

Cost-benefit analysis of literacy programs

1. High school graduation rates by region:

Statistic	Travis	Bastrop	Caldwell	Hays	Williamson	Texas
High school graduates, percent of persons age 25+, 2000	84.7%	76.9%	71.3%	84.7%	88.8%	75.7%

Data from www.census.gov

2. Education translates into higher earnings and lower unemployment rates:

Unemployment rate in 2006 (Percent)	Education attained	Median weekly earnings in 2006 (Dollars)	Median annual earnings in 2006 (Dollars)
1.4	Doctoral degree	\$1,441	\$74,932
1.1	Professional degree	1,474	76,648
1.7	Master's degree	1,140	59,280
2.3	Bachelor's degree	962	50,024
3.0	Associate degree	721	37,492
3.9	Some college, no degree	674	35,048
4.3	High-school graduate	595	30,940
6.8	Less than a high school diploma	419	21,788

Data from the U.S. Department of Labor Bureau of Labor Statistics (<http://www.bls.gov/emp/emptab7.htm>)

Note: Data are 2006 annual averages for persons age 25 and over. Earnings are for full-time wage and salary workers.

3. What if Central Texas' educational attainment levels were to increase by five percent? What would the increase in earnings be? What would the potential increase in tax revenue be?

Step 1: Determine existing county rates of educational attainment

- ◆ Measure: Population age 25+ with high school degree or higher

Travis (n = 424,575):	84.7%
Bastrop (n = 28,646):	76.9%
Caldwell (n = 14,501):	71.3%
Hays (n = 45,423):	84.7%
Williamson (n = 138,201):	88.8%
Texas (n = 9,676,332):	75.7%

Step 2: Apply five percent increase in educational attainment rates to Central Texas' population

- ◆ **Travis Population 25+:**
 $424,575 \times .05 + 424,575 = 445,804$
Difference is 21,229 additional high school graduates age 25+

- ◆ **Bastrop Population 25+:**
 $28,646 \times .05 + 28,646 = 30,078$
Difference is 1,432 additional high school graduates age 25+

- ◆ **Caldwell Population 25+:**
 $14,501 \times .05 + 14,501 = 15,226$
Difference is 725 additional high school graduates age 25+

- ◆ **Hays Population 25+:**
 $45,423 \times .05 + 45,423 = 47,694$
Difference is 2,271 additional high school graduates age 25+

- ◆ **Williamson Population 25+:**
 $138,201 \times .05 + 138,201 = 145,111$
Difference is 6,910 additional high school graduates age 25+

- ◆ **Texas Population 25+:**
 $9,676,332 \times .05 + 9,676,332 = 10,160,148$
Difference is 483,817 additional high school graduates age 25+

Step 3: Apply difference in median earnings for high school degree holders to our new degree holders.

Region	Number of additional high school graduates using 5% benchmark	Total annual earnings without a high school diploma (n x \$21,788)	Total annual earnings with a high school diploma (n x \$30,940)	Potential annual increase in earnings (no high school diploma vs. high school diploma)
Travis	21,229	\$462,537,452.00	\$656,825,260.00	\$194,287,808.00
Bastrop	1,432	\$31,200,416.00	\$44,306,080.00	\$13,105,664.00
Caldwell	725	\$15,796,300.00	\$22,431,500.00	\$6,635,200.00
Hays	2,271	\$49,480,548.00	\$70,264,740.00	\$20,784,192.00
Williamson	6,910	\$150,555,080.00	\$213,795,400.00	\$63,240,320.00
Texas	483,817	\$10,541,404,796.00	\$14,969,297,980.00	\$4,427,893,184.00

Step 4: Apply city/county/state sales tax rates to increased earnings

Region	City/county/state combined sales tax rate	Potential annual increase in earnings (no high school diploma vs. high school diploma)	Estimated new annual tax revenue
Travis	8.25%	\$194,287,808.00	\$16,028,744.16
Bastrop	8.25%	\$13,105,664.00	\$1,081,217.28
Caldwell	8.25%	\$6,635,200.00	\$547,404.00
Hays	8.25%	\$20,784,192.00	\$1,714,695.84
Williamson	8.25%	\$63,240,320.00	\$5,217,326.40
Texas	8.25%	\$4,427,893,184.00	\$365,301,187.68

Conclusion: For every person who earns a high school diploma, they will contribute an estimated additional \$755.04 annually to city/county/state sales taxes.