
Dual enrollment should be considered as a viable means to improve students' likelihoods of entering postsecondary education, of continuing in college and of acquiring degrees...dual enrollment experiences can serve as a psychological and academic bridge between secondary and postsecondary schooling.

Karp et al., 2007

Dual Enrollment in High Schools in Connecticut: Selected Data

Vocational Equity Research Training and Evaluation Center,
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Dual enrollment and academic persistence and achievement

Research suggests that dual enrollment programs have both short- and long-term effects on high school students' achievement and completion in high school and college. Researchers at the National Research Center for Career and Technical Education studied the impact of dual enrollment on students in New York City and in the state of Florida, looking for data related to the effects of participation in dual enrollment programs on high school graduation and college enrollment, the effects on first semester college grade point average (GPA), persistence to the second college semester and enrollment intensity, and the effects on persistence to the second college year, second year GPA and credit accumulation. They also looked at whether race, ethnicity, gender, socioeconomic status, CTE status and the number of dual enrollment classes taken in high school affected any of the trends.

Data suggest, that in Florida, participation in dual enrollment was positively related to earning a high school diploma, enrollment in college and more specifically, enrollment in a four-year institution, and for four-year college enrollees, full-time enrollment. Students who participated in dual enrollment in high school were significantly more likely to persist and achieve in college, as measured by persistence to the second semester and GPAs, respectively. In the longer-term, dual enrollment was also positively associated with second year college persistence and higher GPAs (relative to their non-dual enrollment peers). And three years after participation, GPA and credit accumulation in the third college year were higher for dual enrollment students than non-dual enrollment students.



Interestingly, Florida findings suggest that, “males and low-income students benefited more from dual enrollment participation than their peers.”¹

In New York, results were not as consistent, yet some positive impact was noted. Dual enrollment students were more likely to pursue a bachelor’s degree and achieve a higher first semester college GPA and more likely to accumulate more credits halfway through their third year of college than their non-dual enrollment peers. Dual enrollment status was associated with a higher first semester college GPA, but only for students who completed two or more dual enrollment credits. The same relationship was noted between intensity (two or more dual enrollment credits) and full-time college enrollment, persistence to year two of college, GPA after the second college year, and progress towards a degree.

Swanson (2008), analyzing data available from the National Education Longitudinal Study of 1988 (NELS:88) and the Postsecondary Education Transcript Study (PETS:2000) asserts that dual enrollment positively affects “academic momentum” toward a college degree in a statistically significant way.² Dual enrollment students were more likely to enroll in college seven (7) months after high school graduation and to persist through their second college year. The effects of dual enrollment were even stronger for students who enrolled directly in college and continued enrollment without a break through the second college year, and who acquired 20 or more credits after their first college year.

Accumulating credits in high school may have created a “nest egg” effect, thereby influencing students’ decisions to remain in college and creating a positive outcome for dual enrollment participants in postsecondary education.

Swanson, 2008

Swanson posits that students who participate in dual enrollment programs may anticipate their status as, and acquire the mindset of, college students. Success in college level courses while in high school may reinforce student’s expectations of achievement as college students.

In a pilot study in Oregon, a higher percentage of 2007-2008 high school seniors who were enrolled in a dual credit program continued to a post-secondary institution by the winter following their graduation than those who did not participate in a dual credit program (81.4% to 72.6%).³ Additionally, the authors found that those who had participated in dual credit program

¹ Karp, M. M., Calcagno, J. C., Hughes, K. L., Jeong, D. W., and Bailey, T. (2007). *The Postsecondary Achievement of Participants in Dual Enrollment: An Analysis of Student Outcomes in Two States*. St. Paul, Minnesota: National Research Center for Career and Technical Education, University of Minnesota. Available online. <http://ccrc.tc.columbia.edu/Publication.asp?UID=547>, p.7

² Swanson, J. L., (2008) *An Analysis of the Impact of High School Dual Enrollment Course Participation on Post-secondary Academic Success, Persistence and Degree Completion*. Paper presented at the National Association of Gifted Children, Tampa, Florida and the National Alliance of Concurrent Enrollment Partnerships, Kansas City, Missouri. Available online. http://nacep.org/wp-content/uploads/2010/02/2008_joni_swanson_summary.pdf, p.3

³ Office of Institutional Research, Oregon University System, *Dual Credit in Oregon: 2010 Follow-up. An Analysis of Students Taking Dual Credit in High School in 2007-08 with Subsequent Performance in College*. Available online: <http://www.ous.edu/dept/ir/reports>, p.1

were more likely to persist as college freshmen, and for those who continued onto a second year in college, dual credit participants achieved a higher first year GPA.⁴

In Connecticut, there is also some evidence that dual enrollment has an impact on student persistence and achievement in college. UCONN Early College Experience program data also indicates that, from Fall 2005 through Fall 2010, academic achievement was associated with ECE status. First and second semester college GPAs for ECE Alumni during that time period were within the 3.0 to 3.2 range whereas non-ECE Alumni achieved within the 2.7 to 2.9 range.⁵

According to the University of Connecticut Early College Experience data, “UNCONN ECE Alumni who matriculate to UCONN graduate earlier than students who do not participate in the program.”⁶ Program data also indicate that UCONN ECE Alumni graduate at higher rates than students who are not UCONN ECE Alumni.

An unpublished study of Montville High School’s (Connecticut) enrollment in Advanced Placement (AP) and ECE courses found that between 2006 and 2009, the participation rate in AP decreased and fewer courses were offered (11 in 2006 to 7 in 2009), whereas ECE has shown a steady increase in the number of course (6 in 2006 to 9 in 2009).⁷ The author suggests that changing university standards for awarding credit for AP classes may be discouraging students from enrolling in AP. Some postsecondary schools have shifted to assigning credit only for scores of 4 or 5; therefore, a 3, considered a “passing” grade, may yield no college credit nor be accepted as a substitute for first-level college courses.

Dual enrollment programs in Connecticut

Connecticut Community College data indicate that 6190 students were simultaneously enrolled in a high school and a Connecticut Community College (including Tech Prep, College Career Pathways, high school partnerships and other early college experiences) in 2008-2009.⁸ Of those students, 1,382 (22%) students participated in Tech Prep or College Career Pathways programs.⁹ Connecticut State Department of Education enrollment data for 2008-2009 indicate an enrollment of over 80,000 11th and 12th graders in Connecticut’s public schools; therefore, we can estimate that 7.7% of students may participate in a high school and a Connecticut Community College dual enrollment program.

Of the 7592 Connecticut Community College first time enrollees in Fall 2009, 852 (11%) entered community college with **any** previously earned college credit and 183 (2%) entered with credits earned in Tech Prep or College Career Pathways programs.¹⁰

⁴ Ibid. p.1.

⁵ B. A. Boecher, *Defining your concurrent enrollment programs for others: Growth and development* (Keynote address at the 35th Annual Cooperative Academic Partnership Program (CAPP) Conference, University of Wisconsin, Oshkosh. March 28, 2012. Available online: http://ece.uconn.edu/research/research_presentations/UW%20_Oshkosh_3-2012.pdf.

⁶ Ibid.

⁷ B. Stone, *AP vs ECE at Montville High School: A Longitudinal Study*. Unpublished paper/presentation. Available online: http://ece.uconn.edu/research/partner_research/AP_ECE_BStone.pdf

⁸ Connecticut Community College System Office of Planning, Research and Assessment, *High School – Community College Dual Enrollment*. Available online: <http://www.comnet.edu/planning/Research/DualEnrollment/DualEnrollmentV1.asp>

⁹ Ibid.

¹⁰ Ibid.

UCONN Early College Experience (ECE)

UCONN ECE was established in 1955 and is the “oldest continually operating concurrent enrollment program (CEP) in the nation.”¹¹ Program data indicates that UCONN ECE partners with 160 high schools in Connecticut and is one of the largest dual enrollment programs in the United States both by student enrollment and the numbers of courses offered.. UCONN ECE enrollment data suggest that enrollment has grown steadily since 1989, with the largest increases occurring after 2005. Slightly more than 9000 Connecticut high school students participated in the program in 2011; 843 teachers are certified to teach ECE courses. Fifty-two (52) courses are offered through the following schools: Agriculture and Natural Resources; Fine Arts; Liberal Arts and Sciences; and the NEAG School of Education

Credit transferability and instructor interest are the two factors that appear to drive ECE enrollment. The ECE Site Representative and other faculty recommending the program have a great deal of influence on students selecting to enroll in ECE courses. As importantly, students receive UCONN credit which transfers well to other colleges and universities.

Advanced Placement

Since 1955, the Advanced Placement program (sponsored by the College Board) has been an established way of enrolling high school students in college-level classes and exams. There are presently 37 AP courses in subject areas from studio art to psychology, sciences to languages such as Japanese and Italian. The College Board provides course descriptions and teaching materials, but there is no common curriculum for the courses (although the College Board does hold professional workshops related to pedagogy and content), and any teacher can suggest that her/his students sit for an AP exam.

Eighty-two percent (82%) of Connecticut’s public high schools offered at least one AP exam in May 2007, an increase of more than 18% over May 1997 administration.¹² The most popular exams in Connecticut include English Language and Composition, English Literature and Composition, U.S. History, Biology and Calculus AB. Slightly more than 59% of Class of 2007 seniors passed at least one AP exam during their high school years.¹³ Young women are more likely than young men to take the exam, yet young men pass more exams (passing is defined as a score of 3 or better); in 2007, the pass rate for females was 68.6%, for males, 75.2%.¹⁴ The numbers of students who identify as Native American, Asian American, African American and Latino has steadily increased, as has the participation and passing rate of low-income students.

College Career Pathways

The College Career Pathways (CCP) program is available to high school juniors and seniors in Connecticut high schools. The program allows students to earn up to 14 college credit (without cost) by taking academic and technical courses that have been articulated through their local community college. In 2008-2009, 1,382 students in Connecticut participated in either CCP or

¹¹ University of Connecticut Early College Experience, *Program Data Sheet 2011-2012*. Available online: http://ece.uconn.edu/publications/Program_Data_2011-12.pdf

¹² M. McQuillan, *Advanced Placement Program* Available Online: http://www.csde.state.ct.us/public/cedar/assessment/national/resources/ap/ap_board_report_2007.pdf, p.5

¹³ Ibid., p.6

¹⁴ Ibid., p.15

Tech Prep. There has been a great deal of growth across the state over the last five years; in 2004-2005 enrollment was 999.

CCP students are invited to participate in many of the services that are available for all college students at the community college, including borrowing privileges at the community college library and access to labs and tutorial services. Students receive a college transcript and earned credits are transferrable to another community or four-year college or university.

To be eligible to participate, students must have completed a planned sequence of academic courses (English, math, and science) and a technical program in 9th and 10th grade; have overall 77 or higher average in tenth grade to participate, and commit to a planned sequence of coursework that includes both academic and career-related courses leading to an associate's degree or higher.