
EDUCATE FIR\$T

WHY INVESTING IN EDUCATION
FUELS THE TEXAS ECONOMY

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ACKNOWLEDGEMENTS

Educate Fir\$T is a collaboration of individuals from the fields of business, academia, and education who share a concern for the economic future of Texas. It is important to note that this project received no funding from any source and was developed entirely by the members of Educate Fir\$T. These members contributed their time and effort due to their strong belief in the importance of raising the awareness level of how crucial education is to the future economic vitality of our state and nation.

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EXECUTIVE SUMMARY

Texas' education system is currently inadequate to meet the state's future needs for millions of young Texans and there is much at stake for the state's business and economic interests. Advocates for improving our system for all students – from major educational stakeholders to concerned parents wanting a bright future for their children in terms of economic stability and prosperity – are too-often unheard by our state's governance and, sometimes, business leaders. These leaders face numerous challenges confronting our state and have not prioritized funding public education at the necessary levels. While it is true that our state has many needs, the main emphasis of this paper is to illustrate how much is at stake for the business community of Texas if we continue to under-educate our children and ill-prepare them for rewarding careers that allow them to properly contribute to both the state and nation's economy.

Educate Fir\$t believes that, based on these realities, the business community must fully understand what is at risk from the perspective of their future ability to maintain our financial well-being. This paper seeks to emphasize the irrefutable link between the concerns of public education and those that pertain to the business sector. Education is an investment that affects everyone; it is not a special interest sector impacting only those who work or learn in schools and colleges across the nation. The quality of public education has a notable connection to the proliferation and survival of businesses. We are hopeful that this message will resonate with the business community as well as educational stakeholders, communities that rely on public education, and the legislators who are positioned to help usher in a new generation of better educated, more highly skilled Texans.

Many factors in both Texas and the United States contribute to the problems facing public education and will have a major impact on the business community. Among them are a notable increase in the state's already impressive child population, the constantly evolving technology required by our state's businesses demanding a workforce with updated skill sets, and the decreased funding of higher education – a vital part of the educational pipeline that provides a link between public primary and secondary schools and the job market.

DEMOGRAPHIC CHANGES

A GROWING CHILD POPULATION

- **Between 2000 and 2014, nearly 90 percent of child growth in the United States came from Texas. To put that in perspective, the number of children in Texas increased more than 1.2 million, while the country itself had an overall growth of 1.4 million children. The state currently has the second largest population of children, with 7.1 million.¹**
 - **Education Impact:** Texas' public education system is currently inadequately funded to serve the needs of children who are already attending school. *Quality Counts* gave Texas a D on overall finance and spending in 2016.² A growing population of children depend on public education because many live in poverty – in Texas, one in every four children

is considered poor.³ These children must receive a quality education that is equitably funded to achieve their immense potential.

- **Business Impact:** This vast increase to an already robust child population speaks to the capacity for incredible economic success and a boon to business ventures. Unfortunately, if current educational trends continue, especially for economically disadvantaged and minority populations, many of these children could end up undereducated and a potential liability for the state, the nation, and the economy.

INCREASED DIVERSITY

- **In rankings based on 50 states and the District of Columbia, Texas currently ranks 3rd in the percentage of children who are Latino, with 49.1 percent of its children being classified as such.⁴ 33 percent of Latino children are living in poverty, and Latino and Black children are three times more likely to live in poverty than children classified as White or Asian.⁵**
 - **Education Impact:** Strong numbers of Latino children in the state of Texas, with a notable percentage of these children being classified as poor, has implications for public education, especially if these children attend inadequately funded schools. Children of all races, ethnicities, and socio-economic status deserve a quality education, but the historically underserved children need the most help to succeed.
 - **Business Impact:** This increase in a minority population has the potential to be a major asset to business in terms of diversity and the sheer size of this new group of citizens. The future workforce in Texas will consist largely of minority individuals. Unfortunately, if these children are forced to cope with a poorly funded education system, they will not be prepared for both secondary education and any lucrative careers that require a college degree or specialized technical training.

ECONOMIC FACTORS

A DIMINISHED MIDDLE CLASS

- **Texas currently ranks 5th overall in economic inequality.⁶ Returns from Texas in 2015 show that 46 percent of all individual tax returns in the state have an adjusted gross income (AGI) of \$25,000 or less, while the top income brackets of \$75,000 and above only account for 22 percent of individual returns filed.⁷**
 - **Education Impact:** Economic inequality already has ties to poorer educational outcomes and if it increases, a new group of undereducated, underserved children will not reach their full potential.
 - **Business Impact:** If the middle class is already struggling, adding more undereducated and low-paid workers to the pool will not improve matters. A lack of disposable income severely limits an individual's ability to purchase products or services other than basic

necessities, and families will likely defer or be unable to acquire many large purchases that drive our local tax base, such as homes.

PATENTS AND INNOVATION

- **Educational underachievement also points to a lack of innovation in patents. No Texas city is included in the top 10 metropolitan areas with the greatest number of patents in the nation.⁸ This is especially important because patents and innovation are a vital link between post-secondary education and business investment and growth. Also, none of Texas' top institutions were ranked in the national top 25 trailblazers for innovation in academia.⁹**
 - **Education Impact:** Colleges and universities will continue to struggle with funding and financial aid for their students if there is no competition or innovation at Texas universities. Additionally, if public education is inadequate, innovators will be less likely to move here, and the ones we have may move to other states.
 - **Business Impact:** If there is no innovation in business, Texas' economy will stagnate and there will be a corresponding drop in high-paying job creation.

JOB GROWTH

- **Texas has been increasingly creating jobs that will require a post-secondary degree: an estimated 1.8 million are projected between 2008 and 2018.¹⁰ Texas currently ranks first in the number of jobs for high school dropouts and 31st in jobs that need post-secondary education.¹¹ Unfortunately, Texas still has an issue with attrition, both in secondary and post-secondary schools. Colleges and universities, in particular, are not retaining enough students in science, technology, engineering, and math (STEM) fields, which is a priority for Texas labor and development.¹² The state ranks only 30th in the number of STEM majors per 1000 persons, with an overall rate of only 27.5 workers in STEM fields per 1,000 persons in the labor force.¹³**
 - **Education Impact:** If the educational pipeline is hemorrhaging children in the form of dropouts in secondary and post-secondary institutions, the labor demands of Texas will not be met. Furthermore, the increased focus on STEM fields demands students who are adequately prepared in these areas before they enter college and once they begin relevant coursework.
 - **Business Impact:** Texas' workforce and, ultimately, its economy will suffer if the children of Texas are not being adequately prepared for college and their careers, particularly if employment demands require increasingly specialized skills and degrees that students are not currently attaining.

COLLEGE AFFORDABILITY

- **The economic downturn from the 2008 recession, the deregulation of higher education tuition in 2003, and reductions in state appropriations for colleges and universities have contributed to a sharp decline in college affordability in Texas, particularly for students from low-income families. Federal support for Pell grants is declining and state financial aid in Texas has not kept pace with the rising costs associated with paying for college. For families in the lowest income brackets (average annual income of \$0 – \$30,000, which represents 25 percent of all families in Texas), 33 percent of their income would be needed to cover the costs at a community college, 45 – 51 percent at a public four-year university, and 99 – 120 percent at a private four-year university in Texas.¹⁴**
 - **Education Impact:** The increased population of minority and lower-income children measured against the increased cost of college means that fewer qualifying students will elect to take on huge amounts of debt or work a minimum of 21 hours a week¹⁵ to fund their post-secondary education. These students need more support, not less.
 - **Business Impact:** Fewer students attending college means an undereducated and unprepared labor force to meet the needs of the economy. Lowering the cost of a college education should significantly increase the pool of children from low income families that attend college. This is important to business because this demographic represents the majority of Texas' future workforce.

MINORITY SERVING INSTITUTIONS

- **Collectively, minority serving institutions (MSIs) enroll large percentages of Texas' minority student population. During fall 2013, an estimated 73 percent of all underrepresented minority students who were pursuing either an undergraduate degree or some other post-secondary education at a Texas institution did so at an MSI.¹⁶ Compared to non-MSIs, these institutions also enroll more students who tend to be first-generation, less-affluent, or less academically prepared.¹⁷**
 - **Education Impact:** Because approximately half of Texas children are minority students, institutions that appeal to these unique and diverse groups of men and women must be supported through federal funding for the universities that serve them so that they may provide financial aid for the students themselves.
 - **Business Impact:** Better educational outcomes in college will create a skilled, better prepared workforce. Businesses should take the opportunity to forge partnerships between MSIs, in particular, to connect with these students and to help provide the quality education that they need. The payoff will be a more diverse, well-educated workforce trained in curriculum areas deemed more relevant by the business community based on their internal forecasts.

In addition to meeting the needs of the projected labor pool, there is a clear connection between education and earning power throughout a student's life.¹⁸ Unemployment, poverty, and a lack of educational attainment are also linked. The goal for the business community should be to acknowledge and recognize the cycle of investment that comes from equitably financing education and reaping the benefits of a prepared, skilled workforce.

Public education is at the heart of employment and economic opportunity, so the question remains what can be done to improve schools for all children. Enriching public education in the long term requires systemic changes that address the numerous aspects of the educational environment that come together to allow children and adults to learn. We must introduce or better fund programs and initiatives that are empirically shown to benefit students. Our recommendations include:

- **Extending Texas' current half-day pre-Kindergarten programs to full day.** Research has shown that educating the most underserved populations at a young age provides greater success throughout the educational pipeline.¹⁹ Eventually, pre-K access should be available to all children, beyond those who currently qualify.
- **Increasing funding and acceptance of bilingual programs that encourage English language learners (ELLs) to achieve academic success** in their first language while simultaneously learning English, as is developmentally appropriate.
- **Improving support for teachers and recruiting quality teachers into educational programs.** This may include important steps like increasing the overall salary of educators so that they are adequately compensated for such a stressful, vital career.
- **Using research-supported teaching models for all children.**
- **Increasing the relationship development between families and their schools.** The community is an asset that is often overlooked despite being linked to positive academic outcomes.
- **Increasing college affordability by providing more financial support, such as grants, to public university students.** Solutions should help mitigate the current system's reliance on loans that leads to excessive debt and, in turn, drives students away from seeking an undergraduate degree. Increased financial support should also be extended to minority serving institutions (MSIs), which are vital fields of growth for minority populations.
- **Forging partnerships between local schools (both secondary and post-secondary) and businesses** to fund quality programs that will increase the skilled labor pool and help reduce shortages within the business community at-large.
- **Increasing funding to universities as part of a cycle of investment to improve the number of patents and overall innovation.** These developments may also pave the way for more partnerships between schools and businesses.

TEXAS EDUCATION IN 2016: THE COST TO BUSINESSES

The current state of education in Texas is unacceptable. Despite a concerted effort by many educators, the state is currently failing to provide a quality education to our children, the future workforce. By extension, Texas is also not addressing the concerns of its business community. We should not accept this. The link between education and business interests may seem tenuous at first glance: Why should the business community care if only a small proportion of children in Texas are attending pre-school? What is the concern if, according to the state, we are graduating almost 88ⁱ percent of all public high school students?²⁰

Sustainability. The fact of the matter is that businesses must recognize that remaining profitable will, to a large extent, depend on what is happening in the classrooms at all levels. A quality education determines the quality of a future workforce and the eventual success of a company. The importance of human capital cannot be over-emphasized.

Texas has one of the fastest growing economies driven by various sectors, from energy, to aerospace, to capital infrastructure. The importance of education to Texas' overall economic success is critical and its omission from discussion in the boardrooms across the state will have notable repercussions. CNBC's ranking of states based on business and economic climate currently positions Texas at second for overall business, while the workforce is rated 8th. Education sits at a low 40th, which speaks to a lack of sustainability and the potential for this overall ranking to swiftly drop in the coming years.²¹ To put it in the simplest of terms: the future labor pool of Texas, with the state's current educational trends, will be largely undereducated and unable to contribute to the state and nation as workers, innovators, entrepreneurs, or consumers.

The one positive element that can be taken from this dire forecast is that it is not too late to change this scenario in both Texas and the nation. To achieve change, the business community must remain engaged in the conversation and push public education as a business and economic priority. The issues surrounding education and the future workforce are vast and varied. They include demographic changes and a massively increased child population, economic indicators of stagnation in the development of human capital that lessen both individual earning power and businesses' ability to find qualified employees, and the state's current lack of support at all critical stages: from early childhood to post-secondary education.

Texas' economic engine is directly tied to educational outcomes. The business community can no longer be satisfied with the status quo when faced with the potential for a vast labor pool of undereducated and unskilled men and women. Any proposed solution to an undereducated Texas must be comprehensive; it must be a partnership between private and public entities because education powers all aspects of the Texas economic engine.

ⁱ The Texas Education Agency (TEA) reports an 88 percent graduation rate, but other researchers and public education advocates question the accuracy of this rate. High school graduation rates vary because the organizations that formulate them often use different metrics in their calculations.

THE REAL ECONOMIC IMPACT OF AN UNDEREDUCATED TEXAS

Economic growth in the United States is poised to slow significantly because education has stagnated. In 1970, the U.S. had the best-educated workforce in the world. Today, the U.S. ranks last among 18 industrial countries with regard to problem solving in technology-rich environments. This is troubling in states with sizable populations, but Texas' growth is especially alarming. The state's population has increased by approximately 21 percent since 2000, nearly twice the rate of national population growth. Texas also has eight of the fifteen most rapidly growing large cities. If the state were a country, Texas would be the world's 14th largest economy, with a GDP of over \$1.2 trillion. Fueling this growth in Texas is the Latinoⁱⁱ population – by 2040, they will make up 56 percent of Texans, reaching 25 million. Yet, while Hispanics in Texas are forecast to have the highest rates of growth, they will also have the lowest educational attainment if Texas continues on its current path. It is estimated that, by 2040, almost one-third of the Hispanic population 25 years and older in Texas will not even have a high school diploma – that is almost 5.5 million adults.²²

These men and women are the future workers of Texas. The correlation between income and education means that not educating the future labor pool of Texas will yield harsh economic realities for the state and its business interests:

- By 2050, Hispanic households will be the largest component of aggregate household income in Texas, yet see a decrease in average household income from \$66,300 in 2010 to \$58,574.²³
- As the state's average income for a Hispanic household decreases by \$7,700 through 2050, the state's poverty rate will increase from 14.4 percent to nearly 18 percent.²⁴
- If income levels of all populations in Texas could be increased to the level of non-Hispanic Whites in 2010, by 2050, average income levels would increase by \$8,000. State tax revenues would be expected to increase by \$11.4 billion per year. Poverty would fall from 14.4 percent to under 10 percent.²⁵
- According to Alliance for Excellent Education, in 2012, if Texas public school graduation rates had increased from 72 to 90 percent, statewide household earnings would have increased by \$700 million, 7,800 new jobs would have been created, and gross state product would have increased by \$1.3 billion annually.²⁶
- Currently, 1 in 4 Texas students do not graduate from high school, with Black and Hispanic students twice as likely to leave school when compared to White students.²⁷
- A 5 percent increase in Texas male high school graduation rates alone would save the state \$428 million in annual incarceration and crime-related costs.²⁸

If Texas falls, the whole nation will suffer as a result. Texas demographics reflect the future demographics of the United States, and the state's sheer size will create ripple effects across the country. Some areas of the state have been minority-majority since 2010, and most of the state's major urban centers will become increasingly non-White by 2040. The state is home to 54 Fortune 500 company headquarters (second to New York's 55²⁹), 107 Fortune 1000 companies (beating California's 101³⁰), and is in the midst of a small business boom, mostly driven by Hispanics.³¹ Texas economics is the nation's economics and Texas education will likely be the deciding factor not only for the state, but the country as a whole.

ⁱⁱ From this point on, *Latino* and *Hispanic* are used interchangeably.

SIZING TEXAS' FUTURE WORKFORCE: THE SITUATION

Failing to achieve high quality educational outcomes for all segments of our state's population has the potential to be an economic catastrophe. Texas must invest in its future economic success by first investing in its present public education system with appropriate resources and opportunities for all school children. The urgency in funding a quality education has direct ties to the vastly increased, diverse, and growing child population of Texas, a population that is positioned to be our states' future labor pool. It is important to note that the increase in the state's child population directly ties to economics, especially because many of these children live in poverty.

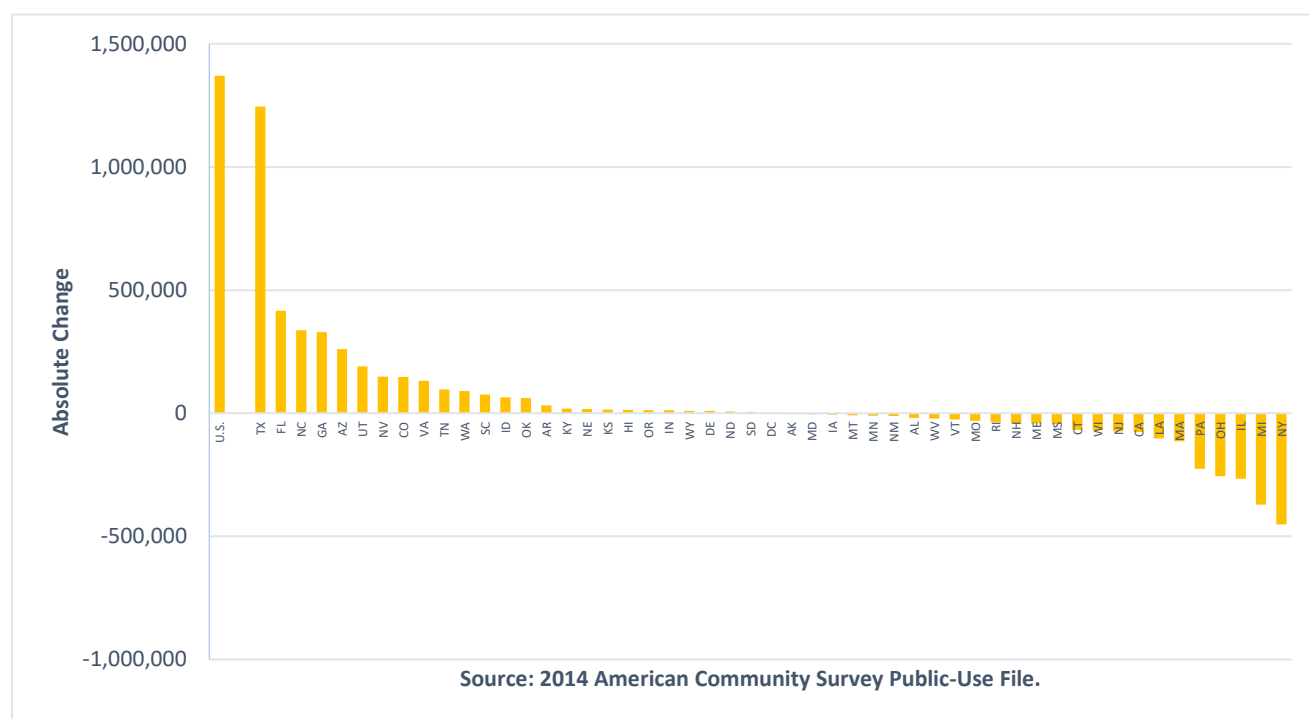
TEXAS' GROWING CHILD POPULATION AND NATIONAL IMPLICATIONS

Figure 1 illustrates the sizable increase in Texas' child population, especially compared to other states, and the U.S. in general. Texas has the second largest population of children, with 7.1 million in 2014, behind California's 9.1 million.³² However:

- In 2014, nearly 10 percent of all children in the U.S. lived in Texas, with California containing 12 percent of U.S. children.
- The number of children in Texas increased by more than 1.2 million between 2000 and 2014 (a 21 percent growth), in contrast to California's decline of 76,174 children during the same period.
- Texas had an absolute growth three times greater than Florida, the state that posted the second largest increase in children (416,000).
- Twenty-five states and the District of Columbia saw declines in their child populations, with the greatest declines of more than 100,000 occurring in seven states (New York, -451,000; Michigan, -371,000; Illinois, -265,000; Ohio, -255,000; Pennsylvania, -225,000; Massachusetts, -114,000; and Louisiana, -102,000).

Texas' increase is especially important considering that, between 2000 and 2014, the country had an overall growth of 1.4 million children: 86 percent of the child growth in the U.S. during this period came from Texas.

Figure 1. Absolute Change in Child Population in U.S. and by State, 2000-2014



This increase is not only relevant in terms of new educational needs to be met but also in terms of the growing labor pool in Texas. These children represent workers, innovators, consumers, and citizens for both Texas and the United States. This significant increase happened in a relatively short period of time, indicating a large wave of children who have already entered the public school system or will join as they reach the appropriate age. This influx of children is a potential boon to both the state and the nation as a viable, diverse group of economic contributors, but the men and women currently in charge of their education and its funding need to be adequately prepared to meet their needs.

TEXAS RANKING ON DEMOGRAPHIC AND SOCIOECONOMIC CHARACTERISTICS AMONG CHILDREN

It is also important to note the demographics of this child boom. Table 1 includes Texas' rank in select demographic and socioeconomic areas. In rankings based on 50 states and the District of Columbia, Texas currently ranks 3rd in the percentage of children who are Latino, with 49.1 percent of its children classified as such (behind New Mexico's 59.8 percent and California's 51.9 percent). This high percentage of Hispanic children yields unique attributes associated with educational attainment outcomes among this population:³³

- Texas' child poverty rate is the 11th highest in the country – one out of every four children is considered poor in Texas.
- Texas ranks high in the percentage of its 3-year-olds (72.1 percent) and 4-year-olds (56.6 percent) who are not enrolled in any kind of early childhood education, ranked 35th and 41st, respectively.
- Texas ranks 50th in the percent of children with health insurance coverage – 11.2 percent are uninsured (Alaska has slightly more at 12.2 percent).

- Texas has the highest percentage (3.1 percent) of children, 5 to 17 years of age, who do not speak English or who do not speak English well.

Table 1. Rank of Texas on Selected Demographic and Socioeconomic Characteristics Among Children, 2014. [Rankings are based on the 50 states and the District of Columbia, with a range of 1 to 51]

Characteristics	Texas Rank	Texas Pct.
Percent of children Hispanic	3	49.1
Percent of children Non-Hispanic White	47	32.6
Percent of children Non-Hispanic Black	21	11.6
Percent of children Non-Hispanic Other	37	6.7
Percent of children foreign-born	11	4.3
Percent of children 5 and older speaking English at home or speaking English very well	51	96.9
Percent of children in households with a laptop or computer	45	77.5
Percent of children in households with Internet access	43	76.7
Percent of children with health insurance coverage	50	88.8
Percent of 3-year-old children enrolled in school	35	27.9
Percent of 4-year-old children enrolled in school	41	43.4
Percent of children above poverty threshold	40	75.2

Source: 2014 American Community Survey Public-Use File.

Overall, this growing segment of Texas' population remains poor and under-supported in terms of finance, health, and early education (academically and in terms of language). If these Texas children do not reach their potential and become productive citizens and workers, everyone in the equation – from businesses to the children and their families – stands to lose. The diversity and the potential for growth in Texas is one of its greatest strengths. If we can collectively recognize the issues currently facing education and invest accordingly, this potential will be fully realized and benefit businesses statewide.

FUTURE LABOR FORCE

Texas' current workforce faces numerous challenges and many are tied to a lack of quality education. Education of the future labor pipeline is crucial. Table 2 contains an analysis of the labor force, 25 years of age and older, to assess how Texas ranks nationally on various educational and socioeconomic indicators compared to other states and the District of Colombia. Some highlights to consider include:

- Texas has the 13th highest poverty rate among the labor force 25 and older (8.7 percent), yet Texas currently has the second largest labor force in the United States, comprising 13.3 million, or 8.3 percent of the nation's labor force.
- Texas ranks 50th in the percentage of the labor force 25 and older with a high school diploma or higher (86.1 percent).

- Texas ranks 32nd in the percentage of the labor force 25 and older with a bachelor's degree or higher (32.1 percent).
- Texas ranks 30th in the number of STEM majors per 1,000 persons in the labor force, with a STEM Major Rate of only 27.5 workers in STEM fields per 1,000 persons in the labor force.³⁴

Table 2. Rank of Texas on Selected Socioeconomic Characteristics among the Labor Force 25 Years of Age and Older, 2014. [Rankings are based on the 50 states and the District of Columbia, with a range of 1 to 51]

Characteristics	Texas Rank	Texas Stat.
Percent high school graduates or higher	50	86.1
Percent with a bachelor's degree or higher	32	32.1
Number of STEM majors per 1,000 persons in the labor force	30	27.5
Percent above poverty threshold	38	91.3

Source: 2014 American Community Survey Public-Use File.

The future of the Texas economy is clearly tied to the massive number of children being born and raised in the state, almost half of whom are Hispanic. Not investing in their education has already been modeled: by 2050, current Hispanic households are estimated to be the largest component of aggregate household income in Texas, yet they will see a decrease in average household income from \$66,300 in 2010 to \$58,574. With the current Texas Hispanic population, the average household income in Texas will be \$7,700 lower in 2050, causing poverty rates in the state to increase from 14.4 percent to nearly 18 percent.³⁵

These children, the workforce of tomorrow, have incredible potential. They are the engine that will help determine the state's economic prosperity and, because Texas will provide 1 in 10 of the future workforce in the U.S., they will also determine where we sit as a country. If our current approach to education has yielded a workforce living in high poverty and with low readiness to enrich the business community, should we not intervene to prevent our future pipeline from resulting in an unqualified, undereducated, and income-stressed labor pool?

THE COST OF EDUCATIONAL GAPS: THE CHALLENGE

The persistent under-education of Texas students could directly impact current business interests, as well as the very innovation and growth required to stay competitive in international markets. To understand how to improve our resources and labor pool, we must first explore some of the costs that Texas already bears from the gaps in education of our current workforce. These losses can be seen in real estate, sales and local taxes, patents, and growth in Hispanic-owned businesses, all of which point to a diminishing middle class and a lack of the innovation needed to stay competitive. These consequences result in pressure that local employers face as they navigate both a workforce with limited skills and what it costs them to do business in Texas. All of these factors can be traced back to the issue of human capital.

HUMAN CAPITAL DEVELOPMENT

Human capital development is the process through which individuals become economic contributors. Investment in education leads to overall economic growth, but how this happens is open to debate. When tied to education, one theory is that the better educated a person is, the better his or her skills and knowledge. This opens the path to innovation and entrepreneurship. A well-trained individual can more easily adapt to new technologies, which develops the economy itself faster than if it had to pass through earlier stages of growth. In other words, a quality education creates more productive workers in a shorter amount of time.

Numerous studies have attempted to confirm this theorized relationship between economic growth and education through either macro- or micro-economic studies. Though there are plenty of examples to promote the fact that education leads to economic success, it remains difficult to indisputably state that one leads to the other. Because of this, policymakers from across the spectrum often struggle with the contradictions in educational outcomes. However, education, and investment therein, is a vital component of the economy because all studies do agree on this: education is one of several foundations necessary for continued economic success – *the foundation of quality human capital*. The returns to education at the aggregate level compound over time, thereby benefiting the macro-economy. This is the bottom line for Texas.

The Center on Education and the Workforce (CEW) at Georgetown University has studied this question of education and quality employment at national and state levels. The findings for Texas are as follows:

- CEW estimates that 1.3 million jobs requiring-post secondary education will be created between 2008 and 2018. It remains to be seen whether or not these will be reached.
- Unfortunately, according to CEW, Texas ranks first in the number of jobs for high school dropouts and 31st in jobs that need post-secondary education.³⁶

Additionally, there will be fewer jobs available to those with only a high school diploma by 2020, yet the state of Texas has an established problem with students, particularly those who come from poor or minority families, graduating from high school.³⁷ These data show an unsurprising trend: labor increasingly needs well-educated employees, yet Texas' current reality is that an incredible number of these potential employees are not even completing high school.

THE COST OF ATTRITION

The issue of academic underachievement brings us back to the link between securing a quality education and being prepared to enter the workforce. The Urban Institute's evaluation of *FutureWork* tells us:

...there is a substantial gap between the skills that employers require and those that disadvantaged workers possess. Among jobs that did not require a college education, 70 percent required that workers deal with customers, 61 percent required that workers read or write paragraphs, 65 percent required arithmetic, and 51 percent required the use of computers. In addition, 71 percent required a high school diploma and 61 percent required specific vocational experience. Holzer (1998) finds that 42 percent of black and Hispanic high school dropouts, 24 percent of white high school dropouts, and 21 percent of female welfare recipients would face very limited job availability in their cities.³⁸

Increasing the number of science, technology, engineering, and math (STEM) workers in the state is also a priority. Building our human capital capacity in STEM-related fields, as a nation and as a state, requires that we address attrition beyond secondary school. The National Center on Education Statistics' (NCES) High School and Beyond (HS&B) program research states:

- Approximately 28 percent of bachelor's degree seeking students and 20 percent of associate's degree seeking students enter post-secondary education in STEM-related fields.
- Forty-eight percent of these bachelor's students had left the field within a few years, whilst 69 percent did so at the associate's level.
- Women tended to change majors to non-STEM fields rather than abandon their studies.³⁹

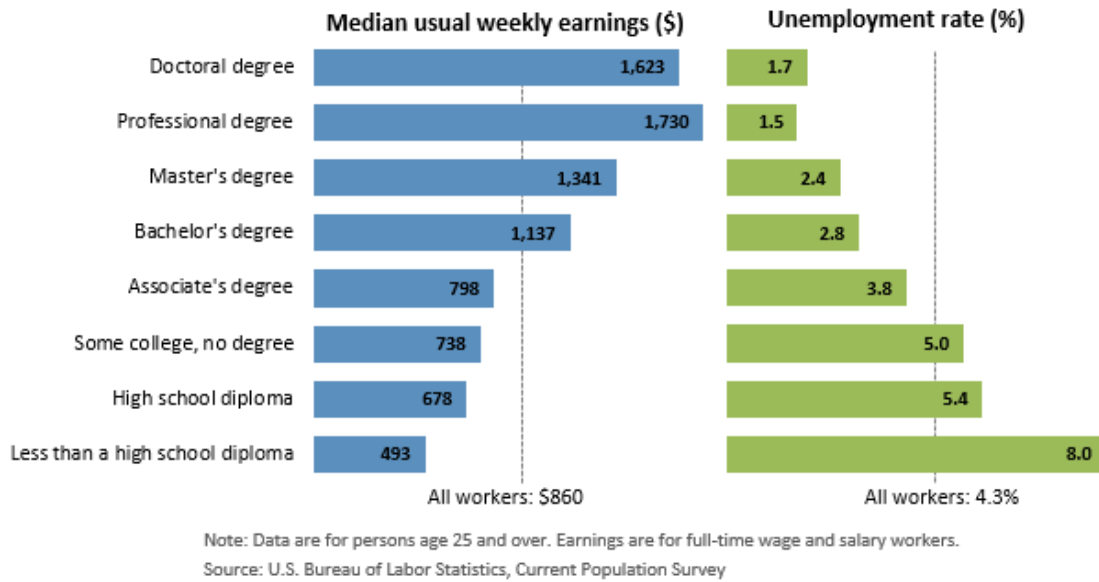
Attrition rates were similar in the non-STEM fields. There is a clear pattern in these STEM findings: students who encounter difficulties in their studies are more likely to abandon their degree programs. These statistics can be traced back to a poor educational foundation, which goes all the way back to early education. Because income is a generally accepted measure of the returns on investment in education, then the fact that students abandon studies, be they STEM or not, means that they also abandon income opportunities. This is the present-bias preference that economists say lead to valuations of the present over future benefits. In other words, people make decisions based on their present experience rather than how they could improve in the future. This is an issue we must face head-on to protect the future of Texas' children, the quality of the state's labor pool, and its economy.⁴⁰

EARNING POWER THROUGH EDUCATIONAL ATTAINMENT

There is a concrete link between an individual's earning potential and completing his or her education. Bhuller, Mogstad, and Salvanes in their National Bureau of Economic Research paper (2014) "estimate that additional schooling gives higher lifetime earnings and a steeper age-earnings profile, in line with predictions from human capital theory. The implied internal rate of return from education of around 10 percent, after taking into account income taxes and earnings-related pension entitlements" means that it is "financially profitable to take additional schooling because the rates of return were substantially higher than the market interest rates."⁴¹

As recently as March 2016, the Bureau of Labor Statistics quantifies these benefits as follows in Figure 2. The better the education or training, the less likely an individual will be unemployed:

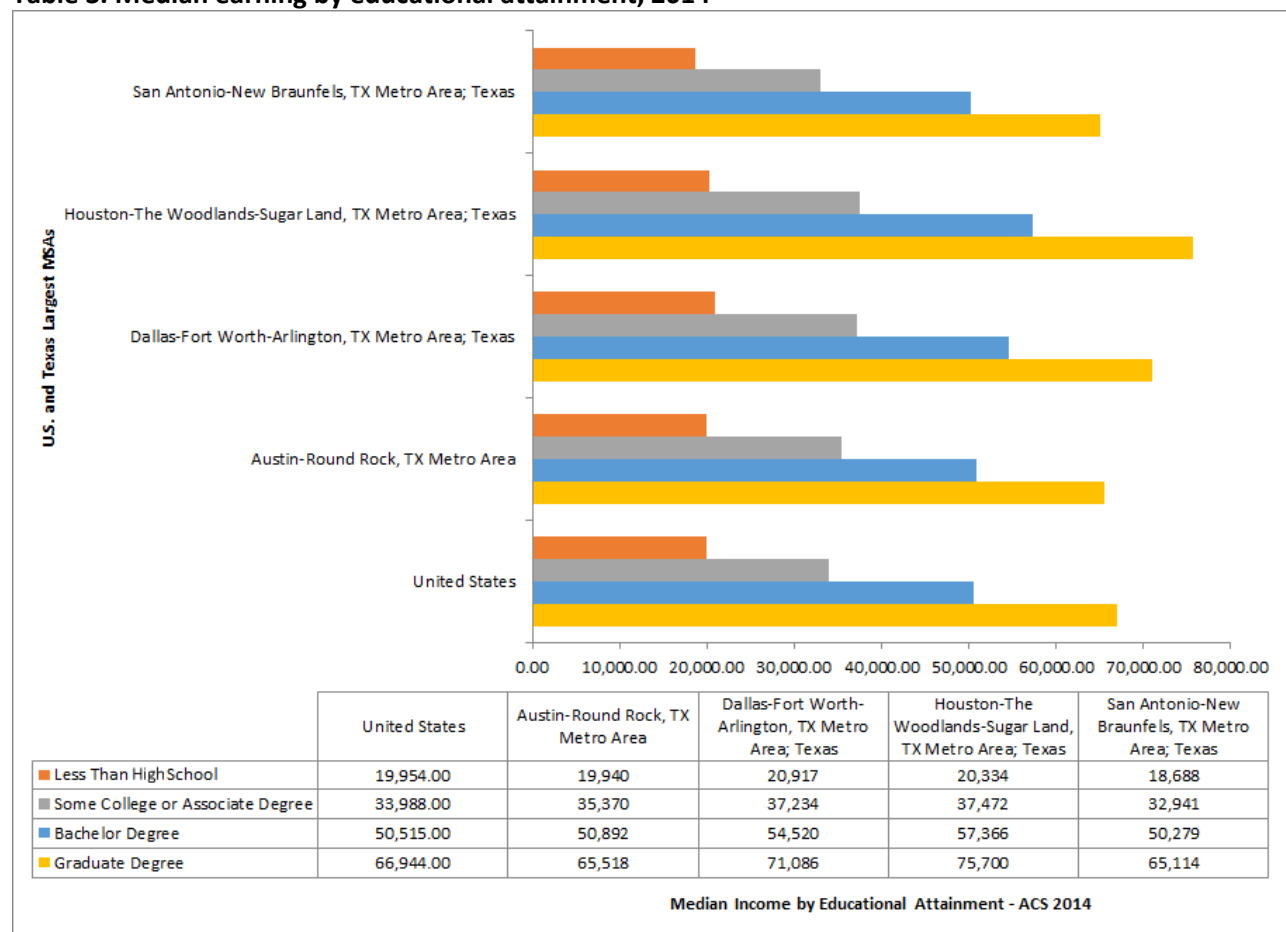
Figure 2. Earnings and unemployment rates by educational attainment, 2015



Much of what we highlight focuses on potential business revenues, but we must also note how a lack of educational attainment burdens the state and its local systems. We can see the lost income by looking at the rates of educational attainment in major metropolitan areas of Texas and the numbers of those who live below the poverty level. Low educational attainment only results in greater resources being diverted to social services when they could be best spent creating a cycle of educational investment.

Table 3 presents data from the 2014 American Community Survey, in which we see median earnings by educational attainment. In the four major Metropolitan Statistical Areas (MSAs) in Texas, higher median incomes are associated with higher levels of education.

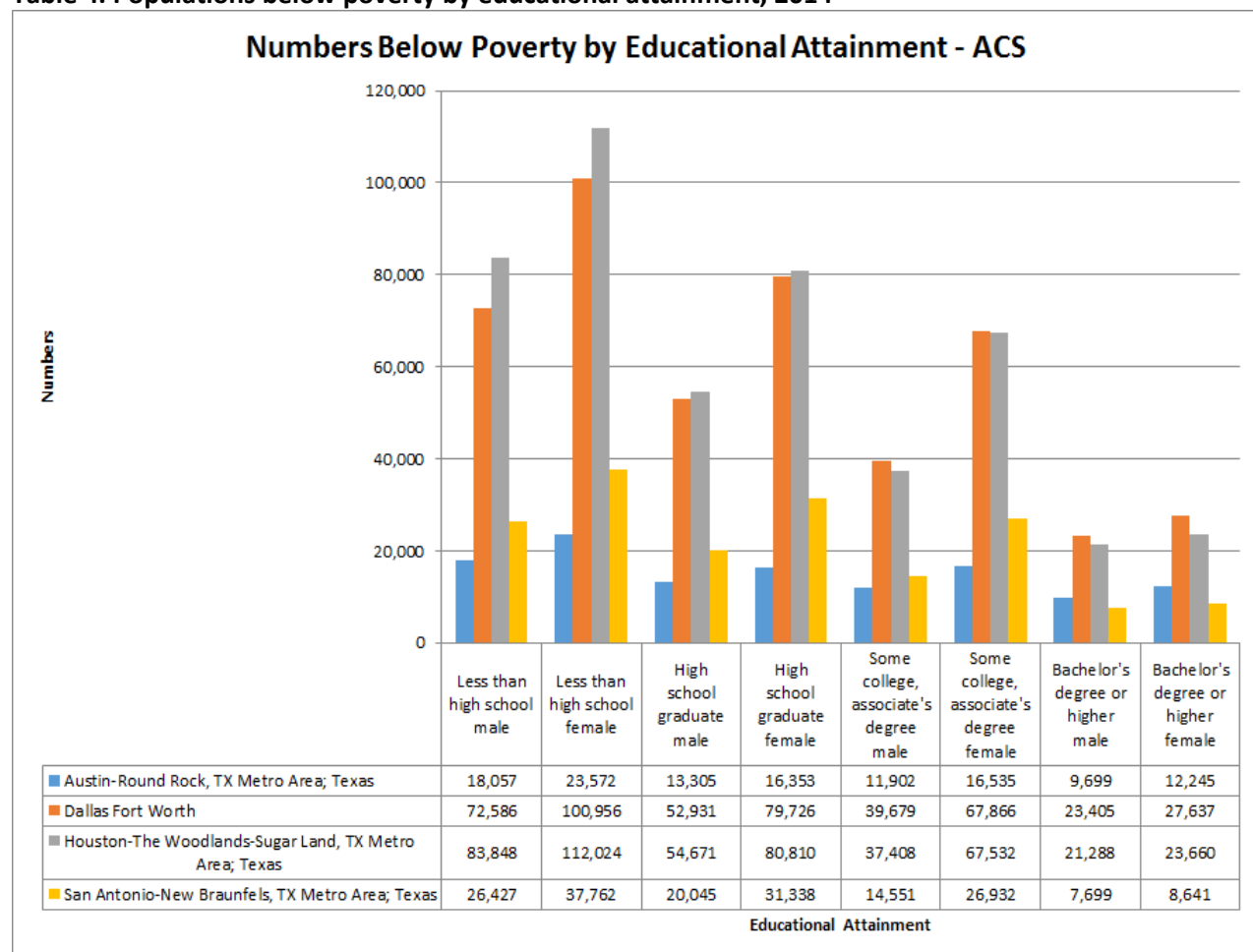
Table 3. Median earning by educational attainment, 2014



Source: American Community Survey (2014)

In Table 4, the same MSAs are used to identify individuals living below the poverty level by educational attainment, disaggregated to show the difference between male and females living in the major urban areas of Texas. Notice that in all cases, women are more likely to live in poverty if they fail to get a post-secondary education. Houston and Dallas have more individuals living below the poverty level by educational attainment, but all major areas show a decrease in poverty as the level of educational attainment increases. Again, the less education a person has, the greater the likelihood of poverty and unemployment.

Table 4. Populations below poverty by educational attainment, 2014



Source: American Community Survey (2014)

Education and human capital are clearly linked. The quality of an individual's education contributes to growth through innovation and greater productivity. In many instances, well-educated workers earning higher pay indicates that education improves individual economic outcomes. These better individual outcomes, in turn, fuel the economy.⁴²

TAXES: TEXAS' DISAPPEARING MIDDLE CLASS

Unemployment rates and a strain on social services are not the only factors to consider when it comes to individual earning power and growing the economy. Information provided by the IRS concerning the annual tax returns filed by Texans in 2015 shows the following:⁴³

- An average of 46 percent of all individual tax returns filed in Texas have an adjusted gross income (AGI) of \$25,000 or less.
 - In Bexar County, on average, 43 percent of returns are \$25,000 or less. This is the highest of the four major metropolitan areas.

- This low-income bracket pays, on average, 3 percent of the real estate taxes collected in each major county - Bexar, Dallas, Harris, Tarrant, Travis – and only 2.5 percent of the state and local sales taxes.
- The top income brackets (\$75,000 – \$100,000; \$100,001 to \$200,000; and \$200,001 and above) account for approximately 22 percent of individual income tax returns filed.
 - These high-income brackets pay, on average, 60 percent or more of state and local general sales taxes and real estate taxes.
- The smallest income brackets by percentage of returns filed are considered middle-class and cover between \$25,000 – \$50,000 and \$50,000 – \$75,000. This group, on average, accounts for only 14 to 15 percent of tax returns filed in Texas.

These official IRS numbers point to a remarkable and troubling fact: we are increasingly losing a Texas middle class and are losing higher tax revenues. Unfortunately, this trend leads to inadequate tax revenues that are necessary for the education needed to increase said revenues.

Another issue contributing to a shrinking middle class is a trend in employment for high school dropouts. According to CEW at Georgetown University, jobs for high school dropouts will grow by 915,000 between 2008 and 2018, representing approximately 23 percent of an estimated 4 million jobs created in the state either as new or through attrition – as older workers retire and new human capital is needed.⁴⁴ This is concerning because these are low income jobs, further limiting earning power and a higher tax base in the state of Texas. Ideally, our state should be interested in creating higher paying jobs that provide greater economic growth and sustainability.

Additionally, a disappearing middle class in Texas translates into greater economic instability for the average person, but not necessarily a growing upper class. The *Fort Worth Star Telegram* (2014) reports that research by Sam Houston State University's economists found a widening gap between the rich and poor in Texas.⁴⁵ Our state ranks fifth in overall inequality behind New York, Connecticut, Florida, and California. For the Texas business owner, the meaning is very clear – lower income individuals spend less on everything because there is not enough left at the end of each pay cycle or of annual salary or wages to buy a diverse array of products. It also means that it will become more difficult to purchase a home. If the majority of earners are at the \$25,000 AGI bracket, this means, provided their credit is “good,” they would qualify for a mortgage of approximately \$62,500. Unfortunately, according to the Real Estate Center at Texas A&M University, a home in the San Antonio MSAs in 2016 costs, on average, nearly \$200,000. If you look at the same average cost for homes in the Austin, Dallas and Houston MSAs, the prices are well over \$200,000.⁴⁶ The end result is that fewer families can afford homeownership, a staple in middle class living. If these income trends continue, paired with the 21 percent growth in Texas' child population, the state and the nation will suffer economically and financially.

LACK OF INNOVATION

Additionally, Texas is dealing with decreased innovation and competitiveness in patents as a result of educational stagnation. A Harvard/New York University 2016 study⁴⁷ estimates that the approval of a startup's first patent application increases its employment growth over the next five years by an average of 36 percent, boosts its sales growth by 51 percent, and increases the number of subsequent patents the company is granted by 49 percent.

Using data from the U.S. Patent and Trade Office for the 2000 – 2013 period, we see a disconcerting pattern in Texas:⁴⁸

- Four of the top 10 Metropolitan Statistical Areas (MSAs) for innovation are in California; not one is in Texas.
- Dallas-Arlington-Fort Worth ranks 11th; Austin-San Marcos-Round Rock ranks 12th; Houston-Sugarland-The Woodlands ranks 14th; and San Antonio-New Braunfels ranks 65th.
- The MSAs ranked at the top, San Jose-Sunnyvale-Santa Clara, produces more patents than all four of Texas' major MSAs combined.
- Texas can expect an average of 9,500 to 11,000 successful patents statewide by 2020; San Jose-Sunnyvale-Santa Clara can expect between 14,500 and 16,700.

An increasingly important feature of local innovation is the relationship between academia and business. In 2015, *U.S. News and World Report* circulated a survey to higher education administrators to identify which colleges and universities were leading the way in curriculum development, faculty and student opportunities, and facilities. They identified the finest post-secondary institutions for innovation in academics, and subsequently, business. Not one of our top Texas institutions ranked in the national top-25.⁴⁹

A large pool of low-skilled workers who have not achieved advanced educational attainment means Texas misses out on better-paying jobs and opportunities. Through its relationship with Texas high schools, colleges and universities, the legislature could create a state-wide environment conducive to creativity and innovation. Consider the example of the University of California (UC) system and how it intends to leverage education to help fund higher education through academic training and innovation in conjunction with businesses:

UC as a system is consistently among the top five royalty income-generating universities in the nation...Total income available (net of legal settlements) from technology transfer for distribution to inventors and the University reached a record level of \$164.6 million, an increase of \$71.8 million over FY 2010. In addition, 58 start-up companies were founded on UC technologies, including 44 companies based in California.⁵⁰

The lack of innovation in Texas' business enterprises and patents can potentially lead to missed opportunities for business enterprises and economic ventures. If innovators cannot find skilled laborers here or do not receive the educational support necessary to begin their own businesses, these opportunities will either never be realized or the businesses will go to other states. This brings us to a discussion of particular business struggles in the state.

HISPANIC-OWNED BUSINESSES

As an economic engine, Hispanic-owned businesses (HOBs) are the fastest growing contributors to the Texas economy. They are especially important because of the growing Latino population in the state. According to a survey conducted by the Bureau of Business Research (BBR) on HOBs in 2011, Hispanic-owned businesses comprised around 20 percent of Texas' total business population and continue to grow.⁵¹

Despite this increase, the data showed that “Hispanic-owned businesses lagged in all economic indicators when compared to performance values observed in mainstream businesses in Texas. Average gross receipts for Hispanic-owned businesses in Texas were one-fourth those of the receipts for mainstream firms, and average employment and payroll size for Hispanic firms were half of those for mainstream firms.”

The BBR report on Hispanic-owned businesses also calculated that:

Hispanics created about 9 firms for every 100 Hispanics 20 – 64 years of age in Texas. If they would have reached parity with non-Hispanic Whites (about 19 firms for every 100 non-Hispanic Whites 20 – 64 years of age) in Texas, Hispanic firms would have numbered 769,000 in 2007, not 447,589. Thus, even while Hispanic-owned businesses are growing in Texas, the rate of business creation within the working-age Hispanic population still lagged behind that of non-Hispanic Whites.⁵²

This lag, according to the BBR report, is due primarily to Hispanics’ lower levels of assets and education, lower percentage of parents with business experience, and overall smaller business networks than Whites. Other factors explaining the gap related to ineffective oral and written communication skills with customers, employees, and suppliers. In an interview with Jane Gonzalez, President of MEDwheels, Inc., she stated that an “uneducated workforce causes tremendous inefficiencies, errors, and poor customer service unless small businesses spend significant time and money in training.”⁵³ MEDwheels has learned the hard way that it is less costly to pay higher wages to employees with experience in durable medical equipment than to hire employees for less wages who are uneducated and inexperienced. Gonzalez noted, “early on, we hired at least three employees that were untrained and undereducated and it caused loss of revenue and bad customer service. I stay away from those potential hires now.”

SHRINKING APPEAL TO CORPORATIONS

A future where Texas has a bigger pool of unskilled workers will also take its toll on large businesses as they face skill shortages in their industries. Corporations already find it difficult to recruit and maintain the level of quality workforce needed to keep their businesses in Texas. This is especially hard for industries that need sizable numbers of skilled laborers, and has many of them calling for realignment of resources in high demand areas of economic development drivers.

An interview with Mario Lozoya, Director of Government Relations at Toyota San Antonio, clarified the manufacturing plant’s experience securing skilled employees.⁵⁴ Though Toyota Motor Manufacturing Texas (TMMTX) has no challenges filling four-year-degree jobs or administrative jobs in accounting, logistics, safety, human resources, and information technology, there are “limited challenges” filling entry level jobs in assembly, an occupation that requires a GED, but no further skills or training. The greatest shortage faced by both Toyota and the San Antonio business community at-large is for maintenance skilled workers. At the time of the interview, Lozoya indicated that 15 of the company’s 268 positions were currently available, and that this particular job has only been 100 percent filled for a total of five days during TMMTX’s 11 years of operation.

TMMTX also serves as a commendable example of the many ways businesses can help meet the needs in their own industries. Toyota’s investments in education include:

- TMMTX supports the Advanced Manufacturing Technical (AMT) course at St. Phillip's college, which is the only local program available for this job. The current student capacity is 20 per year, which means that the current output is short by 230. However, capacity has yet to be maximized.
- Toyota Motors provides help to students interested in the AMT program. Fifty students have received this opportunity, equaling a \$1.75 million investment.
- The company has donated over \$2 million to the AMT classroom at St. Phillips in robots and equipment.
- TMMTX has reached out to public schools to support 25 robotics teams in middle and high schools, creating a pipeline of students into the AMT program.
- Toyota interns 13 – 15 high school students from Alamo Academies for 8 weeks over the summer to broaden this pipeline.
- TMMTX sponsors Core4STEM and other STEM programs to help mitigate the workforce gap to a total of \$4.25 million in the past three years.
- All of these resources have exposed an infrastructure gap in STEM teaching and technical instructors, prompting TMMTX to create a STEM teaching scholarship fund aimed at filling this gap with teachers willing to get certifications and degrees in STEM.

Human capital encompasses the ability of individuals, families, businesses, and communities to build opportunities and industries. From those in small businesses to large corporations, many professionals know that education is a pipeline. Though the end result for skilled laborers will include college or some form of technical education, these students must first successfully navigate the educational system from early childhood to a high school diploma or GED.

BRIDGING THE GAP: RECOMMENDATIONS

Increasing state investment in education is essential to improving economic prosperity because it assures access to an educated workforce and increases the number of citizens who contribute to the economic, social, and political well-being of the whole community. This issue is increasingly relevant as the population ages. Highly educated Texans, aged 55 to 64, will be leaving the workforce in the next 15 years.⁵⁵ Their departure will create openings for jobs that the abundant child population in Texas may not be prepared to handle if public education remains at status quo.

This brings us back to demographics and education. More than half of the state's school-age student population is now Latino and almost all new growth is being generated by students classified as economically disadvantaged.⁵⁶ The numbers are even more glaring in certain areas across the state. While 64 percent and 69 percent of all children in the San Antonio metropolitan area and Bexar County, respectively, are identified as Latino, disparities by race and economic status continue across a number of institutions.⁵⁷ From healthcare to employment access, inequalities and inaccessibility to quality education hinders vast numbers of Texans from reaching their full potential.⁵⁸ This inequity stymies the ability of the state's economic engine to fully operate. Moving forward, state policies must be viewed as investments and public schooling initiatives must be considered vital to the future success of millions of Texans and Texan families. As Deborah Santiago, chief officer of Excelencia in Education, states, "people do not invest in crisis, they invest in opportunity. With a crisis, you just throw money at a problem and hope it goes away. Latino educational attainment should be seen as something with potential, as something with a significant ROI that is an incentive for people to act."⁵⁹ We must realize the untapped potential in underserved populations if our most critical human resource – the children and youth of Texas – is to be nurtured and prepared for the future.⁶⁰

Improving school outcomes depends on providing access to quality early childhood programs, funding a more equitable and adequate school finance system, investing in quality teachers, valuing dual language abilities, and engaging with parents and families from diverse backgrounds. Educational leaders, policymakers, and the business community can make a difference in the opportunities afforded to Texas schoolchildren by embracing the potential of educational investments. Framing better educational funding as an investment, not a cost, is the first step toward developing Texas' human capital.

EARLY CHILDHOOD EDUCATION

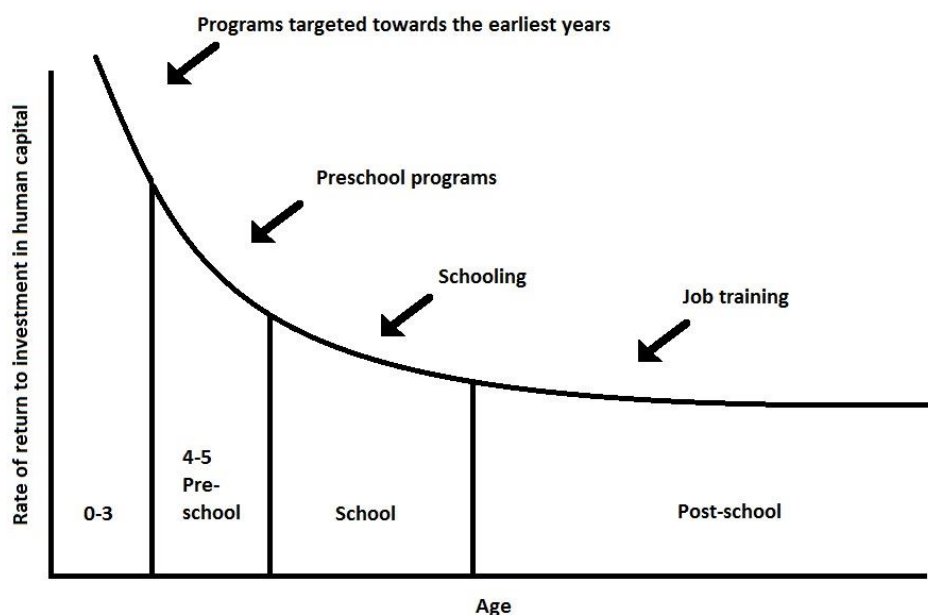
Any investment in public education and human capital must begin with its youngest students. After all, the first eight years of a child's life set the groundwork for his or her cognitive, social, and emotional skills: all major contributors to academic success.⁶¹ Well-funded and well-designed early childhood education and pre-kindergarten programs are critical for Texas children and they can make a huge difference in the life of a young student. According to Education Commissioner Mike Morath, an average student enters kindergarten 12 to 18 months academically behind.⁶² The consequences of being behind academically can range from repeating a grade to dropping out of school, subsequently facing unemployment and higher rates of incarceration.⁶³ Successful programs mitigate these issues and address the needs of the whole child. Evidence shows that access to these quality programs increases achievement in later years, especially for children classified as low-income. In some instances, early childhood programs have been found to impact long-term outcomes, such as reducing crime and

delinquency rates in later years. As a result, policymakers should consider expansion of quality programs for children as young as four, if not sooner.⁶⁴ Instructional support for teachers and the use of teaching models based in holistic curriculum are essential. Ultimately, an investment in our community's youngest children pays dividends on a number of educational outcomes later in their lives.⁶⁵

The first step toward achieving better outcomes for children and the future labor pool would be to extend our state's current pre-K offerings to full-day programs.⁶⁶ Early childhood education must have consistent, quality standards for academics, well-trained educators, and equitable funding so that all children are assured a comprehensive education.⁶⁷ Investing in early childhood education not only promotes the viability of the future workforce, but less money will also be spent on remediation throughout the educational pipeline.

Figure 3 below demonstrates this relationship: the earlier the educational intervention, the greater the impact.

Figure 3. Returns on Investment in Human Capital by Age



Source: James J. Heckman, "Schools, Skills and Synapses," *Economic Inquiry* 46, no. 3 (2008), 289-324.

While supporting high quality pre-K programs remains pivotal, supporting other essential programs, particularly those that impact other grade levels, also remains necessary. This includes recruiting and retaining a high quality teaching force and implementing a culturally relevant and challenging curriculum for all students.⁶⁸ The "National Report Card" shows Texas teachers earning only 76 percent of their peers' income in other fields at age 25, and only 67 percent at age 45.⁶⁹ Many other states across the country have been short-sighted in this area and have run into severe shortages of highly trained, excellent teachers, which directly impacts access to the foundation of a skilled workforce – a quality education for all students. As noted by TMMTX, some corporations are even taking it upon themselves to grow their own qualified teachers through funding of training programs or use of recent retirees from various industries as teachers.⁷⁰

RECOMMENDATIONS: Expand current pre-k offerings in Texas to full-day programs. The educational benefits of getting an early start on academic skills dramatically improve both educational outcomes and human capital. Pre-k should eventually be available to all students, beyond those most in need who currently qualify.

Educators should also be a primary focus in improving our public educational system. This may include increasing the overall salary of teachers and better recruiting and investing in educational programs at the college level.

Schools must also use teaching models backed up by research and that are culturally relevant for all of the children they serve.

LANGUAGE SUPPORT: BUILDING OFF ASSETS

As the state population becomes more diverse, valuing and building on the home languages of children is vital. As in business, the ability of students to adapt, innovate, and utilize the full repertoire of talents at their disposal only enhances their ability to compete in a global economy. School leaders and educators should acknowledge and celebrate the assets that students bring with them to school.⁷¹ Bilingual and bicultural abilities should be enhanced, not denied and de-valued. Though Texas has some strong policies on paper, such as biliteracy recognition for graduates and mandatory bilingual education programs, exceptions and poor implementation remain obstacles. This is partially due to many people who continue to look upon minority students who bring a language other than English to school as a detriment to learning or deficiency for the child. Though students should aim to become proficient in English, the research shows that enabling children to learn in their home language, while maintaining it, actually helps them to learn and perform better academically in a second language. What Texas needs are programs, resources, and policies that help children succeed in two languages.⁷² Not only will they perform well in English, but they will build upon their native tongue and, in turn, enhance the state's workforce. As we know in our globalized society, having highly trained and skilled bilingual and biliterate workers will only benefit Texas.

RECOMMENDATIONS: Properly value bilingual programs in public schools through funding and expand these programs where they are needed. Students should be able to receive a quality education in their home language while they are learning a second language.

FAMILY AND COMMUNITY

Along with capitalizing on language assets in our communities, Texas must partner with parents and families.⁷³ Schools that are able to engage parents and other family members not only see more success in the classroom for their children but also build a sense of community in and around schools, which produces additional benefits.⁷⁴ Communities become more stable and thrive when families are welcomed into the school. Teachers are willing to step up as leaders and support from home increases when communication is fostered across and throughout the school community. Educational leaders must continue to engage families, particularly those they have not traditionally embraced and welcomed into the school. Improving educational outcomes for all students and truly valuing the community will not only increase educational (and therefore economic) outcomes, but there is the potential to forge ties between public schools and local businesses.

RECOMMENDATION: Schools should reach out to parents and the community as partners in education. Students flourish when properly supported at home. Every stakeholder benefits from working together in the name of a quality education.

COLLEGE AFFORDABILITY

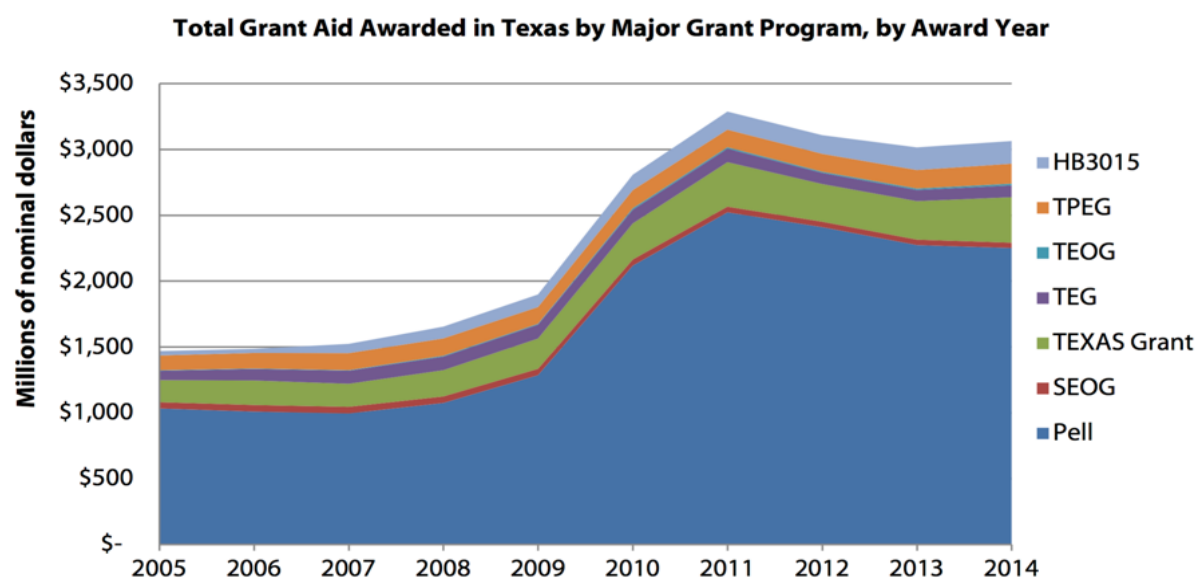
The focus on improving education and investing in human capital does not end at the secondary level. Bolstering post-secondary degree attainment can significantly enhance the economic and social well-being of Texas and its citizens. Unfortunately, increasing degree attainment will be a problem unless the state provides better fiscal support for its low-income students and regional colleges and universities.

In terms of student support, Texas faces a growing need. Several factors, including the economic downturn from the 2008 recession, the deregulation of higher education tuition in 2003, and reductions in state appropriations for colleges and universities have contributed to a sharp decline in college affordability in Texas, especially for students from low-income families. While federal support for Pell grants is declining, state financial aid in Texas has not kept pace with the rising costs associated with paying for college. A 2016 report by the Institute for Research in Higher Education examining the net price (college costs minus the average financial aid) of college in Texas demonstrates that:

- On average, the costs of tuition, fees, books, and room/board will far exceed the total financial aid a student could expect to receive.
- For families in the lowest income brackets (average annual income of \$0 – \$30,000, which represents 25 percent of all families in Texas), this means that 33 percent of their income would be needed to cover the costs at a community college, 45 – 51 percent at a public four-year university, and 99 – 120 percent at a private four-year university in Texas.
- If income and financial aid cannot cover costs, it is estimated that students must work, on average, more than 21 hours per week to pay the costs of full-time enrollment in Texas.
- Currently, 900,000 (or 61 percent) of all post-secondary students enrolled during fall 2013 received some sort of financial aid in Texas, but more than half of all financial aid offered was through a loan.⁷⁵

Texas' heavy reliance on loans impedes college enrollment and completion rates, especially among Latinos, who among all racial groups of students, are more averse to using loans to pay for college costs. Latinos tend to make college enrollment decisions (i.e. part-time vs full-time, two-year vs four-year) based on what they can afford without amassing debt.⁷⁶ On the other hand, grant aid, money that does not need to be paid back, enhances college access and degree attainment for low-income and minority students like Latinos and African-Americans.⁷⁷ Still, as shown in Table 5 from TG Research's 2016 report on financial aid in Texas, for the past several years, the state has continued to offer a minimal level of grant aid to support students in their efforts to attain a degree in Texas. Instead, students rely on the federal Pell Grant as their major form of financial aid support in Texas.

Table 5. Total Grant Aid Awarded in Texas by Major Grant Program, by Award Year



Source: Chris Fernandez, Carla Fletcher, and Kasey Klepfer, “State of Student Aid and Higher Education in Texas,” (Round Rock: TG Research, May 2016), 38.

Texas, as whole, is not providing enough assistance to prospective college students. Instead, students often rely on hefty loans or work excessive hours while trying to get a degree. If other states offer better financial aid packages for these students, Texas may end up losing many of them to other states.

RECOMMENDATIONS: Improve financial aid for all college students. Taking on tremendous debt or needing to work excessive hours keeps these students from thriving or discourages them from wanting to pursue a degree in the first place. Partnerships between local businesses and universities could also pave the way for developing jobs and industries that will grow the economy with the added benefit of producing properly educated workers to fill them.

INVESTING IN POST-SECONDARY SUCCESS

If Texas wants to encourage college attainment from all its citizens, it needs to reinvest in its students and institutions of higher education, especially colleges that enroll the greatest number of low-income students. These public two-year and four-year institutions are not only working to enhance the economics of the region, but in many cases are the only nearby options.⁷⁸ This is critical to advancing degree attainment because 62 percent of all college students in the U.S. enroll at post-secondary institutions that are less than 20 miles from their home.⁷⁹ Additionally, adults already in the workforce also must be encouraged to seek their education from these same institutions as they change industries or attain their first degrees at a later age.⁸⁰

Many of the institutions advancing the degree attainment of underrepresented student populations across Texas are also classified as minority-serving institutions (MSIs). MSIs in Texas include: Historically Black Colleges and Universities (HBCUs), Hispanic-Serving Institutions (HSIs), Predominately Black Institutions (PBIs), as well as Asian American Native American Pacific Islander Serving Institutions

(AANAPISIs).⁸¹ Collectively, these institutions enroll large percentages of Texas' minority student population. For example, during fall 2013, it is estimated that 73 percent of all underrepresented minority students, who were pursuing either an undergraduate degree or some other post-secondary education at a Texas institution, did so at an MSI.⁸² Compared to non-MSIs, these institutions also enroll more students who tend to be first-generation, less-affluent, or less academically prepared.⁸³ Considering how funding is dispersed to public higher education institutions in Texas, MSIs tend to suffer from funding inequities. MSIs provide a pathway to degree attainment for many underrepresented students in Texas, but when reductions in state appropriations occur or when funding is tied solely to static metrics that disregard other measures of success, closing the degree attainment gap for minority students in Texas becomes much harder to accomplish.

MSIs in Texas depend significantly on state appropriations as a major source of their revenue⁸⁴; yet, on average, the state has reduced funding per full-time equivalent student by \$1,894 across all institutions of higher education.⁸⁵ Such reductions mean that MSIs are left with larger fiscal gaps to cover in their efforts to educate students who often need additional academic support and services.⁸⁶ These institutions need to be adequately resourced because, as demonstrated, they are key sites to raising the overall degree attainment rate in Texas, and to helping more underrepresented students gain a post-secondary education. Additionally, the issue of remediation needs to be addressed at the college level. Universities must partner with public primary and secondary institutions to express clear expectations to these schools in the interest of better preparing students.⁸⁷ Colleges and universities ought to be held to high standards, but that cannot be done without the proper funding on their end and supportive financial aid for their students.⁸⁸

RECOMMENDATION: Provide better funding for colleges and universities, particularly those that serve minority populations. These institutions have the potential to help a new generation of students who have been historically underserved obtain a degree and better their lives and the future of Texas business.

CONCLUSION

Educate Fir\$t believes it is crucial for both the Texas business community and Texas leadership to acknowledge the severity of the economic and financial consequences that imminently face our state due to the demographics and education statistics at play. The facts are simple and undeniable – Texas is in the midst of an education crisis.

Between 2000 and 2014, nearly 90 percent of the child growth population within the United States came from Texas. A significant segment of this population, which is increasingly minority and economically disadvantaged, is not receiving a quality education. Lacking an optimal education in the early years, compounded by an underfunded high school education, results in graduates who are ill-prepared for college, technical schools, or the workforce. Business bears the burden of having to train and or re-train these individuals to overcome the deficiencies of a weak educational system.

Texas must change the way it is currently educating our children or the consequences will be devastating to both the state and the nation's economy. The value of human capital cannot be diminished; without a strong, well-prepared, and better educated labor force, business cannot function, maintain, or sustain financial growth.

Educate Fir\$t is a collaboration of individuals from the fields of business, academia, and education who share a concern for the economic future of Texas. We believe that solving the public education crisis should be the number one priority for our state legislators, business community, and educators because it will cement our path for economic sustainability and growth. Failure to acknowledge and address this matter decreases future economic opportunities and furthers the cost to businesses within the state and the nation.

ENDNOTES

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