

# REGIONAL EDUCATIONAL LABORATORY

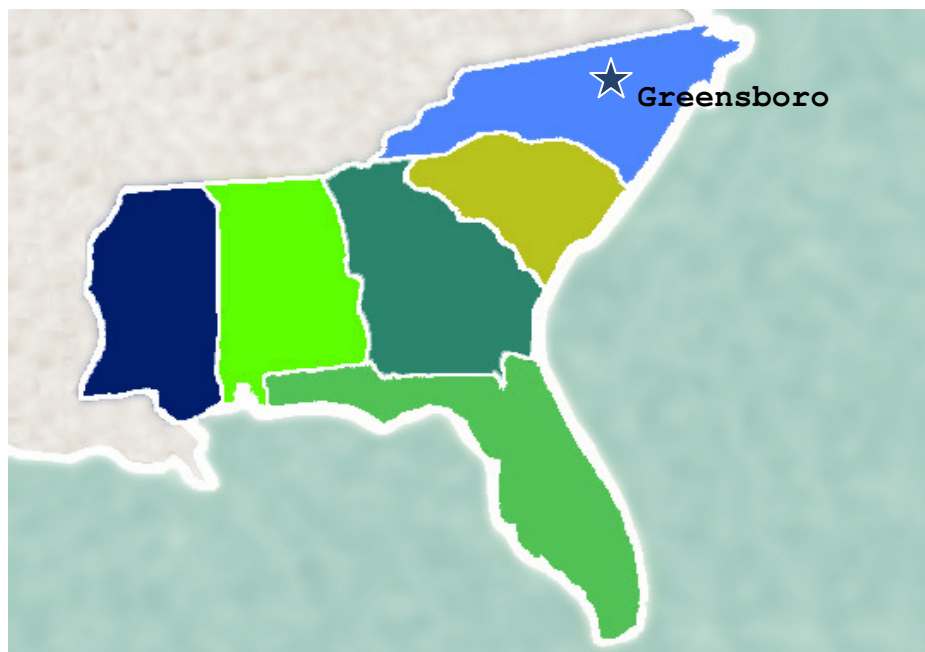
## SOUTHEAST ~ SERVECenter

September 2010, EBE # 713

### EVIDENCE BASED EDUCATION REQUEST DESK

#### OUR GOAL

To assist educators and policymakers in their efforts to apply the evidence base to decisions about policies, programs, and practices they encounter.



#### REQUEST: DUAL ENROLLMENT

Please conduct a search for data, information, or research studies on the secondary school success (i.e., test scores, GPA, credits earned, graduation rates, postsecondary enrollment rates) of students enrolled in traditional high schools vs. those involved in programs that allow students in high school to earn college credit—for example, dual enrollment and early college programs. We request a literature search for general/national studies and then a specific search for information on outcomes in states in the Southeast region—for example, North Carolina's early college high schools, Georgia's Move on When Ready (see the informational links at <http://www.doe.k12.ga.us/ci...>).

### RESPONSE

#### Research on dual enrollment programs' secondary school effects

A recent report on the impact of dual enrollment programs noted that “despite the popularity and growth of dual enrollment programs, little is known about their efficacy” (Karp, Calcagno, Hughes, Jeong, & Bailey, 2007). Furthermore, much of what is known tends to focus on *postsecondary*—full-time as opposed to part-time college enrollment, college enrollment persistence, college GPAs, and college credit earned—rather than *secondary* school effects.

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REL-SE staff did identify several studies, though, that examined secondary school outcomes for dual enrollment students. In general, the studies concluded that dual enrollment students: outperformed district averages on statewide math and ELA assessments; graduated from high school with approximately one year's worth of college credit; and were more likely to graduate from high school and to enroll in college than their non-dual enrollment counterparts. The reports are summarized in the following table.

Report	State	Study Design	Secondary School Success Conclusions
<p><b>Berger, A., Adelman, N., &amp; Cole, S. (2010). The Early College High School Initiative: An overview of five evaluation years. <i>Peabody Journal of Education</i>, 85(3), 333-47.</b></p>	<p>National (38 states with dual enrollment programs)</p>	<p>Descriptive</p>	<p><b>Attendance:</b> In 2006–07, the most recent year for which data were reported, the average daily attendance rate at ECSs was 94%. This rate has been fairly stable across the evaluation years and very similar to national figures (94% in 2003–04).</p> <p><b>State Proficiency Test Scores:</b> In every year the evaluation tracked proficiency rates, ECSs, on average, outperformed district averages on statewide mathematics and ELA assessments.</p> <p><b>Cumulative Promotion Index</b> (an estimate of the percentage of 9th-grade students who will graduate on time, based on grade-to-grade progression rates): For the 12 ECSs with data to provide this estimate, the average CPI was 66%. Each ECS's CPI was higher than its districts' CPI, by 14% on average.</p> <p><b>Credits earned:</b> Authors estimate that ECS students will graduate with 10 college classes by the end of 12th grade (about 1 year's worth of college credit).</p> <p><b>Location:</b> ECSs located on a college campus had higher proficiency rates on state assessments relative to their districts, higher attendance rates, and higher 9th-to-10th-grade progression rates than ECSs not located on a college campus.</p> <p><b>Differences in outcomes by student group:</b> Students who reported that they would be the first in their family to go to college reported lower high school and college GPAs, had lower educational aspirations, and felt less</p>

			positively about ECSs than other students. Minority and low-income student groups both reported lower high school GPAs, but no differences were evident on other outcomes. Students who come from non-English-speaking homes reported higher high school GPAs.
<b>Edmunds, J., Bernstein, L., Glennie, E., Willse, J., Arshavsky, N., Unlu, F. et al. (2010). Preparing students for college: The implementation and impact of the Early College High School model. <i>Peabody Journal of Education</i>, 85(3), 348–64.</b>	NC	Preliminary 9th-grade results from 285 students in 2 sites participating in a longitudinal experimental study of the impact of the model. The two schools used a random assignment process prior to the official start of the study.	<b>Course taking:</b> A larger percentage of ECHS students were progressing more rapidly through a college preparatory track of study, compared to control-group students.
<b>Glennie, E., Edmunds, J., Bernstein, L., &amp; Purtell, K. (2009, April). <i>Preliminary outcomes in an early college high school: Results from a pilot study</i>. Paper presented at the American Educational Research Association Conference, San Diego, CA.</b>  [Cited in Berger, A., Adelman, N., & Cole, 2010]	NC	Longitudinal experimental	<b>Course taking:</b> “Findings from one pilot school demonstrated that the ECS students were more likely to take geometry in 9th grade than students who were not selected to attend the ECS, and this benefit of attending an ECS was particularly pronounced for low-income students” (p. 335).
<b>Karp, M.M., Calcagno, J.C., Hughes, K.L. Jeong, D.W., &amp; Bailey, T. (2007). <i>The postsecondary achievement of participants in</i></b>	FL NY	Analyzed two existing large-scale administrative	<b>FL:</b> “Dual enrollment participation had a statistically significant positive association with students’ likelihood of earning a regular high school diploma and enrolling

<p><i>dual enrollment: An analysis of student outcomes in two states.</i> St. Paul: National Research Center for Career and Technical Education, University of Minnesota.</p>		<p>longitudinal datasets using non-experimental methods, including ordinary least squares and logistic regressions and controlled for various student and school characteristics.</p>	<p>in postsecondary education.” (p. 36)</p> <p><b>High school graduation:</b> Dual enrollment students were 4.3 percent more likely than their non-dual enrollment peers to earn a diploma.</p> <p><b>College enrollment rates:</b> Dual enrollment participants were 16.8 percent more likely to enroll in college than their non-participating peers. Dual enrollment participation also increased the likelihood of initially enrolling in a four-year institution by 7.7 percent. For students who enrolled in postsecondary education, dual enrollment participation was also positively related to their likelihood of enrolling full-time.</p> <p>(In many cases, male and low-income students benefited more from dual enrollment participation than their peers.)</p> <p><u>NY</u></p> <p><b>College enrollment rates:</b> Dual enrollment participants were 9.7 percent more likely than their peers to pursue a bachelor’s degree (as opposed to an associate degree).</p>
<p><b>North Carolina New Schools Project. (August 18, 2010).</b> <i>News: State data show strong graduation rates for new schools.</i>  <a href="http://newschoolsproject.org/news/article/state-data-show-strong-graduation-rates-for-new-schools">http://newschoolsproject.org/news/article/state-data-show-strong-graduation-rates-for-new-schools</a></p>	<p>NC</p>	<p>Descriptive</p>	<p><b>High school graduation:</b> “For the 19 early college high schools with full cohorts graduating, 90 percent of the students finished with their classes. Nine of the 19 schools had graduation rates above 95 percent and five schools had rates of at least 90 percent.” [for the 2009–2010 school year]. North Carolina’s overall graduation rate for 2009–2010 was 74.2 percent.</p>

## **Annotated Bibliography on Dual Enrollment and Secondary School Success**

**Berger, A., Adelman, N., & Cole, S. (2010). The Early College High School Initiative: An overview of five evaluation years. *Peabody Journal of Education*, 85(3), 333–47.**

Executive summary: In 2002, the Bill & Melinda Gates Foundation started the Early College High School Initiative (ECHSI). Through this initiative, more than 200 Early College Schools (ECSs) opened by fall 2009. All of the schools aim to provide underserved students access to college classes while in high school. This article will provide an overview of the first 6 years of the ECHSI, and key findings across 5 years of the ECHSI evaluation, in particular highlighting how participants have implemented the ECHSI's core principles. However, the ECS is not a rigid model, and this article describes the variations in o ECS implementation. Finally, this article documents outcomes such as attendance, grade-to-grade progression and graduation rates, student performance on assessments, and college credit accrual. [PDF file attached]

**Edmunds, J., Bernstein, L., Glennie, E., Willse, J., Arshavsky, N., Unlu, F. et al. (2010). Preparing students for college: The implementation and impact of the Early College High School model. *Peabody Journal of Education*, 85(3), 348–64.**

Executive Summary: As implemented in North Carolina, Early College High Schools are small, autonomous schools designed to increase the number of students who graduate from high school and are prepared for postsecondary education. Targeted at students who are underrepresented in college, these schools are most frequently located on college campuses and are intended to provide students with 2 years of college credit upon graduation from high school. This article reports on preliminary 9th-grade results from 285 students in 2 sites participating in a longitudinal experimental study of the impact of the model. These early results show that significantly more Early College High School students are enrolling and progressing in a college preparatory course of study. This expanded access, however, is associated with somewhat lower pass rates for some courses, suggesting the need for strong academic support to accompany increased enrollment in more rigorous courses. Implementation data collected on one school indicate that it is successfully implementing the model's components. [PDF file attached]

**Glennie, E., Edmunds, J., Bernstein, L., & Purtell, K. (2009, April). *Preliminary outcomes in an early college high school: Results from a pilot study*. Paper presented at the American Educational Research Association Conference, San Diego, CA. [Cited in Berger, A., Adelman, N., & Cole, 2010]**

**Karp, M.M., Calcagno, J.C., Hughes, K.L., Jeong, D. W., & Bailey, T. (2007). *The postsecondary achievement of participants in dual enrollment: An analysis of student outcomes in two states*. St. Paul: National Research Center for Career and Technical Education, University of Minnesota.**

From the abstract: Despite the popularity and growth of dual enrollment programs, little is

known about their efficacy. This report seeks to answer several questions regarding their effectiveness using rigorous quantitative methods. We examine the impact of dual enrollment participation for students in the State of Florida and in New York City. For both locations, we specifically examine postsecondary outcomes for participating CTE students; in Florida, we also examine the outcomes of dual enrollment participation for all students. We provide evidence that dual enrollment is a useful strategy for encouraging postsecondary success for all students, including those in CTE programs. [PDF file attached]

### **Research on dual enrollment programs' secondary school effects in the REL-SE region**

All six of the REL-SE states offer some form of dual enrollment program to high school students. Funding sources differ across states and across programs within the same state. REL-SE staff found research on secondary school outcomes of dual enrollment participants for only FL and NC. The conclusions are summarized in the table above. Here are links to further information on REL-SE region dual enrollment programs:

AL: <http://www.accs.cc/EarlyCollege.aspx>

FL: <http://www.fldoe.org/articulation/> &  
<http://www.fldoe.org/cc/OSAS/Evaluations/pdf/Zoom2009-03.pdf>

GA: [http://www.doe.k12.ga.us/ci\\_cta.aspx?PageReq=CICTASeam](http://www.doe.k12.ga.us/ci_cta.aspx?PageReq=CICTASeam)

MS: <http://www.mde.k12.ms.us/ACAD/ID/Curriculum/APIP/laws/Dual%20Enrollment%2037-15-37.pdf>

NC: <http://www.nclearnandearn.gov/learnEarnHighschools.aspx> &  
<http://newschoolsproject.org/our-schools/school-models/early-college>

SC: <http://www.che.sc.gov/AcademicAffairs/DualEnrollment.pdf>

### **Other Resources**

**Community College Research Center, Concurrent Courses Initiative: Pathways to College and Careers:** “The Concurrent Courses Initiative was created to demonstrate the feasibility of using dual enrollment programs to enhance college and career pathways for low-income youth who are struggling academically or who are within populations historically underrepresented in higher education. Funded by The James Irvine Foundation, the Concurrent Courses Initiative provides support to eight secondary and postsecondary partnerships in California as they

develop, enhance and expand their career-focused dual enrollment programs.”

<http://www.concurrentcourses.org/>

**Jobs for the Future, Early College High School Initiative:** “Early college is a bold approach to high school reform, based on the principle that academic rigor, combined with the opportunity to save time and money, is a powerful motivator for students to work hard and meet serious intellectual challenges. Early college schools blend high school and college in a rigorous, yet supportive program, compressing the time it takes to complete a high school diploma and the first two years of college.

The schools are designed so that low-income youth, first-generation college goers, English language learners, students of color, and other young people underrepresented in higher education can simultaneously earn a high school diploma and one to two years of transferable college credit—tuition free.

Today, the Early College High School Initiative includes 208 schools serving more than 47,000 students in 24 states.”

<http://www.jff.org/projects/current/education/early-college-high-school-initiative/57> &

<http://www.earlycolleges.org/>

### **Methodology**

Search terms: REL-SE staff searched the Education Index, PsycARTICLES, and EconLit online databases through the UNCG library using the following search terms: “early college”; “dual enrollment”; and “concurrent enrollment.” Searches were limited to peer-reviewed journals and to the last 10 years. Staff also searched the websites of Mathematica, RAND, AIR, SRI International, Campbell Collaboration, and Education Commission of the States.





We provide research based information on educational initiatives happening nationally and regionally. The EBE Request Desk is currently taking requests for:

- Research on a particular topic
- Information on the evidence base for curriculum interventions or professional development programs
- Information on large, sponsored research projects
- Information on southeastern state policies and programs

For more information or to make a request, contact:

**Karla Lewis**  
**1.800.755.3277**  
**klewis@serve.org**

The Regional Educational Laboratory (REL) – Southeast’s Evidence Based Education (EBE) Request Desk is a service provided by a collaborative of the REL program, funded by the U.S. Department of Education’s Institute of Education Sciences (IES). This response was prepared under a contract with IES, Contract ED-06-CO-0028, by REL-Southeast administered by the SERVE Center at the University of North Carolina at Greensboro. The content of the response does not necessarily reflect the views or policies of IES or the U.S. Department of Education nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.

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