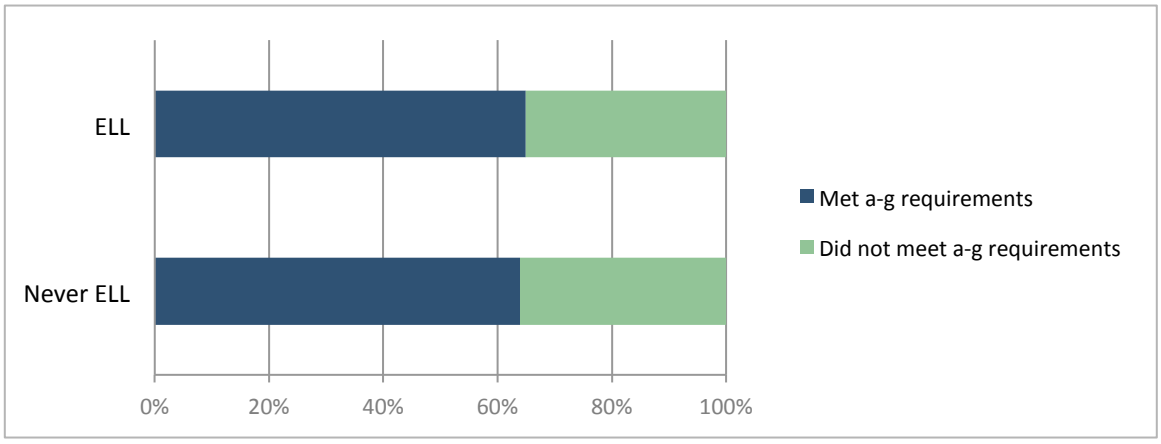
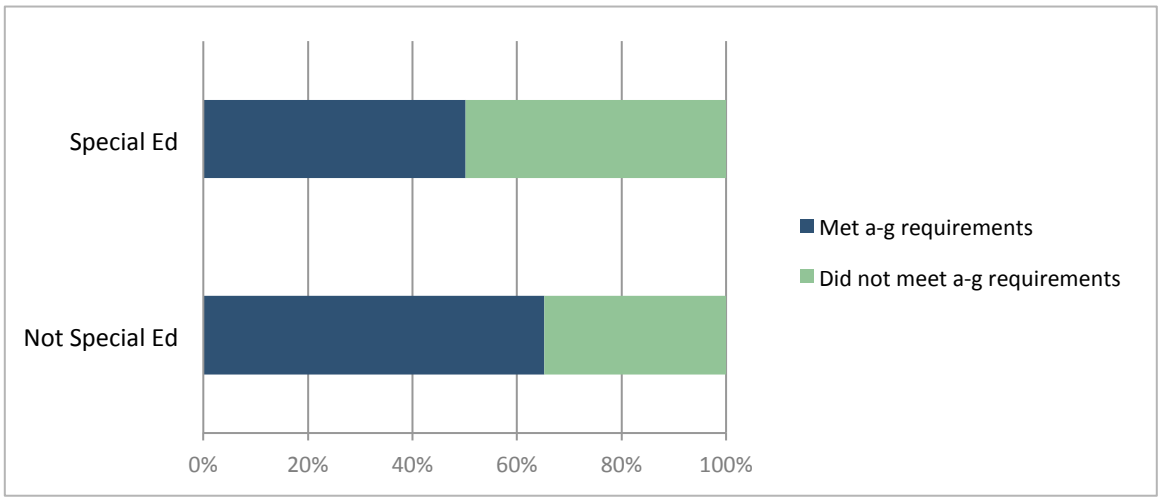


Figure 30. Whether academy graduates in spring 2012 completed a-g course requirements, by special education status in grade 10 (percentage)



CHANGES IN ATTENDANCE, CREDITS, AND GRADES

In addition to describing student progress from one grade to the next through graduation, longitudinal data also let us describe changes in academy students' performance over time. CPA annual reports to CDE include information on attendance, credits, and grades for individual students. By linking information on individual students from one year to the next, we are able to measure change in students' performance on these measures.[16]

Table 3 shows mean change in attendance, overall and for subgroups of students. Attendance is measured as the number of days attended, divided by the possible number of days each student could have attended (the number of school days in the year, or in the semester if the student enrolled for only one semester). The result is expressed as a percentage.

Overall, attendance declined slightly or did not change. The decline was a little greater in cohort 1 than in cohort 2, and a little greater between grades 11 and 12 than between grades 10 and 11. The largest drop was 5 percentage points, for mixed race students in cohort 1 between grades 11 and 12.

Table 3. Mean change in attendance (percentage of possible days)

	Grade 10 to 11		Grade 11 to 12	
	Cohort 1	Cohort 2	Cohort 1	Cohort 2
Overall	–1	0	–2	–1
American Indian	–2	–1	–4	–1
Asian	–1	–1	–2	–1
Pacific Islander	–1	0	–2	–1
Filipino	–1	–1	–1	0
Hispanic	–1	0	–1	–1
Black	–1	0	–3	–1
White	–1	–1	–1	–1
Mixed race	–1	0	–5	–1
Female	–1	0	–2	–1
Male	–1	0	–2	–1
At risk in grade 10	–1	0	–2	–1
Not at risk	–1	0	–1	–1
Ever English learner[17]		0		–1
Never English learner		0		–1
Special education		0		–1
Not special education		0		–1

[16] As with the tables and figures in the previous section, the analysis here is limited to academies that enrolled students from grades 10 through 12; academies that ceased operating after enrolling students in grade 10 or 11 are excluded. Also excluded are academies where no students could be matched from one grade to the next; this was a particular problem for cohort 1 because the data reporting system changed from 2008-09 to 2009-10.

[17] Data on English language learner status and special education were not available for cohort 1.

Table 4 displays mean changes in credits earned, from one year to the next, overall and for subgroups of academy students. Generally the number of credits earned declined slightly, or remained flat. There were no consistent differences between cohorts 1 and 2, or between the changes from grade 10 to 11 versus 11 to 12. The biggest decline for any subgroup was 6 credits; since a typical yearlong course counts as 10 credits, this is a little more than one semester's worth of credit in one course.

Table 4. Mean change in credits earned during the school year

	Grade 10 to 11		Grade 11 to 12	
	Cohort 1	Cohort 2	Cohort 1	Cohort 2
Overall	–2	0	–1	–2
American Indian	–1	–4	0	–6
Asian	–3	–1	–2	–3
Pacific Islander	–3	–1	1	–2
Filipino	–6	–1	–2	–5
Hispanic	–1	1	–1	–1
Black	–1	0	–1	–2
White	–2	0	–2	–3
Mixed race	1	1	–4	–3
Female	–2	0	–2	–2
Male	–2	0	–1	–2
At risk in grade 10	–1	0	–1	–1
Not at risk	–4	0	–3	–3
Ever English learner[18]		0		–1
Never English learner		0		–3
Special education		0		–2
Not special education		0		–2

[18] Data on English language learner status and special education were not available for cohort 1.

Changes in GPA (grade-point average) are shown in Table 5. Grade 9 GPA was reported for each student entering the academy in grade 10, because low GPA in grade 9 is one of the criteria for determining "at-risk" status. In the data files, GPAs for grades 10 through 12 were reported as cumulative for the high school years, so we converted them algebraically to one-year GPAs.[19] Some reported GPAs were greater than 4.0, presumably reflecting an extra grade point for each honors or Advanced Placement course, as is done in computing GPA for application to some colleges and universities, including the University of California. The changes in Table 5 therefore should be interpreted in the context of GPA ranging from 0 to 5.0.

Overall, changes in GPA are slightly positive, except for a slight decline in cohort 1 from grade 9 to 10. The maximum increase or decrease for any subgroup was ±0.2.

Table 5. Mean change in one-year GPA

	Grade 9 to 10		Grade 10 to 11		Grade 11 to 12	
	Cohort 1	Cohort 2	Cohort 1	Cohort 2	Cohort 1	Cohort 2
Overall	–0.1	0.2	0.1	0.1	0.2	0
American Indian	0	0.1	0.1	0.1	0.2	0.1
Asian	–0.1	0.1	0	0	0.2	–0.2
Pacific Islander	–0.2	–0.1	0.1	0	0.1	0.1
Filipino	–0.1	0.2	0	–0.1	0.2	0.1
Hispanic	–0.1	0.2	0.1	0.1	0.2	0.2
Black	–0.1	0.1	0.1	0.1	0.2	0.1
White	0	0.1	0.1	0.1	0.2	0
Mixed race	–0.1	0.1	–0.1	0.1	0.2	0.1
Female	–0.1	0.2	0.1	0.1	0.2	0
Male	–0.1	0.2	0	0.1	0.2	0
At risk in grade 10	–0.1	0.2	0.1	0.1		0
Not at risk	0	0.2	–0.1	0.1		0
Ever English learner[20]		0.2		0.1		0
Never English learner		0.1		0.1		0
Special education		0.1		0		0
Not special education		0.2		0.1		0

[19] For instance, if a student's GPA for grade 9 was 3.4, and cumulative GPA for grades 9 and 10 was 3.5, then the one-year GPA for grade 10 works out to 3.6, assuming equal number of credits earned each year. There was some ambiguity in the data files as to whether GPAs for grades 10 through 12 were cumulative, or whether they were actual one-year GPAs to begin with. We decided it was more likely they were cumulative because that is what transcripts usually show. But this ambiguity means the GPA data should be interpreted with some caution. If our interpretation was incorrect and we mistakenly treated one-year GPAs as cumulative, it would imply that the true changes in one-year GPA from year to year are smaller than shown in Table 5.

[20] Data on English language learner status and special education were not available for cohort 1.

DIFFERENCES AMONG ACADEMIES

For practical purposes some of the most useful information to be obtained from longitudinal data is about differences among individual CPAs. If a particular academy consistently shows high rates of promotion, graduation, and a-g course completion, as well as positive changes in performance from one year to the next, teachers can take pride and administrators can take note. Other academies might be able to learn what that academy has been doing to produce positive results, and emulate those practices. On the other hand, if students in a particular academy are leaving in large numbers, failing to graduate, or showing consistent declines in performance from one year to the next, and if these patterns persist for several years, then teachers and administrators should ask what can be done to improve those results. The data is seldom definitive by itself, but it can become a useful part of ongoing conversations about continuous improvement.

The charts in this section illustrate the kind of information that can be made available to academy teachers and administrators. Each chart shows how much CPAs vary according to one of the measures we have been reporting for individual students. Again the "a" figures denote cohort 1 (grade 10 in 2008-09), and the "b" figures cohort 2 (grade 10 in 2009-10).

Promotion, graduation, and a-g course completion

Figure 31 shows academies ranked by the percentage of students who remain in the same academy from grade 10 to 11. A substantial majority of CPAs had more than 60 percent of 10th graders returning to the same academy in grade 11.

However, a few dozen academies had return rates that would presumably be seen as unsustainable –– less than 40 percent or so. Some of these academies may have suffered temporary disruptions due to unanticipated staff turnover or other causes. Some may have been in the process of closing. Any academy where a very low percentage of 10th graders return the next year should draw attention from administrators, to try to remedy the situation.

Figure 31a. Distribution of academies by percentage of 2008-09 10th graders who enrolled in same academy as 11th graders in 2009-10

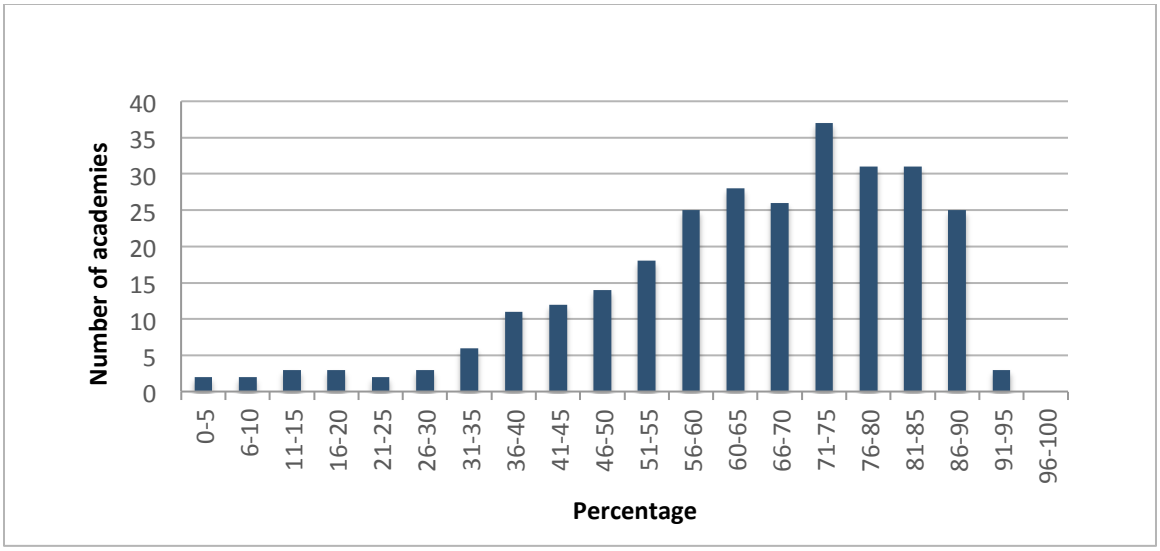


Figure 31b. Distribution of academies by percentage of 2009-10 10th graders who enrolled in same academy as 11th graders in 2010-11

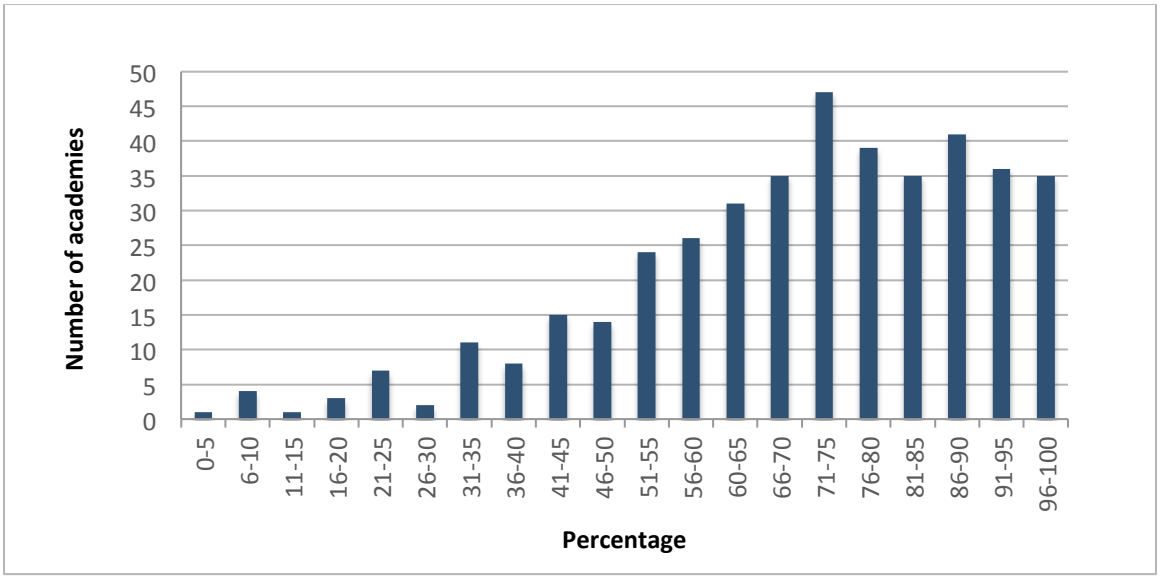


Figure 32 ranks academies by the percentage of 10th graders who were not found in a California public school in the subsequent year. In almost all academies that percentage is no more than 10 percent. Again, though, there are a few academies where the percentage is undesirably high, and some remedial action seems called for.

Figure 32a. Distribution of academies by percentage of 2008-09 10th graders who were not found in 2009-10

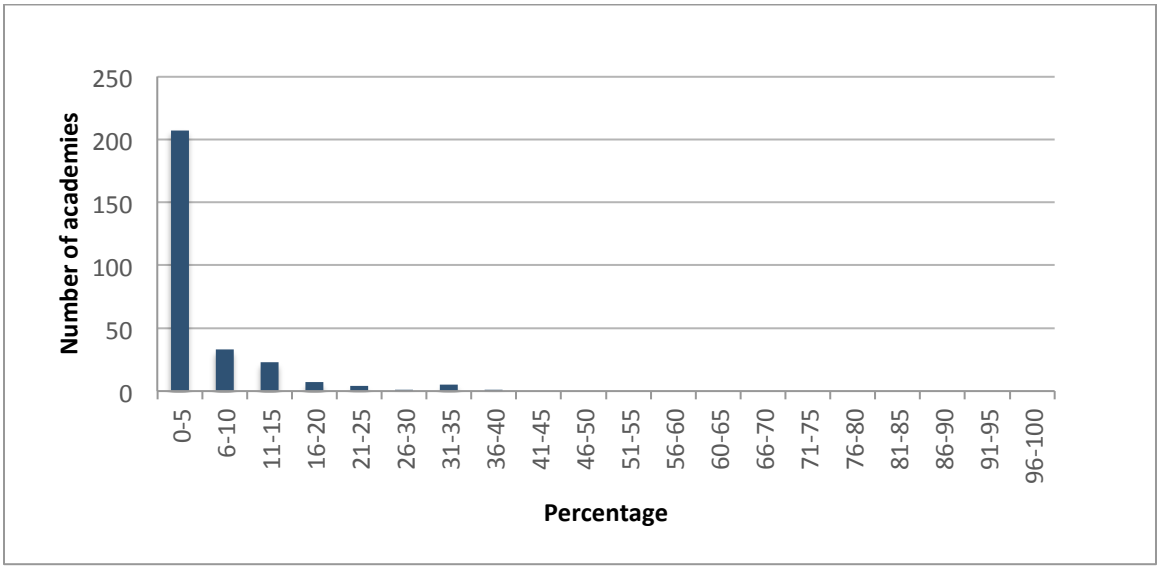


Figure 32b. Distribution of academies by percentage of 2009-10 10th graders who were not found in 2010-11

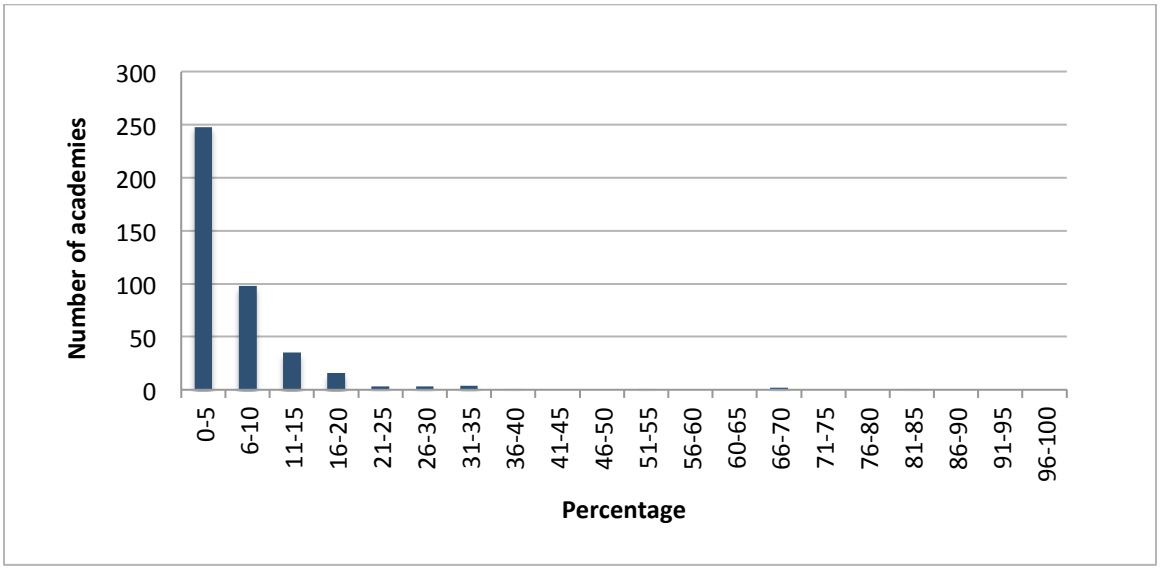


Figure 33 contains the same kind of information as Figure 31, but refers to movement from grade 11 to 12.[21] The great majority of CPAs show more than 65 percent of students remaining in the same academy from one year to the next, but again there are a few exceptions.

Figure 33a. Distribution of academies by percentage of 2009-10 11th graders who enrolled in same academy as 12th graders in 2010-11

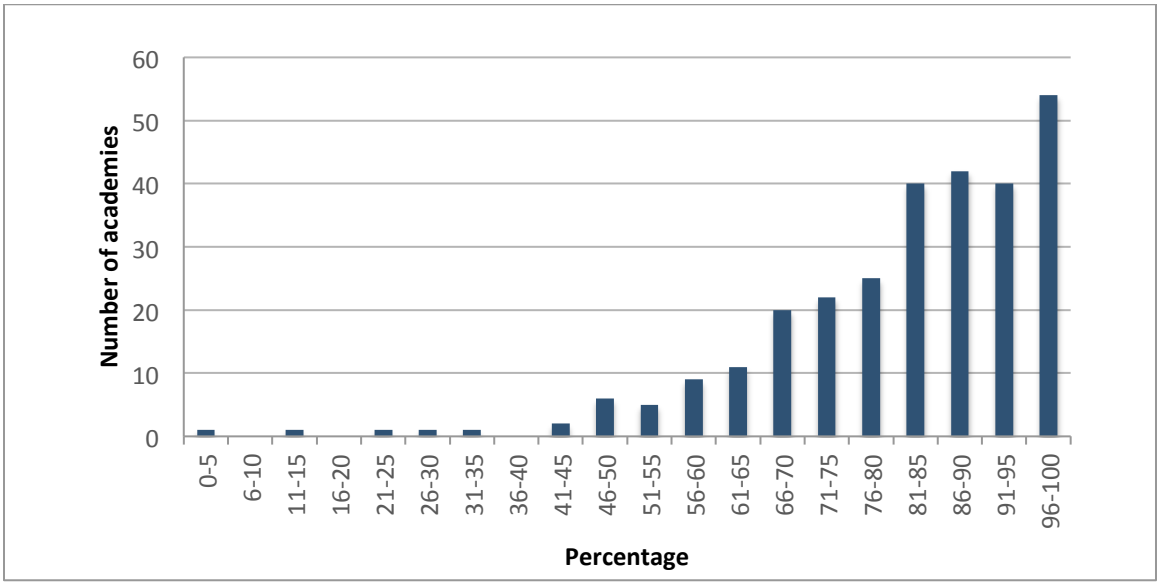
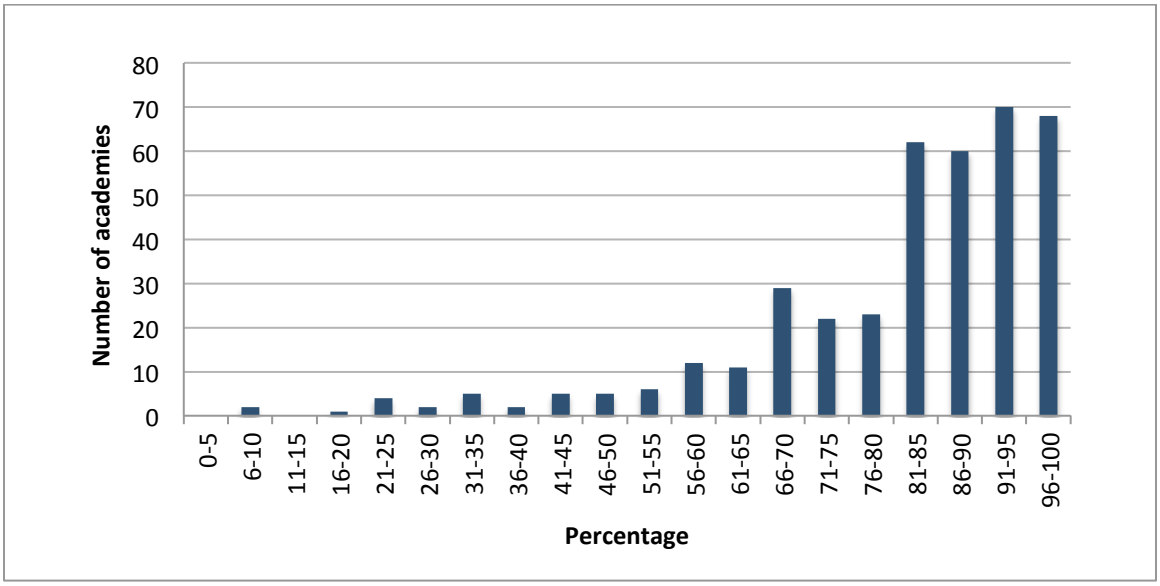


Figure 33b. Distribution of academies by percentage of 2010-11 11th graders who enrolled in same academy as 12th graders in 2011-12



[21] We do not include a chart analogous to Figure 32, because it shows very little variation among academies.

Academies ranked by senior graduation rate are displayed in Figure 34. In the large majority of CPAs, more than 95 percent of seniors graduate at the end of the year, and in almost all academies the senior graduation rate tops 90 percent. Once again there are a small number of exceptions.

Figure 34a. Distribution of academies by percentage of 2010-11 seniors who graduated in spring 2011

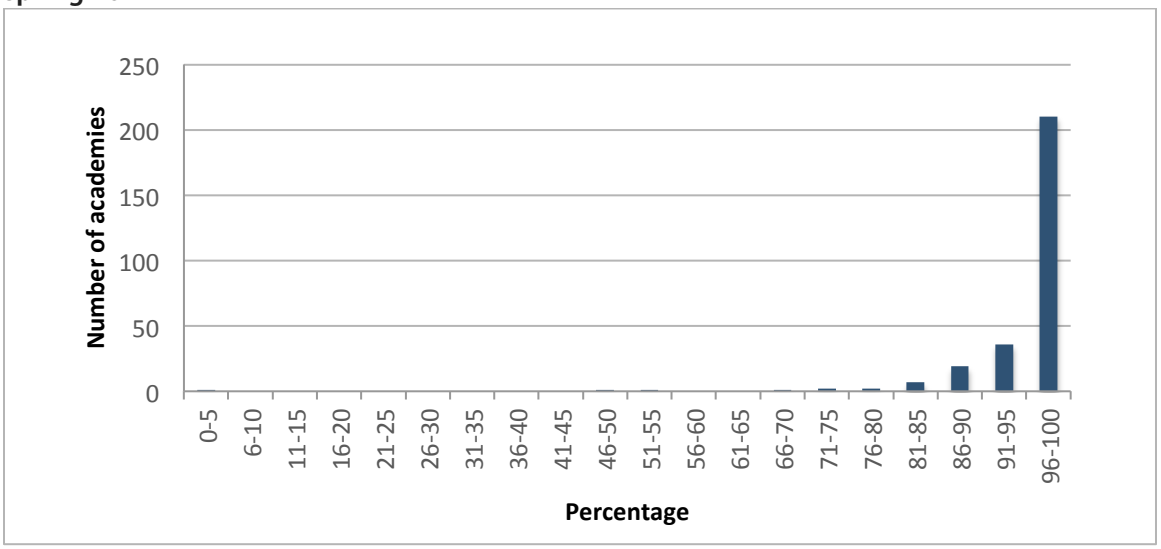


Figure 34b. Distribution of academies by percentage of 2011-12 seniors who graduated in spring 2012

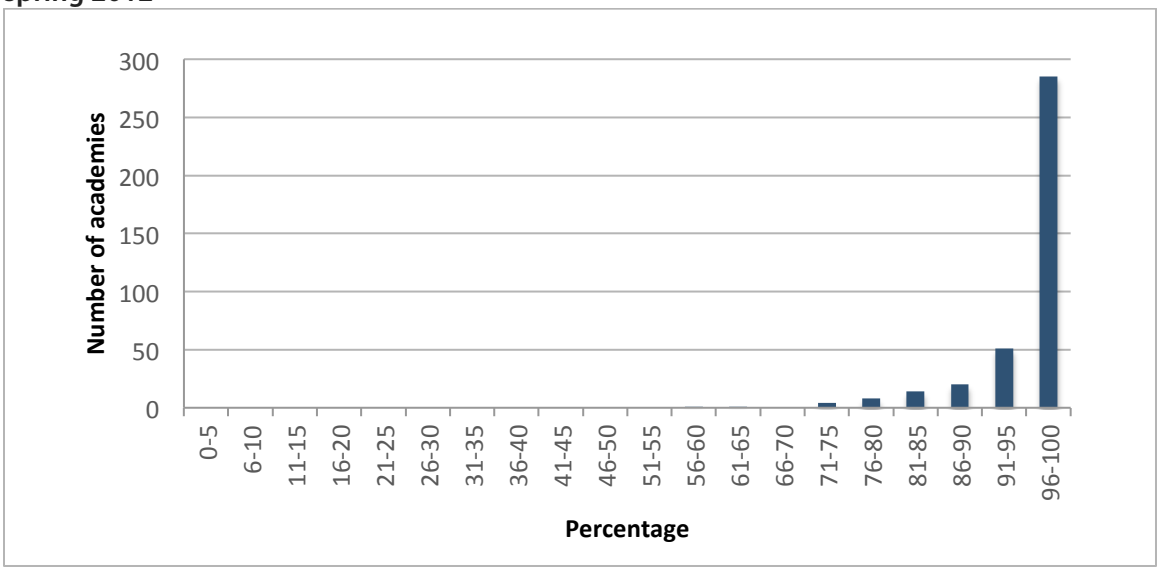


Figure 35 arrays academies according to the percentage of graduates who reportedly completed the a-g course requirements for admission to CSU or UC. Compared to all the other student performance indicators, this one gives a more even distribution from low to high. A substantial number of CPAs show a-g completion rates above 75 percent, but a considerable number of academies have a-g completion rates of 25 percent or less, and there are quite a few academies in the middle range between 25 and 75 percent. We do not have data to explain this pattern. Some academies may not emphasize a-g course completion at much as they stress other outcomes such as graduating from high school. Some academies also may face bigger obstacles to a-g course completion, including students lacking the academic background to take these courses, or administrative difficulties in scheduling students to take them. This could be a fruitful topic of conversation among CPA teachers and administrators, informed by the data.

Figure 35a. Distribution of academies by percentage of spring 2011 graduates who completed a-g course requirements

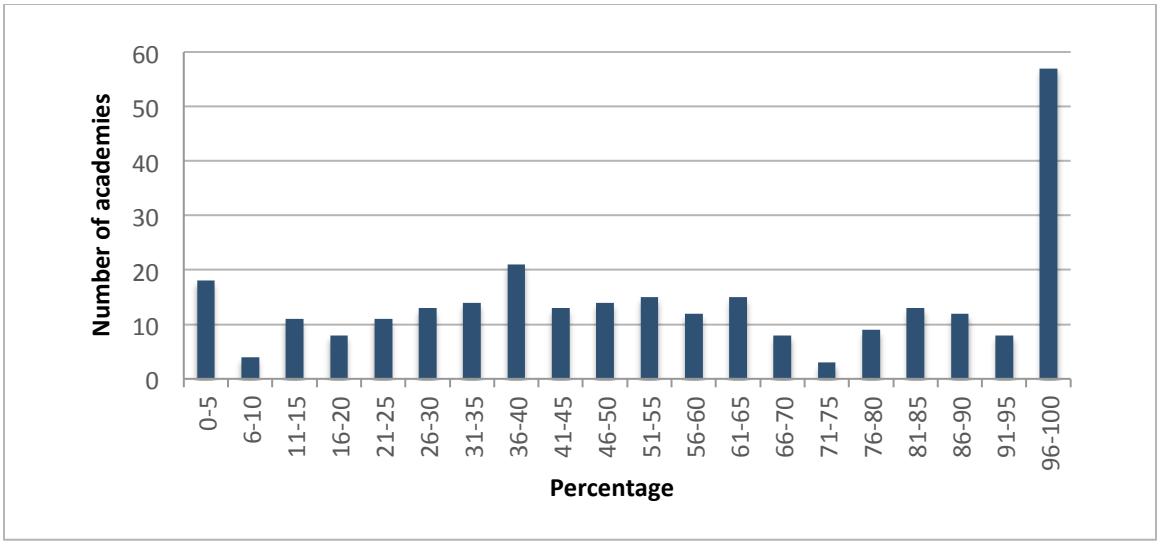
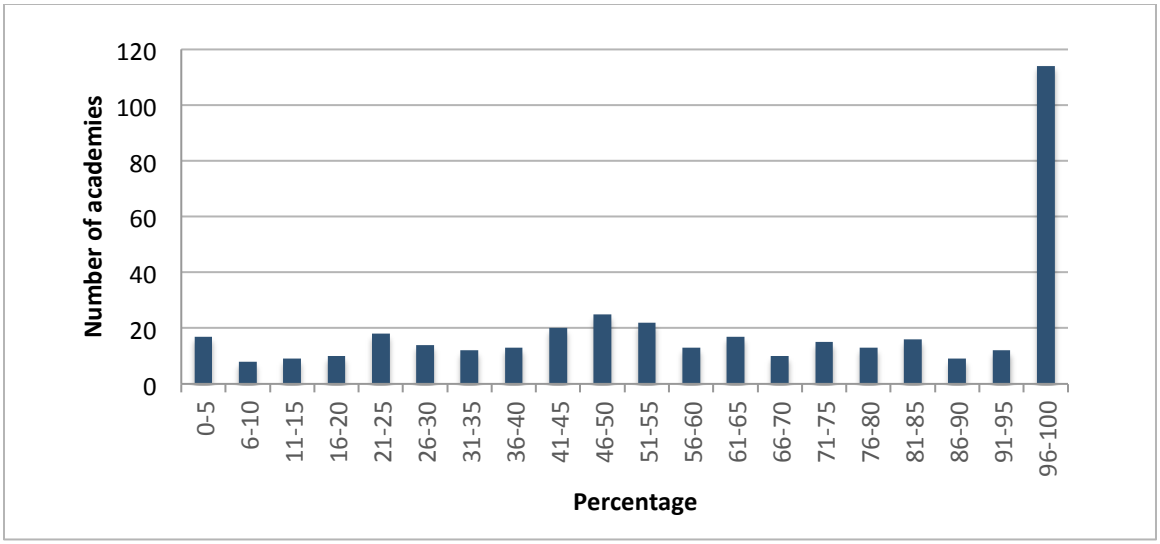


Figure 35b. Distribution of academies by percentage of spring 2012 graduates who completed a-g course requirements



Change in attendance, credits, and grades

Figures 36 through 42 show academies ranked by average year-to-year change in their students' attendance, credits, and grades. As in the rest of this report, the "a" figures refer to cohort 1 (grade 10 in 2008-09) and the "b" figures refer to cohort 2 (grade 10 in 2009-10).

Figures 36 and 37 array academies by average change in students' attendance rate. As in Table 3, the attendance rate is the number of days each student attended, divided by the total possible number of days the student could have attended. In Table 3 attendance rates were reported as percentages ranging from 0 to 100, but in Figures 36 and 37 they are shown as proportions ranging from 0 to 1.

Consistent with the small mean changes reported in Table 3, most academies in Figures 36 and 37 show very little year-to-year change in average attendance rate. In the great majority of academies, the average change is no more than ±0.05, or ±5 percent. However, there are a few outside this range. For some individual academies, the change is so extreme –– 80 percent –– that the data are probably erroneous. But in other academies, showing changes of 10 or 20 percent in average attendance, the data could well be correct and, if so, would call for some explanation.

Figure 36a. Distribution of academies by mean change in attendance rate from grade 10 to 11, cohort 1

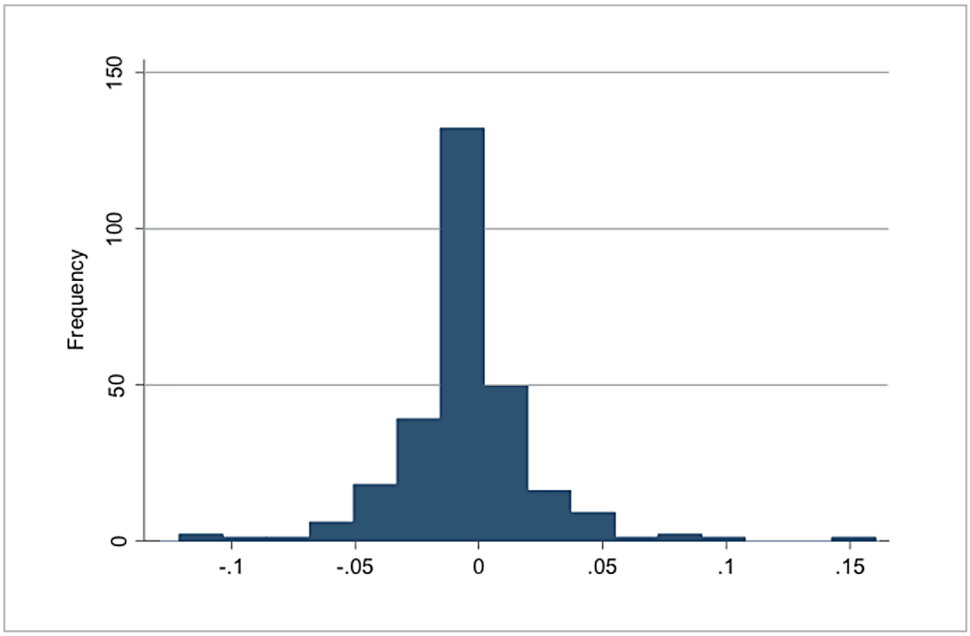


Figure 36b. Distribution of academies by mean change in attendance rate from grade 10 to 11, cohort 2

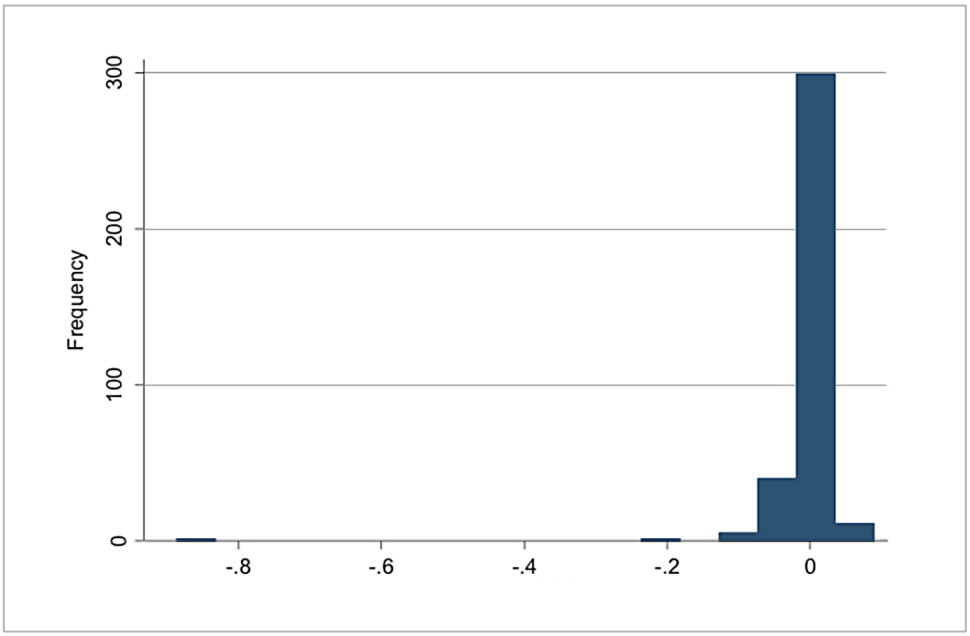


Figure 37a. Distribution of academies by mean change in attendance rate from grade 11 to 12, cohort 1

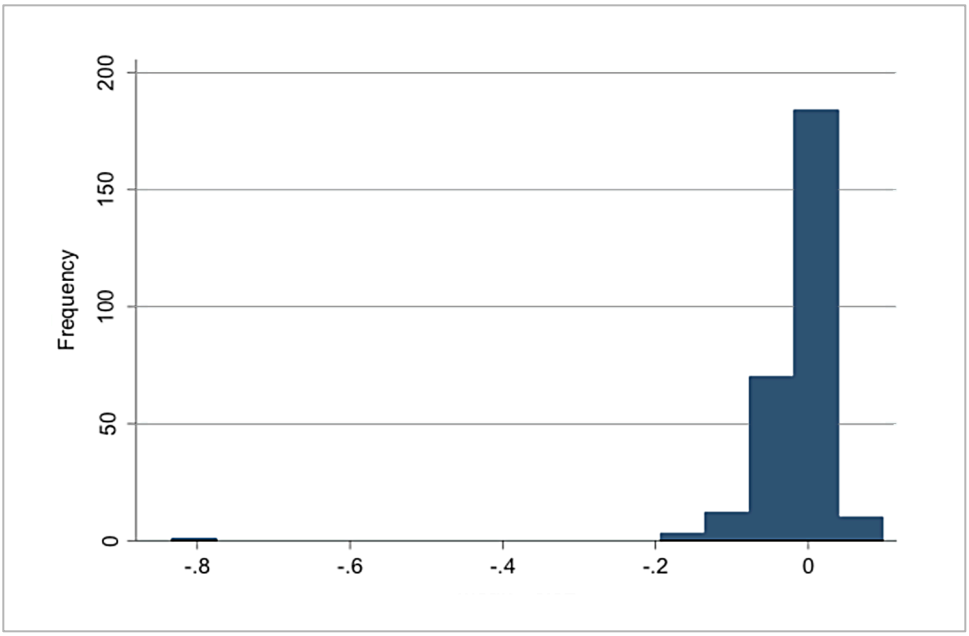
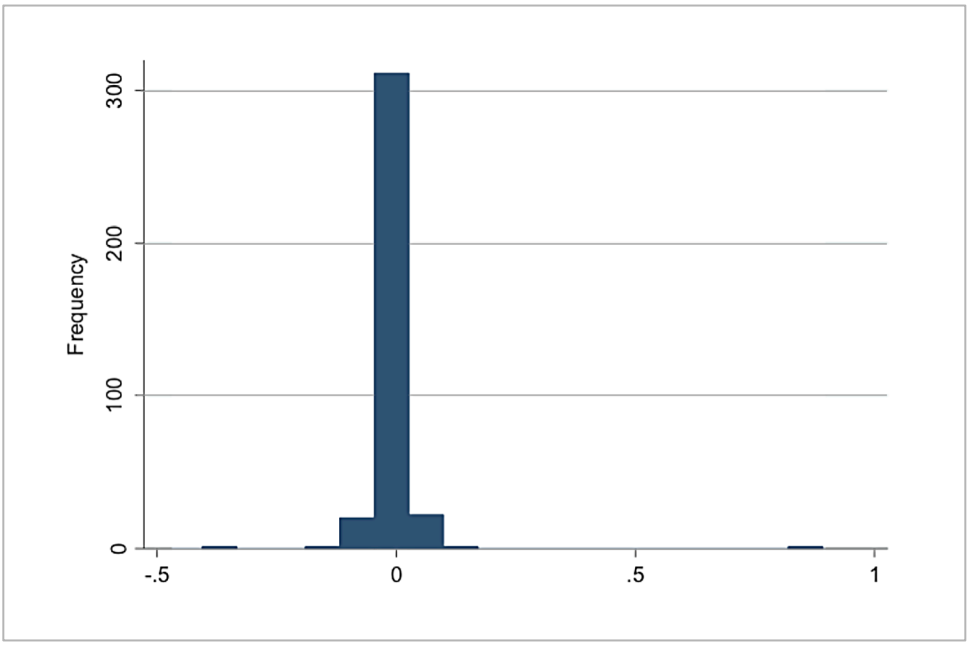


Figure 37b. Distribution of academies by mean change in attendance rate from grade 11 to 12, cohort 2



Figures 38 and 39 display academies ranked by year-to-year change in average number of credits earned by students. Consistent with the small means in Table 4, most academies show changes near zero. The great majority of CPAs are within ±10 credits, the equivalent of one yearlong course. As in Figures 36 and 37, there are a few outliers, showing change of ±40 credits or more, where the data are probably erroneous. But in a substantial number of academies where the change in average credits earned was ±10 or 20, equivalent to one or two courses, teachers and administrators presumably would want to know either how such positive results were achieved, or what could be done to improve a negative result.

Figure 38a. Distribution of academies by mean change in credits earned from grade 10 to 11, cohort 1

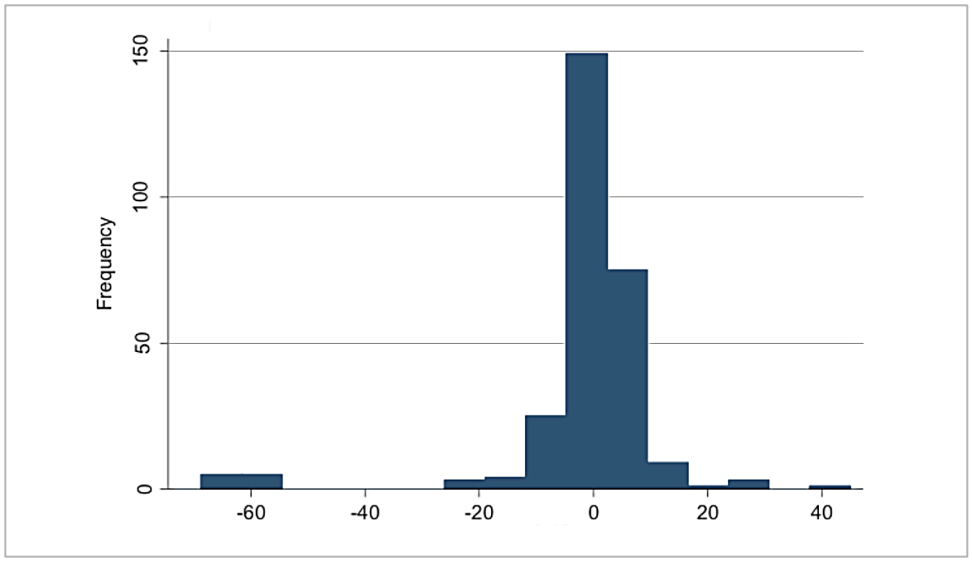


Figure 38b. Distribution of academies by mean change in credits earned from grade 10 to 11, cohort 2

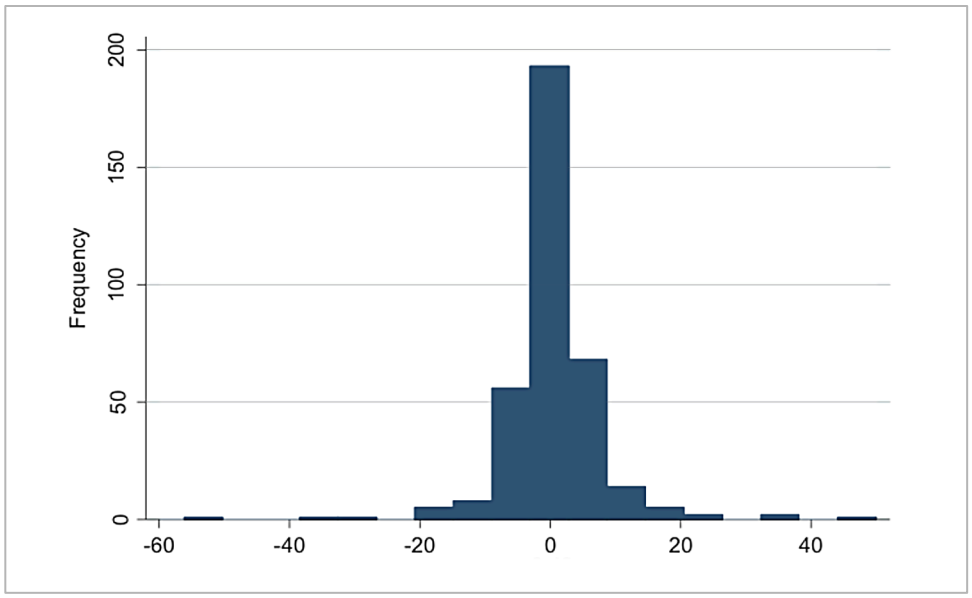


Figure 39a. Distribution of academies by mean change in credits earned from grade 11 to 12, cohort 1

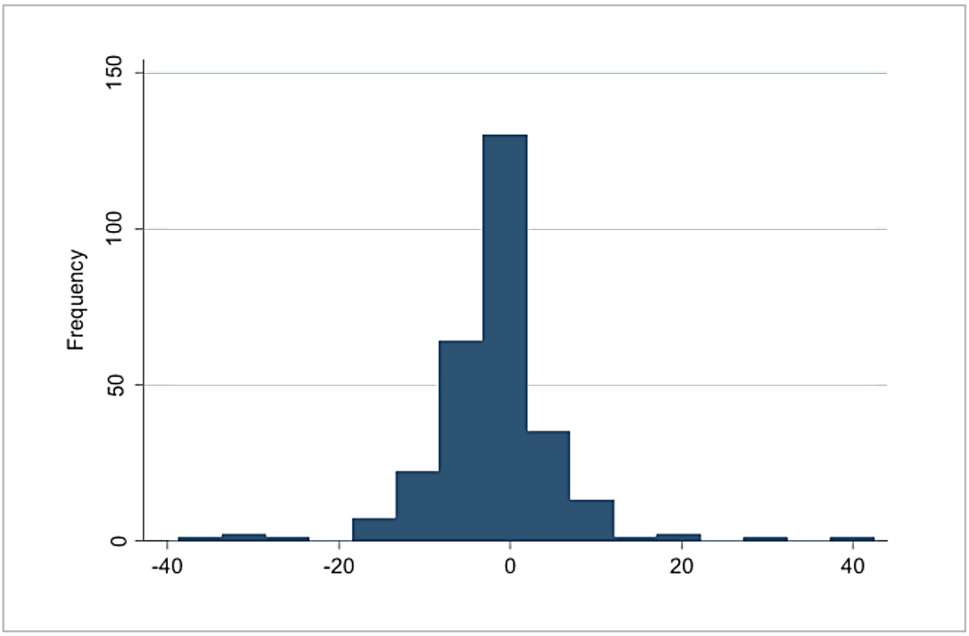
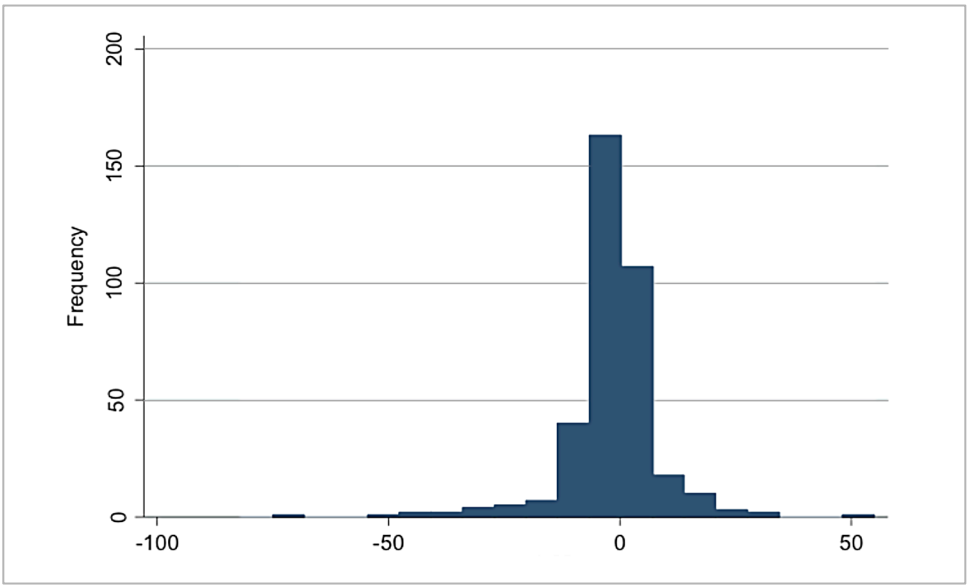


Figure 39b. Distribution of academies by mean change in credits earned from grade 11 to 12, cohort 2



Finally, Figures 40-42 show academies ranked by year-to-year change on students' one-year grade-point average (GPA). Consistent with the small means in Table 5, most CPAs in Figures 40-42 are grouped around zero. The large majority of academies show change smaller than ±0.33, equivalent to the difference between a B and a B+. Again there are a few extreme outliers where the data are probably wrong, e.g. changes greater than ±2 whole grades. And there are also a considerable number of academies showing changes of ±0.5 or more, where teachers and administrators could either learn from success or ask how results might be improved.

Figure 40a. Distribution of academies by mean change in GPA from grade 9 to 10, cohort 1

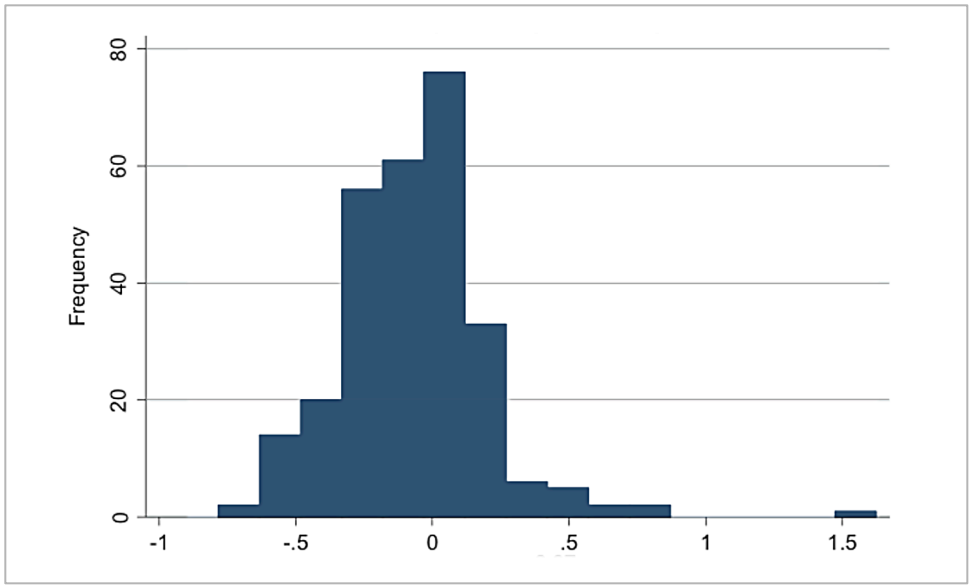


Figure 40b. Distribution of academies by mean change in GPA from grade 9 to 10, cohort 2

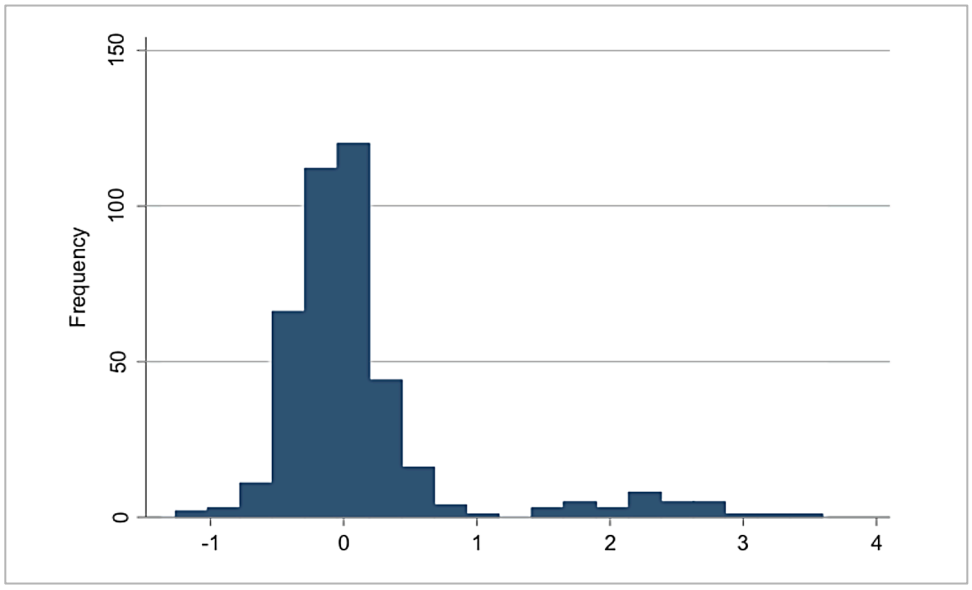


Figure 41a. Distribution of academies by mean change in GPA from grade 10 to 11, cohort 1

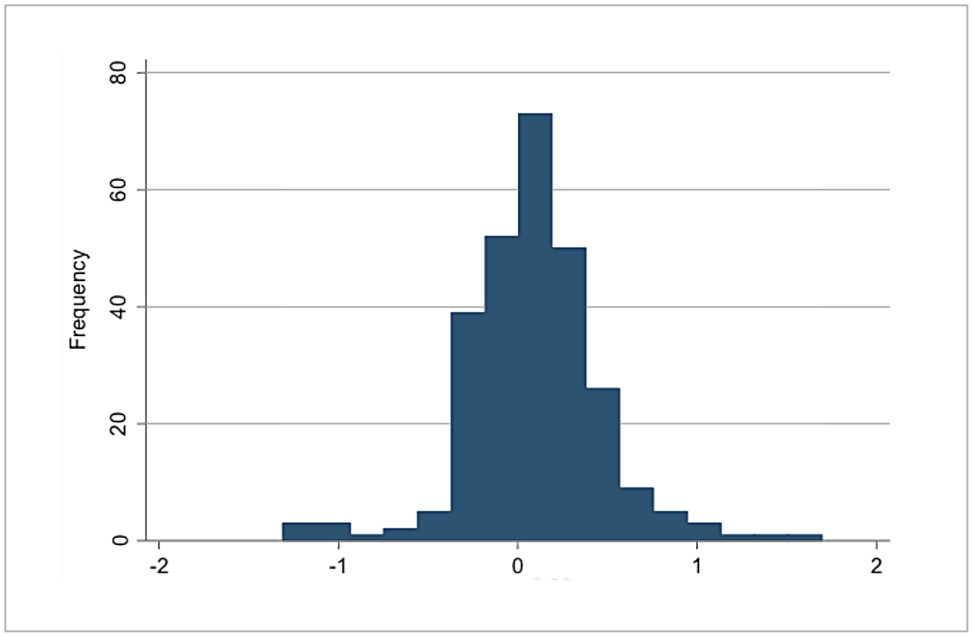


Figure 41b. Distribution of academies by mean change in GPA from grade 10 to 11, cohort 2

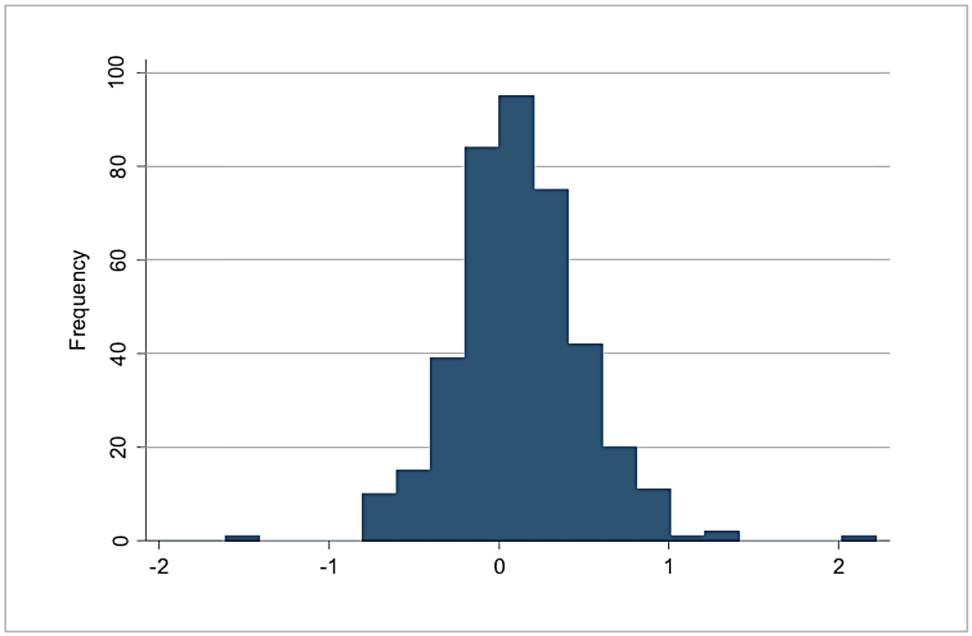


Figure 42a. Distribution of academies by mean change in GPA from grade 11 to 12, cohort 1

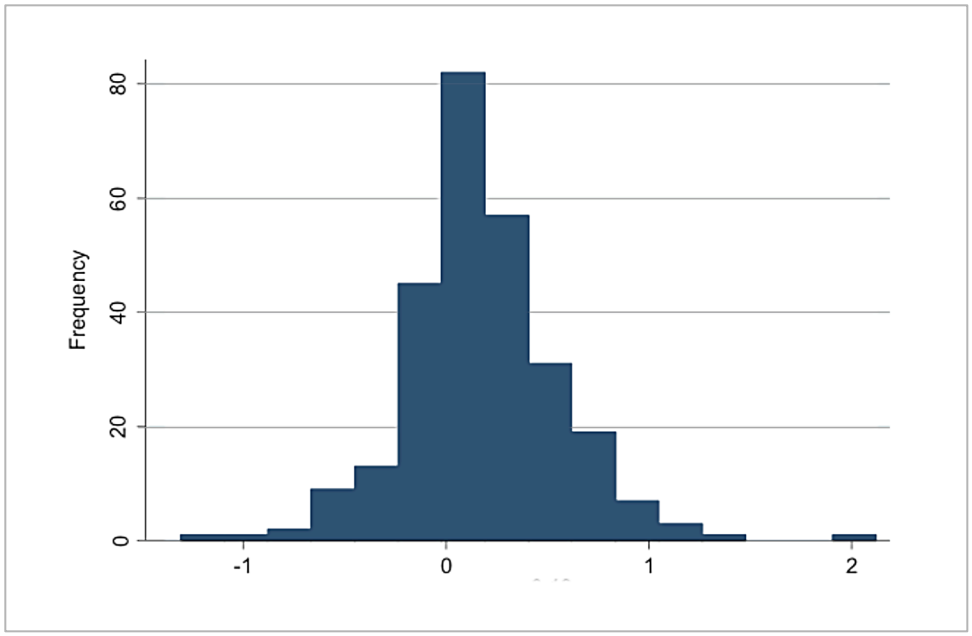
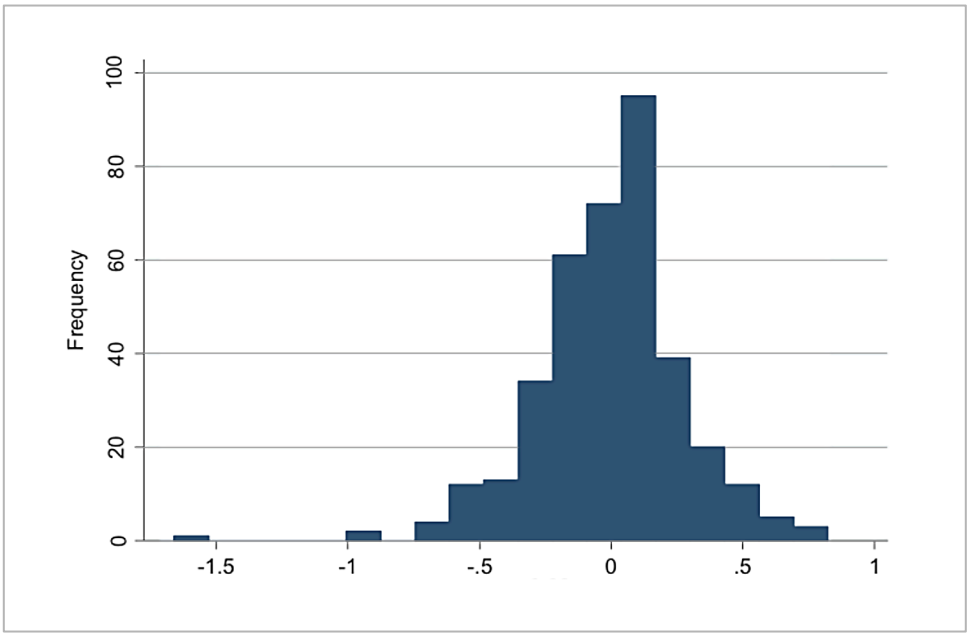


Figure 42b. Distribution of academies by mean change in GPA from grade 11 to 12, cohort 2



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