

**A Focus on Associate Degree Attainment for Early College High School
Students VS. Traditional Students in South Texas**

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Introduction of the Research Study

The Early College High School (ECHS) program is designed to focus on “at-risk” youth; those students determined to be low-income, first-generation college attendees, English language learners, and/or students of color (Berger et al., 2013). Beginning in the 9th grade the ECHS offers students the chance of obtaining a high school diploma in conjunction with an associate’s degree or college hours towards a bachelor’s degree. The program has been shown to be successful through the multitude of support for students by counselors, teachers, and mentors. During the process students are guided through all aspects of college expectations, and in most cases this is done at little to no cost to the student or their parents, (Early College Expansion, 2014).

The Early College High School Initiative (ECHSI) was launched in 2002 with funds from various contributors, including the Bill and Melinda Gates Foundation, (Early College Expansion, 2014). ECHSI serves roughly 80,000 students, across 28 states and the District of Columbia. The first school in Texas was proposed in 2004, with the brick and mortars opening in the 2006-07 school year (Ahmed, 2014). There are currently 107 ECHS schools in the State of Texas, of these schools there are 37 located in South Texas and the Rio Grande Valley, (Texas ECHS Map, n.d.). The U.S. Department of Education endorsed the ECHS program and began by awarding \$15 million to a school in Denver, and two schools in the Lower Rio Grande Valley. It has been determined that these areas represent the changing demographics of our country. Of the

37 ECHS schools in South Texas area, 34 are paired with a predominately Hispanic serving community college located in South Texas (Early College Expansion, 2014).

Statement of the Problem

For many years Texas has worked hard to be able to compete with the national average of educational attainment and it has managed to not lag too far behind. The United States has a graduation percentage of 86%, and Texas has a graduation rate of 81.2%. When it comes to higher education or bachelor degree attainment the Census Bureau shows us a similar disparity, with the United States at 28.8% and Texas at a 26.75% attainment rate. Nonetheless, the dropout rate in South Texas high schools and in the community colleges has been a great concern to public officials and all stakeholders because in these rural regions the disparity is much greater. According to the Census Bureau in the years 2009-2013, the percentage of persons with a high school degree in the state of Texas was 81.2%. When equated to two of the counties that are served by this Hispanic Serving Institution, the percentages of persons with a high school degree drops to 45 % and 61.8 % respectively. In addition, if we further relate the bachelor degree attainment from the Census Bureau in these counties to the state, those numbers leave much to be desired. One county has 8.6% rate and the other at a 15.9% rate, compared to the states 26.7% of bachelor degree attainment. Therefore, the problem is to analyze the ECHS students' graduation rates and associate degree attainment and those of the traditional students in South Texas.

Purpose of the Study

The purpose of this study was to determine if associate degree attainment was greater for Early College High School students than traditional students in South Texas. One of the goals of community colleges is to transfer students to university upper-level education. The data from

both the ECHS and traditional high school attendees was examined. This investigation was used to compare the associate degree attainment of ECHS to traditional junior college students in South Texas.

Research Question

The research will be guided by the following question:

Is there a difference between associate degree attainment for ECHS students and traditional students in South Texas?

Hypotheses

The following research will be guided by the following hypothesis:

1. Null Hypothesis: There is no significant difference between associate degree attainment for ECHS students and traditional students in South Texas.
2. Research Hypothesis: There is a significant difference between associate degree attainment for ECHS students and traditional students in South Texas.

Methodology

This is a quantitative study utilizing ex post facto data to compare two groups of students. The variable data was independent and nominal, therefore, chi-square was utilized to determine if there was a difference amongst associate degree attainment between ECHS students and traditional junior college students. According to Morgan, Leech, Gloeckner, Barrett (2013), “chi-square requires a relatively large sample size and/or a relatively even split of the subjects among the levels, because the expected counts in 80% of the cells should be greater than five.”

Population and Sample

The data for this study was obtained from a Hispanic serving junior college in South Texas. The population included ECHS incoming freshmen, and traditional first year with zero

credit hour freshmen for the years 2011-2014. The total population analyzed 4,393 students, of which 1,555 were ECHS and 2,838 were traditional students. The researchers used random number sampling to arrive at 180 ECHS students, and 180 traditional students, for a total sample size of 360 subjects.

Data Collection

After attaining IRB approval, the researchers approached the research team at the Hispanic serving institute in South Texas. The researchers completed the IRB process with the institution and upon approval were presented with the collected data.

Literature Review

American schools provide an educational opportunity for all and have some unique features. Nonetheless, they also face many challenges. Declining graduation rates among general education students, along with students graduating and not being “college ready” demanded reform of our current high school model. These reforms were focused on the improvement of graduation rates, availability of employment opportunities, and the overall preparation that is needed to succeed in college or any other life options for all students (McDonald & Farrell, 2012). According to Dessoiff (2011), at risk students who had little chance of completing high school or going to college, are going to be things of the past. The solution is the Early College High School (ECHS), which combines high school curriculum and college level instruction. In 2002, the Bill and Melinda Gates Foundation, along with the Carnegie Corporation, the Ford Foundation, and the Kellogg Foundation began the implementation of the Early College High School Model. This program was designed to bridge the gap between high school and college for students that were either underrepresented or disadvantaged. These students would include first generation college attendees, students of low socioeconomic status, minorities, or students

deemed at risk (McDonald, & Farrell, 2012). Currently, there are approximately 240 ECHSs in the United States, with 107 in Texas alone (Early College High School Initiative, n.d.). Noted as being one of the fastest growing reforms in the State of Texas, in the 2014-2015 school year, 44 new ECHSs have opened, (Ahmed, 2014). While still relatively in its infancy, the ECHSs have been shown to have a statistically significant increase in high school degree attainment, high school achievement in English/language arts, college enrollment, college degree attainment, and developmental education (Berger et al., 2013). It is important to note at this point, that one of the core principles to the ECHS was changed in 2008. Originally, it was specified that the graduating ECHS student would earn two years of college credit or an associate's degree. However, since the change or "clarification," students' goals would now be to earn at least one year of college credit (Berger, Adelman, & Cole, 2010). The ECHS program is continuing to evolve and offer variations in type, postsecondary partners, location, and grade levels. In addition, the programs are also differentiated by the population they serve or the focus they take. As part of the ECHS program, students are enrolled in small classes – no more than 100 per grade level. The curriculum and instruction is carefully designed for both high school and college courses, providing ample support and personalization with an emphasis on individualized student needs (Berger et al., 2013).

In the review of the literature, the researchers noted similar results from various sources, in the evaluation of the graduation rates, and college enrollment rates for the ECHS students and that of the comparison traditional schools. In all cases, the achievement rates for the ECHS are faring well above those of the traditional school (Ahmed, 2014; Berger, Adelman, & Cole, 2010; Berger et. al., 2014; Berger et. al., 2013; Desoff, 2011; DiMaria, 2013; Early College Expansion,

2014; Making the Grade, 2011; Early College High School Initiative, n.d.; U.S. Department of Education, 2014).

Most of the information emerging from the ECHS front has come from Jobs for the Future (JFF). Jobs for the Future works along with the Student Information System (SIS) to collect data and provide documentation about the ECHS, and its graduates' enrollment in higher education, through the National Student Clearinghouse (NSC) (Miller, Fleming, & Reed, 2013). In addition, the American Institutes for Research (AIR) and the SRI International provides the evaluation for the ECHS Initiative, and is guided by three questions. In regards to this study, only one of these questions is deemed relevant – “What are the intermediate and long-term outcomes for students attending early college high schools, especially for students traditionally underserved by the postsecondary system?” (Early College High School Initiative, n.d.).

In regards to the American Institutes for Research's “ECHS Initiative Impact” studies of 2013 and 2014, some differences in respects to college after high school came to light. The original study provided a comprehensive evaluation of the ECHS and was followed up with a second study covering an additional year of data provided by the NSC. Most important to the researchers study is that “Early College students were more likely than comparison students to have earned a college degree.” In addition, “Degree attainment differences between Early College and comparison students were largest by the end of the traditional high school experience... These differences narrowed in later years...” (Berger et. al., 2014, p. 21).

In March 2011, Jobs for the Future published an article that provides a significant amount of information concerning the ECHSs in Texas, but more specifically in regards to this study, South Texas. Although dated, it examines the achievement of two ECHSs. Most notable to the researchers was Collegiate High School in Corpus Christi, Texas. Collegiate is located on the

campus of Del Mar College – a junior college also in the South Texas Area. In its conclusion, it is stated that “Early College High Schools work in Texas.” The ECHSs offer the opportunity to achieve academic preparedness with supports, and the ability to learn additional cognitive strategies while still instilling true academic behaviors and skills. Statistics show that across the nation 86% of ECHS students enroll in college immediately following high school, compared to a 66% rate of traditional students. In Texas, at Collegiate High School, 86% of student enrolled in college following high school compared to the state average of only 75% (Making the Grade, 2011).

When looking at student outcomes beyond the ECHS using the data gathered by the AIR starting in 2010, it was determined to provide supporting evidence but not “local” evidence (Rochford, 2011). According to Miller, Fleming, and Reed (2013), the theory is that graduates of the ECHS will continue their postsecondary education. However they also state, “There is no longitudinal research available that systematically traces college outcomes for early college graduates.”

This was the basis for this study.

Findings

A chi-squared test was performed to examine the relationship between associate degree attainment for ECHS students and traditional students in South Texas. The relationship between these variables was significant, $\chi^2(1, N = 360) = 25.92, p < .001$. Phi could be used as an effect size measure. It is $-.27$, a medium size “effect”.

The null hypothesis states that there is no significant difference between associate degree attainment for ECHS students and traditional students in South Texas. The results of this research have shown that the null hypothesis must be rejected. There is in fact a statistical

significance in the difference between associate degree attainment for ECHS students and traditional students in South Texas. ECHS associates degree attainments is 26.7% whereas traditional associates degree attainment is 6.7%, which indicates a 20% greater associates degree attainment from the ECHS than traditional students in the researched junior college. For more detailed information please refer to Table 1.

Table 1: Associates Degree – Junior College Students Cross-tabulation

		Junior College Students		Total
		ECHS	Traditional	
No Associates Degree	Count	132	168	300
	Expected Count	150.0	150.0	300.0
	% within Junior College Students	73.3%	93.3%	83.3%
Associates Degree	Count	48	12	60
	Expected Count	30.0	30.0	60.0
	% within Junior College Students	26.7%	6.7%	16.7%
Total	Count	180	180	360
	Expected Count	180.0	180.0	360.0
	% within Junior College Students	100.0%	100.0%	100.0%

Recommendations

ECHSs are the innovative educational alternative to increase associates degree attainment. Therefore, as researchers one needs to analyze all the variables, and study this promising program in depth. Concerns that need to be addressed are the seemingly low 26.7% (although greater than traditional) associate degree attainment for ECHS students. Further research might also consider the maturity of the ECHS students and their developmental stage at the time they are pursuing a degree during their high school years. Additionally, the researchers recommend that further study be done in other parts of the state and country, and the inclusion of

other variables such as gender, ethnicity and age differences. This research did not consider age difference and ethnicity due to the junior college's distinction as a Hispanic serving institute and the fact that typically the ECHS populations are much younger than traditional students.

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