



- **Every dropout costs the state an average of approximately \$950 in incarceration services each year.**

Incarceration costs are constant whether a specific dropout is incarcerated or not, and reflects the overall average of the cohort. Although the odds of any individual resident being incarcerated are low, that rate increases significantly among high school dropouts. Their presence in the Tennessee penal system is substantial, and they are key contributors to such problems as overcrowding and staffing issues. Additionally, those dropouts place a greater strain on prison education programs, which need additional staff to run them. Based on U.S. Census statistics, each dropout costs the state more than \$950 a year in incarceration costs, which includes capital outlays and staffing.

- **Tennessee has a population of more than 750,000 high school dropouts. At a cost of nearly \$3,000 per individual annually, dropouts cost the state more than \$2 billion a year.**

Tennessee taxpayers are burdened by the costs of assisting the state's undereducated residents. High school dropouts cost the state more than \$2.1 billion a year, based on conservative estimates. In a time of economic strife, preventive measures to ensure state funds can be better appropriated are undoubtedly important. Until then, this academic failure will continue to be an anchor in a sea of financial problems for Tennessee.

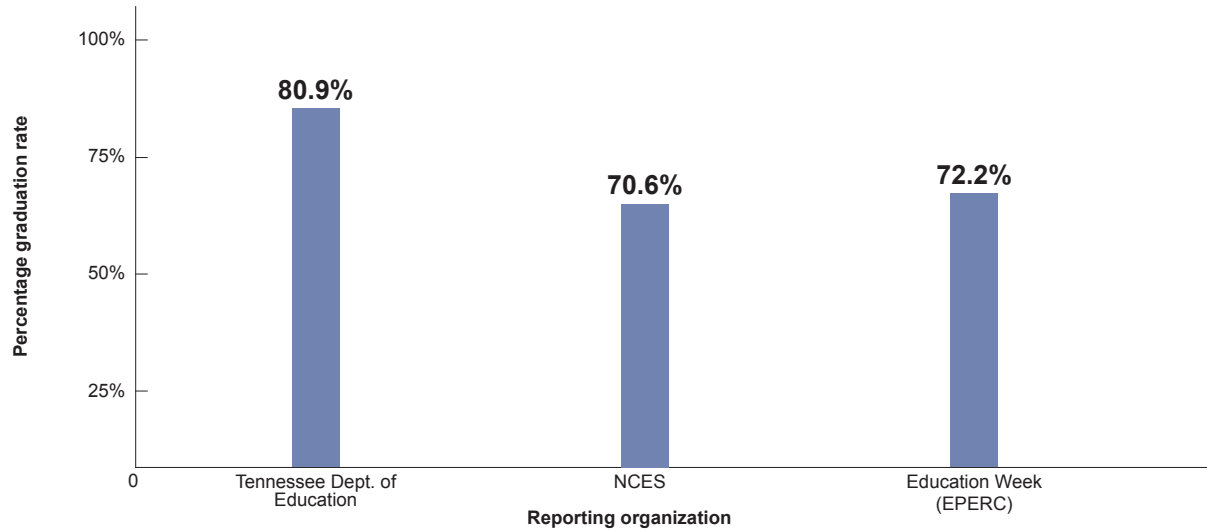


Tables & Figures

Tennessee's graduation rate is likely lower than what has been reported by state government.

Figure 1

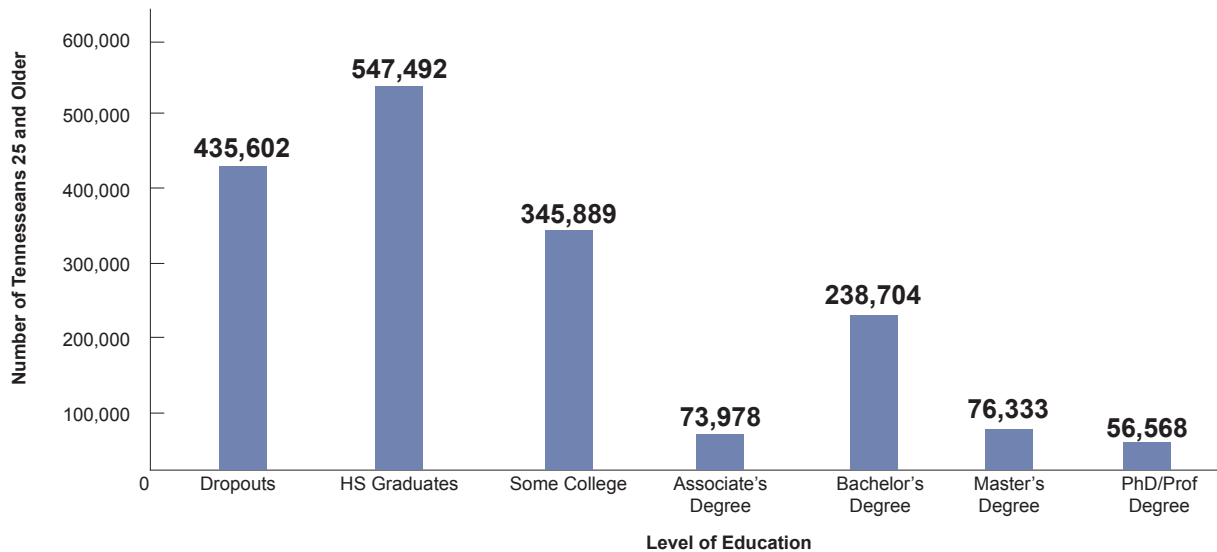
Statewide high school graduation rates by reporting organization (2006)



As of 2007, there were more than 435,000 dropouts in Tennessee.

Figure 2

Tennesseans' educational attainment (2007)



Source: U.S. Census Bureau, *Current Population Survey* (March Supplement 2007), data for Tennessee.

Tennessee's High School Dropouts

Examining the Fiscal and Social Consequences



Tennessee's graduation rate lagged behind its northern neighbors but remained ahead of southern bordering states.

Table
1

Statewide high school graduation rates, reported by the U.S. Department of Education (2001 and 2007)

State	2007 Graduation Rate	2001 Graduation Rate
Tennessee	70.6	59.0
Missouri	81.0	75.5
Arkansas	80.4	73.9
Kentucky	77.2	69.8
Virginia	74.5	77.5
North Carolina	71.8	66.5
Alabama	66.2	63.7
Mississippi	63.5	59.7
Georgia	62.4	58.7

Source: National Center for Education Statistics, U.S. Department of Education.

In 2007, before the economic recession, Tennessee dropouts had substantially higher unemployment rates compared to high school graduates: 11.3% vs. 6.9%, respectively.

Table
2

Tennessee's unemployment rate by educational attainment (2007)

	Employed	Unemployed	Unemployment Rate	Not in Labor Force	Percentage not in Labor Force
Dropouts	252,601	32,209	11.31%	492,142	63.34%
HS Graduates	806,820	59,936	6.91%	521,507	37.57%
Associate's Degree	170,830	6,573	3.71%	50,695	22.23%
Bachelor's Degree	431,392	12,741	2.87%	132,806	23.02%
Master's Degree	157,087	3,303	2.06%	49,360	23.53%
PhD/Prof Degree	79,864	893	1.11%	18,509	18.65%

Note: Figures reflect reported response counts as provided by the 2007 Current Population Survey, released by the U.S. Census Bureau. Counts may vary from chart to chart in this report because of total responses to different questions in the survey.

Source: U.S. Census Bureau, *Current Population Survey* (March Supplement 2007), data for Tennessee.

If Tennessee's dropouts had completed high school, it is estimated that this population would have earned an additional \$7 billion in 2007.

Table
3

Average annual earnings and total earnings by educational attainment (2007)

Educational Attainment	Population	Average Annual Earnings	Total Annual Earnings	Total Earnings If Dropouts Become HS Grads
Dropouts	776,952	\$15,500	\$3,669,932,913	\$0
HS Graduates	1,388,263	\$24,270	\$16,057,343,533	\$52,549,984,572
Some College	782,296	\$31,856	\$16,800,078,898	\$24,920,523,502
Associate's Degree	228,098	\$34,426	\$8,122,428,009	\$7,852,410,509
Bachelor's Degree	576,939	\$51,903	\$23,576,357,061	\$29,944,922,611
Master's Degree	209,750	\$59,093	\$15,400,335,709	\$12,394,651,875
PhD/Prof Degree	99,266	\$101,378	\$83,626,476,123	\$10,063,424,970
TOTAL	4,061,564		\$130,911,736,438	\$137,725,918,038
INCREASED EARNINGS IF ALL DROPOUTS BECOME HS GRADUATES				→ \$6,814,181,601

Note: Figures reflect reported response counts as provided by the 2007 Current Population Survey, released by the U.S. Census Bureau. Counts may vary from chart to chart in this report because of total responses to different questions in the survey.

Source: Author's calculations. U.S. Census Bureau, *Current Population Survey* (March Supplement 2007), data for Tennessee.



In 2007, Tennessee's sales tax was by far the greatest revenue generator for state government.

Table
4

Type of tax by percentage of overall state revenue (2007)

Type of Tax	Percentage of Overall State Revenue
Sales Tax	57%
Franchise and Excise Tax	14%
Gasoline Tax	7%
Other Taxes	6%
Gross Receipts and Privilege Tax	5%
Insurance and Banking Tax	3%
Income and Inheritance Tax	3%
Tobacco, Alcohol, and Beer Tax	3%
Motor Vehicle Tax	2%

Source: Tennessee State Budget, 2007-2009; Sunshine Review: Tennessee State Budget.

In 2007, spending on education made up nearly half of Tennessee's annual state budget.

Table
5

Type of public service by percentage of state budget (2007)

Type of Public Service	Percentage of State Budget
Education	48%
Health and Social Services	32%
Law, Safety, and Corrections	12%
Resources and Regulation	4%
General Government	3%
Business and Economic Development	1%

Source: Tennessee State Budget, 2007-2009; Sunshine Review: Tennessee State Budget.

Tennessee's High School Dropouts

Examining the Fiscal and Social Consequences



Tennessee could have seen tax revenues increase by as much as \$582 million per year if dropouts had completed high school.

Table
6

Potential tax collections and revenue if all dropouts had completed high school (2007)

	Population	Average Annual Earnings	Average Tax Collection Per Resident (based on spending)	Total Tax Revenue
Dropouts	776,952	\$15,500	\$1,325	\$1,029,461,400
If Dropouts Become HS Graduates	776,952	\$24,270	\$2,075	\$1,612,175,400
DIFFERENCE		\$8,770	\$750	\$582,714,000

Note: Figures reflect reported response counts as provided by the 2007 Current Population Survey, released by the U.S. Census Bureau. Counts may vary from chart to chart in this report because of total responses to different questions in the survey.

Source: Author's calculations. U.S. Census Bureau, *Current Population Survey* (March Supplement 2007), data for Tennessee.

A single dropout costs the state \$750 each year in lost tax revenue.

Table
7

Summary of lost state tax revenue resulting from dropouts (2007)

Average Annual Earnings - Dropout	\$15,500
Average Annual Earnings - HS Graduate	\$24,270
Difference	\$8,770
Total Additional Accumulated Wealth If No Dropouts	\$6,814,181,600
Average percent of earnings redistributed through state-based taxes	8.55%
Total Estimated Additional Tax Revenue	\$582,714,000
ANNUAL LOST STATE TAX REVENUE PER DROPOUT	\$750

Note: Figures reflect reported response counts as provided by the 2007 Current Population Survey, released by the U.S. Census Bureau. Counts may vary from chart to chart in this report because of total responses to different questions in the survey.

Source: Author's calculations. U.S. Census Bureau, *Current Population Survey* (March Supplement 2007), data for Tennessee.

Tennessee spends more on Medicaid than most neighboring states.

Table
8

State	Medicaid Spending (2007)
Tennessee	\$2,591,579,945
North Carolina	\$3,489,476,907
Georgia	\$2,663,374,430
Missouri	\$2,531,579,805
Virginia	\$2,481,443,130
Kentucky	\$1,397,086,713
Alabama	\$1,280,541,790
Arkansas	\$823,824,132
Mississippi	\$792,347,004

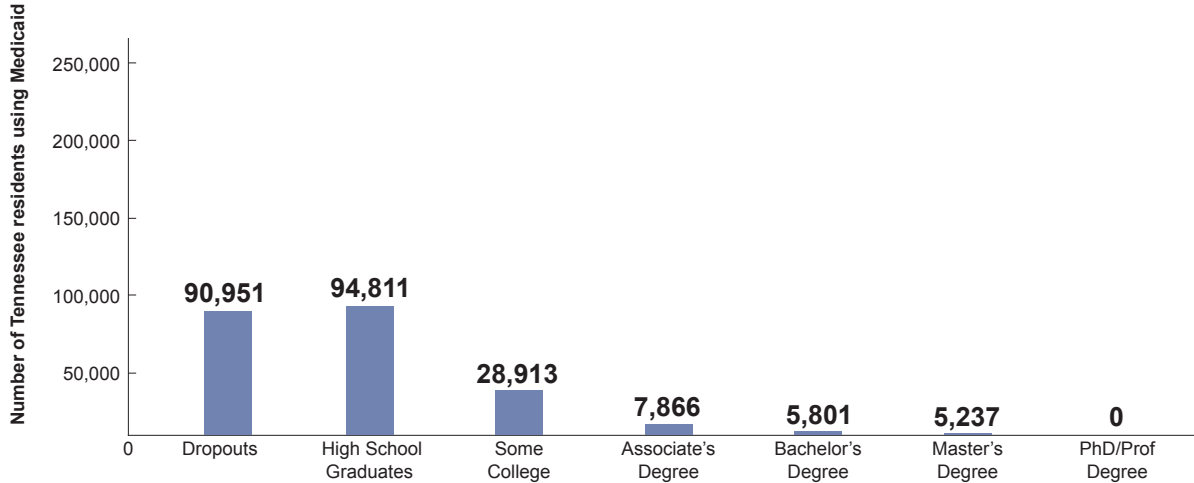
Source: StateHealthFacts.org



As of 2007, there were more than 90,000 dropouts (age 25 or older) who were using Medicaid in Tennessee.

Figure 3

Tennessee residents using Medicaid by educational attainment (2007)



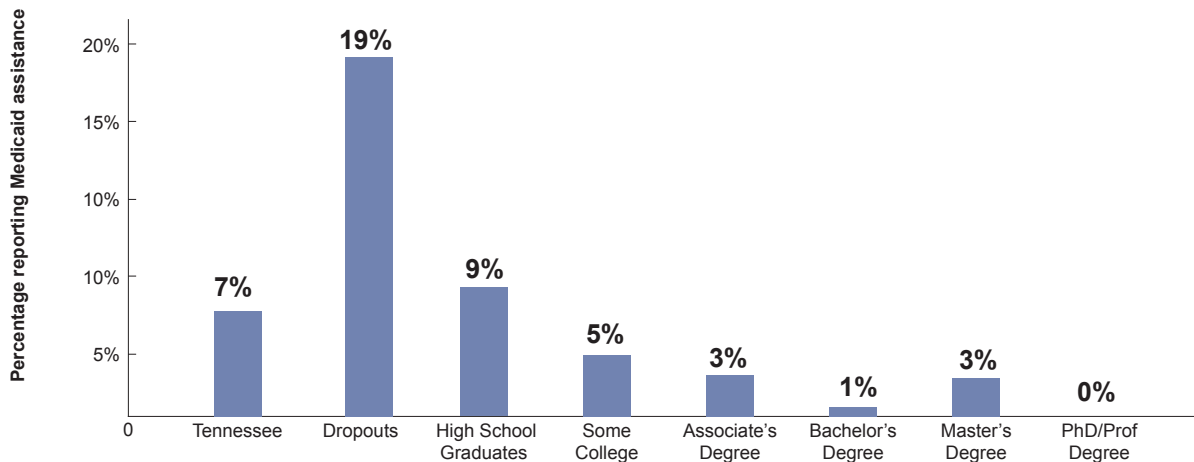
Note: Figures reflect reported response counts as provided by the 2007 Current Population Survey, released by the U.S. Census Bureau. Counts may vary from chart to chart in this report because of total responses to different questions in the survey.

Source: Author's calculations. U.S. Census Bureau, *Current Population Survey* (March Supplement 2007), data for Tennessee.

Tennessee's dropouts are twice as likely as graduates to depend on Medicaid.

Figure 4

Self-reported Medicaid assistance by educational attainment (2007)



Note: Figures reflect reported response counts as provided by the 2007 Current Population Survey, released by the U.S. Census Bureau. Counts may vary from chart to chart in this report because of total responses to different questions in the survey.

Source: Author's calculations. U.S. Census Bureau, *Current Population Survey* (March Supplement 2007), data for Tennessee.



Higher Medicaid use by dropouts costs Tennessee more than \$523 million per year.

Table
9

Educational Attainment	Population	# on or w/ Child on Medicaid	% on or w/ Child on Medicaid	Total Cost to State	If All Dropouts Become HS Graduate
Dropouts	485,180	90,951	18.8	\$1,009,114,078	\$0
HS Graduates	1,050,386	94,811	9.0	\$1,051,941,319	\$1,537,839,730
Some College	534,003	28,913	5.4	\$320,793,783	\$320,793,783
Associate's Degree	240,511	7,866	3.3	\$87,274,371	\$87,274,371
Bachelor's Degree	614,181	5,801	0.9	\$64,362,907	\$64,362,907
Master's Degree	180,417	5,237	2.9	\$58,105,248	\$58,105,248
PhD/Prof Degree	64,922	0	0.0	\$0	\$0
TOTAL	3,169,599	233,578	7.4	\$2,591,591,706	\$2,068,376,039

ESTIMATED ANNUAL MEDICAID SAVINGS IF ALL DROPOUTS GRADUATE → \$523,215,667

Note: Figures reflect reported response counts as provided by the 2007 Current Population Survey, released by the U.S. Census Bureau. Counts may vary from chart to chart in this report because of total responses to different questions in the survey.

Source: Author's calculations. U.S. Census Bureau, *Current Population Survey* (March Supplement 2007), data for Tennessee.

Dropouts tend to self-report poorer health.

Table
10

Self-reported quality of health by educational attainment (2007)

Self-reported Quality of Health	Dropouts	HS Graduates	Associate's Degree/ Some College	Bachelor's Degree	Master's/PhD/Prof Degree
Excellent	9.9%	18.4%	26.3%	36.7%	32.0%
Very Good	10.8%	28.0%	31.9%	34.6%	36.9%
Good	28.1%	31.7%	24.3%	20.3%	21.1%
Fair	31.4%	12.9%	13.2%	5.1%	7.7%
Poor	19.8%	9.0%	4.3%	3.2%	2.4%

Note: Figures reflect reported response counts as provided by the 2007 Current Population Survey, released by the U.S. Census Bureau. Counts may vary from chart to chart in this report because of total responses to different questions in the survey.

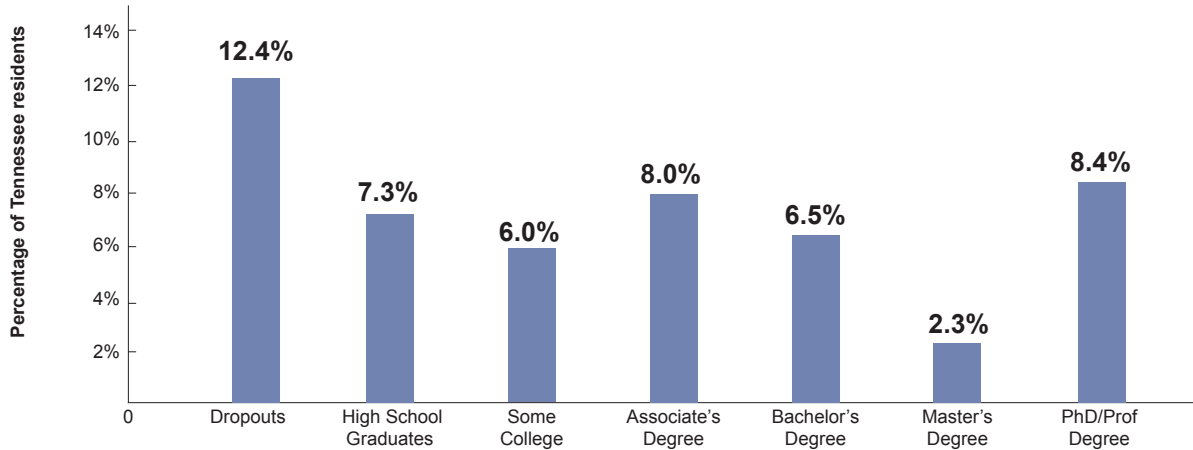
Source: Author's calculations. U.S. Census Bureau, *Current Population Survey* (March Supplement 2007), data for Tennessee.



Tennessee's dropouts are nearly twice as likely to report not having health coverage at their workplace.

Figure 5

Self-reported lack of health coverage by educational attainment (2007)



Note: Figures reflect reported response counts as provided by the 2007 Current Population Survey, released by the U.S. Census Bureau. Counts may vary from chart to chart in this report because of total responses to different questions in the survey.

Source: Author's calculations. U.S. Census Bureau, *Current Population Survey* (March Supplement 2007), data for Tennessee.

Residents with lower levels of education are significantly less likely to be employed in a workplace that provides health care coverage.

Table 11

Data from 2007 Current Population Survey

	Percentage Uninsured	No Coverage	Some Coverage	Full Coverage	Total (CPS Sample)
Dropouts	12.37%	15,041	97,739	8,806	121,585
HS Graduates	7.25%	31,814	355,591	51,311	438,715
Some College	6.00%	16,851	214,105	49,740	280,695
Associate's Degree	8.01%	9,605	100,908	9,401	119,915
Bachelor's Degree	6.47%	21,999	271,271	46,708	339,978
Master's Degree	2.28%	2,809	114,706	5,940	123,455
PhD/Prof Degree	8.38%	3,252	28,736	6,835	38,823
TOTAL	6.93%	101,372	1,183,053	178,742	1,463,166

Note: Figures reflect reported response counts as provided by the 2007 Current Population Survey, released by the U.S. Census Bureau. Counts may vary from chart to chart in this report because of total responses to different questions in the survey.

Source: Author's calculations. U.S. Census Bureau, *Current Population Survey* (March Supplement 2007), data for Tennessee.



Additional Medicaid costs per dropout are approximately \$1,078 each year.

Table
12

Summary of additional annual Medicaid costs per dropout (2007)

Dropouts Eligible For Medicaid Benefits	485,180
Dropouts Receiving Medicaid Benefits	90,951
Percentage of Dropouts Receiving Benefits	18.75%
HS Grads Eligible for Medicaid Benefits	1,050,386
HS Grads Receiving Medicaid Benefits	94,811
Percentage of HS Grads Receiving Benefits	9.03%
Average Tennessee Medicaid Benefit, 2007	\$11,095
Reduction in Population Receiving Benefits If Dropouts Graduate	47,157
Reduction in Total Medicaid Spending If Dropouts Graduate	\$523,215,667
ADDITIONAL ANNUAL MEDICAID COSTS PER DROPOUT (2007)	\$1,078

Note: Figures reflect reported response counts as provided by the 2007 Current Population Survey, released by the U.S. Census Bureau. Counts may vary from chart to chart in this report because of total responses to different questions in the survey.

Source: Author's calculations. U.S. Census Bureau, *Current Population Survey* (March Supplement 2007), data for Tennessee.

Tennessee has fewer prison inmates per resident than neighboring states.

Table
13

State	Inmates per 100,000 Residents (2007)
Tennessee	433
Mississippi	661
Alabama	587
Georgia	550
South Carolina	527
Missouri	524
Virginia	472
Kentucky	464

Source: Bureau of Justice Statistics, *Prison and Jail Inmates at Midyear 2007*.



As of 2007, dropouts cost the Tennessee Department of Corrections more than \$3 million per year per cohort.

Table
14

Projecting reduced incarceration costs, if no dropouts (2007)

# HS Graduates	52,424
# Dropouts	12,377
% Graduation Rate (TN Dept. Of Education)	80.9
Expected Incarcerations from Dropouts	152
Expected Incarcerations from HS Graduates	73
Total Expected Incarcerations	225
Expected Incarcerations from Former Dropouts (If Graduation Rate = 100%)	17
Total Expected Incarcerations (If Graduation Rate = 100%)	90
Reduction in Incarcerations	135
Incarceration Costs Per Inmate (Non-Death Row)	\$23,491
Projected Incarcerations Costs	\$5,294,223
Projected Incarcerations Costs, If No Dropouts	\$2,123,561
REDUCTION IN INCARCERATION COSTS, IF NO DROPOUTS	\$3,170,662

Sources: Author's calculations. See Tennessee Department of Education; Tennessee Department of Corrections; Lance Lochner and Enrico Moretti, *The Effect of Education on Crime: Evidence from Prison Inmates, Arrests, and Self Reports*. University of California-Berkeley. October 2003.

Additional per dropout incarceration costs are approximately \$952 each year.

Table
15

Summary of additional annual incarceration costs per dropout (2007)

Number of Dropouts (2007 cohort)	12,377
Number of Additional Inmates (2007 cohort)	135
Additional Cost of Incarceration	\$3,170,662
Additional Cost of Education	\$7,766,225
Additional Cost of Staffing	\$850,933
Total Annual Additional Costs from Dropouts (per cohort)	\$11,787,820
ADDITIONAL ANNUAL INCARCERATION COSTS PER DROPOUT (2007)	\$952

Sources: Author's calculations. See Tennessee Department of Education; Tennessee Department of Corrections; Lance Lochner and Enrico Moretti, *The Effect of Education on Crime: Evidence from Prison Inmates, Arrests, and Self Reports*. University of California-Berkeley. October 2003.



Each year, a single high school dropout costs the State of Tennessee \$2,781 from lost tax revenue, greater Medicaid usage, and increased incarcerations.

Table
16

Summary of total annual costs per dropout (2007)

Annual Lost State Tax Revenue per Dropout	\$750
Additional Annual Medicaid Costs per Dropout	\$1,078
Additional Annual Incarceration Cost per Dropout	\$952
TOTAL ANNUAL COSTS PER DROPOUT	\$2,781

Source: Author's calculations. U.S. Census Bureau, *Current Population Survey (March Supplement 2007)*, data for Tennessee; Tennessee Department of Education; Tennessee Department of Corrections; Lance Lochner and Enrico Moretti, *The Effect of Education on Crime: Evidence from Prison Inmates, Arrests, and Self Reports*. University of California-Berkeley. October 2003.

Each year, a single dropout cohort costs the State of Tennessee about \$34.4 million from lost tax revenue, greater Medicaid usage, and increased incarcerations. If all dropouts (all cohorts) were eliminated, the state would save more than \$1.2 billion annually.

Table
17

Summary of total annual costs for 2007 dropouts

Total Estimated Additional Tax Revenue	\$9,280,708
Reduction in Total Spending if Dropouts Graduate	\$13,348,668
Total Annual Additional Costs From Dropouts (2007 cohort)	\$11,787,820
TOTAL SAVINGS IF ALL 2007 DROPOUTS WERE HS GRADUATES	\$34,417,195

Source: Author's calculations. U.S. Census Bureau, *Current Population Survey (March Supplement 2007)*, data for Tennessee; Tennessee Department of Education; Tennessee Department of Corrections; Lance Lochner and Enrico Moretti, *The Effect of Education on Crime: Evidence from Prison Inmates, Arrests, and Self Reports*. University of California-Berkeley. October 2003.