An aerial photograph of a dense urban skyline, likely New York City, featuring numerous skyscrapers and high-rise buildings. The image is used as a background for the title page.

Using Guidance Counselors to Increase Enrollment of Houston High School Seniors in Postsecondary Vocational Programs

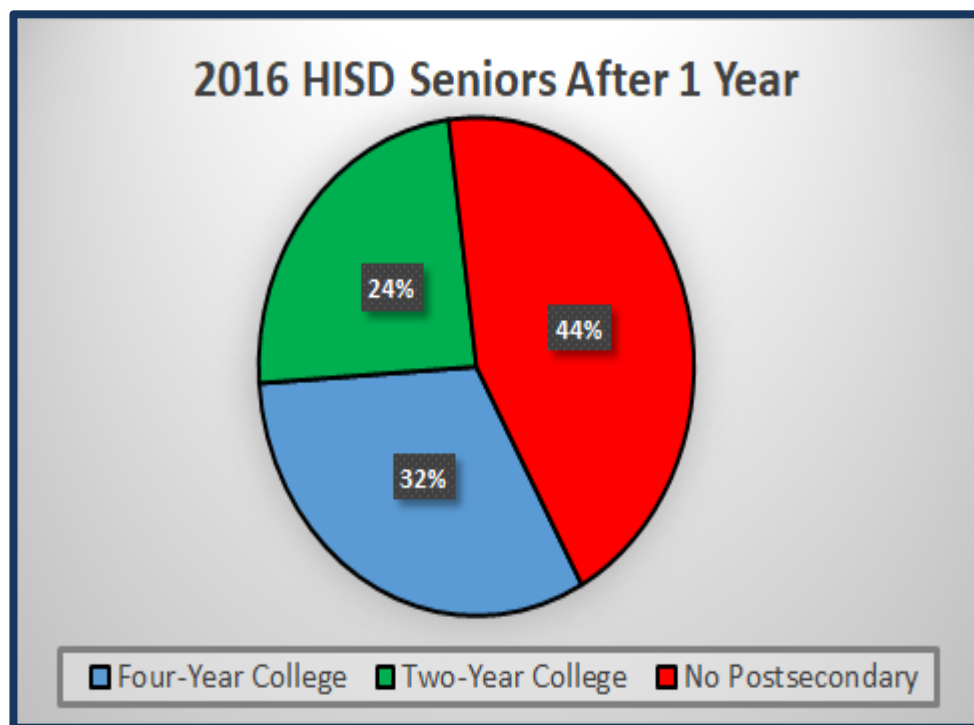
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INTRODUCTION

My older brother, José del Refugio Aviña Jr., was diagnosed with severe Attention Deficit Hyperactivity Disorder (ADHD) at the age of six and immediately placed on an intense medication regimen. That complex cocktail of chemicals did not fully serve its purpose, for José struggled mightily with concentration and focus throughout his education in the Houston Independent School District (HISD). He graduated in 2006 from Sterling High School with no plans for post-secondary education and transitioned immediately into various low-wage part-time jobs. Twelve years later, José—an amazingly quick thinker with excellent spatial reasoning skills—is still struggling with the challenges of low-wage work, where advancement is difficult without some level of post-secondary education.

There are still a lot of students like my brother in the Houston Independent School District—according to data from the National Student Clearinghouse, **44 percent** of the district’s



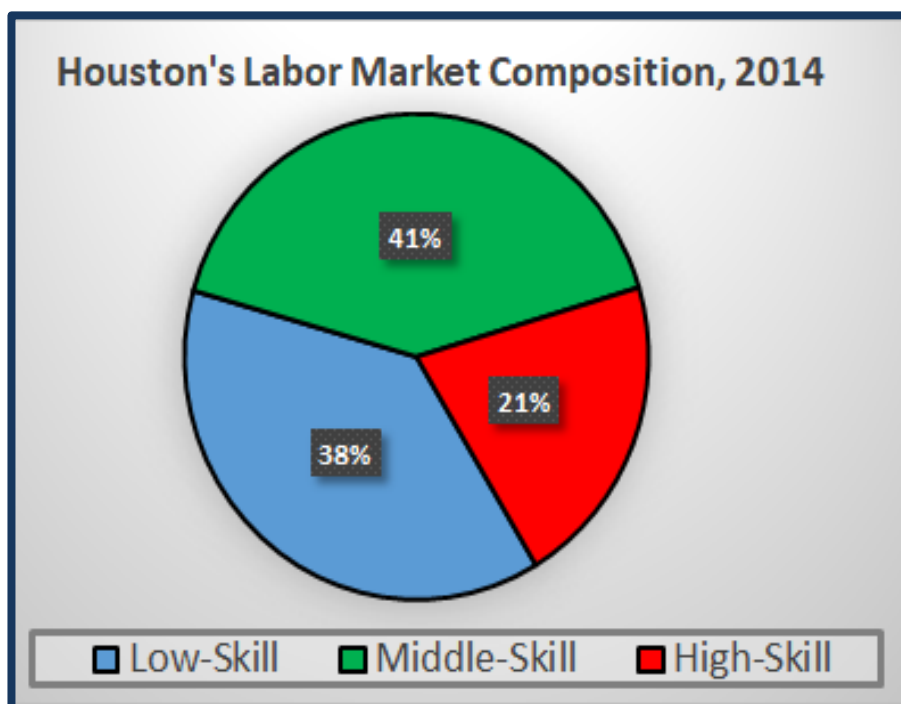
2016 graduating seniors did not enroll in *any* sort of post-secondary education (“**non-post students**”).¹ These are the students that are left out of glossy

¹ “Postsecondary Enrollment: Class of 2016,” *HISD Research and Accountability*, December 2017.

brochures boasting of rising graduation rates and flashy college acceptances, but their trajectories deserve more attention, because navigating the modern labor market without post-secondary education has become increasingly daunting. What can be done to help non-post students?

The premise of this capstone is that postsecondary vocational programs are an important alternative for non-post students for a variety of reasons. First, Houston's labor market boasts a disproportionately large amount of "middle-skill jobs" that offer livable wages, ranging from 40,000 to 80,000 dollars a year, and they only require a postsecondary vocational certificate.² Second, Houston is suffering from a "middle-skills gap," whereby employers that offer middle-

skill jobs are struggling to fill them (over 5,000 go unfilled every year), meaning that job openings are available for those who can successfully complete the required postsecondary vocational programs.³



Third, vocational programs are very affordable compared to a four-year college education.⁴

Fourth, vocational programs are shorter than two-year associate's programs or four-year bachelor programs, which reduces the opportunity cost of attending.

² "JP Morgan Skills Gap Report: Houston," *JP Morgan Chase and Co.* 2014.

³ "The Skills Gap: A National Issue That Requires a Regional Focus," Economic Modeling Specialists International, 2013.

⁴ Kochan, Thomas, David Finegold, and Paul Osterman, "Who Can Fix the 'Middle-Skills' Gap?",

Houston's middle-skills gap and the high percentage of non-post students make it clear that not enough seniors are opting for vocational programs. Thus, what can HISD do to increase students' exposure to and enrollment in vocational programs? This capstone seeks to answer that question by focusing on the most important actors of postsecondary advising in HISD: guidance counselors. These counselors were chosen as the focus of this capstone for three reasons:

1. **Budgetary shortfalls that prevent expansion of current high school-based initiatives that already expose students to postsecondary vocational programs** - HISD is suffering from a 115 million dollar budget deficit that prevents expansion of current high school initiatives, like Career and Technical Education (CTE) programs, that expose students to postsecondary vocational programs. While these programs offer better, more comprehensive exposure to postsecondary vocational programs than any other option (they start much earlier in a student's high school trajectory than the advising of counselors) they only reach, at most, approximately 20 percent of HISD's seniors⁵, and they cannot be expanded given the current budget crisis. Thus, counselors are the only employees in the *current* system that can, theoretically, reach *all* seniors with information about postsecondary vocational programs, since they are supposed to serve 100 percent of seniors.
2. **Counselors are some of the most important gatekeepers of information about post-graduation opportunities in HISD** - unlike other HISD employees, counselors receive formal training on postsecondary opportunities, and thus are best positioned to lead an effort to expose more HISD seniors to postsecondary vocational programs

Harvard Business Review, December 2012.

⁵ HISD does not publish exact data on its CTE programs, so this is a rough estimate based on the number of high schools that offer such programs and their respective student enrollments

- a. Guidance counselors play a particularly strong informational role in HISD, considering the fact that over 76 percent of its students are classified as “economically disadvantaged” and a large number of its students are immigrants (the district has 31 dual-language programs, one of the highest numbers in the country).⁶ Because of these disadvantages, HISD students are less likely to have parents who have post-secondary education experience, which means that counselors play an outsize role as adult gatekeepers of information about postsecondary opportunities.
3. **Counselors are the only HISD employees that can be quickly recruited to increase student awareness of vocational programs** - it is impossible to remedy or adjust how other adults in students’ lives are talking about postsecondary opportunities. Counselors are one of the few adult subgroups that are systematically trained and authorized to disseminate information about post-secondary options, and thus are ideal partners for any future initiative to increase student exposure to vocational programs.

HISD does not release much information about what guidance counselors do, or whether they are successful. As such, this capstone seeks to answer three broad research questions, bolded below:

1. **What does the college counseling landscape in HISD look like?**
 - a. What types of counselors are there?
 - b. How many individual seniors do counselors have to advise every year?

⁶ Terry Grier, “Enhancing HISD college readiness,” 2015.

- c. How much time are counselors able to devote to one-on-one meetings with seniors?
 - d. Do counselors carry out group meetings with seniors as well, and, if so, in what format?
 - e. Do counselors advise on different topics the first semester versus the second semester?
 - f. What types of post-secondary education opportunities are counselors talking the most about?
 - g. What common challenges do counselors encounter?
- 2. What aspects of the HISD college counseling landscape prevent counselors from advising students about vocational programs?**
- a. Does HISD encourage counselors to advise seniors about vocational programs? If so, what are the district's exact priorities?
 - b. Do counselors receive sufficient information and training about vocational programs to enable them to adequately advise seniors?
- 3. What do HISD college counselors think about postsecondary vocational programs, and how to go about improving enrollment in them?**
- a. Do HISD counselors believe that vocational programs are an appropriate option for students?
 - b. According to counselors, are there specific types of students that should be targeted for advising on vocational programs?
 - c. What support do counselors want/need from HISD so that they may better advise students about vocational programs?

The first research question, “What does the college counseling landscape in HISD look like?,” provides critical context about HISD’s college counseling landscape; it would be shortsighted to ask counselors broad questions about vocational programs without first understanding the landscape in which they operate. The second and third questions are the heart of the capstone, as the answers may shed light on better ways to engage HISD’s non-post students. The answers provided to the research questions are intended to inform future decisions about how to improve vocational program advising and, by extension, improve college advising for non-post seniors who may not be interested in the more commonly known bachelor’s and associate’s degree tracks.

This project will focus only on guidance counselors at strictly public high schools in HISD; many small charter schools, hybrid models (combined middle school and high school), and special schools (Liberty High School, for example, which serves young adult immigrants who want a diploma) are left out of the analysis because full statistics about these programs are not available. In addition, this project focuses on the advising of *seniors* because most college advising conducted by HISD counselors still takes place for the most part during students’ senior year. This is not to say that advising students earlier in their high school years should not be a priority, but rather that the capstone is trying to reflect and respond to current conditions, which are unlikely to improve given a recent spate of severe budget shortfalls.

The first section of this capstone, “Context”, provides important background about what HISD is currently doing to promote post-secondary options, what a vocational program *is*, the reasons behind why vocational programs can be valuable to non-post students, and issues that counselors nationwide often face, according to research literature. These sections are followed by the methodology section, which provides information about three different information-gathering

methods that were employed to answer the capstone's research questions: numerous phone calls to various HISD personnel, a survey of HISD counselors, and a follow-up interview with ten HISD counselors who responded to the survey. The Findings section presents the results of the phone calls, surveys, and interviews, and presents key recommendations. Finally, the Conclusions section threads together all of the information and issues a series of recommendations for a future initiative to improve HISD advising about vocational programs.

CONTEXT

What is HISD currently doing to promote post-secondary education?

HISD has two initiatives to promote post-secondary access: its College Readiness initiative and its Career Readiness initiative. All students have access to the College Readiness initiative, since its programs are implemented district-wide, while access to particular Career Readiness programs requires enrollment at particular high schools. For example, the district's Transportation and Logistics Career Readiness programs are only located at 6 out of 43 high schools.⁷

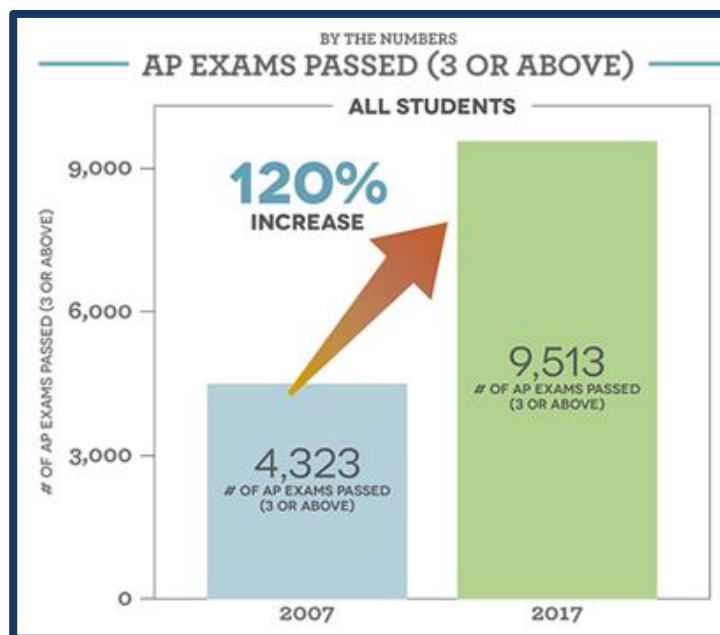
The district's College Readiness initiative seeks to improve, as the name suggests, the college readiness of its students through a wide variety of initiatives. The district, for example, offers free official SAT tests, ACT tests, and PSAT tests to every single high school junior because it recognizes that high exam costs pose a barrier to college access. These free exams have yielded dramatic increases in test participation: between 2007 and 2017, the number of HISD students taking the SAT increased by 105 percent.⁸

In addition, the district has introduced International Baccalaureate programs to 17 schools at both the middle and high school level while also introducing Advanced Placement (AP) courses into 15 high schools which had little to no AP courses in the past. HISD has followed up on this effort by also offering *free* Advanced Placement exams in almost every subject to all students who want to take them, with the interest of boosting the competitiveness of

⁷ "Career and Technical Education Programs of Study: Plan Your Path," Houston Independent School District, August 2016.

⁸ HISD National Student Clearinghouse data, December 2017

its students in the college admissions playing field.⁹ Participation in AP tests has more than doubled in the past ten years, earning HISD a 2017 induction into the College Board AP District Honor Roll, which recognizes school districts that have increased AP test participation rates while *also* increasing passing rates on those exams.¹⁰



In 2014, in the interest of expanding the scope of its College Readiness Initiative, the district also took over the EMERGE Program, founded by a 2007 Yale graduate, which seeks to increase the number of low-income, minority students who enroll and graduate from highly selective four-year colleges. I was

actually part of its inaugural cohort of EMERGE-HISD students, and the program has dramatically expanded since then, from 30 students to more than 775, drawn from over 40 high schools in the district. These students are advised about college by “Program Managers” which are technically college counselors, but they are not part of HISD’s direct payroll and as such do not count towards the district’s total counselor count.

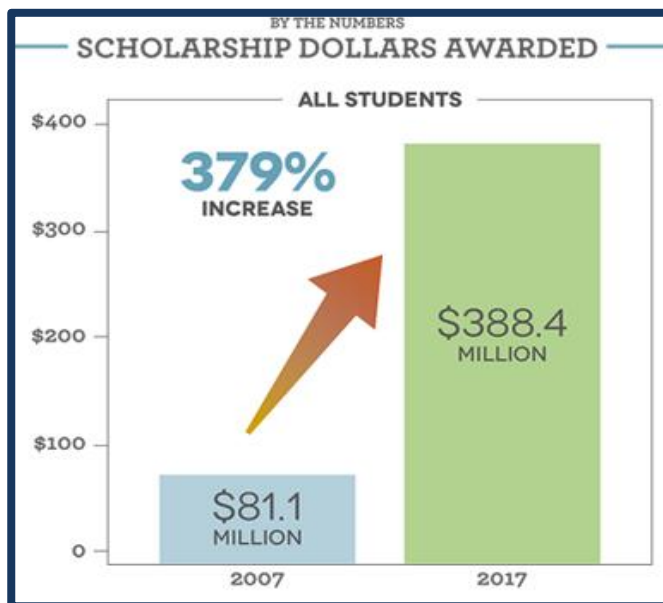
In 2015, HISD received a \$3 million dollar grant from the Houston Endowment to launch the College Success program, housed under the College Readiness initiative. The program allowed for the hiring of 28 completely new counselors, called “College Success Advisors” (CSAs), who are assigned to one or two high schools, depending on the size of the schools. The

⁹ Terry Grier, “Enhancing HISD college readiness,” 2015.

¹⁰ “HISD named to College Board’s AP District Honor Roll for gains in student access, success,” Houston Independent School District, December 12, 2017.

program is notable for its dedication to data: CSAs have to keep track of every meeting with a student, student GPA and SAT scores, applications submitted, status of financial aid filings, and scholarship award totals.

The College Readiness initiatives have resulted in some success. For example, in 2017 HISD announced that its graduating seniors won more than \$388.4 million in scholarships, an almost 379 percent increase from 2007, when graduating students earned only \$81.1 million in scholarships.¹¹ To put these numbers in perspective, the total number



of graduating seniors increased by only 24% over the same five-year span.¹² The district has also won some recognition for its efforts: in 2013, HISD became the only school district in history to win two back-to-back Broad Prizes for Urban Education. The prize is a high honor for school districts, and is “often called the Nobel Prize of school reform”; it also comes with \$550,000 in college scholarships for the winning district’s graduating seniors.¹³ In awarding the prize, the Broad Foundation noted that HISD “has the country’s highest rate of minority participation in SAT and Advanced Placement tests,” a direct result of the district’s college-readiness initiatives.¹⁴ In 2014, the Council of Great City Schools—a consortium of the largest urban

¹¹ Terry Grier, “Enhancing HISD college readiness,” 2015.

¹² “Postsecondary enrollment: Class of 2016,” *HISD Research and Accountability*, December 2017.

¹³ Patrick Michels, “Houston’s Learning Curve,” *Politico*, May 21, 2015.

¹⁴ *Ibid.*

school districts—named Houston’s superintendent, Terry Grier, its urban educator of the year, citing in part his initiatives to boost college access.¹⁵

It is important to recognize that HISD’s College Readiness initiatives mostly benefit students who may want to enter *four-year colleges* — SAT and AP exams, for example, only really benefit those who want to enter a competitive four-year college application process (or those who want to enter community college and then transfer to a four-year college). To cater to students who may not be interested in four-year colleges, the district also has a Career Readiness initiative, which bills itself as an initiative that “prepare[s] students for high-skill, high-growth occupations in the Houston region through Career and Technical Education (CTE) programming.” The district offers Career and Technical Education through two different kinds of programs.

The first program consists of exclusively high-school based CTE programming. HISD runs 16 different CTE programs at 42 different high schools in the following career fields: Agriculture, Food and Natural Resources; Architecture and Constructions; Arts and Communications; Business Management and Administration; Education and Training Services; Finance; Government and Public Administration; Health Science; Hospitality and Tourism; Human Services; Information Technology; Law, Public Safety, Corrections, and Security; Manufacturing; Marketing, Sales, and Services; STEM; Transportation, Distribution, and Logistics. These 16 CTE programs are offered at various schools across the district.

The 16 CTE programs offer exploration in over 191 career pathways, and expose students to jobs that require anything from a vocational certificate to a full-on professional, post-

¹⁵ Ibid.

baccalaureate degree.¹⁶ Unfortunately, HISD has not published any assessment of the programs and their success, other than proclaiming that over 3,417 seniors graduated with CTE exposure in 2015.¹⁷ Perhaps this is because it is hard to measure the success of the programs numerically, as some of the pathways highlighted in the programming can require education that takes over 8 years to complete.

CTE programs do offer exposure to career pathways that only require vocational programs for eligibility, such as maritime logistics, welding, and IT development. Unfortunately, HISD does not provide data as to how many students graduate from these particular programs every year, so there is no way to ascertain how successful they are.

The second Career Readiness program involves the development of “Future Academies” within existing high schools. There are 9 Futures Academies in total, and they offer students the opportunity to earn an associate’s degree by August after their senior year for *free*.¹⁸

Futures academies also allow students to earn “valuable industry certifications” and earn up to 15 college credit hours that can be applied towards eventual enrollment in a four-year college. Finally, the academies boast that they provide “access to industry mentors, field experiences, and internships.”

The academies have a two-pronged function: they serve as “preparation for high-demand career fields” and “preparation to continue on to a four-year college or university.”¹⁹ The district

¹⁶ “Career and Technical Education Programs of Study: Plan Your Path,” Houston Independent School District, August 2016.

¹⁷ Ibid.

¹⁸ The 9 academies, and their offerings, are as follows: Furr High School - **Academy of Petroleum Engineering Technology**; Jones Academy - **Academies of Allied Health & Construction Technology**; Kashmere High School - **Academy of Process Technology**; Long Academy - **Academy of Pharmacy Technology**; Scarborough High School - **Academy of Network & Computer Administration**; Sterling High School - **Academy of Logistics and Global Supply**; Washington High School - **Academy of Manufacturing Engineering Technology**; Westside High School - **Academy of Health Sciences**; Worthing High School - (academy still in development)

¹⁹ “HISD Futures Academy: Today’s Future. Tomorrow’s Workforce,” *HISD*, 2015.

does not publish enrollment data for the Academies so it is impossible to diagnose how many students the district is actually equipping with vocational degrees and certifications that will allow them to transition directly into the workforce.

The important takeaway is that **not every HISD student is being directly exposed to the possibilities of vocational programs**: College Readiness initiatives that promote four-year colleges are implemented at every high school, whereas CTE programs and Futures Academies that serve students with an interest in vocational programs are limited to a few dozen high schools. Considering that 44 percent of graduating seniors do not go on to any post-secondary education, one can argue that all students deserve to at least be exposed to vocational programs—and this capstone proposes that, in the short term, that exposure should occur through school counselors.

What is a Vocational Program?

For the purposes of this capstone, a “vocational program” is defined as any non-baccalaureate post-secondary education option that provides a credential for *direct* access to a job immediately after graduation. There are four general post-secondary options that fulfill these criteria:

1. **Short-term certificate programs**: any programs that provide highly-specialized, often hands-on instruction in a particular industry for *less than one year*
2. **Long-term certificate programs**: any programs that provide highly-specialized, often hands-on instruction in a particular industry for *one to two years*
3. **Specialized associate’s degree programs**: any programs that provide an associate’s degree that can be used for immediate transition into the workforce. Generally only Associate’s of Applied Business (A.A.B.) and Associate’s of Applied Science (A.A.S)

degrees qualify, since Associate's in Arts (A.A) degrees and Associate's in Science (A.S.) can generally only be used for a transfer to a four-year college in most cases. These typically take *two years* to complete.

4. **Apprenticeships:** any program that provides a mix of both on-the-job training (OJT) and related classroom instruction under the supervision of a craft person or trade professional. Typically, apprenticeships only exist for unionized craft jobs, and their length varies widely.

Vocational programs train students for a wide variety of occupations, including auto repair, HVAC maintenance, maritime logistics, welding, pipefitting, food services, cosmetology, healthcare, manufacturing, and IT development. Annual wages for those professions range from 25,000 dollars (mostly for cosmetology) to over 100,000 dollars for some select occupations like software development.²⁰

The first three vocational programs listed above (short- and long-term certification and associate's degree programs) are provided by two types of educational institutions: for-profit technical schools and public community colleges. Both offer the exact same credentials and certifications and studies have shown that employers do not have a strong preference as to whether a student has earned the credential from a for-profit or a public school.²¹ The striking difference between the two types of schools is cost: public community colleges are *thousands* of dollars cheaper than for-profit technical schools.²² In addition, a recent report from the Brookings Institution harnessed national data from over 800,000 students to discover that for-profit technical schools offer less valuable degrees vis-a-vis their public counterparts: students

²⁰Kochan *et al*, "Who Can Fix the 'Middle-Skills' Gap?", *Harvard Business Review*, December 2012

²¹ Stephanie Cellini, "Gainfully employed? New evidence on the earnings, employment, and debt of for-profit certificate students," *Brookings Institution*, February 9, 2018.

²² Victoria Chen, "BridgeYear Value Proposition," *BridgeYear* 2017.

who enroll in public community college vocational programs earn over \$2,100 more per year compared to their peers who graduate from similar programs at for-profit schools.²³ The report concludes that credentials from for-profit institutions are mostly useless, since “for-profit certificate students do not generate enough earnings gains to offset the debt they incur.”²⁴ Accordingly, public community colleges offer the best bang for the buck when it comes to earning a professional credential for middle-skill jobs.

In the Houston area, there are many options for students who want to enroll in vocational programs. Below is a list of some of Houston’s most popular vocational program providers, compiled using a variety of sources and reports.²⁵

Community Colleges

1. **Houston Community College** system - 19 different campuses across the Houston metropolitan region
 - a. 69,293 students
2. **Lone Star Community College** system - 6 different campuses across the northern sector of the Houston metropolitan region
 - a. 95,000 students
3. **San Jacinto Community College** system - 3 different campuses across the Houston metropolitan region
 - a. 31,000 students

Apprenticeship Programs

1. Pipefitters Local 211 - Apprenticeship in Pipefitting
2. Plumbing Local 68 - Apprenticeship in Plumbing
3. IATC of Pipefitters LV 211 - Apprenticeships in Drafting, HVAC, and Welding
4. IUPAT Finishing Trades Institute of District Council 88 - Apprenticeships in Steel Construction Work for Large Projects

²³ Cellini, “Gainfully employed?,” February 9, 2018.

²⁴ Ibid.

²⁵ BridgeYear, Vocation List, 2018.

5. Houston School of Carpentry - Apprenticeships in Carpentry, Electrical Technician work, and HVAC

Other Programs

1. Gary Job Corps Center - Career Development Services System (CDSS)
 - a. Only for low-income students who can furnish proof of income
2. SER Jobs for Progress - Certificate programs in Financial Services, Core Construction, Forklift Operation, and General Office Administration

Why are Vocational Programs the Best Option for Non-Post Students?

Vocational programs, as defined in the previous section, arguably offer the best post-secondary education for non-post students for a variety of reasons, including excessive demand in the current labor market for workers with these credentials, better earning potential, more open enrollment policies, and lower cost (both in terms of opportunity costs and direct costs). The following sections elaborate on these reasons.

Employment and Earnings Potential

A 2016 report by Georgetown University's Center on Education and the Workforce illustrates how important post-secondary education has become in the modern labor market: out of the 11.6 million *full-time* jobs created after the Great Recession, 11.5 million went to applicants who had “at least some college education on their résumés”—3.5 million went to those with “less than an associate’s degree.”²⁶ . This means that only **1 percent** of all new available full-time jobs from 2009 to 2015 went to those with a high school diploma or less.²⁷ In 2016, HISD had 4,449 seniors who did not go on to any post-secondary education; if the

²⁶ “Recovery: Job Growth and Education Requirements through 2020,” *Georgetown University Public Policy Institute*, 2014, p. 2.

²⁷ Ibid.

recovery data still holds true, only 45 of those same seniors will be able to successfully enter a full-time job in 2018.

Among post-secondary options, vocational programs offer the highest return on investment: 27 percent of people with vocational program credentials earn more than the average bachelor's degree recipient, even though bachelor's degrees are much more expensive.²⁸ Moreover, credentials in "healthcare," "manufacturing," and "natural resources" are by far the most lucrative, as they make up a substantial portion of the credentials of that aforementioned 27 percent of high-earners. Coincidentally, healthcare, manufacturing, and the oil industry also comprise the largest pool of future available jobs in the city of Houston, for the city boasts the world's largest agglomeration of medical industry (The Texas Medical Center) and one of the largest concentrations of oil-related industry in the United States.²⁹ Thus, the hometown of HISD non-post students offers some of the best returns on investment for vocational program credentials in the country.

However, the advantage of vocational program credentials does not apply to only the healthcare, oil, and construction industries. According to national data from the Bureau of Labor Statistics, students with "Some college or associate degree" in *any* field earn \$4,396 more a year than "High school graduates, no college."³⁰ A Georgetown University study found that certificate holders (*not* including associate's degrees) earn 20 percent more on average than high school graduates.³¹ These advantages also kick in with short-term education: a return-on-investment analysis found that 1 year of community college credits leads to a 5% to 8% increase in annual

²⁸ Harvard Pathways to Opportunity Program Report, p. 3.

²⁹ "Addressing Houston's Middle Skills Jobs Challenge," Greater Houston Partnership, 2014.

³⁰ Bureau of Labor Statistics, "Earning Potential by Level of Education," 2014.

³¹ "Recovery: Job Growth and Education Requirements through 2020," Georgetown University Public Policy Institute, 2014

earnings.³² All these numbers combined suggest that all vocational programs, from short-term certificates to associate's degrees, can deliver demonstrable gains in income for those who successfully complete them.

The Middle Skills Gap

A 2007 report from the Workforce Alliance in Washington DC found that over half of all unemployment in the country resided in middle-skill occupations, with “middle-skill occupations” being strictly defined as those that require more than a high school diploma, but less than a full-on bachelor's degree—they require certificates earned through vocational programs.³³ The Great Recession did not put much of a dent on those numbers, as the Bureau of Labor Statistics projected in 2012 that “roughly 45 percent of all job openings by the year 2014 will be for middle-skill workers, while high-skill job openings will be approximately 33 percent and low-skill job openings will be about 22 percent.”³⁴ Those numbers won't flag much after 2014, as suggested by a Harvard Business report that projected that “47%, of all new job openings from 2014 to 2020 will fall into the middle- skills range.”³⁵

The problem is that these middle-skills jobs require a formal vocational credential, and programs that offer those credentials have not been graduating enough students—up to 12 percent of middle-skill jobs are projected to go unfilled every year until 2020.³⁶ Exacerbating the problem is the fact that some vocational programs are dwindling. For example, over 37 percent of the nation's total apprenticeship programs disappeared between 2000 and 2010, further

³² Thomas Kane and Cecilia Rouse. “Labor-Market Returns to Two- and Four-Year College,” *The American Economic Review*, Vol. 85, No. 3 (June 1995), pp. 600-614.

³³ “America's Forgotten Middle-Skills Jobs,” Workforce Alliance, November 2007.

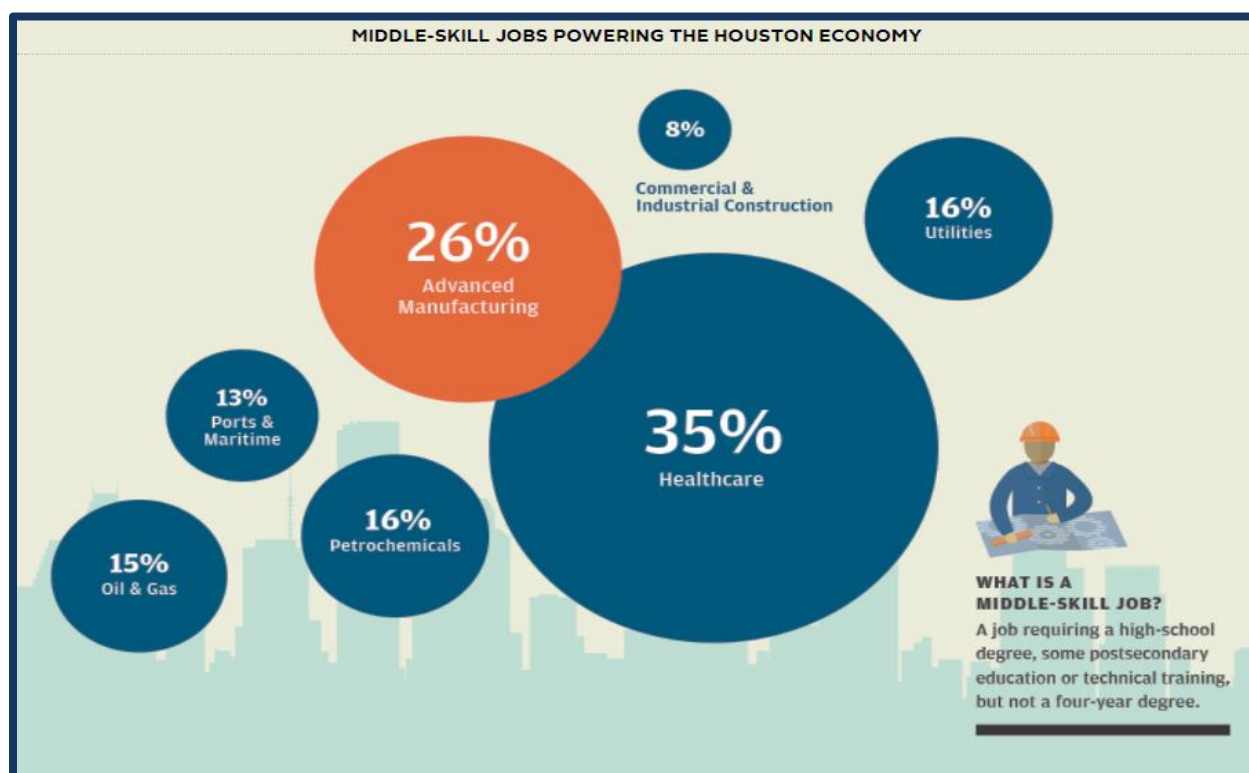
³⁴ JP Morgan Report

³⁵ Kochan *et al*, “Who Can Fix the ‘Middle-Skills’ Gap?”, *Harvard Business Review*, December 2012.

³⁶ *Ibid*.

decreasing vocational program educational opportunities for students interested in middle-skills jobs.³⁷

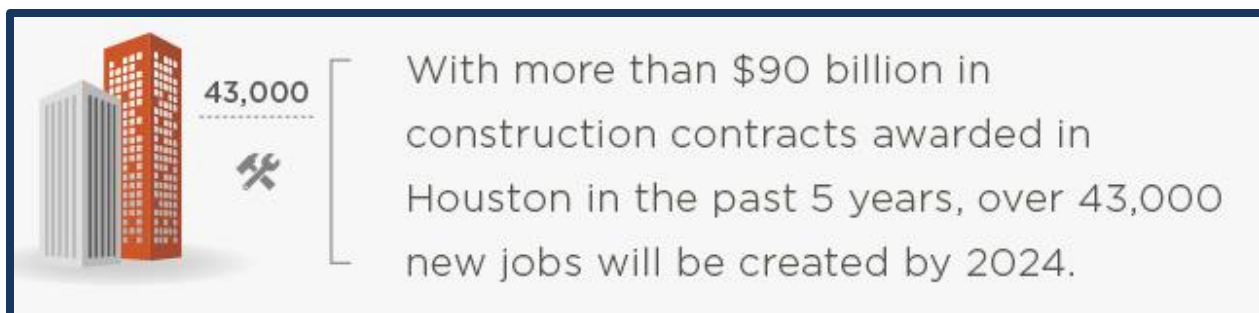
The middle-skills gap is particularly severe in Houston, where middle-skills jobs currently comprise 41 percent of the labor market: according to labor analytics firm EMSI, Houston sports the second-largest middle-skills gap in the country, right behind Washington DC.³⁸ Furthermore, approximately 74,000 middle-skill jobs will open annually in the Houston region until 2020, which, coupled with the fact that over 855,000 Houstonians do not have the vocational credentials to apply for these jobs, suggests that the gap will only continue to widen.³⁹ These middle-skill jobs are projected to pay anywhere from 40,000 dollars to 100,000 dollars, significantly more than low-skill jobs. Below are two graphics that illustrate some of the jobs and industries that have driven, and will continue to drive, the middle-skills gap:



³⁷ Ibid.

³⁸ EMSI-SkillsGap-Brief, p. 13.

³⁹ JP Morgan report



The sheer magnitude of Houston’s middle skills gap means that there is a particularly large pay-off to pursuing a vocational program in Houston: you are more likely to get a job when you graduate. Thus, the city of Houston’s problem—the fact that employers cannot find enough qualified workers to fill middle-skill positions—has the potential to become the *solution* to HISD’s problem, which is that over 44 percent of its graduating seniors are not enrolling in post-secondary education after a year out of high school. If HISD can encourage more of these students to successfully enroll in and graduate from vocational programs, the Houston middle-skills gap has the potential to close.

Open Enrollment Policies

Vocational programs are distinctive in that almost all have open enrollment policies and thus no barriers to entry. There are no minimum SAT scores or AP Subject Test scores or minimum GPA requirements, and thus these programs can accommodate anyone who has both the time and the money to invest in them.

In addition, three of the four types of vocational programs (with the exception of associate’s degree programs) *generally* do not have stringent, across-the-board remedial coursework requirements. Because these programs are so heavily job-specific, students do not typically have to fulfill requirements that should have been completed in high school, such as demonstrating minimum competency in algebra and chemistry. This is important when thinking about how to promote higher graduation rates within these programs, since general education and

remedial courses in postsecondary education settings tend to have higher attrition rates.⁴⁰

Students find it difficult to remain motivated when they are struggling with general courses that seem to have very little relevance to their future career goals. Thus, the lower traditional academic requirements of vocational programs may help increase both enrollment *and* retention, since there are fewer barriers to entry and fewer obstacles once students are enrolled.

Lower Costs

Vocational programs have two distinct advantages in terms of costs. First, their sticker price, especially those housed at public community programs, is much lower than other comparable post-secondary education options, especially when compared to four-year colleges. For in-district students, vocational programs can be very affordable. The cost calculators of Houston's three major public community college systems reveal the average cost of in-district tuition for 15 credit hours (the average amount of credit hours generally needed for certificate programs) per semester at each type of college:

Houston Community College	\$1015
Lone Star Community College	\$992
San Jacinto Community College	\$900

This means that tuition for an HISD senior for a full year vocational program at a community college will cost, at most, 2,030 dollars, a relatively low cost, especially compared to four-year colleges. In addition, 76 percent of HISD students are eligible for federal Pell Grants.⁴¹ This means that up to 76 percent of HISD's student body could potentially access the full federal Pell Grant, which is currently 5,920 dollars for the 2017-2018 school year. All three

⁴⁰ Schneider, 2006

⁴¹ HISD Facts and Figures, 2016-2017.

community college systems in Houston accept the federal Pell Grant for their vocational programs, which means that many of HISD's non-post students could fully pay for community college vocational program tuition with their Pell Grant, and still have almost 4,000 dollars left over to pay for other expenses, such as books, required materials, transportation, and living expenses.

Some vocational programs, such as apprenticeships, even *pay* students instead of charging them. For example, the Houston Pipefitters Union, local 211, offers apprenticeships to high school graduates that pay students an initial wage of 14 dollars an hour to work with construction crews in the city.⁴² As the students learn the trade, they move up the scale of rankings; “journeyman” pipefitters with years of experience can pull in close to six-figure salaries on more lucrative construction projects.

Vocational programs also pose a lower opportunity cost in terms of lost time than other comparable programs because they take less time to complete, especially the shorter certificate programs. For many non-post students, many of whom choose not to enroll in post-secondary education because of an immediate, pressing need to provide for families,⁴³ the lower time needed to complete the programs represents a real advantage.

What Issues do Counselors face in Advising Students?

The sections above offer clear evidence of the exciting possibilities that exist for HISD non-post students, able and willing to pursue postsecondary vocational training immediately after high school. But to do so, students have to *know* about the potential benefits of these types of training. In HISD, that sort of knowledge is primarily imparted by counselors. This section provides a brief overview of challenges and trends that affect high school counselors across the

⁴² Interview with one CSA at comprehensive high school

⁴³ Report on the 12 percent

nation, so that one can at least gain some sense of what counselors in HISD may be facing in terms of challenges.

The literature suggests that guidance counselors across the nation are having trouble advising students about their college options. A Public Agenda survey of 600 high school students nationwide, for example, found that over 50 percent of students reported feeling like “just another face in the crowd” in regards to accessing college advising.⁴⁴ 67 percent of respondents noted that their guidance counselors did only a “fair” or “poor” job of helping them pick a college. When it came to helping them “think about different kinds of careers,” 62 percent of responded the same way.⁴⁵ Even more troublingly, an in-depth, interview-based study of 63 guidance counselors in Southern California (which has demographics that closely mirror those of Houston, especially in regards to Latino students) finds that “the least available and least college-informed counselors are in schools that serve large numbers of underrepresented minority and low–socioeconomic status students and their families.”⁴⁶ This statistic is concerning, because low-income students stand to benefit the *most* from quality advising around vocational programs.

Why do guidance counselors suffer from such negative perceptions and why do guidance counselors often fail to adequately advise all students? One of the most pressing and widespread causes of inadequate college advising is understaffing: student-to-counselor ratios are absurdly high in many school districts across the country, with school districts reporting an average 478-to-1 student-to-counselor ratio.⁴⁷ Even more concerning is the fact that those average figures are skewed artificially low, since they include rural districts that tend to have less students. To get a

⁴⁴ “Can I Get a Little Advice Here? How an Overstretched High School Guidance System Is Undermining Students’ College Aspirations,” Public Agenda, 2010.

⁴⁵ Ibid.

⁴⁶ McDonough and Calderone, “The Meaning of Money: Perceptual Differences Between College Counselors and Low-Income Families About College Costs and Financial Aid. *American Behavioral Scientist*,” August 2006.

⁴⁷ Laura Perna, “The Role of College Counseling in Shaping College Opportunity: Variations Across High Schools,” *The Review of Higher Education*, Vol. 31, No. 2 (2008): 131-159.

sense of how high the ratios may be in *urban* school districts, it is useful to note that as recently as 2012, the Houston Independent School District was reporting a 1,800-to-1 counselor-to-student ratio, although that ratio has since been lowered through the hiring of more than 28 new counselors.⁴⁸ It is simply unreasonable to expect one counselor to advise 1,800 students through the convoluted college application process, when the American School Counselor Association recommends a ratio of 250-to-1. Even more concerning is the fact that many high schools do not even have a counselor: A 2014 report from the U.S. Education Department's Office of Civil Rights found that one in five high schools has no guidance counselor.⁴⁹

The second impediment that counselors face exacerbates the problem of understaffing: counselors are asked to provide non-advising functions like test proctoring, detention supervision, and hallway monitoring because of teacher and administrative understaffing issues.⁵⁰ These non-advising functions consume a very large amount of time: a recent survey by the National Association for College Admission Counseling revealed that while counselors at private schools spend 55 percent of their time on college counseling, public-school counselors can devote only 22 percent of their time to doing so.⁵¹ Finally, a third factor that leads to inadequate counseling is a lack of professional development. Counselors report that they do not receive enough professional development, and that this dearth of preparation prevents them from keeping abreast of all aspects of college advising.⁵² More than half of counselors reported in

⁴⁸ Downing, "HISD's College Success Program Uncovered Inequities and Is Changing the Status Quo," Houston Press.

⁴⁹ Cited in "A National Look at the High School Counseling Office What Is It Doing and What Role Can It Play in Facilitating Students' Paths to College?"

⁵⁰ Perna, "The Role of College Counseling."

⁵¹ Alexandria Walton Radford, Nicole Ifill, and Terry Lew, "A National Look at the High School Counseling Office: What Is It Doing and What Role Can It Play in Facilitating Students' Paths to College?", *National Association for College Admissions Counseling*, 2015.

⁵² Ibid.

2012 that they felt only “moderately well trained”, and more than a quarter reported that their training did not prepare them at all.⁵³

Nonetheless, counselors are arguably the most important enablers of post-secondary education success for students. A researcher on college counseling sums it up this way: “Within schools, no professional is more important to improving college enrollments than counselors.”⁵⁴ In the following section, I present the methods I used to answer my three research questions about HISD’s most important professionals in “improving college enrollments:”

1. What does the college counseling landscape in HISD look like?
2. What aspects of the HISD college counseling landscape prevent counselors from advising students about vocational programs?
3. What do HISD college counselors think about postsecondary vocational programs, and how to go about improving enrollment in them?

⁵³ Radford *et al.*, “A National Look at the High School Counseling Office,” 2015.

⁵⁴ McDonough, 2015.

METHODOLOGY

This capstone employed three different information-gathering methods to generate substantive findings: five phone calls, one survey with 43 responses, and a series of ten interviews.

The phone calls, conducted with three HISD employees,⁵⁵ allowed me to develop an understanding of the college advising landscape. From these conversations, I learned that there are four types of counselors in HISD:

1. General guidance counselor
2. College Success Advisor
3. College Access Coordinator
4. Advise Texas Fellow

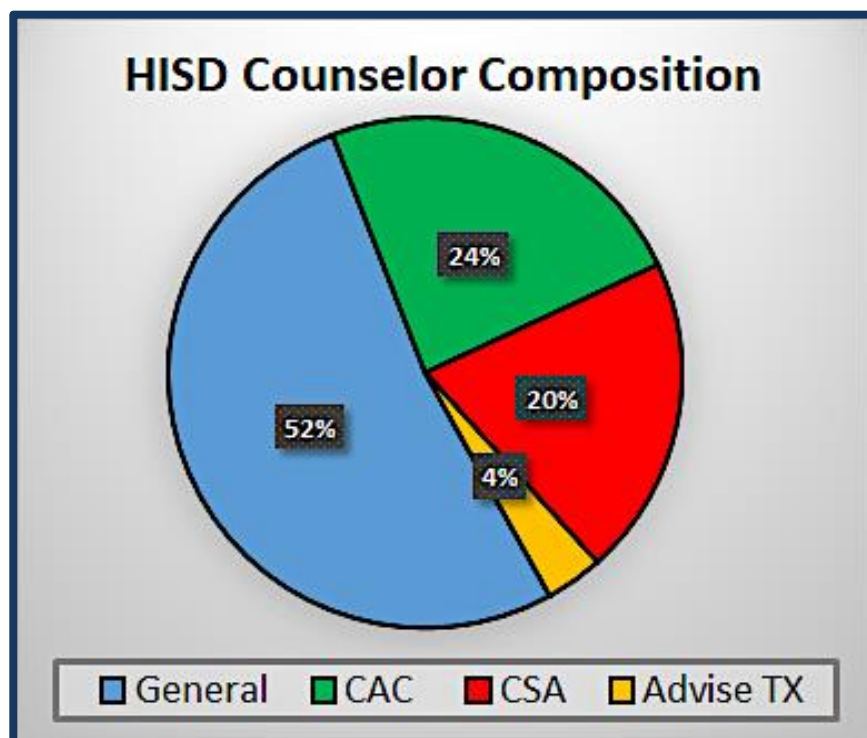
HISD does not have data on the exact quantities of each type of counselor. Part of the reason is turnover and constant movement: counselors often switch between high schools, or take on roles with different names, which makes it difficult to track numbers. However, HISD did provide me with a spreadsheet that was sent to high schools during the 2016-2017 school year. High schools fill out the spreadsheet on their own, giving the district a better picture of what types of counselors reside at which schools. Unfortunately, because the data is self-reported, there are a few errors, but this spreadsheet is the best resource available to predict HISD counselor counts.

⁵⁵ The people I spoke to: **Dr. Darrin Hanson**, Director of Research and Program Evaluation for HISD College Success; **Autumn Boyd**, Senior Manager for HISD College Success; and **Victoria Chen**, current Co-Director of BridgeYear, a non-profit that seeks to improve enrollment and graduation from vocational programs, and a former counselor with both Sharpstown High School and the HISD-EMERGE program

I removed non-traditional high schools (those that serve 6th through 12th grade) from the spreadsheet because they are outside the scope of my project. A screenshot of the organized spreadsheet is in Appendix A.

I used Excel sorting and statistics tools to calculate HISD counselor counts:

- **72** General counselors
- **33** College Access Coordinators (CAC)
- **28** College Success Advisors (CSA)
- **5** Advise TX Fellows



This means there are a total of **138** counselors in HISD. Because HISD does not provide any official data on student-to-counselor ratios, I decided to calculate three different student-to-counselor ratios by using counselor counts and 2015-2016 HISD high school student enrollment data (it is the most recent data available); these ratios, and their implications, are explored in the Findings section.

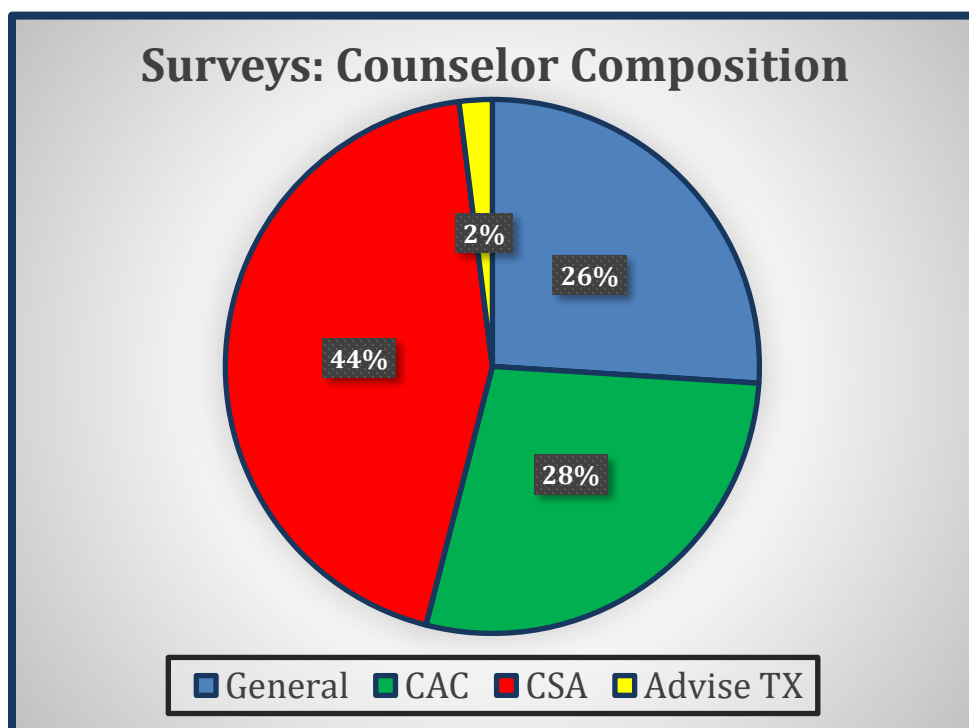
I developed a Google Forms online survey with five questions that would allow me to get a better sense of what counselors thought about vocational programs, how counselors currently

go about promoting vocational programs, and what challenges counselors face in their profession (a copy of the Google Forms survey is available in Appendix B). Dr. Jharrett Bryantt, the Director of the HISD College Readiness Department, agreed to send out the survey to **92** counselors for whom he had email addresses. Those sent the survey included all Advise Texas Fellows, all College Success Advisors and most College Access Coordinators. It is important to note a major limitation of the survey: it did NOT reach all of HISD's 138 counselors, especially a lot of general counselors. According to Dr. Bryantt, he does not have access to many of these counselors' email addresses because many are employed part-time by the schools themselves, which means that the district has no contact with them. In addition, Dr. Bryantt believes that many of the general counselors that were excluded from the sample are focused on psychological counseling, not college advising—his department deals with College Readiness, after all. I tried to contact the HISD Director of the Counseling and Student Support Department to see if I could possibly sample those counselors that were missing from this first sample, but I never received a successful response.

I received a total of **43** responses to the survey, representing a **47 percent** response rate. In particular, I received responses from 1 Advise TX Fellow, 12 College Access Coordinators, 19 College Success Advisors, and 11 General Guidance Counselors.

The survey respondents do not perfectly reflect the composition of HISD counselors as a whole: CSAs are over-represented, and general guidance counselors are under-represented. As noted earlier, this may have to do with the fact that general guidance counselors were under-represented in the population that received the surveys in the first place. These discrepancies do *not* render the data useless, because the general counselors that were excluded from the original sample tend to focus on psychological and support counseling, not college advising for seniors.

If anything, the survey simply has an over-representation of HISD counselors that focus mostly on college advising.

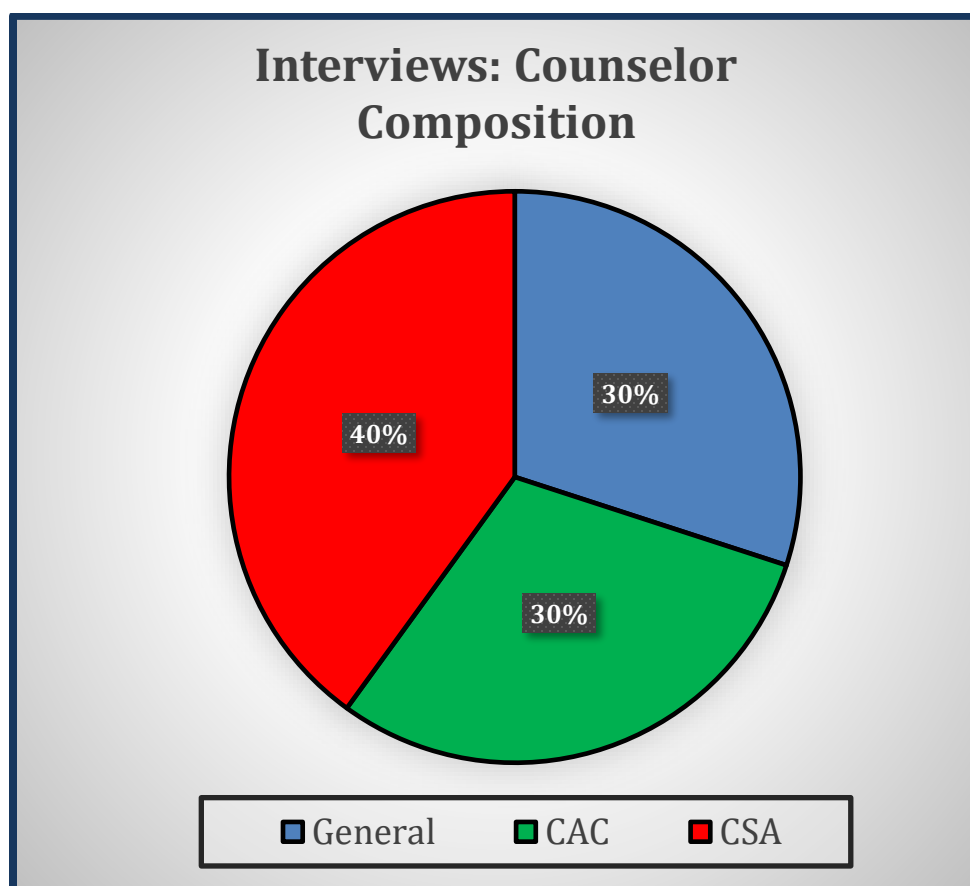


The last question of the survey asked respondents to put down their phone number and their respective high school if they were interested in sitting for a short,

informal interview. This question received a total of 18 respondents, representing **42 percent** of survey respondents. I wanted to interview ten counselors, so I used two metrics to determine whether or not to select an interviewee: what type of counselor are they, and what high school(s) do they serve? I ended up picking a total of 10 counselors to interview, which represented three types of counselors (4 CSAs, 4 CACs, and 3 General Counselors) and nine different high schools, which ranged in size from 400 to 3,100 students. The nine high schools represented also vary widely in performance: 2 have been designated “Needs Improvement” schools by the Texas Education Agency (TEA), 7 have been designated “Proficient” by the TEA, and 1 high school is consistently ranked among the top 100 high schools in the United States by U.S. News and World Report.⁵⁶ I wanted, and achieved, diversity in both counselor type and high schools

⁵⁶ 2016 US News and World Report, <https://www.usnews.com/best-colleges>

served. I did not interview an Advise Texas Fellow because the single Fellow that filled out a survey did not volunteer for an interview.



The goal of the interviews was to develop a deeper understanding of the answers that were presented in the survey. To achieve this goal, I asked counselors six general questions that were open-ended to avoid biased or overly narrow answers:

1. What do you do as a college counselor during the first semester versus the second semester?
2. What are your strategies for reaching out to all students?
3. Have you ever received formal training or professional development about advising students on vocational programs?

4. How much of your time do you spend with students who do not want to, or cannot, attend a four-year college or a community college for the sake of transferring to a four year?

What do you do to advise these students?

5. How should HISD go about increasing access to vocational programs?
6. How should HISD go about increasing access to vocational programs, and what role should you play in that effort?

To conduct the interviews, I flew back down to Houston and visited 9 counselors at their respective high schools; one counselor was out of town so I interviewed that person over the phone. All interviews were conducted in full accordance with Institutional Review Board (IRB) requirements for confidentiality. All interviews were recorded, transcribed and coded to look for common patterns.

FINDINGS

This section is organized around the three guiding research questions of this project that were presented in the Introduction.

What does the college counseling landscape in HISD look like?

To put it in the words of HISD’s Director of Data Evaluation, the landscape of high school college advising in HISD is “complicated.” First of all, there are generally two different types of high schools: *comprehensive high schools*, which offer guaranteed enrollment to all students within their catchment zones, and *non-comprehensive high schools*, which require students to apply for admission through a lottery. There are a total of **23 comprehensive high schools** and a total of **19 non-comprehensive high schools**. Comprehensive high schools, because they accept everyone in their catchment zone, tend to contain a larger number of students.

As explained in the methodology, there are generally four different types of “high school guidance counselors” in HISD: general counselors, College Access Coordinators, College Success Advisors, and Advise Texas Fellows. General counselors do not have an official title, because their functions vary widely depending on the needs of their schools. At some schools, especially at large comprehensive high schools with lots of students, they focus almost exclusively on psychological and emotional counseling. At others, especially the selective non-comprehensive high schools, they often concentrate heavily on college access. At many schools, general counselors occasionally function as an extension of the administration, providing test proctoring, detention supervision, course scheduling and hallway monitoring. The important

takeaway is that general guidance counselors' primary or exclusive role is *not* solely college advising.

That being said, the other three types of “counselors” are supposed to dedicate themselves exclusively to college advising. College Success Advisors (**CSAs**), who were brought into HISD in 2015 through a Houston Endowment 3 million dollar donation, focus exclusively on college advising. They work directly for the district and are “distributed to campuses based on targeted subpopulations underrepresented in college enrollment.”⁵⁷ CSAs work either exclusively on one campus, in the case of larger high schools, or they split their time between two campuses, generally in the case of smaller high schools. At least in theory, schools are not supposed to ask CSAs to perform other tasks that may distract them from college advising, especially since they are technically under the supervision of the district, not individual schools. College Access Coordinators (**CACs**) work directly for the high schools they are placed at, which means that high schools have the ability to ask them to perform non-college advising tasks. Finally, there are 5 Advise Texas (referred to as **Advise TX**) Fellows, recent graduates from Texas A&M University who work in the most high-need high schools in the district. The Fellows are not paid by HISD directly, but rather by the Advise Texas program. According to Dr. Hanson, there are 40 Advise TX Fellows across the state of Texas in high-need, urban schools.

Using the spreadsheet in Appendix B, I calculated three different student-to-counselor ratios for **38 HISD high schools**: the **senior to college-focused counselor ratio**, which takes the total number of graduating seniors and divides by total number of college-focused counselors (those that are supposed to focus only on college: College Success Advisors, College Access

⁵⁷ Bryantt, Jharrett, “A Dream Deferred: Increasing College Access in HISD,” 2015.

Coordinators, and Advise Texas Fellows); the **senior to counselor ratio**, which divides the total number of graduating seniors by total number of counselors (aka all college-focused counselors + general counselors); and the **high school student to general counselor ratio**, which takes the total number of high school students and divides by the total number of *general* counselors.

Those results are presented below:

	Senior to college-focused counselor ratio	Senior to counselor ratio	High school student to general counselor ratio
Largest Value	422-to-1	157-to-1	1460-to-1
Median Value	142-to-1	54-to-1	482-to-1
Average Value	166-to-1	64-to-1	592-to-1
Relation to Recommended Ratio (250-to-1)	8 high schools have a ratio above 250	0 high schools have a ratio above 250	35 high schools have a ratio above 250

The **senior to college-focused counselor ratio** is in most respects the *best* measure of the capacity of HISD to deliver college advising, because every counselor included in the calculation is supposed to focus exclusively on college advising for seniors, unlike general counselors, who have larger variety of tasks. The ratio reveals that there are, on average, 166 seniors for every college-focused counselor in the district, which falls below the 250-to-1 ratio recommended by the American School Counselor Association for quality advising. This suggests that, broadly speaking, **HISD schools have the *capacity* to deliver quality college advising to every single high school senior.**

However, there are 8 high schools (approximately 21 percent of all high schools) that have a senior to college-focused counselor ratio that is higher than recommended—does this indicate that these schools cannot deliver quality college advising? The answer is not a simple “yes” because a deeper dive into the statistics of those 8 schools reveals that 4 of them are small schools, containing less than 196 total seniors. One of them, DeBakey High School, has a class of only 183 seniors, and sent the highest proportion of students to college of any high school in HISD in 2016.⁵⁸ This points to a small problem with the senior to college-focused counselor ratio: it does not account for the college advising that general counselors perform.

Thus, I also calculated a **senior to counselor ratio** to get an estimate of how large caseloads would be if all general counselors focused on college advising. The average senior to counselor ratio is only 64-to-1 and not a single high school has a senior to counselor ratio that is higher than 250. Thus, in an ideal world where general counselors only focus on college advising, caseloads would be extraordinarily moderate. However, the reality lies somewhere in the middle: there are some general counselors that perform college advising, such as at DeBakey High School, but there are some that do hardly any college advising.⁵⁹ These first two ratios are promising because they indicate that HISD already has enough counselors to potentially provide quality college advising to every single senior.

The last ratio, the **high school student to general counselor ratio**, takes *all* high school students, 9th through 12th grade, and divides them by the number of general counselors. This allows the ratio to function as a reflection of the district’s capacity to deliver non-college-related counseling, such as psychological support and therapy. To clarify, only general counselors can provide non-college-related counseling; the other three types of counselors cannot, because they

⁵⁸ “Postsecondary enrollment: Class of 2016,” *HISD Research and Accountability*, December 2017.

⁵⁹ Conversations with Dr. Hanson and Dr. Boyd

do not receive training for it.⁶⁰ Also, all high school students were included in the calculation because all of them can suffer from problems that require non-college related counseling. The average ratio, 592-to-1, is very high, indicating a very high need for more counselors to provide non-college related counseling.

In sum, the three ratios provide an overview of various counselor caseloads in HISD and suggest two key conclusions:

1. Theoretically, HISD currently has enough counselors to provide quality college advising to every senior (of course, this is assuming that counselors could devote *all* their time to college advising, which is not the case)
 - a. **Thus, one cannot argue that it is impossible to advise more students, since the numbers indicate that, with the right support, HISD counselors could reach all seniors**
2. HISD currently does *not* have enough counselors to administer quality non-college related counseling to all its high school students.

Part of the goal of this capstone is to simply develop a better understanding of what counselors are doing day to day. Accordingly, all ten interviewees were asked to lay out what they do throughout the school year, and whether they shift gears after the first semester of the school year to focus on new tasks the second semester, through the open-ended interview question “What do you do as a college counselor during the first semester versus the second semester?” Some commonalities emerged across all ten interviewees, along with differences rooted in the type of student population being served.

⁶⁰ Ibid.

100 percent of interviewees indicated that the first semester of every school year is focused heavily on four-year college applications and improving standardized test scores that enhance chances of admission to four-year colleges. All counselors provided similar reasoning: four-year-college deadlines occur earlier in the school year, and thus need to be addressed early on. It is noteworthy that not a single counselor answered that they focus on vocational programs or community colleges when asked the broad question.

All interviewees spoke about practices that they use to carry out this portion of their advising: 6 out of 10 noted that the first thing they do is meet with as many students one-on-one to “see where heads are at and what test scores look like.” Counselors work with different types of students on this advising: 2 out of 10 noted that they focus on “top 10 percent,” 2 out of 10 noted that they focus on the “top 25 percent” or the “top quartile” of seniors, and 6 out of 10 did not specify a particular kind of student that they advise during this semester, saying that they focus on any student that expresses a desire to attend a four-year college.

What’s interesting is that the interviewees had very different answers to the question of what happens during the second semester. One counselor, who has worked over the course of 3 years at one low-performing high school “on the verge of being closed” and one high-performing high school that is “so good, rich parents send their kids here,” explained that “My experiences have been so different second semester at each school because they’re like on totally different ends of the spectrum.” At the low-performing school, the counselor explained that “if you are below like the top 25 percent of the class, you can’t even get into a Texas public four-year. Your GPA is like 2.5 at that point.” Because of this limitation, the counselor focuses heavily on getting students to apply to community colleges, most of which do not have GPA requirements. In addition, the counselor arranges for students to go retake SAT and ACT exams, in the hope that

increases in the scores can increase the attractiveness of those students for Texas four-year colleges with lower academic requirements (e.g. Texas A&M Prairie View). Importantly, the counselor points out that he did not push seniors to enroll in vocational programs because he knew little about them. At the high-performing school, the counselor explained that he spends the bulk of his second semester working on helping students with various aspects of financial aid for four-year colleges: CSS Profiles, FAFSAs, and applications to private scholarships like the Jack Kent Cooke Scholarship.

Many counselors expressed other kinds of second semester activities. One counselor notes that he reserves the second semester for “those bottom kids, you know, that say they want to go to college, but they haven’t had that conversation of where you stand right now.” During the second semester, this counselor requires every senior who has not applied to four-year colleges to submit at the very least one application to Houston Community College (HCC) “because they have to have a foot in the door, at least. Because then, they graduate and are working a year later and they hate it, look around, and say, ‘Damn, I should have listened.’” In line with this mode of thinking, 3 other interviewees also admitted that they require all students to fill out at least one HCC application during the second semester.

However, there is one common challenge during the second semester that all 10 counselors identified in their interviews: the struggle to get FAFSAs verified. While counselors, as noted earlier, spend varying levels of their time on financial aid second semester, all recounted the difficulty of getting FAFSAs successfully filed. There are two common problems: 9 out of 10 interviewees identified difficulties with abnormal family structures or parent recalcitrance, and 5 out of 10 identified difficulties with undocumented parents. One counselor gave a good example of the first challenge:

“That one kid you saw me talking to when you came in, she is having a really hard time with her dad, because he doesn’t want to release his income tax information. She asked me if I could speak to him and I said ‘sure’...So I spoke to the dad, and he was hesitant, but when I explained the benefits of what I was doing to help his daughter go to college and get money to pay for the tuition. And he said, ‘oh this is something i really need to do for my daughter.’ So he changed his way of thinking pretty quick, which doesn’t happen a lot. In his situation he hasn’t filed his taxes for several years. But now he is going to make it a point to go and start gathering the information because his daughter is graduating this year. So what happens in a situation like that? Who ends up hurting? The child, the student because when the parents don’t release that information it’s really hard because the student misses out.” 2 other counselors talked about the challenge of unusual family structures: one noted that “divorce makes the FAFSA a mess” while the other said that “students with grandmas as the parents can be difficult to process sometimes.”

Another counselor gave an example of the second challenge: “this kid, really bright and all that, has a dad who is undocumented, and he hasn’t filed his income taxes in a couple of years. I have been struggling a lot to get her FAFSA verified, because not having the income taxes makes it so hard.” While counselors report varying degrees of difficulty and frequency, all agree that FAFSA verification is a common challenge of the second semester.

Another question that was posed in the interviews was “What are your strategies for reaching out to all students?” All 10 counselors noted that they conducted one-to-one consultations with students. In addition, 8 out of 10 counselors attested to some practicing some form of group advising, where many students are spoken to at the same time. Despite these commonalities, many interesting differences emerged in regards to *how* counselors conduct these consultations.

All four College Success Advisors explained that they have a “target list” of students, comprised of the second and third quartile of seniors in a given class, and that they are required to go out and “pull out” all those students who do not come into their office after a certain number of weeks and meet with those students one-to-one to figure out postsecondary goals and progress towards those goals. HISD defines second and third quartile in two ways: SAT scores and GPA. Thus, according to one counselor, a student with a 3.0 GPA and 900 SAT is on the target list just as much as the student with a 2.5 GPA and 1200 SAT. HISD focuses on these middle quartiles under the belief that the students in them “know they need to be doing stuff to prepare for college, but just haven’t done so.” These are students who have a shot at entering college, but who may not apply unless they are “nudged into applying.”

None of the 3 general counselors interviewed admitted to any sort of “pulling out” or direct outreach. All 3 general counselors that were interviewed worked in a “College Office” and generally reached out directly to students who had not come in after a long time. However, they did not resort to “pulling out” students; they would simply wait for them to come into the office on their own volition.

College Access Coordinators do not have target lists, but they do tend to be proactive in approaching students for one-to-one meetings: 2 out of the 3 CACs interviewed explained that they sometimes go to classrooms to pull out students who have never come into their offices. 1 out of these 2 CACs also clarified that they only pull out students who are “in the top 50 percent and have good GPAs...because you can’t get into any public four-year without that.”

In sum, 6 out of 10 counselors interviewed resort to going into classrooms and “pulling out” students that have never come into their offices. 4 do it because of target lists, and the 2

CACs do it more sporadically based on particular students that they believe could benefit from a one-to-one session.

8 out of 10 counselors use whole-group advising strategies, and report varying levels of success. 5 out of these 8 use presentations in English classrooms as way of reaching more students. They opt for English classrooms because “all seniors in Texas have to take English.” At the beginning of the year, these 5 counselors only use a few minutes of the English class period, to introduce themselves and the location of their offices. During second semester, they often ask for one or two whole class periods to provide instructions on how to use various college application platforms and apply for financial aid. All 5 reported success with these endeavors “success” being defined here as the ability to get students to complete tasks related to postsecondary access, such as successfully opening a Common App account or a Naviance account (a platform that HISD pays for that allows students to organize all their postsecondary planning).

The other 3 out of 8 reported using other kinds of whole-group advising. 2 admitted to using “senior assemblies” as a platform for addressing various deadlines related to postsecondary access. “To be honest, I don’t really know if it’s successful, but at least they see me and know where the office is,” one confessed. 2 others used field trips to connect with students: one counselor took two field trips to San Jacinto College’s Maritime Technology Institute and HCC’s new Nursing Assistant program, and the other one took 15 students on a field trip to San Jacinto College’s new Petrochemical Works complex.

Another question that I posed was “How much of your time do you spend with students who do not want to, or cannot, attend a four-year college or a community college for the sake of transferring to a four year? What do you do to advise these students?” Predictions of how much

time each counselor spent with this type of student varied. 2 counselors reported spending no more than “10 percent” of their time on these students; 1 counselor reported “I guess about 20 percent”; 6 reported spending “about 25 percent” of their time on these students; and 1 counselor reported spending “maybe 40 percent” of his time on these students. Altogether, this suggests that HISD counselors are spending no more than, on average, 24 percent of their time helping students who can benefit from vocational programs.

Key Statistics:

- 100 percent of interviewees agree that the focus during the first semester is four year college applications
- 100 percent attested to difficulties with FAFSA verification
- 40 percent of interviewees require all students to file at least one HCC application
- 60 percent of interviewees pull students out from classrooms
- 80 percent of interviewees present to groups of students, not just one-on-one meetings
 - 40 percent of interviewees present in individual English classrooms
 - 20 percent of interviewees have conducted field trips
 - 20 percent of interviewees have presented at “senior assemblies”

Are there any aspects of the college counseling landscape that prevent counselors from advising students about vocational programs?

One goal of the survey was to assess challenges that counselors face through the following question: “National research about college counseling has identified some common challenges facing counselors. Check the boxes for all the challenges that apply to you.” The results indicate that **the biggest challenge that counselors face is a lack of information about vocational and certification programs**: 74 percent of respondents cited this unique obstacle.

The second biggest challenge, cited by 54 percent of respondents, was that they “need more information about financial aid options at non-four-year schools.” The third biggest challenge, cited by 51 percent of respondents, was that they “don’t see all of the students I have to advise.” The fourth biggest challenge, cited by 49 percent of respondents, was that they “have to do too many things not directly related to college advising.” Interestingly, the first and second most common challenges are intertwined and can be summarized as “lack of information about vocational programs.” The third and fourth most common challenges are also intertwined: “having to do too many things not directly related to college advising” leads in part to a situation where counselors “don’t see all of the students [they] have to advise”

The interviews bear out the truth of the two most common challenges cited by survey respondents. Although there was no question that directly assessed challenges, counselors were asked the question, “How can HISD support your efforts to increase enrollment in vocational programs?” 100 percent of interviewees responded that they needed more information about vocational programs. As one put it, “There are over 100 programs on the HCC website. How am I supposed to figure all that out? It’s not my homework.”

Related to this issue of lack of information, all 10 interviewees were asked the following: “Have you ever received formal training or professional development about advising students on vocational programs?” 5 out of 10 reported negatively—they had never had any “formal” training. 5 out of 10, including all 4 CSAs, responded that they had received formal training. However, all 5 also clarified that this training had been minimal and only recent. For example, one CSA “we recently took a super enlightening trip we took to the plumbers’ union and the electrician’s union and I was blown away. I may be in the wrong profession, as a matter of fact. I didn’t know how well those jobs paid!” Another counselor estimated that “10 percent would be

generous” in describing how much of his total professional development and training is devoted to vocational programs.

In regards to the third and fourth biggest challenges, the survey asked respondents the open-ended question “What resources or support would make your job experience as a college advisor easier or better?” The most common response, cited by 11 out of the 34 people who responded to this particular question, was more “clerical support.” One asked for “a clerk or assistant, so that I don't have to walk around looking for the students while leaving students waiting.” One asked for “assistance with inputting data.” Another would love “Having a secretary or paraprofessional compile the students' data such as SAT scores, STAAR/TSI scores, and GPA on a spreadsheet that gets updated regularly so I will have it available to give the students good guidance.” Yet another noted that, “My time can be better spent advising kids instead of entering contact meetings on a database to make sure I’m doing my job. Numbers and results speak for themselves.”

The other responses are harder to classify because they are either too general or are only cited by one or two respondents: “working at one school”; “campus support and buy-in”; “more money”; “more access to resources”; “more advisors”; “helping students one on one”; “more support from the counselor and admin at the school.” These more general responses point to a need for further research on the relative severity of various challenges that counselors face.

Another problem that prevents counselors from advising all students about vocational programs, cited by 5 out of 10 interviewees, was the general focus of HISD as a district. One expressed that they feel “pressure to put kids into the four-year tracks because it makes us look better.” As one counselor expressed, “It’s the four-year kids that end up getting all those big, fancy scholarships,” and this makes for excellent public relations. One other counselor confessed

that “Our last superintendent was very adamant that the focus should be on four-year schools and so there was this like ‘every HISD graduate can go to a four-year school’ kind of thing. And there was just a ton of pressure to get students to a four-year school, whether it fit the student’s educational objective, or not. Because that was the pressure from the district: ‘Everybody is college-ready, everybody can go.’ When you’re on a campus like ours, that’s just not true.” Another noted that “it used to be all about four year just a while ago. It’s sort of changing, but like its very slow.” One even noted that the “main focus of College Success team and the Advise TX is ...to get all students applied, accepted, and enrolled into a four-year institution or a two year institution, with the two year being that they will like eventually transfer and graduate from a four-year.”

Another barrier to improving access to vocational programs, cited by 4 of 10 respondents, is the stigma attached to vocational programs. One counselor testified that “my wife would be devastated if our son was like, I want to go be an electrician. She would cry and ask, but like why not be an electrical engineer.?” Another explained that “this a problem with our mindsets, this is a problem with they way we value certain occupations. This is stigma attached to where you are going to school and what you want to be... people think a plumber is just someone who has to go unclog your toilet. I mean actually it’s often somebody that is laying the pipe for one of these new buildings...[that are] coming up because Houston is booming.” One counselor lamented the fact that “We used to have all kinds of vocational programs, and they were wiped out of a bunch of high schools”

4 of 10 respondents also noted that a major obstacle to improving enrollment in vocational programs — and enrollment in postsecondary options in general — is the fact that schools and counselors are not evaluated on statistics that matter for college access. One CSA,

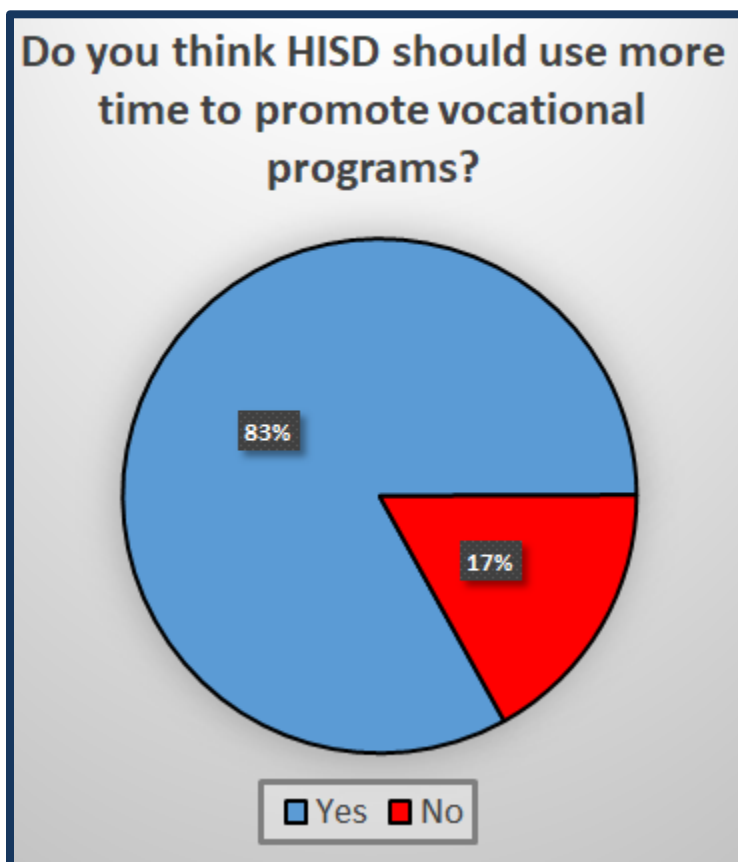
for example, complained that she is measured on “100 percent applied, but not 100 percent enrolled.” Another echoed that sentiment, explaining that “from my experience most counselors are measured by ‘100 percent applied.’” Another counselor pointed to larger issues of accountability: “The goal of principals is to graduate students...its TEA’s fault: all they care about are graduation rates. The data thing is a problem. TEA does not grade a high school on that, on how many students attend college, on how many actually go and get the degree.”

What do college counselors think about vocational programs, and how to go about improving enrollment in them?

In general, counselors have a positive impression of vocational programs: 83 percent responded affirmatively when asked whether HISD should encourage more counseling around vocational programs in the surveys.

Many gave reasons related to student ability and/or interest:

“About 25% of our students cannot survive 4 yr colleges for lack of many traits”; “We can’t assume that college interests all kids. But we do need to provide them with alternative pathways for making a living and a being a contributing member of society. I think more kids fit into this category than we think.”; “We are a tremendously



diverse district that would be ill-served by a one size only approach. When we don't individualize students, we are not helping them reach their potential.” However, some also cited the fact that HISD’s current focus is too narrowly centered on four-year colleges: “Currently, I feel like our college center has a reputation for serving 4 year students predominantly.”

While most counselors agree that vocational programs should be promoted more heavily, many are split in regards to *which students* should be targeted for such an approach. When asked “How should HISD go about increasing access to vocational programs, and what role should you play in that effort?”, 3 out of 10 respondents responded, as part of their answer, that they would want to target seniors who have not done well academically in school. One noted that “the bottom 50 percent would benefit a lot from it.” Another counselor noted that the students should be targeted for vocational program advising based on GPA. She defender her clam: “Kids know, kids understand where they are going to fall with GPA. Even if it’s like we are just showing this briefly to the whole class; it’s still opening their eyes to what is out there.”

5 out of 10 respondents wanted vocational program advising to be made available to every single student, regardless of academic achievement. One gave a deeply personal story: “One of the high school’s top students is now working at Walgreen’s as a cashier. Why? I don’t know the reasons...**But I know that I failed that kid. What if I would have told him about apprenticeships that pay for your training and are super-short. Maybe he’d be in a better place.**” Her point is that even high-performing students can benefit from vocational programs. Another counselor expressed strong resistance to the very idea of “targeting” students for vocational program advising: “That’s the great thing about America, is that we don’t pigeonhole people. Counselors, like we can’t and shouldn’t be a gatekeeper for any kid. Just expose them and let them decide.” Another noted that “Its great when they [seniors] know what they want to

do, but many of them don't know...there is a gap there and we shouldn't exclude the ones getting As from that opportunity." 2 out of 10 respondents expressed that they did not want to talk about targeting: "I don't really have an opinion. Maybe later I will."

Finally, 100 percent of interviewees believe that HISD needs to do more before senior year to expose students to vocational options. 3 out of 10 complained about the eradication of CTE programs at their schools over the years, because it eliminates the ability of students to evaluate all their options. All interviewees agreed that HISD should boost its vocational course offerings, and three even called for a "special person or expert that knows all the programs and can come and teach our students about them." However, all 3 understand that these are long-term solutions that require money.

CONCLUSIONS

The Findings section presented information that sheds light on ways that we can help our counselors improve their vocational counseling. One conclusion is almost ironclad: **most counselors really *do* believe in the value of vocational program advising**. However, there were a series of common challenges or concerns that emerged:

1. A lack of information about vocational programs in the Houston area (how many are there, where are they housed, how much do they cost, etc.)
2. A lack of institutional support, including professional development and software, for vocational program advising – there is no Naviance or Common App for vocational programs
3. Excessive paperwork and administrative duties that take up time that could be spent advising
4. The fact that pulling out students who have not consulted with counselors by their own volition is *not* mandated
5. The fact that not all counselors use group-based advising as part of their strategies.
6. Counselors are unclear about whether to target specific students for a vocational program advising in the future.

In light of these challenges and concerns, this capstone offers a series of five recommendations:

Recommendation 1

Provide formal training to every single counselor about vocational programs. This formal training should focus on providing information on applications, enrollment, and financial aid for

vocational programs. The training should also teach counselors the four different types of vocational programs. The most consistent complaint is that counselors do not know enough about these programs, and HISD should not ignore it.

Recommendation 2

Develop an easily searchable database of all vocational programs in the city of Houston and teach counselors how to use it. This will allow counselors to improve their advising about vocational programs on the spot. Nobody can memorize or independently research the immense variety of vocational programs available in Houston, so HISD should take on the responsibility of compiling those opportunities in one convenient place.

Recommendation 3

Devise some way to reduce the burden of clerical and administrative work. Almost one-third of survey respondents complained about the large amount of time that they spend on paperwork. Reducing clerical and administrative loads will free up counselors to do what they do best: advise students about postsecondary options.

Recommendation 4

Mandate pull-out consultations with all seniors who have not met with a counselor by the second semester. Counselors attest to the fact that they reach out to all seniors, inviting them to come into their offices. However, this approach may not prove effective in helping non-post students, or those who are disillusioned and do not see themselves as “college-ready” – these students can easily ignore the invitations and never come in. As such, mandating at least a check-in with every senior by the start of the second semester will ensure that every student has been granted the opportunity to speak with a professional counselor.

Recommendation 5

Mandate an increase in the amount of classroom-based advising. Classrooms offer a nice middle-ground approach between massive “senior assemblies” and intimate one-to-one meetings: you can reach more students, but without compromising attention or effectiveness. HISD should provide a training on best practices when it comes to developing these classroom presentations. Many more students could be exposed to the potential in vocational programs through this method. Considering budget constraints that will prevent HISD from adding more counselors in the future, the only way to ensure that all students receive at least some exposure to postsecondary vocational programs is to resort to group-based advising as a strategy.

Recommendation 6

*Any program that seeks to improve seniors’ exposure to vocational programs must target **all** students, so as to ensure that every student at least has the ability to know about vocational programs as an option.* While counselors are split in their opinions on this matter, the emotional testimonials of some interviewees (e.g. the story of the top ten percent student who is struggling with low-wage work because he simply could not spend four years in college not earning any income while his family needs his financial support) indicate that vocational programs have the potential to help all kinds of students. That being said, the district must place heavy emphasis on seniors who seem on track to graduate without postsecondary options: these non-post students would benefit immensely from the options provided by vocational programs, as suggested by the evidence presented in the “Context” section of this capstone.

A future HISD push to increase the enrollment of its students, and especially its non-post students, in postsecondary vocational programs would bring massive benefits to the city of Houston. First, in the short term, increasing the pipeline of students entering these vocational pipelines will bridge the city's middle-skills gap, which will stabilize the labor market and make the city even more attractive as a destination for other businesses – few things are more attractive to a relocating business than a large pool of skilled labor. Second, in the longer term, increasing enrollment of HISD students in vocational programs, which lead to stable jobs that pay livable wages, will likely spark a dramatic enlargement of the city's middle-class. This is a source of social mobility that should not be overlooked. The enlargement of the city's middle class will have massive positive multiplier effects: tax revenues will increase as incomes rise, allowing for a larger infusion of money and resources into the city's public institutions, especially schools. In a more direct sense, thousands of future Houston children will benefit from growing up with middle-class parents that rose from their backgrounds in economic disadvantage through the help of vocational programs. It is hard to quantify these future impacts, but it is unquestionable that an increase in successful enrollment in postsecondary vocational programs will expand the city's prosperity and stability.

I want to close by noting that I am not so naïve as to believe that the process of increasing enrollment in these vocational programs will be easy – I know from personal experience how difficult it can be. Over the past three years, I have been imploring my beloved brother Jose to enroll in a vocational program, to no avail. His reasons are complicated, but suffice it to say that no one should believe that this process will be easy. But that is not a reason for not trying.

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APPENDIX A

Name of your school	CSAs (Numerically)	Besides any CSA or AdviseTX, how many school based counselors/advisors are on your campus whose job is primarily college access? "College Focused ONLY"	Is there Advise Texas on your campus? Advise TX ONLY	How many general counselors are on your campus? General ONLY	2016-2017 Enrollment (Total)	2015-2016 Enrollment (Graduating Seniors)	Total College-Focused Counselors	Total Counselors	Total Non-College Counselors	Seniors per College Counselor	Seniors per Counselor	High School Students per General Counselor
Sam Houston MSTC	1	1	0	4	2816	510	2	6	4	255	85	704
Westbury High School	1	2	1	2	2190	384	4	6	2	96	64	1095
Waltrip HS	1	1	0	2	1612	377	2	4	2	189	94	806
Madison High School	1	2	1	4	1759	351	4	8	4	88	44	440
Northside High School	1	1	0	3	1622	328	2	5	3	164	86	541
Milby HS	0.5	1	0	3	1377	312	1.5	4.5	3	208	69	459
Austin High School	1	2	0	2	1922	304	3	5	2	101	61	961
Sharpstown High School	1	1	0	4	1597	269	2	6	4	135	45	399
Margaret Long Wisdom High School	1	2	0	2	1832	248	3	5	2	83	50	916
Furr	0.5	1	0	2	1091	215	1.5	3.5	2	143	61	546
North Forest High School	0.5	0	0	4	942	196	0.5	4.5	4	392	44	236
Yates	0.5	1	0	2	845	193	1.5	3.5	2	77	55	423
DeBakey HSHP	0.5	0	0	2	852	183	0.5	2.5	2	366	73	426
Sterling High School	0.5	2	1	2	1123	176	3.5	5.5	2	50	32	562
Barbara Jordan High School	0.5	0	1	1	317	174	1.5	2.5	1	116	70	317
HSPVA	0.5	1	0	3	757	154	1.5	4.5	3	103	34	252

APPENDIX B

Survey: HISD College Advising

Hello, my name is Edgar Alonso Aviña, and I am proud to have attended HISD public schools my entire life (Crockett Elementary, Hamilton Middle School, and DeBakey High School). I will be returning to teach middle school in HISD next year, and I deeply care about the district and its wonderful students. When I was a senior, I benefited from wonderful college advising that helped me get into a great four-year college.

I am writing my college senior thesis on HISD college advising, and I would love to receive your input on this survey. For the sake of transparency, I want to clarify that I have four goals for this survey: to evaluate 1) how you spend your time 2) what professional recommendations you have for advising students who do not want to attend four-year colleges 3) what challenges you face in your work and 4) what ideas you have for improving college advising in HISD.

Your identity will remain completely anonymous. Thank you for all the work you do and for your thoughtful responses!

John is a senior who has no interest in going to a four-year college, nor does he want to get an associate's degree at a community college that would allow him to transition to a four-year college. However, John does want to do something other than just work a job after graduation and he comes into your office looking for help. What alternative opportunities would you suggest he pursue? What exactly would he have to do to pursue those opportunities?

Long answer text

Hypothetically, let's say that HISD issues a new order requiring all counselors to spend more time advising students like John. Do you think this is a good use of time?

☐ Yes

☐ No

Explain your answer.

Long answer text

National research about college counseling has identified some common challenges facing counselors. Check the boxes for all the challenges that apply to you.

- ☐ I need more information about vocational and certification programs
- ☐ I need more information about financial aid options for non-four-year schools
- ☐ I need more information about admission requirements and enrollment procedures for non-four-year schools
- ☐ I need more information about financial aid options for four-year colleges
- ☐ I need more information about admission requirements and enrollment procedures for four-year colleges
- ☐ I have to do too many things not directly related to college advising
- ☐ I don't see all of the students I am charged with advising because I do not have the time

What resources or support would make your job/experience as a college advisor easier or better?

Long answer text

I would love to hear more about your ideas and concerns about college advising in a relaxed, informal interview. If you are interested in voicing your ideas, please list your phone number, and the high school you work at, below. I will reach out depending on the number of total responses I get. NOTE: Your identity, and the high school you work at, will be kept completely ANONYMOUS if you decide to do the interview.

Long answer text

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