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# High School Senior-Year Academic Courses and College Outcomes: 1998 and 2001 Texas Public High School Graduates

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The high school senior year has the potential to enhance college enrollment and persistence rates by helping students build confidence, strengthen abilities, and maintain academic momentum as they transition to college. Failing to take advantage of senior year coursework opportunities may have the opposite effect. While some high school students enter college with the academic preparation needed to be successful, many others graduate from high school under-prepared for college-level curricula.

A Texas Higher Education Coordinating Board study explored the number of high school senior-year academic courses taken by Texas public high school students who graduated in 1998 and 2001 and subsequently enrolled in a Texas public institution of higher education. While the students in the 2001 cohort were entering high school, changes to state curriculum policy were implemented that may have affected high school coursetaking patterns, including senior year curricula choices. The two cohorts were chosen to explore if these changes influenced coursetaking patterns and college outcomes. Also, at the time the study was initiated, the 2001 cohort was the most recent for which four-year college graduation rates were available.

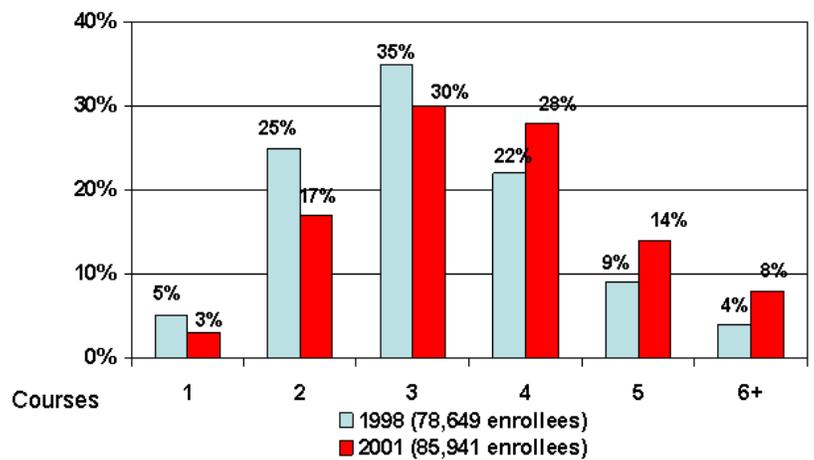
Study results show patterns of academic coursetaking across different student characteristics, including gender, race/ethnicity, economic background, type of institution initially attended (two-or four year), developmental education requirements, and SAT performance. Several college outcomes were linked to the number of high school senior year academic courses taken in order to explore possible connections between high school senior year academic coursetaking, college readiness and college success. These included four- and six-year baccalaureate graduation rates, college freshman year GPA, and freshman credits earned.

The data reflects the average number of academic senior year courses taken (measured at the one, two, three, four, five, and six or more course level) and college outcome results by number of academic courses taken. The results vary in unexpected ways across many of the student characteristics studied. Study results also indicate differences in coursetaking patterns and college outcomes between the two cohort years that may be attributable to changes in curriculum expectations and requirements.

Highlights of the study findings include:

- Academic senior-year coursetaking increased from 1998 to 2001 by an average of approximately one-half course per student. Similar increases were observed for both the general population of Texas high school graduates and the subgroup of that population that enrolled immediately (the following fall) in college. In 1998, 35 percent of all high school graduates took two or fewer high school senior-year academic courses, and only one-third took four or more courses. By 2001, 25 percent of high school graduates took two or fewer high school senior year academic courses and one-half fell into the four or more course category.

Percent of College Enrollees by Number of HS Senior-Year Academic Courses 1998 and 2001



- For both the 1998 and 2001 cohorts, high school graduates who immediately enrolled in a Texas public college or university had higher academic coursetaking rates in high school than the general population of graduates.

- Students at the lowest and highest academic coursetaking levels (one course and six or more courses) were less likely to enter a Texas public college or university than those who attempted between two and five courses.

- High school senior-year academic coursetaking patterns for male and female Texas public college enrollees were quite similar, as were the number of credits earned in the college freshman year. Despite these similarities, average college freshman GPA and graduation rates were higher for women than for men at every coursetaking level. For both genders, however, average GPA and baccalaureate graduation rates generally increased as the number of academic senior year courses increased.

- Senior-year academic coursetaking patterns varied by ethnicity and shifted between cohort years. Between 1998 and 2001 the percentage of the total population of Hispanic college enrollees who took four or more high school academic senior year courses rose 17 points from 39 to 56 percent; African Americans at these course levels increased from 37 to 53 percent; Whites increased from 31 to 45 percent; and Asians increased from 54 to 56 percent.

- For both cohort years, a higher percentage of the economically disadvantaged college enrollees took academic courses as high school seniors at the one, five, or

six or more course levels than the percentage of the non-economically disadvantaged college enrollees who took senior year courses at these levels.

- Four-year college enrollees took more high school senior year academic courses than two-year enrollees. However, the number of two-year enrollees who took four, five, or six or more high school senior year academic courses jumped from 29 percent in 1998 to 47 percent in 2001. The comparable increase for four-year students was from 41 percent to 53 percent.
- Students who were required to take developmental education courses under the Texas Academic Skills Program (TASP) took, on average, fewer high school senior year academic courses than their peers. For both cohort years, the students requiring developmental education were more likely to take one or two academic courses in their high school senior year than their better-prepared counterparts. Students not requiring developmental education were more likely to take three, four, or five academic courses.

For 1998 and 2001 high school graduates (as well as some subsets of this population) freshman college GPA, credits earned, and baccalaureate graduation rates generally improved as the number of high school senior-year academic courses increased. However, a drop-off was frequently seen at the highest coursetaking levels measured. This drop-off in college outcome results at the highest coursetaking categories was more pronounced for certain subgroups of students, including economically disadvantaged students, students who enrolled in two-year institutions, and students needing developmental education per TASP requirements. For a few population subsets, the number of high school senior year courses was inversely related to college outcomes. For example, for students at the lowest SAT ranges, college freshman GPA dropped as the number of senior-year academic courses increased.

The data appear to indicate that there are two distinct groups of high school seniors at the highest coursetaking levels: those who choose to take more academic courses and those who take a high number of academic courses to meet graduation requirements. Students participating in credit recovery programs may also increase the number of seniors at the higher levels of academic coursetaking. In this study, college outcome results by number of high school senior-year courses appeared to be influenced by the performance of students in these distinct categories. Although the relationships between number of high school senior-year courses taken and college outcomes were weaker for the 2001 cohort, it is important to note that the 2001 high school graduates, overall, had stronger college outcomes than the 1998 graduates, including higher average college freshman GPA and baccalaureate graduation rates.

Additional graduation requirements have been implemented in Texas which may affect the high school senior-year academic coursetaking patterns of later graduation cohorts. For example, the recommended high school curriculum became the default curriculum for high school freshmen beginning in 2004-2005. And in 2006, legislation was passed requiring students who enroll in high school in 2007-2008 or later to take a four by four curriculum (four years each of English, math, social studies, and science). Whether and how these changes have or will impact senior-year academic coursetaking and college outcomes is worthy of future study.