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# The Role of Education in Economic Development

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## **Education Working Group Members**

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## **Introduction**

### **What are the current employment needs in the Bay area?**

*High needs occupations heavily concentrated in STEM fields: Science, Technology, Engineering, and Mathematics.*

- There are shortages of qualified personnel in almost every area of healthcare. Aging baby boomers will stress the existing workforce even farther.
- There are also current needs in technology and petro-chemical industries, and anticipated retirements over the next ten years will create a critical shortage of qualified employees in these industries.
- China adds 600,000 new engineers a year; the US, only 70,000. Even India, with 350,000 new engineers a year, is outdoing the US.
- Additionally, there are critical shortages of teachers at all levels, particularly in science and mathematics.

### **How does Texas fare in terms of educational attainment?**

- Educational attainment levels in Texas are low; many schools are not making their Annual Yearly Progress in Reading, Mathematics, and Graduation rates under No Child Left Behind. Further, Texas schools are not meeting their own accountability standards. (<http://www.tea.state.tx.us/perfreport/account/2007/state.html>  
<http://www.tea.state.tx.us/perfreport/aeis/2007/state.html>)
- No Child Left Behind standards have been criticized for being "one size fits all," lacking the flexibility to meet the needs of a diverse school population. All skills, talents, and abilities that cannot be reflected in a single test; moreover, standardized tests have been criticized as reflecting a middle class bias, thus putting low-income and minority students at a further disadvantage.
- According to the 2000 U.S. Census, of people age 25 and above, 23.2% had achieved a Bachelor's degree of higher, while 24.3% of the same age group did not graduate from high school. Of people ages 16-19, 12.5% are high school drop outs.

### **What are the costs of dropping out of high school?**

*Dropouts suffer from reduced earnings and lost opportunities; there is also a significant social and economic cost to the rest of the nation.*

- Over the course of his or her lifetime, a high school dropout earns, on average, about \$260,000 less than a high school graduate (Rouse 2005).
- Dropouts from the Class of 2007 alone will cost the nation nearly \$329 billion in lost wages, taxes, and productivity over their lifetimes (Alliance for Excellent Education 2007).
- If the United States' likely dropouts from the Class of 2006 had graduated, the nation could have saved more than \$17 billion in Medicaid and expenditures for uninsured health care over the course of those young people's lifetimes (Alliance for Excellent Education 2006b).
- If U.S. high schools and colleges raise the graduation rates of Hispanic, African American, and Native American students to the levels of white students by 2020, the potential increase in personal income would add more than \$310 billion to the U.S. economy (Alliance for Excellent Education 2006a).
- Increasing the graduation rate and college matriculation of male students in the United States by just 5 percent could lead to combined savings and revenue of almost \$8 billion each year by reducing crime-related costs (Alliance for Excellent Education 2006c).

### **Who is dropping out?**

*Overall, far too many students are not graduating on time with a regular diploma; low-income and minority students fare the worst in the dropout epidemic.*

- Each year approximately 1.23 million students fail to graduate from high school, more than half of whom are from minority groups (EPE 2007).<sup>1</sup>

### **What do we need?**

- In short, we need a workforce both educated and trained in science, technology, healthcare, and education.
- Education is an economic development engine, in that companies look for areas with an educated work force and access to higher education as a positive when exploring relocation into a new area. This concept is supported at [http://www.fortbendcounty.org/page\\_workforce\\_data\\_n\\_topics](http://www.fortbendcounty.org/page_workforce_data_n_topics) <[http://www.fortbendcounty.org/page\\_workforce\\_data\\_n\\_topics](http://www.fortbendcounty.org/page_workforce_data_n_topics)> .
- Further, we need public policy which supports technical and vocational training as well as traditional college for (See attachment on job growth, includes info on vocational and Associate's degrees.)
- Curriculum alignment, Pre-K through graduate degrees, is also critical. Students need seamless transitions from one level to the next. There also need to be clear

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<sup>1</sup> Alliance for Excellent Education, Factsheet Sept 2007

alternative pathways for less academically inclined students which can lead to these high-demand careers.

- Scholarships and other need-based support must be increased to enable low-income, first-generation, and minority students access to post-secondary education. (Who goes to college - <http://harvardscience.harvard.edu/node/3411>)

In our nation's information-driven economy, the answers are indeed worth a million bucks. According to the College Board, people with a bachelor's degree will earn, on average, \$1 million more throughout their lifetimes than those with only a high school diploma.

Yet with the average tuition price of private four-year colleges nudging \$20,000 per year and their public counterparts charging, on average, more than \$4,000, access to that million-dollar advantage challenges lower-income students and their families. If, that is, those low-income students have received the education and counseling that's made a college degree worth considering at all.

## **Challenges**

Long has completed several studies recently that look at government programs intended to help students attend college, including the Georgia HOPE Scholarship, a merit-based program that's been replicated in other states, and the federal government's 1997 tax credits for higher education expenses.

She found that, unlike earlier federal initiatives such as the need-based Pell Grant, these newer programs, initiated in the 1990s, are affecting affordability far more than access. In other words, they're benefiting students who are already college-bound.

"They're really representing a shift in financial aid," she says of the programs. "They're not trying to introduce new people into the system, they're trying to make people who are already going to attend more comfortable with the expense."

The merit-based Georgia HOPE scholarship, for instance, grants free tuition at an in-state public college to any Georgia student with a B average or higher; it's a program popular with voters and, thus, with policy-makers. But most of those students - 80 percent, according to several researchers - would have attended college anyway.

In another study, forthcoming as a chapter in a book edited by Professor of Economics Caroline Hoxby (Long's adviser for her Ph.D. from Harvard), Long found that the 1997 federal tax credits for higher education - the largest public financial package in 40 years - were uniquely unsuited to benefit families with low incomes and, thus, low tax liability. Almost no one with an income below \$30,000 qualifies for the nonrefundable credits, she says. Rather, most of the credits in the past several years have gone to families with incomes of over \$50,000.

Compounding the problem, she adds, is the fact that families do not know the amount of government aid they'll receive until March of a student's senior year, by which point the student would have already applied to colleges without knowing if he or she can pay for them. Long suggests backing the acknowledgement process up by years, not months.

"If you knew in sixth grade, given your family income, this is how much money the government is willing to help you to go to college, that's certainly going to affect your outlook on how hard you're going to work and whether or not you think you're going to go to college," she says.

Finally, college tuition has an image problem, and Long notes that it's not just low-income families who vastly overestimate the cost of college. When she asks her master's level students at the GSE the average costs for public and private four-year colleges, they overshoot by a multiple of four.

"And these are people who've been to college, have college degrees, and work at colleges," she says. Lower-income families may be stunned to inaction by a reported \$30,000 price tag, yet they're not getting the message that community or state colleges cost far, far less and that almost no one - less than 15 percent - pays full freight even at costly private colleges.

### **Conclusion: More than the million-dollar question**

Broadening access to a college education does more than line graduates' pockets with an extra million bucks, Long argues; more productive, educated earners benefit everyone. Several alternatives to a well-educated workforce - public assistance or jail - actually cost society dearly.<sup>2</sup>

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<sup>2</sup> <http://www.news.harvard.edu/gazette/2003/09.25/13-terrylong.html>