

# Report to the Joint Legislative Education Oversight Committee

Learn and Earn Early College High School Initiative

Session Law 2007-323, Section 7.18(b)

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# Update on the *Learn and Earn* Early College High School Initiative

In September 2004, Governor Mike Easley launched the Learn and Earn Early College High School Initiative in response to workforce needs in North Carolina and to the state's persistent dropout rate. The initiative is administered jointly by the N.C. Department of Public Instruction and the North Carolina New Schools Project. It is designed to improve high schools, to better prepare students for college and career, to create a seamless curriculum between high school and college, and to provide work-based learning experiences to students. Located on the campuses of two- or four- year colleges and universities, *Learn and Earn* early college high schools provide an academically rigorous course of study with the goal of ensuring that all students graduate with a high school diploma and two years of university transfer credit or an associate's degree. Learn and Earn early college high schools are intended to make a priority of serving students who are typically under-represented in the college-going population, such as students who are first generation college-going, students from low-income families, those who are members of a minority group and those who have met with failure in conventional schools. In addition, each Learn and Earn early college high school is expected to implement and exhibit a rigorous and far-reaching set of conditions, known as Design Principles, that lead to student success as judged by all students graduating ready for college, careers and life. Those Design Principles are:

- **Ready for College:** Innovative high schools are characterized by the pervasive, transparent, and consistent understanding that the school exists for the purpose of preparing all students for college and work. They maintain a common set of high standards for every student to overcome harmful tracking and sorting.
- **Powerful Teaching and Learning:** Innovative high schools are characterized by the presence of commonly held standards for high quality instructional practice. Teachers in these schools design instruction that ensures the development of critical thinking, application and problem solving skills often neglected in traditional settings.
- **Personalization:** Staff in innovative high schools understand that knowing students well is an essential condition of helping them achieve academically. These high schools ensure that adults leverage knowledge of students in order to improve student learning.
- **Redefined Professionalism:** The responsibility to the shared vision of the innovative high school is evident in the collaborative, creative, and leadership roles of all adult staff in the school. The staff of these schools takes responsibility for the success of every student, holds themselves accountable to their colleagues, and is reflective about their roles.

• **Purposeful Design:** Innovative high schools are designed to create the conditions that ensure the other four design principles: ready for college, powerful teaching and learning, personalization, and redefined professionalism. The organization of time, space, and the allocation of resources ensures that these best practices become common practice.

Governor Easley has set a goal of establishing 75 *Learn and Earn* early college high schools across North Carolina by 2008.

SL 2007-323 calls on the State Board of Education to report the results of an annual evaluation of the *Learn and Earn* Early College High School Initiative. The Department of Public Instruction (NCDPI) in conjunction with the North Carolina New Schools Project (NCNSP) is monitoring and evaluating the progress of the schools in implementing the school model and in the schools' effect on student achievement. NCDPI and NCNSP is partnering with Jobs for the Future in establishing a comprehensive student-level database to collect and analyze data on the achievement of students who attend *Learn and Earn* early college high schools. NCDPI and NCNSP also are partners along with SERVE, Duke University, Abt Associates and the University of North Carolina-Greensboro in a federally funded comprehensive research study on the effects of the *Learn and Earn* early college high schools model on student achievement and other outcomes. While substantial data from these two evaluation efforts will not be available for another year, this report will provide an update on the initiative and the schools that were open in 2006-07.

#### Learn and Earn Early College High Schools

Thirty-three *Learn and Earn* early college high schools were open during 2006-07. Each of these schools is working in partnership with a community college or university that provides facilities for the school and college-level courses for the students. Of those 33, four are partnered with a UNC campus and 29 are partnered with a community college. Seven of the 33 sites existed as middle college high schools prior to the *Learn and Earn* initiative and became a part of the initiative as a way to convert to an early college. Middle college high schools also are located on a university or community college campus. However, students do not typically attend the school from 9<sup>th</sup> grade until graduation and are only eligible to complete *some* college credit and not a full two years of university transfer credit or an associate's degree. For a complete list of the 33 sites, please see Attachment A.

#### Student Demographics

Collectively, the 33 *Learn and Earn* early college high schools served nearly 3,100 students during the 2006-07 school year. Overall, most of the early colleges served primarily 9<sup>th</sup> and 10<sup>th</sup> grade students. Over the next four or five years, the schools will add an additional cohort of 9<sup>th</sup> graders until they reach their capacity of 200-400 students each. The number of students per grade level that was served in *Learn and Earn* early

college high schools for the 2006-07 school year is presented in Table 1 below. Student demographic information for the 33 schools combined is presented in the Table 2 below.

| Grade Level                              | No. of<br>Students |
|--|--------------------|
| 9 <sup>th</sup>                          | 1948               |
| 10 <sup>th</sup>                         | 666                |
| $11^{\text{th}}$                         | 273                |
| $12^{\text{th}}$                         | 206                |
| Total                                    | 3093               |
| Source: 1 <sup>st</sup> Month A<br>NCDPI | ADM data from      |

# Table 1. Number of Students per Grade LevelIn Learn and Earn Early College High Schools, 2006-07

| Table 2.          | Race and Gender of Students         |
|-------------------|-------------------------------------|
| In Learn and Earn | Early College High Schools, 2006-07 |

|          | Male  | Female | Total |
|----------|-------|--------|-------|
| White    | 25%   | 29.9%  | 54.9% |
| Black    | 12.6% | 20%    | 32.5% |
| Hispanic | 3%    | 4.3%   | 7.3%  |
| Other    | 2.1%  | 3.2%   | 5.3%  |
| Total    | 42.7% | 57.3%  | 100%  |

Source: NCDPI

#### ABC End-of-Course Test Results

In 2006-07, the 33 *Learn and Earn* early college high schools had performance composites (or the percent of students proficient on all End-of-Course tests) ranging from 97.2 percent to 34.5 percent, with 13 schools (39 percent) posting performance composites of 80 percent or higher (compared to 8 percent of all high schools across the state). Twenty-four of the 33 schools (73 percent) posted performance composites that were the highest among the other high schools in their district. Twenty-seven of the 33 schools (82 percent) met expected growth (compared to 77 percent of all high schools across the state), and 17 of the 33 (52 percent) made high growth (compared to 34 percent of all high schools across the state).

#### Ninth Grade Promotion Rates

To graduate, a student must complete required courses and be promoted from grade to grade. Research has shown that promotion out of 9<sup>th</sup> grade is an especially strong indicator of a student's likelihood to graduate. During the 2005-06 school year (the most recent year for which promotion rates are currently available and during which the initial 13 *Learn and Earn* early college high schools enrolled students), 12 of the 13 *Learn and Earn* early college high schools reported 9<sup>th</sup> grade promotion rates ranging from 64.0 percent to 100 percent, with five of the 12 schools (42 percent) promoting 100 percent of their 9<sup>th</sup> grade classes.<sup>1</sup> Ten of the 12 schools (83 percent) reported 9<sup>th</sup> grade promotion rates greater than 95 percent. Ten of the 12 schools (83 percent) also reported 9<sup>th</sup> grade promotion rates greater than the statewide 9<sup>th</sup> grade promotion rate of 85 percent.

#### Ninth Grade Dropout Rates

To graduate all students, schools must ensure that all students stay in school and do not dropout. Ninth grade, in particular, appears to be the most crucial year for keeping students in school. Research has shown that most high school students either dropout or choose to dropout during the 9<sup>th</sup> grade year. During the 2005-06 school year (the most recent for which dropout rates are available), 12 of the 13 *Learn and Earn* early college high schools that had 9<sup>th</sup> grade classes reported 9<sup>th</sup> grade dropout rates ranging from 0 percent to 5.48 percent, with eight schools (67 percent) reporting no 9<sup>th</sup> grade dropouts. All 12 of the schools reported 9<sup>th</sup> grade dropout rates that were lower than the statewide 9<sup>th</sup> grade dropout rate of 5.65 percent.<sup>2</sup>

#### Pilot Data Results from Early College High School Research Study

As mentioned above, NCDPI and NCNSP are partners with SERVE, Duke University, Abt Associates and UNC-Greensboro in a federally funded comprehensive research study on the effects of the *Learn and Earn* early college high school model on student achievement and other outcomes. The study is incorporating an experimental design that requires each *Learn and Earn* early college high school that participates in the study agrees to conduct a student selection lottery (or random assignment) to determine which students will attend and not attend the school. Using a lottery produces two groups for comparison (the students who were randomly assigned to get in and the students who were randomly assigned not to get in) that have few systematic differences from one another, even on characteristics that are hard to measure such as motivation. Using random selection of students is a sound way to determine the true impact of an intervention, such as *Learn and Earn* early college high schools on student achievement.

<sup>&</sup>lt;sup>1</sup> One of the 13 *Learn and Earn* Early College High Schools that were open did not have a sizable 9<sup>th</sup> grade class in 2005-06.

<sup>&</sup>lt;sup>2</sup> The 9<sup>th</sup> grade dropout rates were calculated using a formula similar to the NCDPI 9-12 dropout rate calculation formula. The 9<sup>th</sup> grade dropout rate was calculated by dividing the number of 9<sup>th</sup> grade dropouts by the average of the membership last day for the 9<sup>th</sup> grade classes for the 2005-06 and 2006-07 school years plus the number of dropouts.

Substantial data from the research study will not be available for another year or two. However, one of the Learn and Earn early college high schools participating in the study, Rutherford Early College High School, conducted a student selection lottery for the 2005-06 school year. As a small pilot study, the research team analyzed student achievement and demographic data for those students from the 2005-06 school year. While the sample of students is small (only 78) and from only one school, an interesting trend was observed. Among the group of students who were a part of the student selection lottery, a significantly higher percentage of students who attended Rutherford Early College High School had successfully completed both Algebra I and Geometry by the end of their 9<sup>th</sup> grade year (78.8 percent compared to 38.9 percent). Completion of four years of math, including Algebra I and Geometry, is a requirement for students to graduate from high school ready to attend college. While the results are from a pilot study of a very small sample of students, nearly twice as many students at Rutherford Early College High School in 2005-06 had successfully completed college preparatory mathematics courses by the end of 9<sup>th</sup> grade as compared to their peers who were not randomly selected to attend the school. For more information on the results from the pilot study, see Attachment C.

#### **Funding and Additional Support**

The 33 *Learn and Earn* early college high schools that were open for students for the 2006-07 school year signed a five-year implementation agreement with NCDPI and NCNSP to receive grant funding from the state and technical assistance in the implementation of their early college high school. For details on the amount and uses of grant funding from the 2006-07 school year for each *Learn and Earn* early college high school, see Table 3 below.

|   | Funding<br>2006-07 |
|---|--------------------|
| School Change and Instructional Coaches                       | \$19,000           |
| Teacher Professional Development                              | \$10,000           |
| Principal Professional Development                            | \$6,000            |
| 1 Guidance Counselor and 1 Work-Based<br>Learning Coordinator | \$124,248          |
| 1 College Liaison   | \$62,124           |
| Evaluation  | \$3,500            |
| Local Cash <sup>1</sup>                                       | \$26,556           |
| College Textbooks and Instructional<br>Supplies               | \$35,645           |
| Total:  | \$287,073          |

# Table 3. Learn and Earn Early College High SchoolImplementation Grant Funding, 2006-07

<sup>1</sup> Learn and Earn Early College High Schools that were in their first year of implementation receive an additional \$10,000 in local cash to help with additional first year implementation needs.

The implementation grant funding includes: the cost of a school change and instructional coach, professional development for teachers and principals, three instructional support positions, evaluation, local cash to cover additional expenses, including travel to professional development events and funding to purchase college textbooks and instructional supplies for students.

School Change and Instructional Coaches: Each Learn and Earn early college high school is assigned a professionally trained and highly experienced school change coach who serves as a facilitator for the planning and implementation of the school. During the 2006-07 school year, each Learn and Earn early college high school also received the services of a highly trained and experienced instructional coach who worked directly with the faculty on-site to support sustained change in the instructional delivery model. Both types of coaches are identified and trained by NCNSP and NCDPI. Brokering organizations, such as the Leadership Group of the Carolinas and Bridgewood Educational Services, work with NCNSP and NCDPI to facilitate the coaching process. NCNSP, in conjunction with Leadership Group of the Carolinas and Bridgewood Educational Services, provides extensive and ongoing professional development for school change and instructional coaches in order to develop and enhance their knowledge, skills and abilities as coaches.

*Teacher and Principal Professional Development:* Over the course of the school year, teachers, school counselors and principals participated in a series of professional development sessions on strengthening instruction and school leadership with a specific focus on three key areas: identifying and applying rigor, enhancing teacher collaboration and helping schools effectively use project-based learning to leverage improved outcomes for all students.

- *Calibrating Rigor:* One of the most effective efforts, both for teachers and principals, was the year's sharp focus on rigor: defining it in theory and identifying it in practice. NCNSP's Summer Institute in June 2006 laid the foundation for developing a deeper understanding of rigor through discussions led by Tony Wagner, co-director of the Change Leadership Group at the Harvard Graduate School of Education. Later in the fall, principals and teacher-leaders from each of the state's *Learn and Earn* early college high schools met in workshops to define concrete elements of rigor in terms of instruction, curriculum and student assessment. Each two-person team then visited classrooms in top-performing comprehensive high schools around the state to apply their definitions of rigor. Participants said the session and the visits helped them better understand classroom rigor, although many conceded they had seen little of it in action.
- *Strengthening Teacher Collaboration:* Emphasis continued during the year on the development of professional learning communities within the schools to strengthen teacher collaboration, and in turn, student learning. Pairs of teachers from each *Learn and Earn* early college high school were introduced to the Critical Friends Group approach to teacher collaboration developed by the National School Reform Faculty. The teacher teams met during two three-day workshops in the fall, as part of an eight-day series during the year. Participants indicated that they saw value in the tools of discourse used in the Critical Friends model and said they planned to use them in developing groups among faculty in their own schools. Principals from *Learn and Earn* early college high schools also participated Critical Friends Group training that was tailored in helping to support and sustain the development of a professional learning community in their schools.
- *Project-Based Learning:* Teacher teams from each of the schools participated in sessions throughout the year in Project-Based Learning (PBL). Starting with the NCNSP's Summer Institute in June 2006, the two-teacher teams began developing project-based learning units, which they continued to develop and implement over the course of the year through both online sessions and follow-up workshops. These sessions were designed to allow participants to share their PBL unit and to receive feedback from colleagues from around the state. These sessions utilized both a webbased, interactive tool and a conference call tool. Principals received professional development on PBL to provide them with the necessary knowledge to recognize the correct strategies used in PBL, and be able to discuss and support this approach in their schools.

- Developing a College-Going Culture: In September 2006, principals and school counselors from Learn and Earn early college high schools participated in a session entitled "High Expectations and High Supports: Developing a College-Going Culture." The session was designed to help principals and school counselors develop an understanding of a college-going culture, learn how to develop a college-going culture in their school, and learn strategies to support students in achieving in a college-going culture. Presenters from the Middle College National Consortium facilitated the session. Participants were provided differentiated seminars depending on either their role as a principal or school counselor and the implementation year of their school.
- *Building Sustainability:* In March, principals from *Learn and Earn* early college high schools and their superintendents participated in a three-day statewide conference entitled "Sustainability: Building a Culture of Support Inside and Out." Overall, the conference was intended as an opportunity for school leaders to identify barriers to success for early college high schools and to share and generate productive approaches and effective alternatives to those barriers.
- *Teaching and Learning Conference:* In April, teams of two to three teachers and principals from existing *Learn and Earn* early college high schools from across the state gathered in Winston-Salem for the 2007 Teaching and Learning Conference. The conference offered the educators the opportunity to develop curriculum for their schools and to receive feedback and support from teacher-facilitators working in innovative high schools from across the country.
- 2007 NCNSP Summer Institute: Teams of teachers, school counselors and principals from each *Learn and Earn* early college high school gathered in Winston-Salem in June for the 2007 NCNSP Summer Institute. The institute was focused on strengthening student advisory periods and partnerships with higher education colleagues. Educators also probed how to integrate literacy instruction across the curriculum. As part of that work, they heard from Maria Reyes, one of the original "Freedom Writers" from Woodrow Wilson High School in Long Beach, CA, recently featured in a movie starring Oscar winner Hillary Swank. Reyes described how teacher Erin Gruwell's English class helped change her path from one of gang member to college graduate.

*Instructional Support Positions:* Learn and Earn early college high schools' implementation grants also provide each school with funding for one additional school counselor, one work-based learning experiences coordinator and one college liaison. The work-based learning experiences coordinator helps facilitate partnerships with community organizations and local businesses that will provide internships and job shadowing opportunities for early college high school students. The college liaison position helps connect the university or community college and the early college high school and facilitates student placement in college courses and the identification of additional college resources to support the early college high school.

#### **Changes in School Support Services for 2007-08**

Based on feedback from redesigned and *Learn and Earn* early college high schools over the course of the 2006-07 school year, NCNSP revised the support services provided to innovative high schools, including *Learn and Earn* early college high schools, to better ensure that the services are aligned and are meeting the needs of the schools. For the 2007-08 school year, the instructional coaching services, the leadership professional development and the teacher professional development were combined into the Integrated System of School Support Services (IS4). Innovative high schools benefit from tightly aligned support system of IS4 that provides every school an anchor residency experience at an innovative high school, drives professional development and support for teachers and principals to the school, and provides time to visit other NCNSP schools and strengthen local and regional professional networks. For a copy of the 2007-08 IS4 calendar and description, see Attachment C.

#### Sites Opening for the 2007-08 School Year

During the 2006-07 school year, 14 *Learn and Earn* early college high schools were in the planning stage. Nine of those schools opened in 2007-08. For a complete list of the nine new *Learn and Earn* schools, please see Attachment A. Eight of the nine new schools are partnering with community colleges and one new early college high school (Polk) is a virtual early college partnering with the UNC-Greensboro iSchool. The Polk Virtual Early College is the first of its kind in the state and is located on the Polk County High School campus.

Each planning site received a small planning grant from NCDPI and NCNSP of approximately \$40,000, which was used during the year to fund a school-change coach, various planning activities and additional associated costs. The planning activities included:

- *Planning support:* In August and December 2006, NCNSP facilitated two planning support meetings for district and higher education partners from *Learn and Earn* early college high schools planning teams. During the two meetings, the planning teams had the opportunity to meet and begin working with their school change coach, received a planning manual and planning tools, discussed the characteristics and skills of high school freshman and college freshman, discussed what intentional supports are needed to help students be prepared by the time they are college freshmen and discussed the characteristics of a successful early college high school principal.
- *Study visits:* In November and December 2006, NCNSP facilitated study visits to several model schools from around the country for two members from each *Learn and Earn* early college high schools planning team. Planning teams visited the International School at LaGuardia and the Middle College at LaGuardia in New York City and University Park Campus School in Worcester, Mass. Each

planning team could send one LEA planning team member and one university or community college planning team member. Prior to the visit, each participant received a packet that included background information on the schools they were visiting, tools to help them gather information from the visits, an article for discussion, and additional articles on high school redesign and the Design Principles. Each study visit included an initial briefing session, in which NCNSP and NCDPI staff provided background information on the schools and led the participants in discussions about what questions they planned to gather data to answer. NCNSP staff also led participants in a discussion focused on an article on student support and reviewed the *Learn and Earn* early college high school Design Principles. After the visits, NCNSP and NCDPI staff led participants in a debriefing session when participants discussed what they observed and how the data they collected would be used to inform practice. Participants prepared presentations based on what they had learned to share with their other planning team members.

• 2007 NCNSP Summer Institute: Teams of teachers, principals and counselors from the nine new *Learn and Earn* early college high schools also participated in the 2007 NCNSP Summer Institute, described above.

#### **Evaluation Efforts**

NCNSP and NCDPI have built a partnership with Jobs for the Future (JFF), the intermediary for the national Early College High School Initiative, to include North Carolina's early college high schools in the Early College High School Initiative Student Information System. The Student Information System (SIS) collects and analyzes student-level data from the schools on such factors as demographics, attendance, course taking and course completion patterns, test scores, GPA, disciplinary incidences, and number of college courses taken. The Student Information System will allow NCNSP, NCDPI and our early college high schools to better track and evaluate the progress of students in our early colleges. Data from the database will be available next year.

SERVE, the southeast region Federal Education Laboratory, in partnership with Duke University, NCNSP, UNC-Greensboro, Abt Associates and other organizations, has received funding from the U.S. Department of Education to conduct a rigorous, experimental research study of the *Learn and Earn* Early College High School Initiative. The research project will study the impact of the early college model on important student outcomes to determine the model's effectiveness with different student populations. The project also will study the implementation of the components of the early college high school by examining the association of those components with student outcomes. This study will provide useful information to NCNSP, NCDPI and our early colleges on how to improve our practice.

# Attachment A. Learn and Earn Early College High Schools as of September 2007

| Opened Fall 2005            |   |
|-----------------------------|---|
| Anson County Schools        | Anson County Early College High School              |
| Buncombe County Schools     | Buncombe County Early / Middle College              |
| Catawba County Schools      | Catawba Valley Early College High School            |
| Clinton City/Sampson        | Sampson County Early College High School            |
| Cumberland County Schools   | Cross Creek Early College High School               |
| Davidson County Schools     | Davidson Early College High School                  |
| Durham Public Schools       | Josephine Dobbs Clement Early College High School   |
| Edgecombe County schools    | Edgecombe County Early College High School          |
| Guilford County Schools     | The Early / Middle College at GTCC                  |
| Nash-Rocky Mount Schools    | Nash-Rocky Mount Early / Middle College High School |
| Iredell-Statesville Schools | Collaborative College for Technology and Leadership |
| Robeson County Schools      | Robeson County Early College High School            |
| Rutherford County Schools   | Rutherford Early College High School                |

| Opened Fall 2006           |  |
|----------------------------|--|
| Brunswick County Schools   | Brunswick County Early College High School               |
| Caldwell County Schools    | Caldwell Early College                                   |
| Cherokee County Schools    | Tri-County Early College High School                     |
| Columbus County Schools    | Southeastern Early College High School                   |
| Craven County Schools      | Craven Early College High School                         |
| Greene County Schools      | Greene County Early College High School                  |
| Guilford County Schools    | GTCC Early/Middle College of Entertainment<br>Technology |
| Guilford County Schools    | NC A&T University Early/Middle College High School       |
| Haywood County Schools     | Haywood Early College High School                        |
| Hoke County Schools        | SandHoke Early College High School                       |
| Lee County Schools         | Lee County Early College High School                     |
| Macon County Schools       | Macon County Early College High School                   |
| McDowell County Schools    | McDowell Early College                                   |
| New Hanover County Schools | Isaac Bear Early College High School                     |
| Pender County Schools      | Pender Early College High School                         |
| Randolph County Schools    | Randolph Early College High School                       |
| Stanly County Schools      | Stanly Early College High School                         |
| Surry County Schools       | Surry Early College High School of Design                |
| Union County Schools       | Union County Early College                               |
| Wake County Schools        | Wake Early College of Health Sciences                    |

| Opened Fall 2007           |   |
|----------------------------|---|
| Davie County Schools       | Davie County Early College High School                      |
| Guilford County Schools    | GTCC Early / Middle College Greensboro                      |
| Lenoir County Schools      | Lenoir County Early College High School                     |
| New Hanover County Schools | Wilmington Early College High School                        |
| Polk County Schools        | Polk Virtual Early College High School (with UNC-G iSchool) |
| Richmond County Schools    | Richmond County Early College High School                   |
| Scotland County Schools    | Scotland Early College High School                          |
| Wayne County Schools       | Wayne Early / Middle College High School                    |
| Yadkin County Schools      | Yadkin County Early College High School                     |

Attachment B. Pilot Results from Rutherford Early College High School (Paper prepared by Early College High School Research Team)

#### Study of the Impact of the Learn and Earn Early College High School Model: Early Results from Rutherford Early College High School, 2005-2006

The *Learn and Earn* Early College High School model provides students with the opportunity to attend a small, autonomous high school located on a college campus. This model was designed to increase the number of students who are graduating from high school and enrolling and succeeding in college. As part of the program, students have the opportunity to earn an associate's degree or two years of college credit through the program. In this summary, we provide preliminary information about the enrollment and early impacts from Rutherford Early College High School, which used a lottery to select its students in its first year of operation in the school year 2005-2006.

An important note about this study's methods: Most studies on educational interventions compare the results of the students who are participating in the intervention with a similar group of students who are not. Although this is often the best that can be done, it does not present the most accurate picture of the impact of the intervention. Frequently, the comparison group of students is different than the students participating in the intervention, especially if students have applied to participate (like they do with the early college high schools). The best way to determine the impact of a program is an experimental design, which uses a lottery (random assignment) to select students, as was done by this school. Using a lottery produces two groups for comparison (the students who were randomly assigned to get in and the students who were randomly assigned not to get in) that have few systematic differences from one another, even on characteristics that are hard to measure such as motivation<sup>3</sup>. As a result, we are able to say with a high degree of confidence that **the differences in outcomes reported below can be attributed to the Rutherford ECHS program** (and not to other factors).

#### **Characteristics of Students**

Early college high schools are designed to target students who might not otherwise enroll in or succeed in college, such as first-generation college students and minority students. Results from an analysis of the demographic characteristics (Table 1) of the students served indicate the following:

Students in the Rutherford Early College High School are representative of the district in most demographic characteristics: ethnicity, first generation college

<sup>&</sup>lt;sup>3</sup> One recent powerful example of the difference between a true experiment (with random assignment) and a study using a comparison group is the hormone replacement therapy (HRT) study. For many years, studies with comparison groups showed that hormone replacement therapy was a safe choice for women reaching menopause. When a true experimental study was done, the study found that women taking HRT actually had a higher risk of breast cancer, heart disease, and stroke.

status free and reduced price lunch status, and percentage taking Algebra in the 8<sup>th</sup> grade.

- ➢ Female students are over-represented.
- Students in the ECHS are more likely to have passed their 8<sup>th</sup> grade tests than students in the district.
- Fewer students in the control group exhibit "at-risk" characteristics than the treatment group.

|                       |            |          | int Character is |                 |                 |                          |
|-----------------------|------------|----------|------------------|-----------------|-----------------|--------------------------|
|                       |            | Enrolled | Admitted         | Control         | Annligente      | District 9 <sup>th</sup> |
|                       |            |          | (Treatment)      | Control         | Applicants      | Graders                  |
| Characteristic        |            | (n=33)   | (n=41)           | ( <b>n=37</b> ) | ( <b>n=78</b> ) | ( <b>n=800</b> )         |
|                       | Male       | 45.5%    | 43.9%            | 35.1%           | 39.7%           | 50.6%                    |
| Gender                | Female     | 54.5%    | 56.1%            | 64.9%           | 60.3%           | 49.4%                    |
|                       |            |          |                  |                 |                 |                          |
| Ethnicity             | Asian      | 0%       | 0%               | 0%              | 0%              | 0.3%                     |
| -                     | Black      | 18.2%    | 17.1%            | 13.5%           | 15.4%           | 15.9%                    |
|                       | Hispanic   | 3%       | 2.4%             | 8.1%            | 5.1%            | 3.8%                     |
|                       | White      | 78.8%    | 80.5%            | 78.4%           | 79.5%           | 78.5%                    |
| First                 | lst        |          |                  |                 |                 |                          |
| Generation            | generation | 66.7%    | 73.2%            | 48.6%           | 61.5%           | 67.0%                    |
|                       | Free/Red.  |          |                  |                 |                 |                          |
| School Lunch          | Lunch      | 48.5%    | 53.7%            | 48.6%           | 51.3%           | 52.6%                    |
| 8th grade             |            |          |                  |                 |                 |                          |
| Reading               | Pass rate  | 100%     | 97.6%            | 100%            | 98.7%           | 86.9%                    |
| 8th grade             |            |          |                  |                 |                 |                          |
| Math                  | Pass rate  | 97%      | 92.7%            | 100%            | 96.1%           | 85.7%                    |
|                       |            |          |                  |                 |                 |                          |
| Exceptionality        |            | 18.2%    | 14.6%            | 5.4%            | 10.3%           | 14.2%                    |
| 8 <sup>th</sup> Grade |            |          |                  |                 |                 |                          |
| Algebra               |            | 18%      | 14.6%            | 37.8%           | 25.6%           | 16.5%                    |

 Table 1: 9<sup>th</sup> Grade Student Characteristics: Percentages

Notes: "Applicants" are the students who applied to the school. "Control" students are those who applied to the school but were randomly selected not to attend; these students attended another high school. "Admitted" students include all applicants who were randomly selected to attend, whether or not they decided to enroll. "Enrolled" students are all of the "admitted" students who actually enrolled in the ECHS in the fall of 2005. These statistics only include students who were excluded from that process.

#### Outcomes

One of the key goals of early college high schools is increasing the number of students who are enrolled in and successfully completing a college preparatory track of study. One of the best indicators of this is the percentage of students completing a sequence of math courses required for entrance into college. This sequence of math courses typically includes Algebra I, Geometry, Algebra II and at least one course which requires Algebra II as a pre-requisite. Another way of thinking about this is the percentage of students who are "on-track" to graduate prepared for college. Analyses of students' course taking in mathematics indicate that many more students are "on-track" much earlier with their mathematics course-taking in the early college high school than in the control group. Specific findings include the following:

- By the end of 9<sup>th</sup> grade, students in Rutherford ECHS had successfully completed college preparatory mathematics courses at a rate almost double that of students in the control group (Table 2).
- This rapid enrollment in higher level mathematics courses did seem to pose some slight risk. For example, 3 out of 29 (10%) ECHS students did not pass the Geometry test compared to 0 out of 14 in the control group.

| C | rentage of Students On-Track in Mathematics. 9 Grade |          |                       |         |  |  |
|---|--|----------|-----------------------|---------|--|--|
|   | Outcome  | Enrolled | Admitted <sup>4</sup> | Control |  |  |
|   |  | (n=33)   | (Treatment)           | (n=36)  |  |  |
|   |  |          | (n=38)                |         |  |  |
|   | Course   | 90.9     | 84.2                  | 91.7    |  |  |
|   | Completion—  |          |                       |         |  |  |
|   | Algebra I  |          |                       |         |  |  |
|   | Course   | 78.8     | 71.1                  | 38.9    |  |  |
|   | Completion—  |          |                       |         |  |  |
|   | Geometry   |          |                       |         |  |  |

### Table 2: Percentage of Students On-Track in Mathematics: 9<sup>th</sup> Grade

Note: Includes students who took Algebra I in 8<sup>th</sup> grade. 3 students in the "admitted" group and one student in the "control" group were not enrolled in any North Carolina public school. Their data are excluded from this analysis until we can determine if they are enrolled elsewhere or have dropped out.

#### Conclusion

Early results from the first year of implementation at Rutherford Early College High School are very promising. During its first year, Rutherford served a population that could be seen as generally representative of the population in the district, yet twice as many students had successfully completed college preparatory mathematics courses by the end of 9<sup>th</sup> grade as compared to students in the control group. Despite its successes, Rutherford and other early college high schools do need to ensure that supports are in place to help this diverse body of students successfully complete this more advanced coursework.

<sup>&</sup>lt;sup>4</sup> A note concerning how treatment effects will be calculated: The impact of ECHS is estimated based on the difference in outcomes between the entire ECHS group (regardless of whether they enroll) and the entire control group. This estimate, however, may understate the true effect of ECHS on enrolled students to the extent that there are no-shows or dropouts from ECHS (i.e., those students who were admitted to ECHS but decided not to enroll). No-shows are defined as those as students who received either no treatment or such a small amount of the treatment that they would not be expected to derive any measurable benefits from ECHS. Although this estimate accurately represents the average effect of making ECHS available to the treatment group (the ECHS target population), they do not reflect the effect of ECHS on those students who actually enrolled in ECHS and stayed throughout the school year. In order to estimate the effects on actual enrollees in ECHS a statistical correction is used (Bloom, 1984), which adjusts the estimate of impact on the entire treatment group (i.e., the effect of the availability of ECHS), including those students who do not actually enroll in the school or drop out very early in the school year.

Attachment C. Integrated System of School Support Services, 2007-08

### North Carolina New Schools Project Integrated System of School Support Services

#### 2007-2008

#### **Design Principles**

Each child in every school is entitled to achieving high equitable academic and affective outcomes. To that end, the following five design principles for High School Innovation Projects are non-negotiable for all involved in leading high school transformations:

- **Ready for College:** High School Innovation Projects (HSIP) are characterized by the pervasive, transparent, and consistent understanding that the school exists for the purpose of preparing all students for college and work. They maintain a common set of high standards for every student to overcome the harmful consequences of tracking and sorting.
- **Require Powerful Teaching and Learning:** HSIP are characterized by the presence of commonly held standards for high quality instructional practice. Teachers in these schools design instruction that ensures the development of critical thinking, application, and problem solving skills often neglected in traditional settings.
- **Personalization:** Staffs in High School Innovation Projects understand that knowing students well is an essential condition of helping them achieve academically. These high schools ensure adults leverage knowledge of students in order to improve student learning.
- **Redefine Professionalism:** The responsibility to the shared vision of the HSIP is evident in the collaborative, creative, and leadership roles of all adult staff in the school. The staffs of these schools take responsibility for the success of every student, hold themselves accountable to their colleagues, and are reflective about their roles.
- **Purposeful Design:** High School Innovation Projects are designed to create the conditions that ensure the other four design principles: ready for college, powerful teaching and learning, personalization, and redefined professionalism. The organization of time, space, and the allocation of resources ensures that these best practices become common practice.

The Integrated System of School Support Services aligns the core supports of **Teaching for Results**, **Leadership Institute for High School Redesign**, **coaching**, and access to **model schools** to help schools develop the characteristics embodied by the NCNSP Design Principles. <u>Dates in this document are tentative and school teams will receive</u> <u>logistics and registration information soon</u>.

#### **Supports for New Schools**

High School Innovation Projects moving into their *first year of implementation*, New Schools, work to create a culture of high expectations and high supports for every student. In the first semester, NCNSP services emphasize purposeful design, redefine

professionalism, and personalization. In the second semester, New Schools begin the shift from school-wide change to classroom change. NCNSP services in this semester help New Schools by providing contextualized learning, sharing best practice, and school planning.

| School Change Coach  |   |
|--|---|
| <b>Continued school change</b><br><b>coaching</b><br>Ongoing                                 | School change coaches will support the implementation of New Schools, providing focused assistance with principal leadership, district support, purposeful design, personalization, and school culture.   |
| Critical Friends Groups<br>2 teacher-leaders   |   |
| Full CFG coach<br>development through<br>National School Reform<br>Faculty<br>First semester | Partnering with the National School Reform Faculty<br>(http://www.nsrfharmony.org/), the NCNSP will support the development<br>of Critical Friends Groups at each school that promote honest and<br>productive conversations with colleagues focused on improving student<br>learning and improving teacher practices. Participants in this strand will<br>become CFG Coaches who are able to support teacher collaboration and<br>growth by using protocols for examining student and teacher work, for<br>solving problems, setting goals, observing peers, and building teams. |
| Leading Change<br>Principal  |   |
| Purposeful Design and<br>Personalization   | Required readings:<br>Beating the Odds, High Schools as Communities of Commitment,<br>-Jacqueline Ancess  |
| September 25-27  | "As Though They Owned the Place: Small Schools as Membership<br>Communities."<br>-Deborah Meier   |
| Redefine Professionalism   | Required Reading:<br>"Willing to be Disturbed."   |
| October 30-November 1  | -Margaret Wheatley  |
| Every Student College-R<br>Principal and teacher-leader                                      | leady   |
| <b>Calibrating Rigor</b><br>February 19-21   | Innovative schools require a common understanding of the level of rigor required to get every student college-ready. Partnering with the Change Leadership Group at Harvard University ( <u>http://www.gse.harvard.edu/clg/</u> ) and other North Carolina education leaders, this support is designed to develop a deeper understanding of the interrelation of instructional practice, curriculum content, and student assessment that form a framework for rigor.  |

#### The following supports are for New Schools only:

## **Supports for Emerging Schools**

High School Innovation Projects *beyond their first year of implementation*, Emerging Schools, benefit from a tightly aligned support system that provides every school an anchor residency experience at a redesigned high school, drives professional development and support for teachers and principals to the school, and provides time to visit other NCNSP schools and strengthen local and regional professional networks. Emerging Schools also have the option to select other NCNSP supports that meet their school needs.

#### The following supports are for Emerging Schools only:

| Academic Residency<br>Principal and teacher-leader                              | ite for Emerging Schools only.   |  |  |
|---|--|--|--|
| Anchor Experience:<br>University Park Campus<br>School                          | University Park Campus School, with the support of the NCNSP and Jol<br>For the Future, will provide an intensive residency for the principal and<br>teacher-leader with a strong instructional focus. Serving as a common   |  |  |
| Group I: July 24-27<br>Group II: July 30-August 3<br>Group III: September 16-19 | experience among the principal, teacher, instructional coach, and<br>leadership facilitator, the UPCS residency will inform all of the supports<br>for Emerging Schools.   |  |  |
| Measures of Academic Progress   |  |  |  |
| MAP: data-based<br>decisions aligned with<br>North Carolina                     | Measures of Academic Progress (MAP) is a computer based, adaptive  |  |  |
| standards.<br>System supports and<br>assessment                                 | formative assessment aligned with the North Carolina Standards provided<br>at no additional cost to Emerging Schools. Developed by the Northwest<br>Evaluation Association (www.NWEA.org), MAP provides teachers with<br>powerful formative assessment data that can be used to make important |  |  |
| administration  | instructional decisions.   |  |  |
| East: July 26<br>Central: August 14<br>West: August 23                          | Instructional coaches will train school teams to use this important resource<br>and base their work with school teams on the student data it provides.<br><b>Technical support and testing coordinators</b> will participate in a one-day  |  |  |
| Ongoing support provided<br>on-site by Instructional<br>Coaches                 | drive in workshop to learn how to configure technology, load class roster<br>files, and prepare for assessment administration.   |  |  |
| Leadership Facilitator  |  |  |  |

| Leadership Support:<br>purposeful design<br>Ongoing  | help prin  | pport from NCNSP, UCPS, and JFF<br>iciples develop the school-wide con<br>re every student for the option of co | ditions and supports required   |
|--|--|---|---|
| Instructional Coach  |  |   |   |
| <b>Instructional Coaching:</b><br><b>school-based professional</b><br><b>learning</b><br>Ongoing   | In partnership with the principal, the instructional coach will facilitate<br>professional learning among the entire staff that includes demonstration<br>lessons, clinical observation and feedback, and use of data. With support<br>from NCNSP, UCPS, and JFF, instructional coaches will help school teams<br>develop and implement school wide instructional practices to engage<br>students and improve achievement. |   |   |
| Common Practices Symp<br>Principal and teacher-leader  | posia  |   |   |
| reflection, sharing best practices, learning<br>colleagues within their region.<br>Symposium I   |  | ,   | .,  |
|  |  | Symposium II  | Symposium III   |
| Symposium I  |  | Symposium II  | Symposium III   |
| Symposium I<br>Western Region<br>Peer Review: October 23<br>Symposium: October 24-25   |  | Symposium II<br>Peer Review: February 5<br>Symposium: February 6-7  | Symposium III           Peer Review: April 7           Symposium: April 8-9 |
| Symposium I<br>Western Region<br>Peer Review: October 23<br>Symposium: October 24-25<br>Central Region   |  | Peer Review: February 5<br>Symposium: February 6-7  | Peer Review: April 7<br>Symposium: April 8-9                                |
| Symposium I<br>Western Region<br>Peer Review: October 23<br>Symposium: October 24-25<br>Central Region<br>Peer Review: November 6                            |  | Peer Review: February 5<br>Symposium: February 6-7<br>Peer Review: January 29                                   | Peer Review: April 7<br>Symposium: April 8-9<br>Peer Review: April 9        |
| Symposium I<br>Western Region<br>Peer Review: October 23<br>Symposium: October 24-25<br>Central Region<br>Peer Review: November 6<br>Symposium: November 7-8 |  | Peer Review: February 5<br>Symposium: February 6-7  | Peer Review: April 7<br>Symposium: April 8-9                                |
| Symposium I<br>Western Region<br>Peer Review: October 23<br>Symposium: October 24-25<br>Central Region<br>Peer Review: November 6                            | mber 1   | Peer Review: February 5<br>Symposium: February 6-7<br>Peer Review: January 29                                   | Peer Review: April 7<br>Symposium: April 8-9<br>Peer Review: April 9        |

| CFG Follow-up<br>First semester                               | Partnering with the National School Reform Faculty<br>( <u>http://www.nsrfharmony.org/</u> ), the NCNSP will provide further<br>development of fully trained CFG teacher leaders. Participants in this<br>strand will strengthen the needed skills to support teacher collaboration and<br>growth. |
|---|--|
| <b>On-line support session</b> s<br>First and second semester | Web-enabled collaboration sessions designed to allow all CFG teacher<br>leaders to share dilemmas and best practices in CFG development without<br>leaving their schools.  |

| Full CFG development                | Ideal for schools who need to develop additional CFG teacher-leaders (See description provided in <b>New Schools</b> section).   |  |  |
|-------------------------------------|--|--|--|
| <b>Project-Based Learning</b>       |  |  |  |
| <b>PBL Basic</b><br>First Semester  | PBL Basic is designed to help teachers with little experience designing<br>projects implement Standards Based PBL that draws on: the experiences of<br>teachers who successfully use PBL in their classrooms; recent research on<br>student learning; and instructional models that incorporate authentic<br>assessments, community based education, service learning, internships, or<br>career academy curriculum. |  |  |
| PBL Advanced<br>First Semester      | Designed for those with experience in designing and implementing<br>Standards Based Projects, PBL Advanced will help teacher-leaders share<br>developed projects and resources.  |  |  |
| Every Student College-Ready         |  |  |  |
| Calibrating Rigor<br>February 19-21 | Designed to develop a common understanding of the level of rigor required<br>to get every student college-ready, Calibrating Rigor uses a structured<br>school visit to develop a deeper understanding of the interrelation of<br>instructional practice, curriculum content, and student assessment that form<br>a framework for rigor.   |  |  |

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