Department of
Research and Evaluation
AUSTIN INDEPENDENT SCHOOL DISTRICT

Focus on Hispanic Seniors: 2011 High School Exit Survey and Postsecondary Enrollment

October 2012

Publication 11.57

EXECUTIVE SUMMARY

In the Austin Independent School District (AISD), the percentage of Hispanic graduates who enrolled in a postsecondary institution increased from 32% in 2002 to 52% in 2010. However, during this period, in accordance with national trends, Hispanic graduates had a lower college-going rate than did graduates of other ethnicities, especially with respect to enrollment in 4-year institutions (Alderete, Coneway, & Schmitt, 2006, 2007; Garland, 2008b, 2009; Gossman, 2009, 2011).

As Austin's Hispanic population continues to grow, the future economic prospects of the city will depend more heavily on the education and skills of Hispanic residents, who currently compose about 35% of the city's population (Robinson, 2010). Estimates of educational levels needed for jobs through 2018 show 62% requiring at least some college (Symonds, Schwartz, & Ferguson, 2011). If Hispanic students lag behind non-Hispanic students in postsecondary enrollment, their future economic prospects, and those of Austin, could suffer lasting repercussions.

Explanations for Hispanic students' low college enrollment rates include differences with non-Hispanic students with regard to academic qualifications for entering college, immigrant status, English language proficiency, socioeconomic status, and the mother's level of education (Berkner & Chavez, 1997; Roderick, Nagaoka, Coca, & Moeller, 2008). However, these factors alone do not fully account for the enrollment gap, especially in 4-year colleges. To understand what the other explanatory factors could be, and thus to be able to address the issue effectively, Hispanic and non-Hispanic seniors' demographic characteristics and answers to the AISD High School Exit Survey in 2011 were analyzed.

AISD Hispanic seniors in 2011 were found to have several characteristics that could put them at a disadvantage for postsecondary enrollment and significantly distinguished them from their non-Hispanic peers:

- The majority (67%) were economically disadvantaged.
- Many were immigrants (14%) or English language learners (17%) or both. Some may have been undocumented or had parents who were undocumented.
- Almost half (49%) reported having a parent who did not graduate from high school, and less than a third (26%) reported having a parent who graduated from a 2-year or 4-year college.
- On average, Hispanic seniors had lower grade point averages (GPAs) and standardized exam scores than did their non-Hispanic peers.

Anecdotal evidence suggested that the experience of preparing for the future after high school graduation was different for Hispanic students than it was for non-Hispanic students (Gossman, Looby, & Pazera, 2011a). A subsequent analysis found Hispanic seniors' responses to the 2011 High School Exit Survey significantly differed from those of non-Hispanic seniors for most of the questions. Identifying these differences may lead to an understanding of the low postsecondary

enrollment rates among Hispanic seniors. This report describes some of the differences in high school experiences of Hispanic and non-Hispanic seniors, as reported on the 2011 High School Exit Survey. The findings were grouped based on categories known to influence postsecondary enrollment and are summarized below.

Family Influences

- Parents of Hispanic seniors were reported to have a lower level of involvement at school in the seniors' academic and school life than did parents of non-Hispanic seniors. Conclusions could not be drawn about parents' involvement at home because the measures were insufficient.

Postsecondary Intentions

- Hispanic seniors started thinking about college much later than did their non-Hispanic peers, possibly influencing their academic and behavioral choices, which ultimately had an impact on postsecondary enrollment. Among Hispanic seniors, the largest percentage started thinking about college in high school (41% compared with 21% of non-Hispanic seniors). Twenty-four percent of Hispanic seniors indicated they had thought about college for "as long as I can remember," whereas 48% of non-Hispanic seniors gave that response.
- A significantly lower percentage of Hispanic seniors than of non-Hispanic seniors intended to go to a 4-year college or attend any college, although the percentage of Hispanic seniors intending to attend a 2-year institution was higher than the percentage of non-Hispanic seniors intending to do so. Forty-four percent of Hispanic seniors intended to enroll in a 4-year college, compared with 68% of non-Hispanic seniors, and 89% of Hispanics seniors intended to continue their education after high school, compared with 93% of non-Hispanic seniors. Forty-five percent of Hispanic seniors intended to enroll in a 2-year college, compared with 25% of non-Hispanic seniors.
- Fifty-one percent of the Hispanic seniors who intended to enroll in a 2-year institution indicated they also intended to transfer to a 4-year college eventually. Unfortunately, at the national level, less than a quarter of students who plan to complete a bachelor's degree and initially enroll in a 2-year college ultimately attain that degree (Roderick, Nagaoka, & Allensworth, 2006).

Taking Steps to Postsecondary Education

- A significantly lower percentage of Hispanic seniors than of non-Hispanic seniors took steps to prepare for postsecondary education.
- When asked how prepared they felt for the postsecondary application process, a significantly lower percentage of Hispanic seniors than of non-Hispanic seniors indicated they felt at least somewhat prepared (77% and 85%, respectively).
- Hispanic seniors at AISD (51%) sought support from appropriate school staff for career and college guidance at about the same rate as did non-Hispanic seniors (53%) in 2011. A higher rate might have been expected from Hispanic seniors, given their greater need.

- Hispanic seniors were significantly less likely than were non-Hispanic seniors to apply to any type of postsecondary institution (83% and 93%, respectively). Applications to 4-year institutions showed a larger gap, with 60% of Hispanic seniors indicating they had applied, compared with 81% of non-Hispanic seniors. The gap existed regardless of GPA. Of seniors with GPAs of 3.5 or above their junior year, 63% of Hispanic seniors had applied to a 4-year college compared with 85% of non-Hispanic seniors.
- Hispanic seniors spent fewer hours per week studying, doing research, or completing homework assignments outside of class than did non-Hispanic seniors. Thirty-six percent of Hispanic seniors spent 6 or more hours doing schoolwork outside of class, compared with 48% of non-Hispanic seniors. A higher percentage of Hispanic seniors were working (51%) their senior year, taking care of family members (23%), or both, compared with non-Hispanic seniors (46% and 18%, respectively).

School Participation, Engagement, and Academic Self-Confidence

- For each of the six indicators on the 2011 High School Exit Survey, a lower percentage of Hispanic seniors than of non-Hispanic seniors reported having a quality relationship with a teacher. Almost 40% of Hispanic seniors reported not knowing a teacher who was aware of what they would be doing the following year. This indicator showed the greatest gap between Hispanic and non-Hispanic seniors (10 percentage points).
- In half of the school-based extracurricular activities offered in AISD, a significantly lower percentage of Hispanic seniors than of non-Hispanic seniors indicated having participated at least 1 year.
- Hispanic seniors were more emotionally and cognitively engaged in school than were non-Hispanic seniors, and they had higher academic self-confidence regarding high school work. They were less confident than were non-Hispanic seniors, however, in their ability to do college-level work.

CONCLUSIONS AND RECOMMENDATIONS

Several characteristics of AISD Hispanic seniors may have put them at a disadvantage for postsecondary enrollment. These characteristics significantly distinguished them from their non-Hispanic peers. Despite Hispanic seniors being engaged in school and confident about their academic abilities, obstacles stand in their way to accessing a postsecondary education, reaching their academic potential, and joining the workforce in positions that meet their abilities.

The school district is not in a position to influence policies that could change characteristics such as a family's economic status, parents' level of education, and immigration status. However, knowledge about these characteristics and their influence on postsecondary enrollment can inform strategies to address the enrollment issue. Detailed recommendations are presented in the full report. The recommendations suggest ways to create a college-going culture at every campus, and to provide the support students and parents need to make a postsecondary education a reality.

TABLE OF CONTENTS

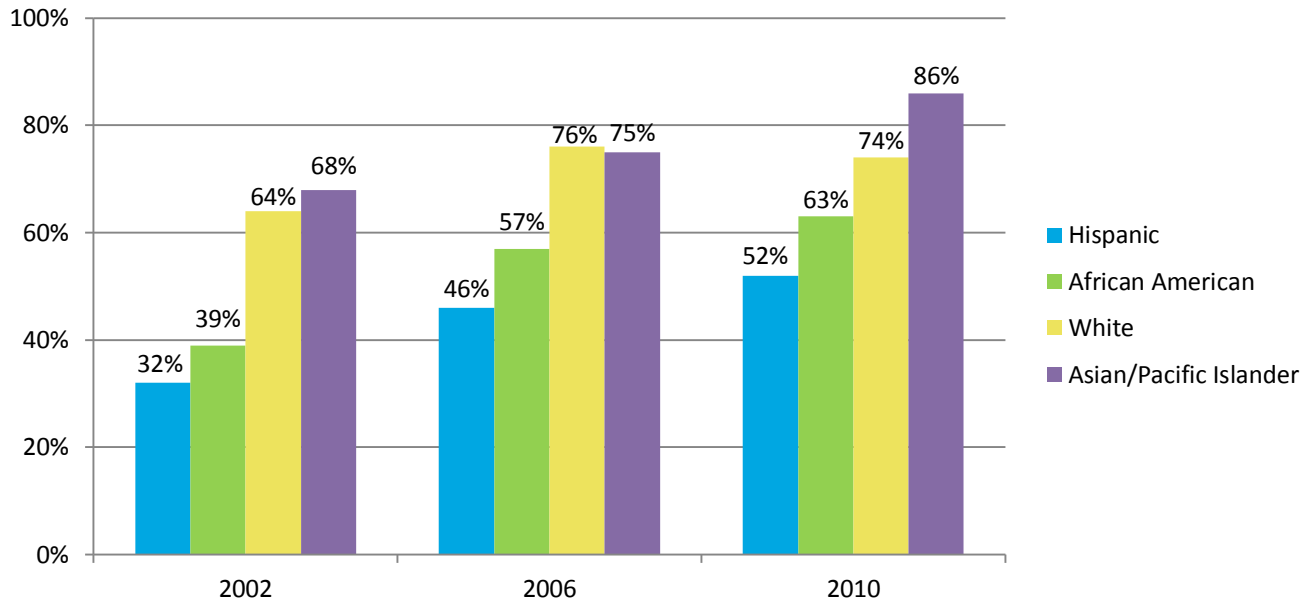
LIST OF FIGURES

INTRODUCTION

POSTSECONDARY ENROLLMENT RATES OF HISPANIC STUDENTS AND STUDENTS OF OTHER ETHNICITIES

Between 1975 and 2010, Hispanic students became a larger portion of those enrolled in postsecondary education nationwide; however, they continued to have lower college enrollment rates directly upon high school graduation than did students of other ethnicities (Aud & Hannes, 2011). In the Austin Independent School District (AISD), the percentage of Hispanic graduates who enrolled in a postsecondary institution increased from 32% in 2002 to 52% in 2010; however, during this period, Hispanic graduates had lower college-going rates than did graduates of other ethnicities (Alderete, Coneway, & Schmitt, 2006, 2007; Garland, 2008b, 2009; Gossman 2009, 2011). The gap was wider when only enrollment in 4-year colleges was examined. For the Class of 2010, 21% of Hispanic seniors had enrolled in a 4-year college during the first year after graduation, compared with 51% of White seniors and 67% of Asian seniors.

Figure 1. From 2002 to 2010, Hispanic graduates of AISD had lower college-going rates than did graduates of other ethnicities.

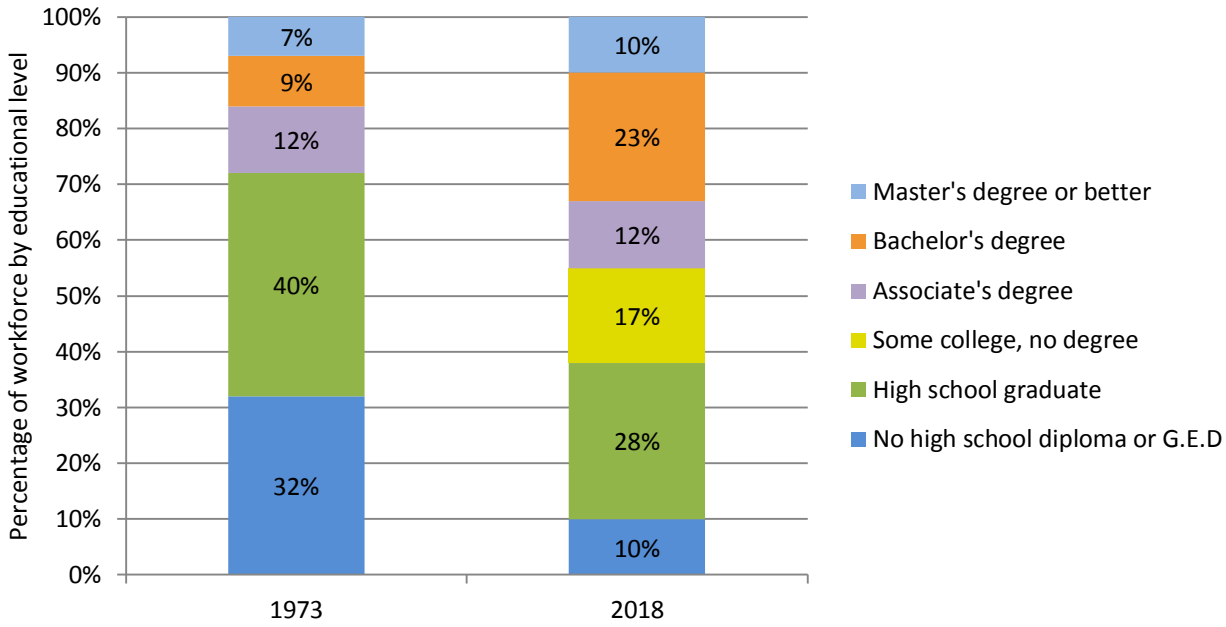


Source. Alderete, Coneway, & Schmitt, 2006, 2007; Garland, 2008b; Gossman 2011

IMPACT OF POSTSECONDARY ENROLLMENT RATES ON THE FUTURE ECONOMIC PROSPECTS OF HISPANIC STUDENTS

Lower unemployment rates, higher wages, and more job opportunities are some of the positive consequences of having some postsecondary education (Carnevale, Smith, & Strohl, 2010). Whereas in 1973, 72% of all workers had completed a high school education or less, by 2018, only 38% of all jobs will require no education beyond high school (Symonds, Schwartz, & Ferguson, 2011). The great majority of future jobs will be filled by people with some postsecondary education. If Hispanic students lag behind non-Hispanic students in their postsecondary enrollment, their future economic prospects could suffer lasting repercussions.

Figure 2. Almost two-thirds of all jobs are expected to require some postsecondary education by 2018.



Source. Carnevale, Smith, & Strohl, 2010

Explaining the Postsecondary Enrollment Gap Between Hispanic and Non-Hispanic Students

A national study of barriers to 4-year colleges that compared the enrollment rates of Black and Hispanic students who came from low-income families found that college costs and financial aid availability did not explain the persistent differences between the two groups. Hispanic students consistently were less likely to enroll in a 4-year college (Berkner & Chavez, 1997). A more recent study in the Chicago public school district had similar findings. It concluded that although the following factors influenced postsecondary enrollment, they alone did not account for the differences in enrollment in 4-year colleges between Hispanic and non-Hispanic graduates: academic qualifications for entering college, immigrant status, socioeconomic status, and the mother's level of education (Roderick, Nagaoka, Coca, & Moeller, 2008). In AISD, a study of 2007 graduates found that after controlling for student achievement and similar student characteristics known to influence postsecondary enrollment (i.e., as done in the Chicago study), Hispanic graduates were still found to be less likely than their non-Hispanic peers to enroll in a 4-year college (Garland, 2008a). A comparison of the postsecondary outcomes of AISD college-ready, low-income 2010 graduates found that 53% of the Black graduates and 28% of the Hispanic graduates had enrolled in a 4-year college.

Seminars on the use of data conducted by AISD's Department of Research and Evaluation (DRE) with campus leadership teams at most AISD high schools in 2010 supplied anecdotal evidence that the experience of preparing for the future after high school graduation was different for Hispanic students and non-Hispanic students (Gossman, Looby, & Pazera, 2011a). This information raises questions: Was the high school experience of Hispanic students fundamentally different from the

experience of non-Hispanic students? Could these differences help explain the low postsecondary enrollment rates among Hispanic seniors, especially in 4-year colleges?

Contributions of the High School Exit Survey

This report describes some of the differences in high school experiences of Hispanic and non-Hispanic seniors, as reported on the ninth annual High School Exit Survey conducted in Spring 2011. The exit survey is administered online to seniors in every AISD high school and covers topics including postsecondary intentions and family support, campus climate, instruction and technology, and postsecondary preparation and advising. The survey response rate in 2011 was 87%, and the ethnicity and gender of respondents were representative of all seniors. Hispanics comprised 49.5% of all seniors that school year, and 47.7% of all survey respondents.

For most of the 49 survey questions and numerous sub-questions, significant differences were found between the answers of Hispanic and non-Hispanic seniors. This report summarizes those findings. The findings are categorized by areas that have been shown to be related to postsecondary enrollment: family influences; postsecondary intentions; taking steps to postsecondary education; and student-teacher relationships, school engagement, and academic self-confidence.

Hispanics/Latinos are not a monolithic group. Why use this as a grouping?

Many differences exist between Hispanic/Latino families of different origins. For instance, a 2002 Census report found that 71% of Hispanics of Cuban origin had completed high school, compared with 51% of Hispanics of Mexican origin (Ramirez & de la Cruz, 2003).

The ethnic categories from which students and their parents choose to represent them in school records do not include further detail beyond "Hispanic."

One possible guide to interpreting the data presented in this report is to understand that in 2010, according to the U.S. Census Bureau (2010), Hispanics of Mexican origin composed 83% of the Hispanic population in Austin.

Characteristics of Hispanic Seniors in AISD

Hispanic seniors differed from non-Hispanic seniors in ways that could influence postsecondary enrollment: economic status, immigrant status, English language learner (ELL) status, and academic performance.

Economic Status

Nationally and in AISD, economically disadvantaged graduates were less likely than were non-economically disadvantaged graduates to enroll in a postsecondary institution (Aud & Hannes, 2011; Pazera, 2011a). A significantly higher percentage of Hispanic seniors (67%) than of non-Hispanic seniors (27%) in AISD were economically disadvantaged.

Immigrant Status

Nationally, the college enrollment rate of immigrants age 18 to 24 is lower than that of their native-

born counterparts. Enrollment rates vary by region of origin, with immigrants from Latin America having lower enrollment rates than immigrants from Africa or Asia. The age at which a child starts a new life in the United States influences educational attainment. Immigrants who enter the country between 13 and 19 years of age achieve the lowest level of education, and most immigrants in this age group come from Latin America. In 2005, less that 15% of Latin American immigrants in this age group were attending college, compared with more than half of such immigrants from Africa and Asia. (Erisman & Looney, 2007).

Students from immigrant families face barriers to postsecondary education. Their and their parents' lack of familiarity with the U.S. educational system makes it difficult for students to understand what choices are in their best interest, and makes it hard for parents to assist and to advocate for their children. The process of postsecondary enrollment is complex for native-born families, and is more so for immigrant families, especially for those not proficient in English (Erisman & Looney, 2007).

Estimating the number of immigrant students in AISD is difficult because different definitions are used, based on the purpose and requirements of granting institutions. For the purpose of this study, AISD students were considered immigrants if the language their family spoke at home was not English, and if the students lived outside the country at some point in their life, regardless of whether they were born in the United States. This is not a perfect measure, but is helpful in identifying seniors whose parents might not have been educated in the United States. Accordingly, 14% of 2011 Hispanic seniors and 3% of non-Hispanic seniors were immigrants.

Undocumented students face even greater obstacles to postsecondary enrollment than do other immigrants because they are barred from receiving federal financial aid and cannot legally work to pay for college costs. It is not known how many AISD students are undocumented. Texas is one of the few states that offers financial aid to students who lack social security numbers, an indication of undocumented status.

Obstacles also exist for native-born students from immigrant families with undocumented parents. Applications for financial aid require parents' social security numbers and sources of income. Native-born students of immigrant families who lack documentation might decide not to apply for financial aid for fear it would bring attention to their parents' immigration status (Erisman & Looney, 2007).

English Language Learner Status

Nationally and in AISD, ELLs were less likely to enroll in a postsecondary institution than were graduates who were proficient in English (Kanno & Cromley, 2010; Gossman, 2011). A report for the Institute of Higher Education Policy found,

> Limited English proficiency is one of the primary barriers that prevent immigrant students from graduating from high school and moving into postsecondary education, especially

> immigrant students who come to the United States as teenagers and have only a few years to learn English before they finish high school. (Erisman & Looney, 2007, p. 23)

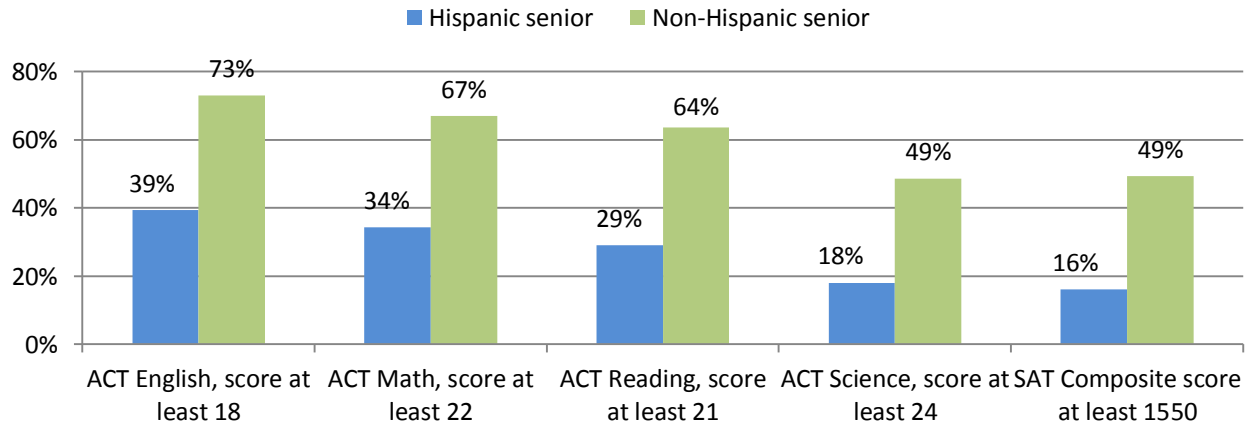
A higher percentage of Hispanic seniors (17%) than of non-Hispanic seniors (2%) in AISD were ELLs their senior year.

Academic Performance

The economic, immigrant, and ELL statuses of Hispanic seniors could influence their performance on college admissions tests and their grade point average (GPA), both of which play a role in admission to a postsecondary institution (Kanno & Cromley 2010). A study of AISD seniors demonstrated that the higher a senior's GPA, the more likely he or she was to enroll in a postsecondary school (Garland, 2008a). No GPA benchmark score exists that can indicate likely success in college; however, the average GPA of Hispanic seniors during the prior school year (2009–2010) was significantly lower than was the average GPA of non-Hispanic seniors that year (2.16 and 2.57, respectively).

The ACT and the SAT are national college admissions examinations. The ACT includes tests in English, mathematics (math), reading, and scientific reasoning. The SAT includes critical reading, math, and writing tests. Both the ACT and the SAT have college readiness benchmark scores to indicate the minimum score a person must make to be ready to succeed in college. A significantly lower percentage of Hispanic seniors than of non-Hispanic seniors in AISD met the college readiness benchmark scores for each test.

Figure 3. A significantly lower percentage of Hispanic seniors than of non-Hispanic seniors in AISD met the college readiness benchmark scores for the ACT and the SAT.



Source. ACT and SAT district data prepared by DRE
Note. All differences between Hispanic and non-Hispanic seniors were significant at $p < .01$.

The characteristics of Hispanic seniors in AISD reviewed here were the same as those examined in the national study and in the Chicago public school research (i.e., Berkner & Chavez, 1997, and Roderick et al., 2008) as possible explanatory factors for the low postsecondary enrollment of Hispanic students. Those studies found these characteristics to be insufficient to explain Hispanic

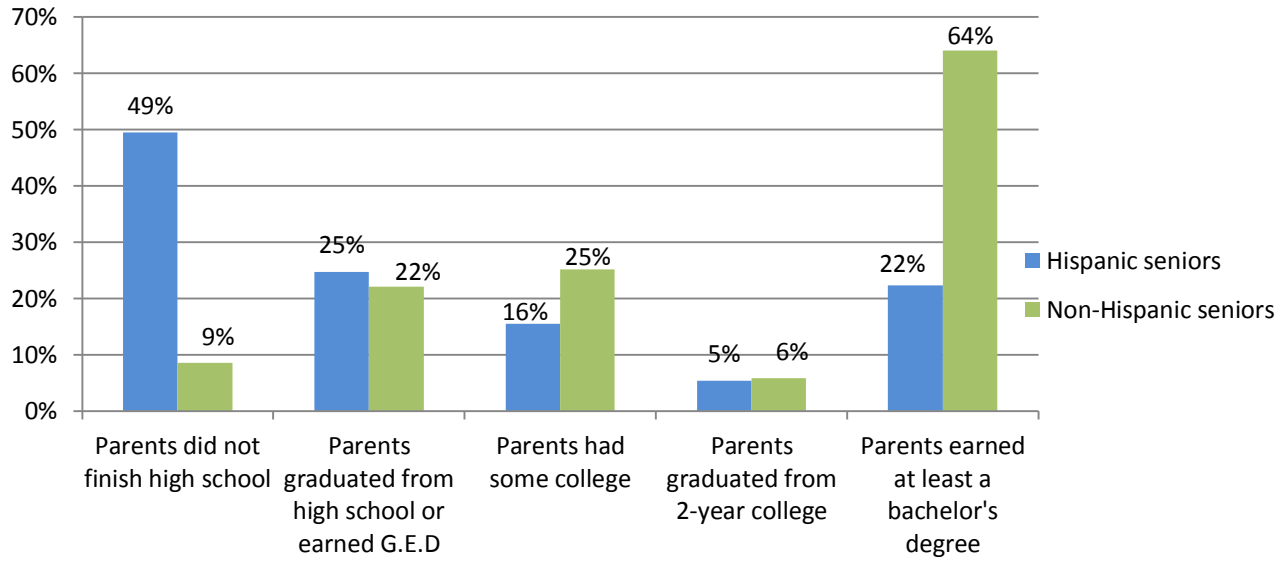
students' postsecondary choices. The AISD High School Exit Survey provides an additional source of information about seniors through which to explore reasons for the low postsecondary enrollment of Hispanic students.

High School Exit Survey: Family Influences

Parent Education

Hispanic seniors in AISD had a higher percentage of parents who did not graduate from high school than did students of other ethnicities (Figure 4). Among Hispanic seniors with at least one parent who did not graduate from high school, 63% indicated neither parent had completed a high school education. As indicated in the exit survey, about 26% of parents of Hispanic seniors in AISD graduated from a 2- or 4-year college or had a graduate degree, compared with 68% of parents of non-Hispanic seniors.

Figure 4. A higher percentage of Hispanic seniors than of non-Hispanic seniors had parents who did not finish high school, and a lower percentage of Hispanic seniors had parents who graduated from college.



Source. 2011 AISD High School Exit Survey

Why is this important?

Parents' education, expectations, and participation all play a role in students' decisions regarding postsecondary education (Engle, 2007; Choy, 2001). Students whose parents went to college are more likely to enroll in college themselves (Engle, 2007). A national study found that in 1999, 82% of students whose parents had at least a bachelor's degree enrolled in college upon graduating from high school, 54% whose parents completed high school but not college enrolled, and 36% of students whose parents had less than a high school diploma enrolled (Choy, 2001). AISD graduates from the Class of 2010 followed the same trend.

Parent education also is linked to students' course taking, which is, in turn, associated with college enrollment. For instance, taking advanced math courses in high school is strongly associated with eventual enrollment in a 4-year college. Nationally, a lower percentage of students with parents who did not have a college education had taken advanced math courses, compared with students whose parents had a college education (Choy, 2001).

Research shows that students whose parents did not go to college are at a disadvantage when it comes to accessing a postsecondary education. That disadvantage remained after controlling for factors such as family income, academic preparation, educational expectations, and support from parents and schools in planning and preparing for college (Choy, 2001).

Recommendations

Although it might not be possible to completely reverse the disadvantage to accessing postsecondary education that students with non-college-educated parents may have, it may be possible to diminish its effects. Counselors and teachers could encourage students to take advanced math courses, and the district could educate parents about the importance of taking such courses. Studies show that students who take advanced math in high school increase their chances of enrolling in a 4-year college, regardless of their parents' educational level.

Hispanic students and parents need information about the tuition and fees associated with attending college, and what living expenses to expect. Studies show, not surprisingly, that families with the lowest incomes and least educated parents know the least about college costs (Choy, 2001). Students with parents who did not attend college are most in need of help to explore college possibilities, and they also may be less likely to request that help. To increase the percentage of Hispanic seniors who go to college, the district needs to reach out to these students and their parents and provide information and assistance in a manner most effective for the parents' level of education. National studies show that students with parents who did not attend college are not more likely than students whose parents attended college to receive help from school staff in applying to college (Choy, 2001). This appears to be the case in AISD, as well (see section: Taking Steps to Postsecondary Education).

Parents' Expectations

In AISD, a higher percentage of Hispanic seniors (28%) than of non-Hispanic seniors (16%) indicated their parents' expectations were the most important factor keeping them in school all the way to graduation. Although this is an important finding, what is unknown is the level of expectations parents had; that is, how far did parents expect their child to go academically? During the DRE data seminars, high school leadership teams relayed that many Hispanic parents who did not graduate from high school themselves considered their child's graduation from high school the ultimate educational goal. The leadership teams also spoke about some Hispanic parents actively discouraging their children from enrolling in college because the parents did not want their child to

live far from home, or depended on their children to work or care for siblings (Gossman, Looby, & Pazera, 2011b).

Staying close to home could limit a student's choice of postsecondary institution and might help explain why a student eligible to enter a 4-year institution might enroll instead in a 2-year one. Economically disadvantaged families could depend on their child for income, and thus expect their child to work or to continue working after graduating from high school. Many non-English proficient parents depend on their English-speaking offspring to translate for them, so the possibility of that child leaving home to attend college could cause anxiety in such a household. Parents who did not attend college themselves could have misconceptions about college costs and financial aid, and might not be aware of the benefits of college. These factors could lead them to discourage their teens from enrolling in postsecondary education (Engle, 2007).

Using Student-Reported Data to Measure Parents' Expectations and Actions

AISD's data about parents' expectations and involvement presented here are reported by students, not by parents. What students can report are their perceptions and experiences. These may differ from what the parents would report.

It would be helpful to have data from parents to validate the data provided by students and to better understand parents' expectations and involvement. Parents do receive an annual district survey that includes some items related to parents' academic involvement in the home; however, in 2010–2011, only 14% of high school students were represented by parents who completed these surveys (Ibanez, 2011).

Why is this important?

High educational expectations of parents are linked to higher academic achievement among adolescents regardless of race/ethnicity or economic status (Patrikakou, 2004; Catsambis, 1998; Bregman, 2010). One national study found that parents' expectations that their child do well in school and attend college had a significantly positive effect on test scores in all subjects in grade 12 (Catsambis, 1998). Another national study found parental aspirations predicted students' educational aspirations in 8th grade. Four years later, when these students were in 12th grade, their educational aspirations predicted their academic achievement (Bregman, 2010). Studies also have shown that Hispanic parents in general have high educational aspirations for their children, and that those aspirations are a strong predictor of a student's own expectations (Bregman, 2010).

Recommendations

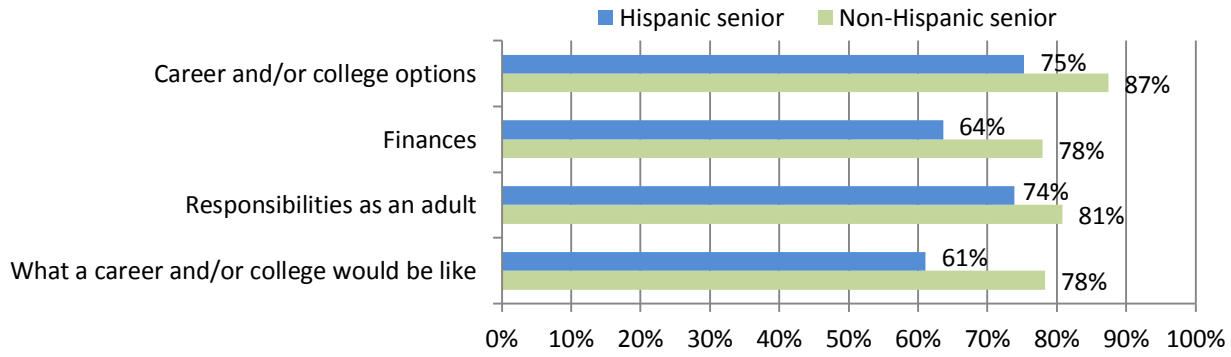
Many parents may not be aware of the influence their expectations can have on their teens. Sharing information with parents about the impact their expectations can have on the academic choices and achievement of their adolescents might be helpful in raising or maintaining high educational expectations among both Hispanic and non-Hispanic parents, and thus influencing the aspirations of their children. Better understanding the reasons some Hispanic families might discourage their children from attending college would be instrumental in developing efforts to conduct outreach to Hispanic parents and address their concerns.

Parent Involvement

AISD seniors were asked two questions about their parents' involvement at home in their school life. A significantly lower percentage of Hispanic seniors (41%) than of non-Hispanic seniors (45%) indicated their parents worked with them on a school project or homework. Also, a significantly lower percentage of Hispanic seniors (44%) than of non-Hispanic seniors (52%) indicated their parents helped them decide what classes to take. Although these two measures are important, they alone cannot characterize parents' involvement at home. Because these were the only two such measures on the exit survey, it cannot be concluded from these results that parents of Hispanic seniors were less involved at home than were parents of non-Hispanic seniors.

Seniors also were asked about their parents' involvement in college preparation. Parents' lack of college experience could stymie their efforts to be involved with their child's college preparation activities. In fact, nationally, high school graduates with parents who did not go to college reported receiving less support from their families in planning and preparing for college than did graduates whose parents attended college (Choy, 2001). In AISD, a significantly lower percentage of Hispanic seniors than of non-Hispanic seniors indicated a family member helped them complete applications for colleges or vocational/technical schools (35% and 57%, respectively); helped with financial aid applications (49% and 64%, respectively); or encouraged them to apply to several different colleges (52% and 69%, respectively). However, in addition to these college-related items, a significantly lower percentage of Hispanic seniors than of non-Hispanic seniors indicated a family member spoke to them about how to prepare for life after high school.

Figure 5. A significantly lower percentage of Hispanic seniors than of non-Hispanic seniors indicated their parents had talked to them about the following topics:

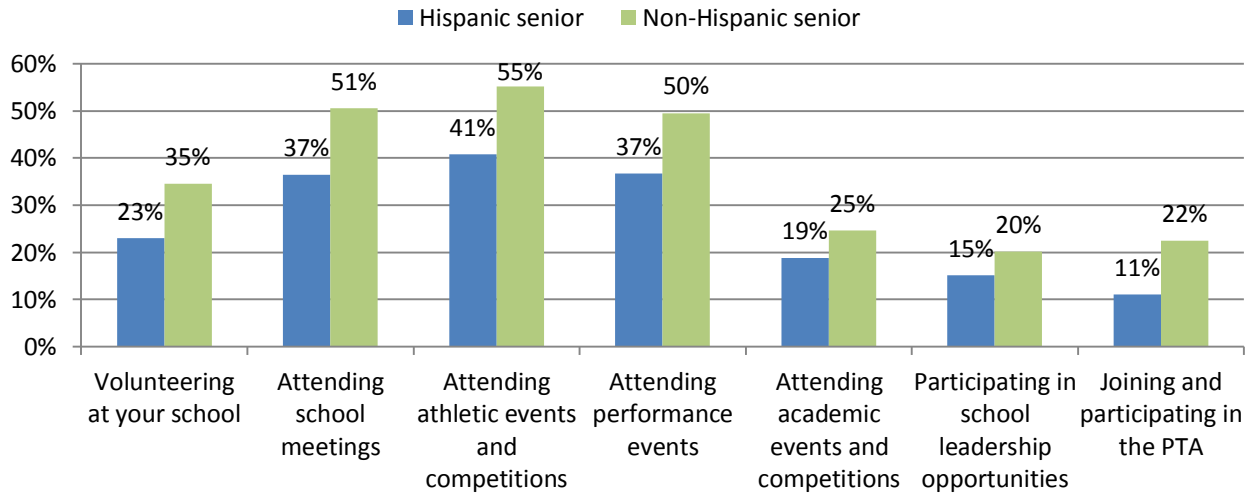


Source. AISD 2011 High School Exit Survey
Note. All differences between Hispanic and non-Hispanic seniors were significant at $p < .01$.

In addition to measures of parents' involvement at home in a student's school life and college preparation, the High School Exit Survey included seven indicators of parent involvement at school (Figure 6). Although for each of the seven indicators, a significantly lower percentage of Hispanic seniors than of non-Hispanic seniors indicated their parents were involved, the differences may be due to economic factors. Studies show that economic status plays a major role in families' school

participation. Higher income families have a tendency to be more involved at school than are lower-income families (Henderson & Mapp, 2002; Bregman, 2010). Access to child care and transportation, and the ability to get time off work could play a role in this difference. Other barriers to parents' involvement at school include language, undocumented status (school volunteers may be required to have a background check performed and be fingerprinted), parents' lack of familiarity with the school system and with how parents are expected to be involved, and school staff's lack of familiarity with the culture of the parents (Waterman & Harry, 2008).

Figure 6. A lower percentage of Hispanic seniors than of non-Hispanic seniors indicated their parents were involved at school.



Source. AISD 2011 High School Exit Survey
Note. All differences between Hispanic and non-Hispanic seniors were significant at $p < .01$.

Why is this important?

Although parent involvement at home has proven to have more of an effect on academic achievement and enrollment in higher education than has parent involvement at school, parent involvement both at home and at school is important for adolescents' academic success and postsecondary enrollment (Henderson & Mapp, 2002). When parents expressed high expectations, discussed going to college, encouraged students to take classes that could lead to college, and helped students prepare for college, students were more likely to take and pass higher-level classes, and achieve higher test scores (Henderson & Mapp, 2002). Strong encouragement and support from parents regarding postsecondary enrollment were found in one study to be the most influential factor affecting college aspirations and enrollment, regardless of parents' education levels (Engle, 2007). The type of parent involvement at home that was most effective in influencing academic achievement was not behavioral supervision, but rather involvement that guided teens' academic decisions and showed knowledge of a teen's coursework (Catsambis, 1998).

Recommendations

The district could work with parents of secondary school students to discuss ways parents can be involved with their child's education at home. For instance, parents do not need to get involved in a teen's homework assignment, or even understand how to complete it, but knowing that one's child has homework, providing the environment and encouragement to complete it, and rewarding a teen for a good grade can make a big difference. Some parents might believe that once a child is in high school, their involvement with that child's education is not as important as it was when the child was younger. Adolescent behavior can deceive parents into thinking they no longer have much of an impact on their children's lives. Research shows they do. Parents continue to influence their child's behavior and decisions through high school.

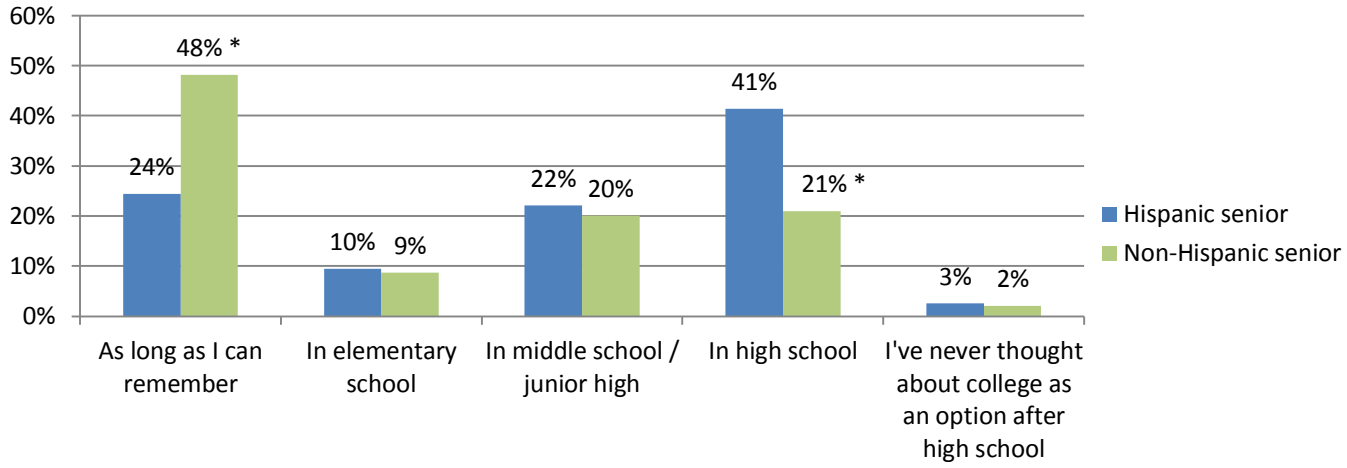
To better measure parent involvement, more indicators of parent involvement at home were added to the succeeding High School Exit Survey. These data should be analyzed to see whether a significant difference actually exists between parents of Hispanic and of non-Hispanic seniors regarding involvement at home. It also would be important to better understand how Hispanic families support the education of their children at home because these practices might differ from those of parents of non-Hispanic students.

High School Exit Survey: Postsecondary Intentions

Hispanic seniors in AISD started thinking about college much later than did their non-Hispanic peers. Among Hispanic seniors, the largest percentage started thinking about it in high school (41%, compared with 21% of non-Hispanic seniors). Twenty-four percent of Hispanic seniors indicated they had thought about college for "as long as I can remember," whereas 48% of non-Hispanic seniors gave that response (Figure 7).

An essential step on the road to postsecondary education is the intention to enroll. In AISD, a significantly lower percentage of Hispanic seniors than of non-Hispanic seniors intended to enroll in a 4-year college or attend any college, and a higher percentage intended to attend a 2-year institution (Figure 8). These results are consistent with national studies of first-generation college students, who tend to be Black or Hispanic and come from low-income families (Engle, 2007). A study of AISD 2007 graduates found that after student-level factors (e.g., economic disadvantage, mother's level of education, and first-generation college student status) were controlled for, the educational aspirations of Hispanic graduates did not differ significantly from those of White graduates (Garland, 2008a).

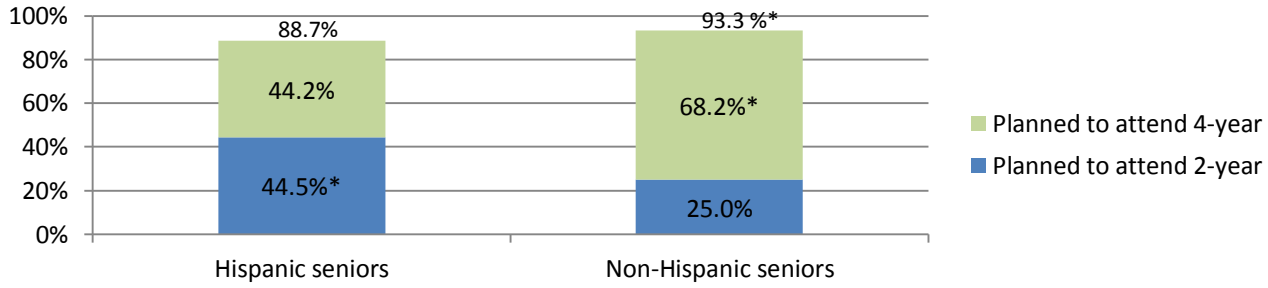
Figure 7. Hispanic seniors in AISD started thinking about college as a possibility after high school much later than did non-Hispanic seniors.



Source. 2011 AISD High School Exit Survey

* The difference between Hispanic and non-Hispanic seniors was significant at $p < .01$.

Figure 8. A lower percentage of Hispanic seniors than of non-Hispanic seniors intended to enroll in a postsecondary institution, and the preference for 2-year institutions was higher among Hispanic seniors.



Source. 2011 AISD High School Exit Survey

* The difference between Hispanic and non-Hispanic seniors was significant at $p < .01$.

Fifty-one percent of the Hispanic seniors who intended to enroll in a 2-year institution indicated they also intended to transfer eventually to a 4-year college. Unfortunately, at the national level, less than a quarter of students who plan to complete a bachelor's degree and initially enroll in a 2-year college ultimately attain that degree (Roderick, Nagaoka, & Allensworth, 2006). Also, studies in California found the transfer rate from community colleges to 4-year institutions for Latino students was half that of White students (Campaign for College Opportunity, 2012). It is not known if this trend exists for Hispanic students in Texas. It is known, however, that in AISD, most Hispanic graduates who enroll in college enroll in a 2-year institution (Gossman, 2011).

Why is this important?

Students who begin high school with an expectation of going to college have the opportunity to plan their courses and monitor their behavior with the goal of college in mind. Students who only begin to think of college while in high school may have limited their options by not taking rigorous

coursework, not spending sufficient time studying and doing homework, and not taking steps that lead to postsecondary enrollment (Choy, 2001). In one 2010 study in the New England area, Hispanic high school freshmen who were struggling academically and lacked knowledge about college preparation were interviewed. Many of these freshmen believed it was too early to start thinking about and planning for college. They thought they would try to learn more about college when they were juniors or seniors (Bregman, 2010). If these students' parents did not attend college and were unaware of how a student must prepare for it, and if college preparatory programs in high school focus on juniors and seniors, it is easy to understand how this misconception about when to start planning for college might occur.

The lower educational expectations of Hispanic seniors, compared with those of non-Hispanic seniors, likely play a role in their lower postsecondary enrollment rates. Raising the educational expectations of young people before they enter high school could affect their choice of courses, behavior, and attendance when they enter high school, and thus potentially increase their access to postsecondary education. Research shows that lower educational expectations are present as early as 8th grade for students whose parents did not attend college (Choy, 2001). If students do not strive to achieve at least a bachelor's degree, it is unlikely they will take the steps necessary to enroll in a 4-year college. A study of Chicago seniors found among students qualified to enroll in a 4-year college, Latino students were the least likely to plan to enroll in one, and also the least likely among students of other ethnicities to apply to a 4-year college (Nagaoka, Roderick, & Coca, 2008). Choosing to attend a 2-year college with the goal of transferring to a 4-year college limits the success of Hispanic students, as evident from the lower degree attainment rate among such students (Roderick et al., 2006).

Recommendations

The possibility of attending college needs to be introduced to students in elementary school so that by the time students enter high school, they have already given thought and consideration to whether they want to attend college. High school students then would understand that all their choices with regard to courses, attendance, behavior, and homework could affect their plans for the future. Introducing students to the idea of college in elementary school might result in them feeling empowered to actively seek the information they need to prepare for postsecondary enrollment, instead of depending on school personnel to approach them. Also, teachers and administrators could encourage Hispanic students to set their sights as high as possible. A student who wants to attend college and who qualifies for a selective university needs to be encouraged to apply to some selective colleges, rather than setting acceptance at a 2-year community college as the ultimate goal.

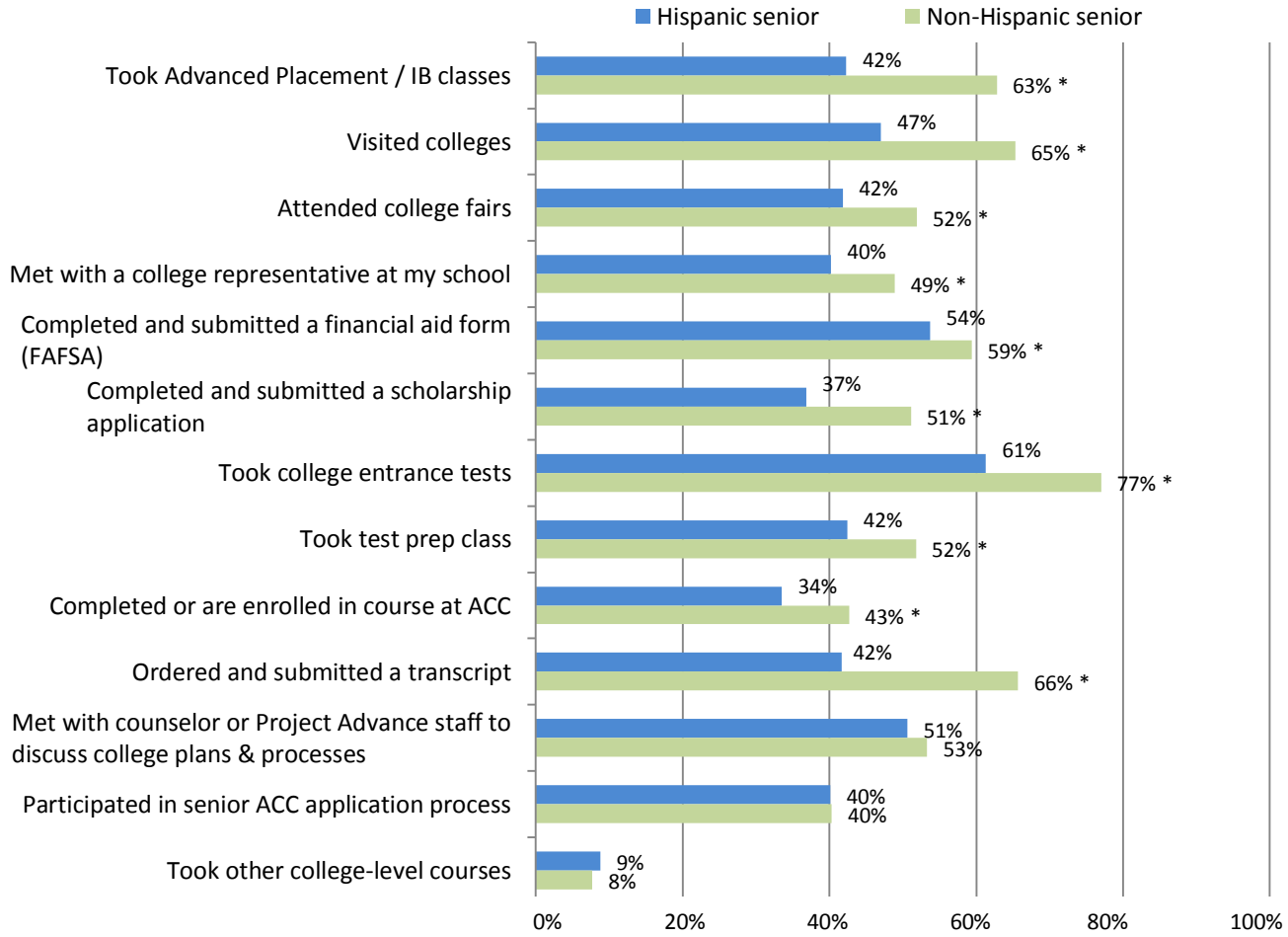
High School Exit Survey: Taking Steps to Postsecondary Education

The High School Exit Survey identified 13 steps students can take to prepare for continuing their education after high school. For 10 of these steps, a significantly lower percentage of Hispanic

seniors than of non-Hispanic seniors indicated having taken them. Figure 8 showed that 89% of Hispanic seniors planned to attend college, yet for 10 of the 13 steps, fewer than half of Hispanic seniors had taken them (Figure 9).

It appears that Hispanic seniors at AISD sought support from appropriate school staff for career and college advice and guidance at about the same rate as did non-Hispanic students, results similar to those found in national studies of students whose parents did not attend college (Choy, 2001). Furthermore, no significant difference was found between Hispanic and non-Hispanic seniors regarding their perceived access to school counselors and Project Advance (College and Career Center) staff. However, when asked how prepared they felt for the postsecondary application process, a significantly lower percentage of Hispanic seniors indicated they felt at least somewhat prepared (77.0%), compared with the percentage of non-Hispanic seniors who so indicated (85.3%).

Figure 9. A significantly lower percentage of Hispanic seniors than of non-Hispanic seniors took the following steps to prepare for postsecondary education:



Source. 2011 AISD High School Exit Survey
Note. IB refers to International Baccalaureate classes.
* The difference between Hispanic and non-Hispanic seniors was significant at $p < .01$.

Why is this important?

The steps listed in Figure 9 are recommended for all students interested in attending college. Some of the steps are required by 4-year colleges to be considered for acceptance. Taking some of these college preparatory steps could eliminate the disadvantages some Hispanic students face in enrolling in college. A national study showed that when college-qualified students took college entrance exams and completed an admissions application to a 4-year college, differences in enrollment rates between low-income and middle-income students and between students of different races/ethnicities were eliminated (Berkner & Chavez, 1997). An AISD study found that of Hispanic graduates who had intended to enroll in a 4-year institution, 58% of those who had completed a financial aid application actually did enroll, compared with 26% of Hispanic graduates who had not completed a financial aid application (Garland, 2008a).

All high school students need support and guidance when considering whether to go to college, and figuring out how to accomplish the goals for their future. Hispanic seniors with parents who do not have a college education may need more support from counselors, teachers, and other school staff than do seniors with college-educated parents, to inform and guide them through the postsecondary education process (Nagaoka et al., 2008). A study of AISD graduates found the relationship students had with their school counselor "exerted a stronger influence over the probability Hispanic graduates would apply to a four-year college than it did for other ethnic groups" (Garland, 2008a). The study also found the more prepared for the postsecondary application process students felt, the more likely they were to apply to a 4-year college.

Recommendations

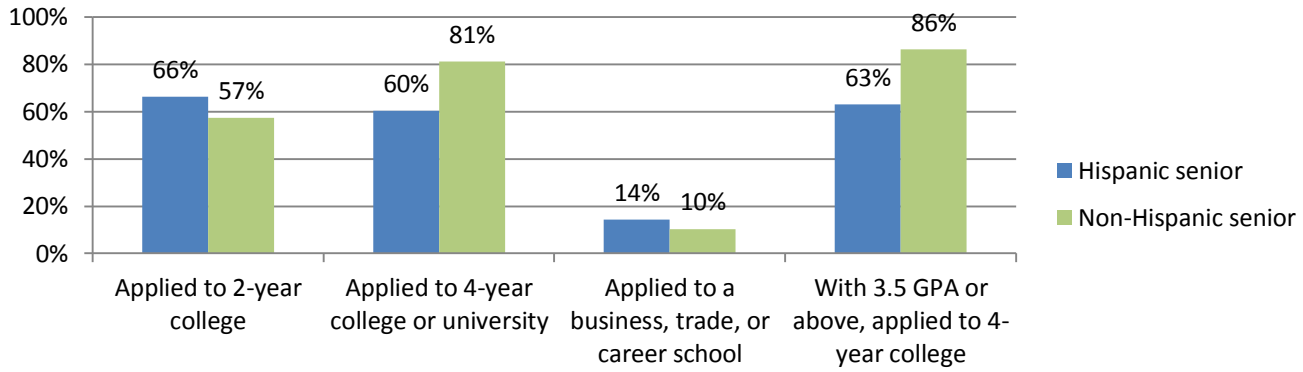
Students need to be introduced to the idea of college before they enter high school. Increasing the percentage of Hispanic students who consult with school staff about college and careers may be an important goal. Students need to be made aware of the necessary steps on the road to a postsecondary education before they are juniors or seniors. The district should ensure all high school freshmen are aware of the opportunity to attend college, and know what steps they need to take to get there. School counselors and Project ADVANCE staff need to have the time and capacity to inform Hispanic freshmen and sophomores about college opportunities and steps to enrollment, and they need to reach those Hispanic juniors and seniors who might not be inclined to visit a college and career center or take the initiative to consult with a school counselor about college or career options.

APPLICATIONS

AISD Hispanic seniors (83%) were significantly less likely to apply to any type of postsecondary institution than were non-Hispanic seniors (93%). The gap between Hispanic and non-Hispanic seniors applying to 4-year institutions was consistent, regardless of GPA. Hispanic seniors were more likely to apply to 2-year institutions than were non-Hispanics, consistent with the plans they

indicated (Figure 8). Of seniors who did apply to 4-year colleges, a significantly lower percentage of Hispanic seniors (38%) than of non-Hispanic seniors (53%) applied to more than three.

Figure 10. A lower percentage of Hispanic seniors than of non-Hispanic seniors applied to 4-year colleges, regardless of grade point average (GPA).



Source. 2011 AISD High School Exit Survey
Note. All differences between Hispanic and non-Hispanic seniors were significant at $p < .01$.

Why is this important?

Research shows that many urban, low-income students who lack strong college guidance limit their college search to those schools with which their family and friends are familiar. This often results in a mismatch or in enrollment in colleges that are less selective than the students are eligible to attend (Nagaoka et al., 2008). This mismatch can have consequences for 4-year degree attainment. It also can be argued that Hispanic students who are eligible to attend selective 4-year colleges and who instead attend a 2-year community college miss out on immeasurable life and economic opportunities, and the country as a whole suffers. As for the number of colleges students applied to, a study of 2007 AISD graduates found that all graduates benefitted from applying to more than three postsecondary institutions, but Hispanics benefitted more than did their peers. Non-Hispanic graduates increased their likelihood of being accepted into a 4-year postsecondary institution by approximately 15 percentage points if they applied to between four and six schools, instead of to fewer than four schools. For Hispanic graduates, this increase was 36 percentage points (Garland, 2008a).

Recommendations

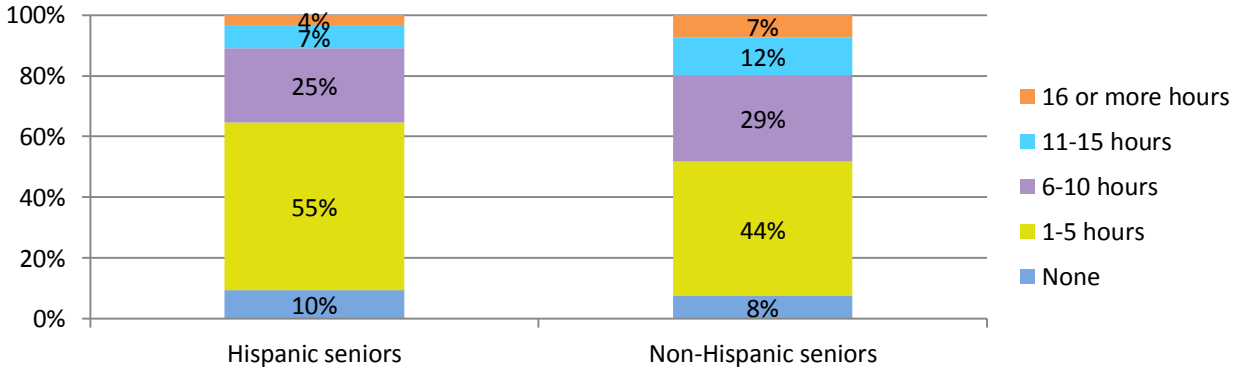
The percentage of Hispanic students who applied to colleges closely follows these students' stated college intentions. Therefore, it is possible that raising Hispanic students' college aspirations could influence their application practices. It is especially important for teachers and counselors to encourage Hispanic students to apply to more than three colleges to increase their likelihood of acceptance. The district may need to partner with community groups to investigate ways to make applying to a number of colleges affordable for low- and middle-income students.

Academic Preparation

Studying and completing homework outside school hours help students learn, achieve, and prepare for postsecondary education. Sixty-five percent of Hispanic seniors reported spending five or fewer

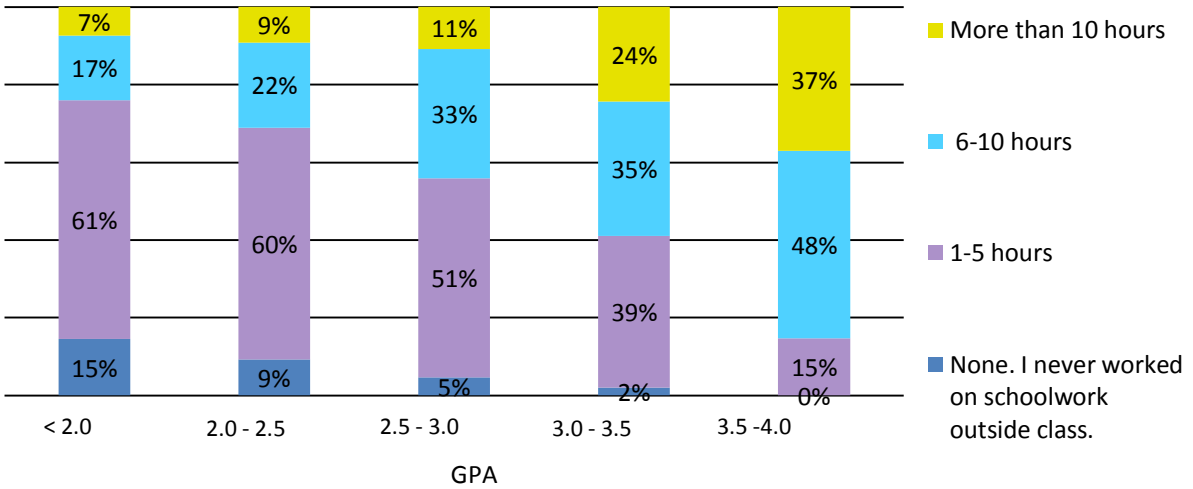
hours a week studying and doing homework, whereas 52% of non-Hispanics seniors spent that amount of time (Figure 11). An analysis of GPA data and High School Exit Survey responses revealed a positive relationship between GPA and time spent studying for both Hispanic and non-Hispanic seniors: GPA increased in conjunction with an increase in time spent studying or doing homework (Figure 12).

Figure 11. Hispanic seniors indicated spending fewer hours per week studying, doing research, or completing homework assignments outside of class than did non-Hispanic seniors.



Source. 2011 AISD High School Exit Survey
Note. All differences between Hispanic and non-Hispanic seniors were significant at $p < .05$.

Figure 12. For Hispanic seniors, as hours per week spent studying, doing research, or completing homework assignments outside of class increased, grade point average (GPA) also increased.

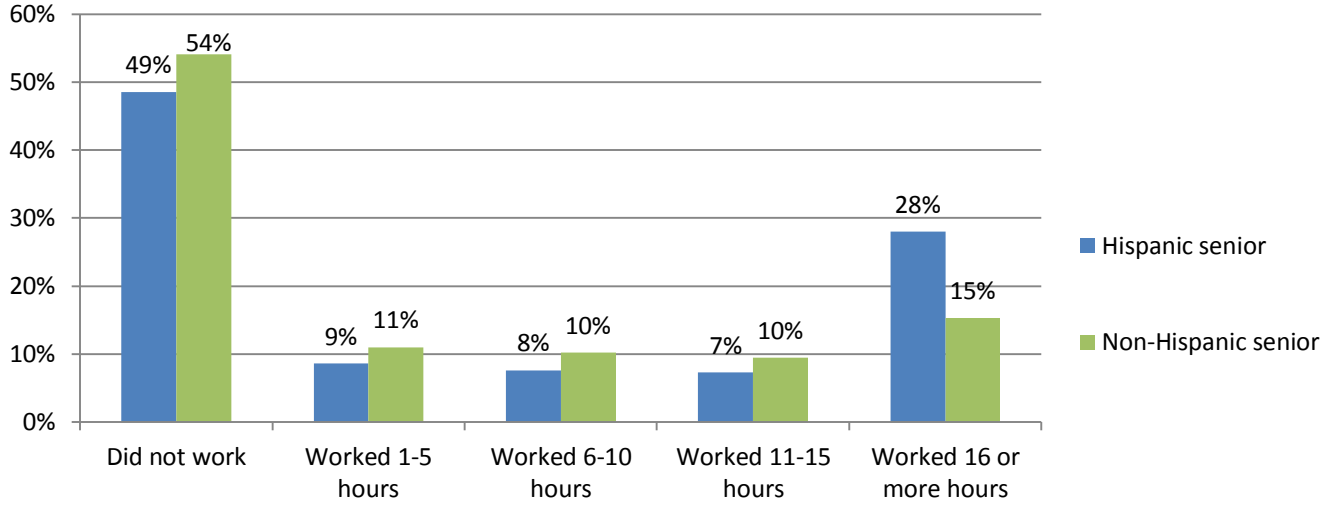


Source. 2011 AISD High School Exit Survey and district data files
Note. Junior year GPAs were used.

If seniors were not studying or doing homework, how did they spend their time after school? More than 50% of Hispanic seniors indicated they worked during their senior year, compared with 46% of non-Hispanic seniors. Of those who worked, 54% of Hispanic seniors and 33% of non-Hispanic seniors indicated they were working 16 or more hours a week. Although the number of hours per week Hispanic seniors worked did not appear to significantly influence the number of hours they spent studying and doing homework, it may have influenced whether or not they studied at all.

Four percent of Hispanic seniors who worked between 1 and 5 hours a week indicated they did not do any school work outside school, whereas 12% of those who worked at least 16 hours a week gave that response.

Figure 13. A higher percentage of Hispanic seniors than of non-Hispanic seniors worked, and of those who worked, Hispanic seniors worked longer hours than did their non-Hispanic peers.



Source. 2011 AISD High School Exit Survey
Note. All differences between Hispanic and non-Hispanic seniors were significant at $p < .05$.

Another activity outside school in which a significantly higher percentage of Hispanic seniors than of non-Hispanic seniors participated was family care. Twenty-three percent of Hispanic seniors and 18% of non-Hispanic seniors indicated they provided routine care for family members outside school. Of those providing care, 36% of Hispanic seniors and 40% of non-Hispanic seniors did so for more than 10 hours a week.

Why is this important?

Several studies over the past 30 years addressed how working during high school affects academic achievement, rates of school absence and dropouts, and rates of unhealthy behavior or deviance. The results have been mixed, with most studies showing some negative effects of high-intensity work, defined as more than 20 hours a week, and others showing no negative effects of working, regardless of the number of hours worked (Buscha, Maurel, Page, & Speckesser, 2011; Kalenkoski & Pabilonia, 2009; Monahan, Lee, & Steinberg, 2011). Recent studies that employed modern methods have found working 20 or fewer hours does not negatively affect students academically or behaviorally, and working more than 20 hours does not negatively affect GPA or standardized test scores in reading or math (Monahan et al., 2011; Buscha et al., 2011). However, a 2011 study published in *Child Development* found high school students who worked more than 20 hours a week experienced decreased engagement in school, decreased expectations about how far they would go in their schooling, and increased substance use and delinquency (Monahan et al., 2011).

This study concluded that "parents, educators, and policy makers should monitor and constrain the number of hours adolescents work each week during the school year" (p. 110).

Working fewer hours might give Hispanic seniors more time to study and do homework, but it does not necessarily mean that is how they will spend their free time. In fact, a study from the Bureau of Labor Statistics found for each additional hour of paid work, high school students spent only 5 fewer minutes on homework (Kalenkoski & Pabilonia, 2009). However, students reduced their sleep by about 10 minutes, their housework by more than 11 minutes, and the time spent in front of the television or a computer (screen time) by 24 minutes (Kalenkoski & Pabilonia, 2009). The *Child Development* study found that when students who were working fewer than 20 hours a week increased their hours, they experienced negative outcomes, including a decrease in time spent on homework and an increase in daydreaming during class. However, when students working more than 20 hours a week decreased their work hours, they did not experience any significant benefits (Monahan et al., 2011). Therefore, it appears that working fewer than 20 hours a week is only the first step to avoid the negative consequences of work. The second step is being motivated and having the capacity to spend free time on studying and homework.

Recommendations

Given the mixed results of past studies and the conclusions of recent ones, it is recommended the district continue to monitor seniors' work status and time spent on homework and studying outside class. Although high-intensity work appears to have some negative effects, merely cutting work hours does not necessarily result in more time spent studying to improve academic outcomes. Students and parents need to know the relationship between studying and GPA: that studying and doing homework can make a difference academically. Students and parents need to understand that limiting work hours to fewer than 20 hours a week while in high school could have a higher pay-off in future job earnings than a high school job could offer. School counselors could focus efforts on the students who work long hours, and could explore these students' career interests and encourage them to reach beyond what currently seems possible to them for their future.

High School Exit Survey: Student-Teacher Relationships, School Engagement and Academic Self-Confidence

Student-Teacher Relationships

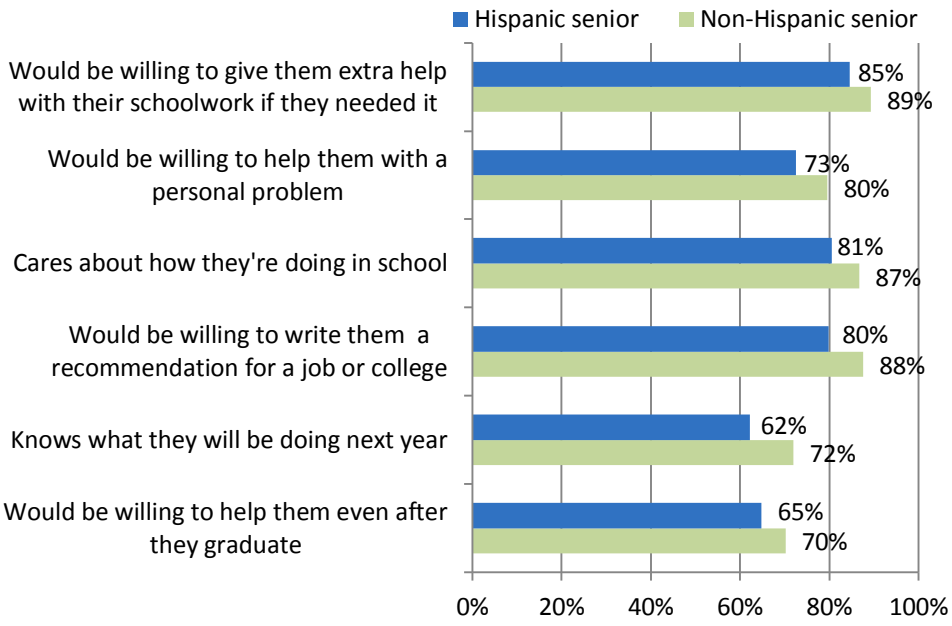
A good student-teacher relationship contributes to a student's school engagement as well as academic success, social-emotional development, and sense of belonging in school (Appleton, Christenson & Furlong, 2008; Hamre & Pianta, 2006; Klem & Connell, 2004; Wang & Holcombe, 2010). Using several indicators to measure the student-teacher relationship, the results of the High School Exit Survey showed that for every indicator, a lower percentage of Hispanic seniors than of

non-Hispanic seniors reported having a quality relationship with a teacher (Figure 14). Forty percent of Hispanic seniors reported not knowing a teacher who was aware of what they would be doing the following year. This indicator had the lowest percentage of Hispanic seniors answering affirmatively and showed the greatest gap between Hispanic and non-Hispanic seniors.

Why is this important?

The relationships students develop with adults at their school can affect their educational expectations, postsecondary preparation, and access to college (Appleton et al., 2008; Kanno & Cromley, 2010; Wimberly, 2002). Students do better in school and are more likely to have high educational aspirations if they perceive their teachers care about them, they talk with teachers about their future plans, and they believe their teachers have high expectations of their success (Bregman, 2010). The relationship between perceived teacher support and school engagement is cyclical. A student who is engaged in school perceives more support from teachers and peers than does one who is not engaged. This perception, in turn, leads to more engagement, which leads to more support from teachers (Appleton et al., 2008; Hamre & Pianta, 2006). A study of Chicago public school students found the involvement and expectations of teachers made the most difference for students with marginal qualifications for 4-year colleges (Nagaoka et al, 2008).

Figure 14. A significantly lower percentage of Hispanic seniors than of non-Hispanic seniors indicated they knew at least one teacher who:



Source. 2011 AISD High School Exit Survey
Note. All differences between Hispanic and non-Hispanic seniors were significant at $p < .01$.

Forming good student-teacher relationships becomes more difficult in high school because students have many teachers and have different teachers from semester to semester. Teachers instruct a large number of students, so getting to know each one on a personal level is a challenge. Low-income Hispanic students might face more obstacles in the development of good relationships

with teachers than non-Hispanic students face. Factors that can impede the development of a good student-teacher relationship include cultural differences, social class distinctions, low teacher expectations, and assumptions about race (Bregman, 2010). Low-income students have higher mobility than do middle- and high-income students. Changing schools means students can lose the relationships they had with school personnel. Also, school personnel might be reluctant to invest in students whom they believe will not be enrolled for long (Ream, 2003).

Recommendations

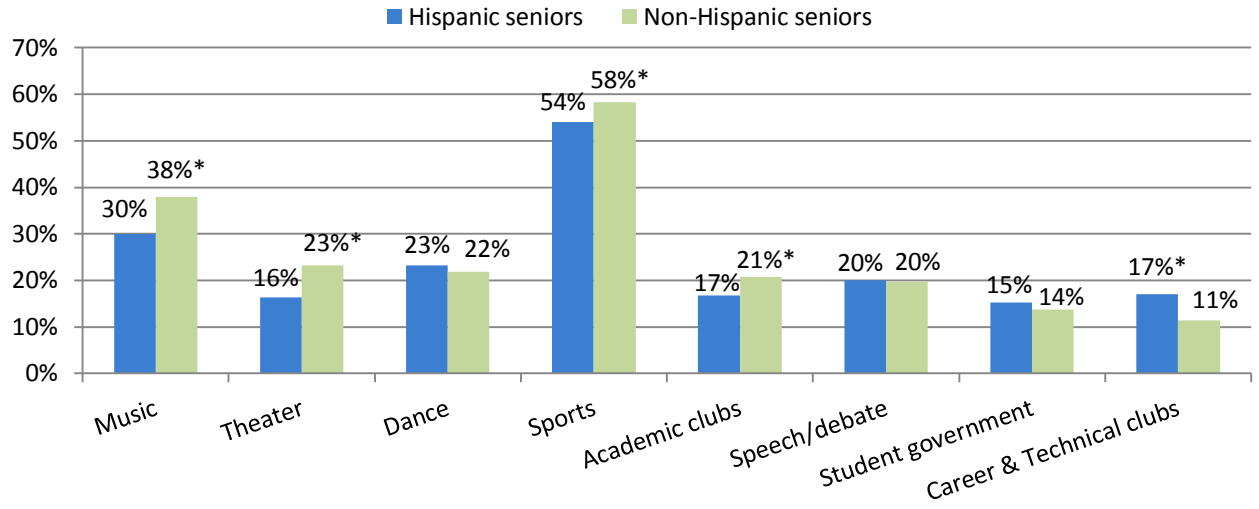
Teachers might not be aware of the importance of the relationship they develop with their students. Many resources exist that offer teachers strategies for developing good relationships with their students. To help overcome some of the obstacles to developing good relationships with Hispanic students, it is recommended the district increase efforts to incorporate sensitivity to cultural and economic differences into the curriculum and its implementation, and to offer more professional development opportunities to teachers to increase their awareness of cultural differences and how to embrace these in the classroom.

SCHOOL ENGAGEMENT

Research suggests that participation in school activities and being engaged in school life improve academic achievement and the chances that a student will stay in school (Appleton et al., 2008). Students' intention to continue their education after high school likely is affected by their attitudes toward and their participation in high school (Willms, 2003). School engagement can be measured in a variety of ways. Ming-Te Wang and Rebecca Holcolmbe, doctoral candidates at Harvard University, described three types of measures of students' engagement with school. The first type is behavioral engagement, which includes measures of studying, doing homework, and participating in extracurricular activities. The second type is emotional engagement, which includes measures of students' feelings about school and their sense of belonging and identification with school. The third type is cognitive engagement, including measures of students' interest in and curiosity about what they are learning, and taking advantage of opportunities for regulating their own behavior and emotions (Suarez-Orozco, Pimentel, & Martin, 2009; Wang & Holcombe, 2010).

The High School Exit Survey included measures of all three types of school engagement. One example of behavioral engagement is the time seniors spent studying and doing homework outside of class. Figure 11 shows that, on average, Hispanic seniors spent less time on these activities than did non-Hispanic seniors. Extracurricular activities (e.g., sports and clubs) are another type of behavioral engagement. They offer students the opportunity to be active in school life and feel connected to their school. With the exception of Career and Technical Education clubs, in which a significantly higher percentage of Hispanic seniors than of non-Hispanic seniors participated, the percentage of Hispanic seniors participating in extracurricular activities either was not significantly different or was significantly lower than was the percentage participation of non-Hispanic seniors.

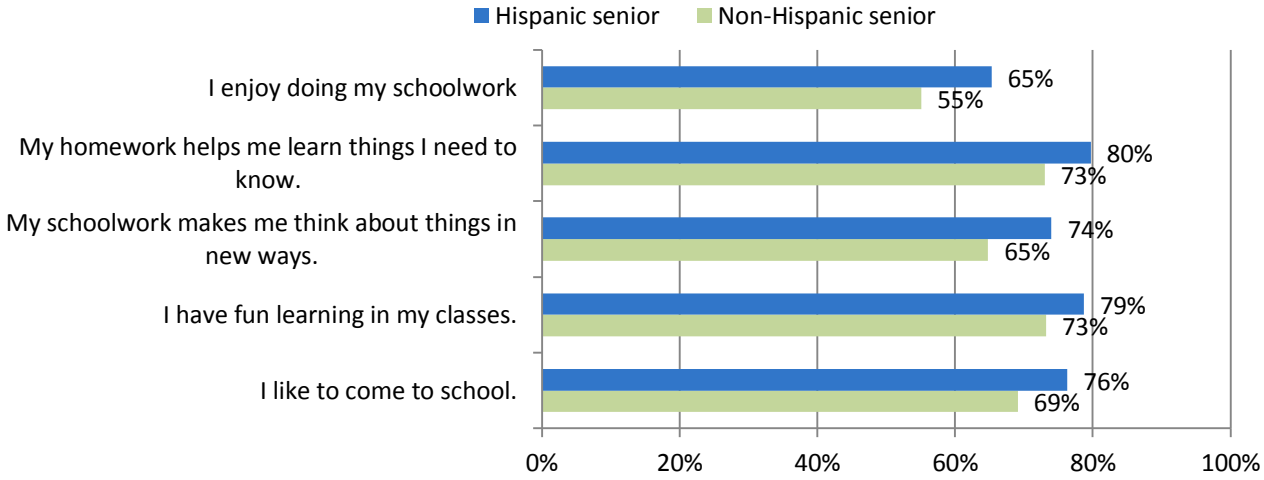
Figure 15. In half the school-based extracurricular activities, a significantly lower percentage of Hispanic seniors than of non-Hispanic seniors indicated having participated at least 1 year.



Source. 2011 AISD High School Exit Survey
* Differences between Hispanic and non-Hispanic seniors were significant at $p < .05$.

Hispanic seniors' time spent doing homework and studying outside class, and their participation in school-based, extracurricular activities, as well as their relationships with teachers seem to indicate that Hispanic seniors were less engaged in school than were non-Hispanic seniors. However, these results did not appear to influence the attitude Hispanic seniors had about school. On each of five indicators used in the High School Exit Survey to measure emotional and cognitive engagement, a significantly higher percentage of Hispanic seniors than of non-Hispanic seniors indicated being engaged.

Figure 16. On each of the five indicators used in the High School Exit Survey to measure student engagement, a significantly higher percentage of Hispanic seniors than of non-Hispanic seniors indicated being engaged in school.



Source. 2011 AISD High School Exit Survey
Note. All differences between Hispanic and non-Hispanic seniors were significant at $p < .01$.

Why is this important?

Participation in school clubs and sports is associated with higher educational expectations. In fact, a study that reviewed young people's schooling 1 year after high school found those who had participated in sports or clubs in high school completed more schooling than did those who had not participated (Fredricks & Eccles, 2006). These findings were consistent after adjusting for grades and controlling for family demographics, achievement-related motivation, and educational expectations at the end of 8th grade. Some researchers surmise that extracurricular activities are beneficial to students because they increase a sense of belonging, support autonomy, give students a sense of mastery of a skill, and provide students an opportunity to form a supportive relationship with an adult (Fredricks & Eccles, 2006; Kronholz, 2012).

School engagement is related to academic achievement. Compared with students who are not engaged, engaged students tend to earn higher grades and test scores, and have lower drop-out rates (Klem & Connell, 2004; Wang & Holcombe, 2010). It may be the case that a mix of the three types of school engagement is necessary for students to experience these positive outcomes. One study of newcomer immigrant youth found that although immigrant students had more positive attitudes toward school than did their non-immigrant peers (i.e., the situation reported here for AISD Hispanic seniors), these attitudes did not result in academic success and college enrollment (Suarez-Orozco et al., 2009). Perhaps this type of emotional engagement alone is not sufficient to produce the outcomes desired.

Recommendations

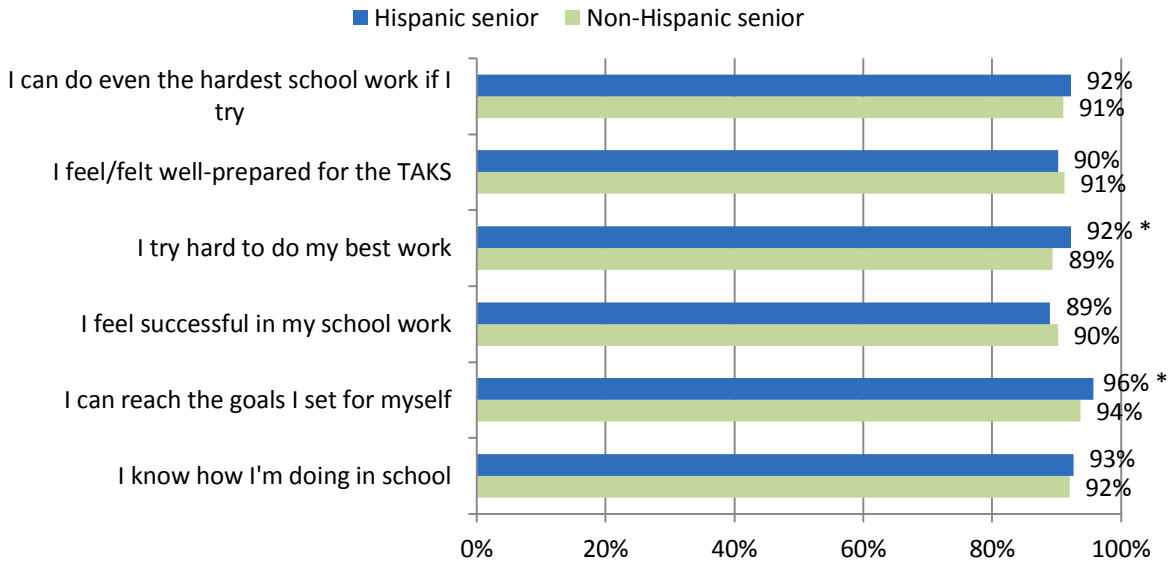
Music, theater, sports, and academic clubs were the activities in which a significantly lower percentage of Hispanic seniors than of non-Hispanic seniors participated. Efforts can be made in these areas to explore and address any obstacles that might exist to Hispanic students' participation, and then to recruit more Hispanic students. Schools and teachers seem to be doing a good job at promoting emotional and cognitive engagement among Hispanic students.

Academic Self-Confidence

Students' confidence in their academic abilities, or academic self-efficacy, has been shown to influence their actual performance (O' Mara & Marsh, 2006; "Using Positive Student Engagement," 2007). Hispanic seniors indicated having about the same or a higher level of confidence in their ability to do their high school work than did non-Hispanic seniors (Figure 17). However, when asked whether they felt prepared to do college-level work, a significantly lower percentage of Hispanic seniors than of non-Hispanics seniors felt prepared (Figure 18). This might make sense given that Hispanic seniors on average had lower GPAs than did non-Hispanic seniors. However, this relationship between Hispanic and non-Hispanic seniors' feelings of preparedness for college existed for seniors with a GPA below 3.0 and for seniors with a GPA above 3.5. A similar percentage of Hispanic and non-Hispanic seniors with GPAs between 3.0 and 3.5 felt prepared for college-level work in all subjects. These results indicate that Hispanic seniors had confidence in their academic

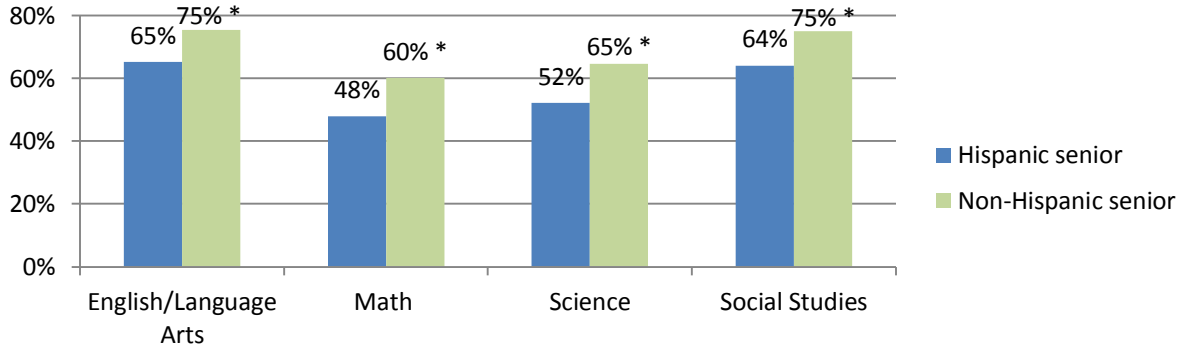
abilities in high school, but their image of what college work would be like, or their experience and knowledge about college work, led many Hispanic seniors to believe they were not prepared for it.

Figure 17. Hispanic seniors appeared to have confidence in their ability to do their high school work.



Source. 2011 High School Exit Survey
Note. TAKS refers to the Texas Assessment of Knowledge and Skills. Response options included *never*, *not a lot*, *sometimes*, *always*, and *don't know*. Percentages are of students who responded *sometimes* or *always*.
* Differences between Hispanic and non-Hispanic seniors were significant at $p < .01$

Figure 18. Hispanic seniors did not feel as prepared as did non-Hispanic seniors for college-level work in any subject.



Source. AISD 2011 High School Exit Survey
Note. Percentages are of those who responded, *I am prepared for any college-level coursework*. Other response options included: *I am not prepared for regular or college-level coursework*; *I will have to take remedial or developmental classes to prepare for college-level work*; and *I do not know if I am prepared for college-level work*.
* Differences between Hispanic and non-Hispanic seniors were significant at $p < .01$.

Why is this important?

Academic self-efficacy has been positively related to higher levels of academic achievement. Students who have confidence in their academic abilities are more likely to work harder, persist with difficult tasks, and eventually achieve at higher levels than are students who lack such confidence (Linnebrink & Pintrich, 2002; Suarez-Orozco et al., 2009). Students with positive academic self-efficacy have higher educational aspirations than do students who lack a positive academic self-efficacy, and they may be more likely to take difficult courses (e.g., advanced math courses) that prepare them for college (Bregman, 2010; Linnebrink & Pintrich, 2002). Thus, students' perceptions of their academic abilities can influence their educational goals and behavior.

Most studies of the effects of academic self-efficacy have focused on students' belief in their abilities to do their school work, not their ability to do college-level work. One study that looked at students' future educational goals found these were not affected by students' belief in their ability to do college-level work. The authors concluded students were more likely to base their goals on how they were doing academically in high school than on something unfamiliar; therefore, students' belief in their ability to do their high school work was found to be a better indicator of future educational goals (Bregman, 2010).

Recommendations

Students gain confidence in their academic abilities when their efforts and abilities are recognized, when they do not fear being embarrassed or compared with peers, and when individual mastery is emphasized over measuring up against an external benchmark (Wang & Holcombe, 2010). Teachers can foster such an environment in their classrooms. However, the emphasis on achieving high standardized test scores is unlikely to decrease, given accountability pressures, despite the harm this emphasis might be doing to students' engagement and academic self-efficacy.

CONCLUSIONS AND RECOMMENDATIONS

Several characteristics of AISD Hispanic seniors may have influenced their academic achievement and put them at a disadvantage for postsecondary enrollment. These characteristics significantly distinguished them from their non-Hispanic peers. Despite Hispanic seniors being engaged in school and confident about their academic abilities, obstacles stand in their way to access a postsecondary education, reach their academic potential, and join the workforce in positions that meet their abilities.

The school district is not in a position to influence policies that could change characteristics such as a family's economic status, parents' level of education, and immigration status. However, knowledge about these characteristics and their influence on postsecondary enrollment can inform strategies to address the enrollment issue. The following recommendations, informed by the existing research and High School Exit Survey results, work toward creating a college-going culture

at every campus at both the elementary and secondary level, and toward providing the support students and parents need to make a postsecondary education a reality.

Family Influences

1. Inform parents about the importance of their child taking advanced courses, and how doing so could improve that child's chances of becoming college ready and enrolling in college. One modest, experimental intervention, funded by the National Science Foundation, involved sending parents of high school sophomores two brochures about the importance of science, technology, engineering, and math (STEM) in daily life and for various careers. The brochures and a dedicated website with more detailed information resulted in mothers giving more importance to these courses: students whose parents received the brochures took more advanced science and math classes their last 2 years of high school than did students whose parents did not receive the brochures (Mikulak, 2012).
2. Inform counselors and teachers about the impact taking advanced math courses can have on a student's future, and encourage them to share this information with students.
3. Conduct outreach to Hispanic parents to provide information about college and application assistance in a manner that is culturally sensitive and that is effective for the parents' level of education. Include information about the benefits of attending college, what to look for in a college, how to afford college, how to afford living expenses, and enrollment processes. Do not presume knowledge about concepts such as government-guaranteed loans, grants, and scholarships. Use resources that provide suggestions about how school districts can reach and communicate with Hispanic parents more effectively, from the language used in bilingual written communications to staff development opportunity ideas (see Waterman & Harry, 2008).
    a. The district recently launched Educa Austin, a weekend, hour-long radio show on a commercial Spanish radio station, with the goal of increasing parents' engagement. This program also could be used as a vehicle for discussing parents' questions and concerns regarding college, and for sharing information about postsecondary education.
    b. Some nonprofit organizations have used house parties to disseminate information within neighborhoods. Although the strategy is labor intensive, it can reach parents who would not attend a meeting at a school. Trained volunteers can serve as facilitators. The basic idea is to have a parent invite other parents in the neighborhood to his or her house, apartment, or a meeting room in a public housing complex, for an event to discuss college, for instance. A volunteer or staff member shares food, makes a presentation in the appropriate language, and facilitates a discussion. Having the event in a familiar place and being invited by a neighbor make people more receptive to the message and more comfortable asking questions and sharing experiences, and in general, decreases anxiety. It is probably likely the same

parents would attend a future event at the school if the presenter personally invited them.

c. The district partners with the Greater Austin Chamber of Commerce to assist parents with completing financial aid forms. Some of these events are in Spanish. Although these are effective and necessary efforts, if parents are unaware of the necessary steps toward college enrollment, are unconvinced of the benefits of college, or believe college is unattainable for their child, they are unlikely to participate. Perhaps the Austin Chamber or the Hispanic Chamber of Commerce can partner with the district to develop and implement a plan to effectively disseminate information about postsecondary education to Hispanic parents.

4. Provide parents information about the tuition and fees associated with attending college, and what living expenses might be. In AISD, about half of seniors had "no idea" what the costs of community, state, and private colleges were (Pazera, 2011b). Being informed earlier (i.e., when their child is in middle school or a freshman in high school, rather than in the final years of high school) about these costs and available ways to cover them would allow parents and students to better decide whether they could afford a postsecondary education.
5. Facilitate college visits for low-income Hispanic parents. Provide translators and address other obstacles that might prevent them from attending.
6. Inform families of middle and high school students about community resources that offer the type of assistance immigrant teens might provide for their parents, especially those who are not proficient in English.
7. Inform families about financial aid and scholarship opportunities for both documented and undocumented students. The reluctance and misconceptions families may have about sharing their financial information with the government need to be understood and addressed.
8. Share information with parents about the impact their expectations can have on the academic choices and achievement of their adolescents. Informing parents about the benefits and availability of higher education might change what they imagine is possible for their child, and could help raise their expectations. Many parents may not be aware of the influence their expectations can have on their teens.
9. Investigate the reasons some Hispanic families might discourage their child from attending college, and assess the scope of the issue. Having a better understanding about these reasons would be instrumental in developing efforts to conduct outreach to Hispanic parents and address their concerns.
10. Increase efforts to share information with parents about ways to be engaged in their teen's education at home, including the types of home involvement that are most effective in encouraging higher achievement and postsecondary enrollment. Parents need to know they continue to have an influence on their children's behavior and decisions throughout high school.

11. Investigate how Hispanic families support the education of their children at home because these practices might differ from those of parents of non-Hispanic students. The 2012 High School Exit Survey included additional measures of parent involvement at home. Data analyses should be conducted to see if these measures capture the practices of Hispanic parents.
12. Include a question on the High School Exit Survey about the level of education parents expect their teens to achieve.

Postsecondary Intentions

1. Introduce the possibility of attending college to students in elementary school so that by the time students enter high school, they have already given thought and consideration to whether they want to continue their education after graduation. High school students would then understand that all their choices with regard to courses, attendance, behavior, and homework could affect their plans for the future. Students introduced to the idea of college in elementary school might feel empowered by the idea's familiarity to actively seek the postsecondary information they need. In some districts, pre-kindergarten students wear college t-shirts for a day, and elementary school students take field trips to local colleges. Inviting parents as chaperones helps introduce some parents to the idea of college for their children, perhaps for the first time.
2. Help raise Hispanic students' college aspirations. Most students make their postsecondary education plans between 8th and 10th grade, so interventions to influence their aspirations should occur by 8th grade (Choy, 2001). Teachers and administrators need to encourage Hispanic middle and high school students to set their sights as high as possible.
3. Make students aware of the low rate of bachelor degree completion for students who attend a 2-year college with the intention of transferring to a 4-year college, and how to possibly overcome the obstacles such students face.

Taking Steps to Postsecondary Education

1. During high school freshmen orientation activities, have high school seniors inform incoming freshmen about how their course and behavioral choices could affect their future opportunities.
2. Ensure all middle school students are aware of the opportunity to attend college, and know by their freshmen year what steps they need to take to get there.
    a. Have high school seniors speak to middle school students about their high school experience and how to prepare for college as high school freshmen. One question on the High School Exit Survey asked seniors what advice they would give freshmen (Pazera, 2011b). The majority of the advice seniors provided emphasized taking school seriously: focusing on schoolwork, attending classes, managing time well, and preparing for college. Research has shown the encouragement students receive from peers has the potential to influence these very behaviors (Bregman, 2010).

   b. Encourage sponsors of school clubs and athletic coaches to facilitate discussions that motivate students to work hard in school and to take advantage of existing resources to improve their grades, if applicable, and learn about postsecondary opportunities.
   c. Establish a peer-mentoring program to inform students about the steps toward postsecondary enrollment and to assist students in accessing resources. A study of such a program at a large, urban high school found that both the students receiving the mentoring and the mentors themselves benefitted (Bregman, 2010).
   d. Use advisory periods to inform students before they are juniors or seniors about the necessary steps on the road to a postsecondary education.
3. Systematically integrate postsecondary information and preparation into the middle and high school curriculum to increase opportunities for all students.
   a. Make college application essays an assignment in every 8th-grade and freshman English class, and in every English class for the following 3 years. Students can use their freshman or 8th-grade essay and revise or refine it each year. Encourage students to share their essays with their parents.
   b. Introduce students to the state financial aid application in every freshman math class. Create math assignments based on the application. Have the homework signed by a parent.
   c. Have students in economics and math classes investigate differences in income and employment rates associated with different levels of education.
4. Increase the percentage of Hispanic seniors who consult with school staff about college and careers.
   a. Provide school counselors and Project ADVANCE staff with the time and capacity to inform Hispanic freshmen and sophomores about college and career opportunities and steps to postsecondary enrollment.
   b. Ensure these staff have time to reach those Hispanic juniors and seniors who might not be inclined to visit a college and career center or take the initiative to consult with a school counselor about college or career options.
5. Have counselors and Project ADVANCE staff encourage Hispanic students to apply to more than three colleges to increase their likelihood of acceptance. The district may need to partner with community groups to investigate ways to make applying to a number of colleges affordable for low- and middle-income students.
6. Continue to monitor seniors' work status and time spent on homework and studying outside class. Inform students and parents about the relationship between studying and GPA: that studying and doing homework can make a difference academically.
7. Educate students and parents about the higher pay-off in future job earnings, and other potential benefits a student could obtain by limiting work hours to fewer than 20 hours a week

while in high school. Continue the work of the district's Child Study Teams, which currently identify students who work long hours by necessity, and help facilitate a flexible class and work schedule to meet the students' needs.

8. Have school counselors focus efforts on the students who work long hours, to explore these students' career interests and encourage them to reach beyond what currently seems possible to them for their future.
9. Investigate the non-work-related reasons Hispanic seniors, on average, spent fewer hours studying and doing homework than did non-Hispanic seniors.

Student-Teacher Relationships, School Engagement and Academic Self-Confidence

1. Increase efforts to incorporate sensitivity to cultural and economic differences into the district's curriculum and its implementation, and offer more professional development opportunities to teachers to increase their awareness of cultural differences and how to embrace these in the classroom.
2. Educate teachers about the importance of the relationships they develop with all their students. Publicize resources that offer teachers strategies for developing good relationships with their Hispanic students. The district demonstrated an understanding of the importance of giving students the opportunity to develop a close relationship with a teacher by implementing advisory periods (i.e., a class period during the school week when teachers work with the same group of students on issues not directly tied to a particular academic subject). Yet, a lower percentage of Hispanic students than of non-Hispanic students appeared to be developing close relationships with teachers. This issue is not unique to Austin. More research is needed to find the types of interventions that can effectively address this disparity.
3. Explore any obstacles that might exist to Hispanic students' participation in music, theater, sports, and academic clubs, and then actively recruit more Hispanic students into these activities.
4. Continue efforts to improve or maintain a positive school climate at each campus. A positive school climate contributes to school engagement. Overall, Hispanic seniors had positive feelings about their schools and were confident about their academic abilities regarding high school work.
5. Provide teachers with professional development opportunities for increasing the academic self-efficacy of their students.

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Austin Independent School District

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Publication Number 11.57
October 2012