

## **Does Money Really Matter? Investing in the Future of Hispanic Students**

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### **Abstract**

This study examined the relationship between school funding and graduation rates of Hispanic students. Data from a purposeful sample of 147 Texas school districts identified as having a student Hispanic population greater than 75% were examined. Additionally, superintendents were interviewed to provide an in-depth understanding of the potential influence of school funding on the graduation rates of their district's Hispanic students. Results concluded that a relationship existed between: (a) school funding and graduation rates in small school districts; (b) school funding invested on dropout prevention programs and graduation rates; and (c) school funding and graduation rates for districts reporting up to a 50% LEP student population. Superintendents differed in their perceptions of what contributed to their district's graduation rates and school funding concerning graduating Hispanic students.

### **Key Words**

academic programs, district size, graduation rates, Hispanic students, LEP students, Pre-Kindergarten, school funding

## Introduction

Graduation rates represent one of the most powerful indicators in education to measure success, which in practical terms means complying with all the requisites to finalize an educational program (Roza, 2009). In the United States (U.S.), approximately 7,000 students drop out of high school every day (Alliance for Excellent Education, 2010). This measurement tool is even more illustrative when it portrays Hispanic students; the second fastest growing minority (U.S. Department of Education, 2014). For instance, in 2012, only 82.8% of Hispanics completed high school; well below their racial/ethnic counterparts: Asians/Pacific Islanders (94.9%), Whites (94.6%), and Blacks (90.0%) (National Center for Education Statistics [NCES], 2015).

One of the most significant tendencies among Hispanic students is the growth of the limited English proficiency (LEP) population (Gleason & Dynarski, 2002). For example, in Texas, the LEP student growth rate has virtually doubled that of the total student population. From 2000 to 2013, the LEP student population grew by 55.6%, while the total student population only grew by 26.7% (Texas Education Agency [TEA], 2015). English spoken as a second language has been reported as just one of the risk factors that educators have used to predict whether a student will potentially drop out of high school (Rumberger, 2011).

The decline of graduation rates of Hispanic students has also been blamed on several other factors, with student funding documented to be one of the most important (Bost, 2007). Considering this reality, educational investments to increase high school graduation rates have been reported to not only produce higher employment and earnings, but less expenditure on health care and welfare as well as less involvement in the criminal justice

system (Belfield & Levin, 2007). Although studies have been conducted in an effort to understand the influence of funding on academic outcomes (Konstantopolous & Borman, 2011), there is much less research on the specific relationship between graduation rates and funding allocated per Hispanic student. As a result, in an attempt to close this literature gap, the purpose of this study was to examine the relationship between school funding and graduation rates of Hispanic students.

## Methods

### Participants

Utilizing the Texas Education Agency (TEA) Academic Excellence Indicator System (AEIS), a purposeful sample of 183 Texas school districts, identified as having a student Hispanic population greater than 75%, were chosen for participation in this study.

To ensure the accuracy of estimates and error rates, outlier analysis was conducted on yearly graduation rates. Outliers can lead to substantial distortions of parameter and statistic estimates and inflated standard errors, thus causing invalid findings (Osborne & Overbay, 2004). The resulting sample consisted of 147 school districts: 82 small, 32 medium, and 33 large. Small districts were defined as those enrolling less than 1,600 students, medium school districts enrolling between 1,600 and 5,000 students, and large school districts reporting more than 5,000 students in attendance.

Regarding student demographics, 86.3% were Hispanic, 18.7% LEP, 78.7% economically disadvantaged, and the number of pupils per district varied from 48 to 63,133. In addition to archived TEA district data, a purposeful sample of 15 district superintendents (5 small, 5 medium, 5 large) participated in a 30-minute semi-structured interview in an

attempt to provide a more in-depth understanding of the influence school funding may or may not have on the graduation rates of the district's Hispanic students.

### Data collection and analysis

Using TEA's Academic Excellence Indicator System (AEIS), eight years (2004-2012) of district data (e.g., district size, percentage of LEP, per pupil expenditures in state/local/federal funding, graduation rates, dropout prevention programs, and career and college readiness programs) were downloaded and merged into a SPSS database for further analysis.

The quantitative data were analyzed using Pearson's product moment correlations, while the qualitative data, obtained from the interviews, were analyzed using an inductive coding process in an attempt to build an empirical understanding of what influence, if any, school funding has had on the graduation rates of Hispanic students. Member checking and extensive peer-review coding were used to validate the qualitative findings.

## Results

### School funding and graduation rates

Regarding the potential relationship between school funding and graduation rates of Hispanic students, findings from this research suggested that a statistically significant positive relationship existed between state/local school funding and graduation rates of Hispanic students,  $r(147) = .331, p < .001, r^2 = .110$ . Findings also suggested that a statistically significant positive relationship existed between all school funding<sup>1</sup> and graduation rates of Hispanic students,  $r(147) = .343, p < .001, r^2 = .118$ . In other words, as the amount of school funding increased, so did the graduation rates.

<sup>1</sup> All school funding includes state, local, federal, and grant money allocated per student expenditure.

The proportion of variation in graduation rates attributed to school funding varied between 11.0 % and 11.8% respectively.

### District size: small, medium, & large

When examining the relationship between school funding and the graduation rates of Hispanic students across small, medium, and large school districts, findings indicated that for small school districts a statistically significant positive relationship existed between state/local school funding and graduation rates,  $r(82) = .391, p < .001, r^2 = .153$ , and between all school funding and graduation rates,  $r(82) = .418, p < .001, r^2 = .175$ .

This would suggest that for small school districts, as school funding increased, so did their graduation rates. The proportion of variation in graduation rates attributed to school funding varied between 15.3% and 17.5% respectively. A relationship was not found to exist between school funding and graduation rates for medium and large school districts ( $p > .05$ ).

### Dropout prevention and college readiness programs

In addition to examining the data across district sizes, the data were analyzed to determine whether or not a relationship existed between school funding invested in dropout prevention programs and the graduation rates of Hispanic students. Findings indicated that a statistically significant positive relationship existed between state/local school funds invested on dropout prevention programs and graduation rates,  $r(147) = .174, p = .036, r^2 = .030$ .

In other words, the more state/local money invested in dropout prevention programs, the greater the graduation rates. Three percent of the variation found in the graduation rates was attributed to the state/local funding spent on dropout prevention programs.

This was not the case when the data were analyzed using all student funding ( $p > .05$ ).

Finally, when analyzing the relationship between school funding invested in career and college readiness programs and the graduation rates of Hispanic students, findings concluded a relationship did not exist between school funds invested on career and college readiness programs and graduation rates of Hispanic students ( $p > .05$ ).

### ELL/LEP students

To determine whether the district percentage of students classified as LEP made a difference, ranges of LEPs were created (0-25%, 25-50%, 50-75%, 75-100%<sup>2</sup>). For districts reporting a 0-25% LEP student population, findings concluded a statistically significant positive relationship existed between state/local school funding and graduation rates of Hispanic students,  $r(104) = .349$ ,  $p < .001$ ,  $r^2 = .122$ , and between all school funding and graduation rates of Hispanic students,  $r(104) = .384$ ,  $p < .001$ ,  $r^2 = .148$ .

For districts reporting a 25-50% LEP student population, results also indicated a statistically significant relationship existed between state/local school funding and graduation rates of Hispanic students,  $r(37) = .348$ ,  $p = .035$ ,  $r^2 = .121$ . For districts reporting up to a 50% LEP student population, as school funding increases, so do the graduation rates.

The proportion of variation in graduation rates attributed to school funding varied between 12.2% and 14.8% respectively. This was not the case for those districts comprised of greater than a 50% LEP student population ( $p > .05$ ).<sup>2</sup>

### Superintendents' perceptions

In an attempt to capture a more in-depth understanding of the influence school funding may or may not have on the graduation rates of the district's Hispanic students, district superintendents were interviewed for their perceptions concerning this issue. The qualitative analysis derived three distinct themes or categories of responses concerning school funding and its relationship to student graduation rates: (a) contribute to graduation rates, (b) role of school funding, and (c) investment of additional funds.

### Contribute to graduation rates

In regards to superintendents' perceptions about the factors contributing to the graduation rates of their district's Hispanic students, 100% of the small district superintendents felt that their district size was a factor in their graduation rates, whereas 0% of the medium and large districts did not feel the size of their district was a factor in their graduation rates.

When asked, "*How does the size of your district make a difference in the graduating rates of your Hispanic students?*" One small district superintendent claimed, "A small district such as ours can track and keep one-on-one performance standards to ensure that the students do not fall through the cracks."

Comments representative of the responses received from the medium and large district superintendents included "In my opinion, the size of our district does not play a major role." and "This is one instance where I do not believe size matters. You either have systems in place to address all students or you do not."

<sup>2</sup> None of the school districts reported 75-100% LEPs.

When the superintendents were asked “*What do you contribute to making a difference in the graduation rates of your Hispanic students?*” responses varied across the size of the school district. Forty percent of the small district superintendents claimed having high student expectations as one contribution. One such superintendent commented “I believe that providing an atmosphere of high expectations and having personnel that will believe in students is important.” The medium and large district superintendents, on the other hand, placed more emphasis on the “how” and “where” funding should be invested. For example:

The budgetary process makes a difference. There is a process in place in the district where each school receives a certain amount of money per pupil by local and federal budgets. If a principal requires funds beyond the assigned amounts, there is a procedure in place to explain the request ... The way that principals invest those resources makes a huge difference.

Although there were some differences in the perceptions of the small, medium, and large district’s superintendents in terms of what they contributed to making a difference in the graduation rates of their Hispanic students, 46.7% of all the superintendents interviewed agreed that the academic programs put in place within their district were a contribution to their graduation rates.

### **Role of school funding**

Although 86.7% of the superintendents agreed school funding played a role in the graduation rates of their Hispanic students, when asked, “Do you think having additional funding would assist your district in graduating a greater

percentage of Hispanic students?,” one of the superintendents claimed, “Absolutely not. This is a mistake that legislatures are constantly making, because they tend to attack the problem from the wrong perspective.” Another echoed, “No, you can’t eliminate racism with more funding. The system is too complex...the government and legislatures, it is an old system, and it just doesn’t work.”

Despite the fact that there was some debate as to whether additional school funding would influence graduation rates, 93.3% of the superintendents agreed additional funding allocated towards implementing academic programs would have a considerable influence on the graduation rates of their Hispanic students.

Examples of such academic programs were specific to college and career readiness, dropout prevention, and Pre-Kindergarten (Pre-K). Sample superintendent responses:

“More money can always help, especially funding college readiness and dropout prevention programs;”

“I would invest in full day Pre-K programs and college and readiness courses at the junior high and high school;” and

“Those extra funds would serve to implement full day Pre-K programs, career and college readiness programs, and intensify the dropout prevention programs.”

These comments show a clear alignment of opinions across the districts regarding the potential influence academic programs could have on the graduation rates of Hispanic students.

### Investment of additional funds

When analyzing where “best” to invest any additional funding to order to graduate more Hispanic students, superintendents differed on here to spend/allocate those extra funds: full day Pre-K, dropout prevention, and/or college readiness programs. Sample comments:

“More money can always help, especially funding college readiness programs. During the last budget cuts, the district created a program to prepare the students for college, especially for students with low income. Even when facing massive cuts in resources, we had to continue with the program and invest in the program, because we promised it to the students. More money can also contribute to dropout prevention programs.”

“Funding is needed to provide access for students to visit colleges and universities. Funding for dual credit courses and books for the classes would be great. I believe that the students who are able to experience some college life early on during their high school years will be more likely to succeed and make plans to attend a college or a university.”

To summarize, 93.3% of the superintendents stated they would invest any additional funding into academic programs. Forty-percent of the superintendents shared the opinion that investing in a full day Pre-K program would be where they would invest the extra funds. The consensus was the problem should be addressed early on instead of waiting until much later to find a solution.

This notion was supported by a superintendent of a medium school district when he said, “I would invest in Pre-K

programs. This way we would attack the problem from the beginning, and not with remediation programs to close instructional gaps. Providing a full day Pre-K program could produce great progress.”

A similar sentiment was echoed by a superintendent of a large school district, “Full day Pre-K programs may be the answer. These programs help close the instructional gaps within the early ages and can save the district money and headaches in the future.”

### Discussion

Throughout this investigation, the collected evidence predominantly indicated a relationship existed between school funding and the graduation rates of Hispanic students. This evidence is supported by the Education Production Function Theory, where educational inputs, such as funding invested, influence final outputs, such as high school graduation, on students’ lives (Baker, 2012).

These findings were consistent with research conducted by Sanford and Hunter (2011) and Houck and Kurtz (2010) who concluded funding levels may influence educational results. This conclusion also corroborates findings from Baker (2012) where it was clear that school districts having more money have a bigger capacity to offer “better” educational prospects to their students.

Given that the relationship between school funding and graduation rates of Hispanic students has been historically controversial and debatable (Baker, 2012), it was important to analyze several intrinsic factors influencing funding.

This study found there was a relationship between the size of a district, more specifically small districts, and the level of school funding on the graduation rates of its

Hispanic students. This may be connected with the fact that small districts might have a greater ability to communicate their students expectations, because of possibly having less bureaucratic processes, fewer administrators to disseminate their messages, and less institutional barriers to execute their policies and reach their students.

Small district superintendents, who were interviewed for this research, claimed having high expectations was one of the main factors contributed to the graduation of their Hispanic students. This was in agreement with Stewart (2009) who found small schools tend to produce better academic results than the larger ones. Additionally, it was also critical to analyze the relationship between the level of LEP students and the graduation rates of Hispanics as well as the particulars about “how” school funds are invested and their effect on graduation rates of Hispanic students.

This study found school funds invested on dropout prevention programs had a relationship to the graduation rates of Hispanic students. This was consistent with findings and conclusions reported by Suh, Suh, and Houston (2007). Their research found that the implementation of these types of programs can positively influence academic achievement.

Ironically, this study did not conclude school funding invested in career and college readiness programs had any relationship to the graduation rates of Hispanic students. This finding was in agreement with Lombardi, Seburn, and Conley’s (2011) study where they concluded implementing career and college readiness programs may not necessarily increase graduation rates for Hispanic students.

A deeper analysis concerning the relationship between the level of funding and graduations rates of Hispanic students included

the level of influence some populations may have on this dynamic, specifically LEP students. This study found the percentage of LEP students in a school district had a relationship to its graduation rates of Hispanic students. This was consistent with 83.3% of the interviewed district superintendents where they stated additional funding above and beyond what they were already being allocated would make a difference in graduating not only LEP students, but also second and third generation Hispanics who have been raised in poverty. Findings were also in agreement with those reported by Alexander and Wall (2006), Roberts, Brunner, and Bills (2006), and Dowdy, Dever, DiStefano, and Chin (2011) where it was established there are clear and implicit additional costs to educate and graduate Hispanic students.

When analyzing Pre-K programs, 40% of small districts’ superintendents were of the opinion full day Pre-K programs were critical to increasing the graduation rates of their Hispanic students, while the percentage was much higher (80%) for the medium and large districts’ superintendents.

A common denominator within the superintendent responses were Pre-K programs act as a proactive solution by contributing to the closing of the instructional gaps during the early ages and avoiding expenditures on dropout prevention programs at the secondary level. This was in agreement with findings reported by Gormley (2008) and Wong, Cook, Barnett, and Jung (2008) where it was found that Pre-K programs had a social rate of return between 7-10% and may increase reading, mathematics, and cognitive skills, especially with Hispanic and economically disadvantaged students, by increasing their opportunities to graduate from high school and possibly go on to college.

## Implications

In order to increase the graduation rate of Hispanic students, policy makers may want to consider the configuration of the school districts, specifically their size, when determining districts' level of funding. This may be justifiable when considering small districts may have a greater ability to communicate their student expectations, may have less bureaucratic processes, fewer administrators to disseminate their messages, and in the end, less institutional barriers to execute their policies and reach their students. At the same time, it may be critical to consider the percentage of LEP students in a district and increase the level of funding according to this percentage.

In regards to dropout prevention programs, one might consider expanding these programs by providing more funding and support. As corroborated by this study, there is clear evidence that dropout prevention programs seem to be a valuable tool to not only keep students in the classrooms and diminish juvenile delinquency, but also to increase graduation rates.

On the other hand, policy makers may want to analyze in-depth the configuration, application, and funding of career and college readiness programs. As this study showed, there was no clear evidence that these programs are having the desired effect on students. This antagonized with recent efforts from the Federal Government by encouraging all states to implement state-developed standards in English language arts and mathematics that consolidate toward college and career readiness by the time the students graduate from high school (Struhl & Vargas, 2012). It would seem the configuration, implementation, and alignment of these programs with the newly created or adopted career and college readiness standards

play a protagonist role on influencing graduation rates of Hispanic students.

School superintendents and educators should consider research-based evidence when exploring and implementing ways to influence graduation rates of Hispanic students, more specifically in how they invest school funds. A clear example from this study was the overall consensus from medium and large district superintendents that investing in a full day Pre-K program would be a highly effective way to close instructional gaps between populations, diminish dropout rates, and increase graduation rates of Hispanic students.

As shown in this study, there is plenty of evidence to corroborate those premises.

However, even with the considerable amount of research showing the positive influence of Pre-K programs in all populations, especially on Hispanic students, Pre-K programs are still not mandatory and most of them are only half day programs (U.S. Department of Education, 2014). Policy makers may want to reconsider the mandates and funding for Pre-K programs not only because there seems to be a general consensus among educators about the benefits of early childhood education, but because it is financially-wise based on the tremendous amount of money the federal government and state can save in the long term.

Finally, school districts may want to consider investing a considerable amount of time investigating the best ways to invest educational resources. This approach is similar to the one applied in the corporative world in regards to research and development. Successful companies in the private sector spend a substantial amount of time and resources consolidating their research and development departments (Baker, 2012).



By having a clear road map regarding where to invest current and additional resources, school districts may considerably reduce the level of uncertainty in regards to student performance, which may put pressure on policy makers to increase level of funding based on proven results.

### **Conclusion**

The societal impact of high school dropouts has been well researched. Dropouts are more likely to consume drugs, rely on welfare, and be incarcerated (Beauvais, Chavez, Oetting, Deffenbacher, & Cornell, 1996).

The rhetoric around the potential influence money has on student performance has been re-visited during the past decades

throughout a vast amount of literature and studies exposing the role of school finance reform in the aggregate matters (Baker, 2012). Given that the Hispanic population is the second fastest growing minority in the U.S., comprising a total population of 55 million (Census Bureau, 2014), it is imperative to increase the knowledge and understanding of the relationship between school funding and graduation rates of Hispanic students.

Considering the fact that the national dropout rate among Hispanics is the highest among all the ethnicities (U.S. Department of Education, 2014), this study could potentially provide a significant contribution, not only to a 17% of the U.S. population, but to the overall discussion about the impact money has on academic achievement.

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