Wichita Public Schools: Impact Analysis

Operations Impact, Bond Impact and Success Measures

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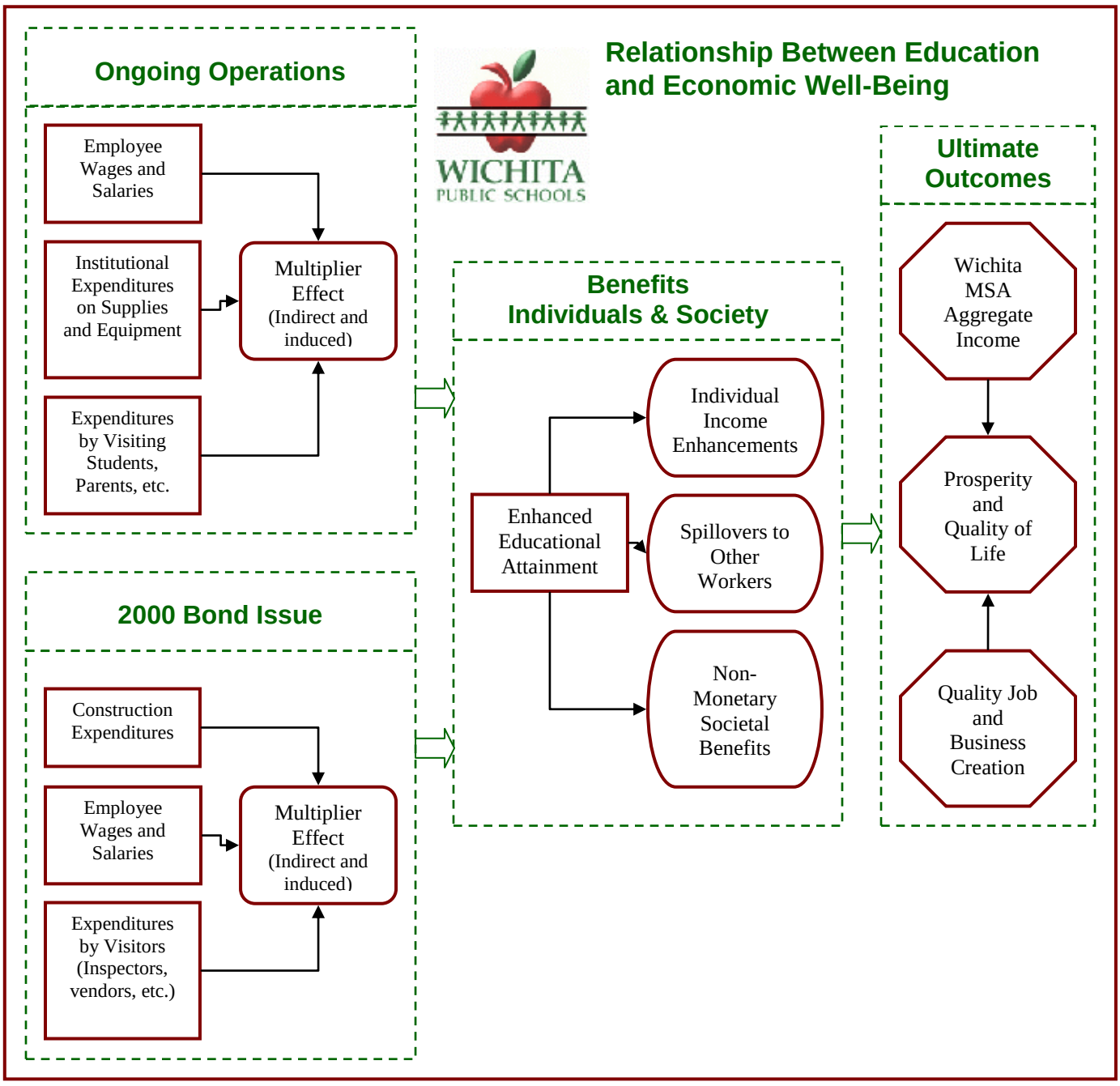
Table of Contents

Table of Tables

Executive Summary: Cumulative Economic Impacts of Wichita Public Schools: Ongoing Operations and 2000 Bond Issue



Introduction

This report presents two sets of analyses on the economic impact of the Wichita Public Schools on the Wichita area economy based on the District's ongoing operations from 2000 to 2007 and on the 2000 to 2007 construction phase of the 2000 Bond Issue. It also presents two sets of data on the fiscal impact of the District's ongoing operations from 2000 to 2007 and the full 20-year fiscal impact of the 2000 Bond Issue through its repayment period.

For the purposes of this analysis the District provided the following information:

- The number of payroll positions and total annual payroll for 2000 through 2007. Based on the District's employment history during this period, the Center forecasted that payroll positions after 2007 would increase at an average annual rate of 0.8 percent to accommodate growth in student enrollment.
- As a result of the 2000 Bond Issue, between 2000 and 2007 a total of 90 positions were added to the District's payroll (an annual average between 2000 and 2007 of 34 based on the hiring schedule).[1]
- The District also supplied construction expenditures related to the 2000 Bond Issue from which the Center estimated bond-related construction jobs and payroll. Since the execution period of the Bond Issue is complete, these positions are not expected to be staffed after 2007.
- The District also provided ongoing capital outlay expenditures data not related to the 2000 Bond Issue. Using these expenditure data, the Center estimated that, on average, between 2000 and 2007 these District expenditures supported 76 construction-related positions. These construction positions related to the District's ongoing capital expenditures will likely continue to be staffed after 2007. Note: these are construction company employees, not direct employees of the District.

Economic Impact Analyses

The first set of numbers provides estimates of the average annual economic impact of the District's ongoing operations for the seven-year period between 2000 and 2007. The second set of numbers provides estimates of the average annual economic impact of the District's 2000 Bond Issue for the seven-year period between 2000 and 2007.[2]

To summarize the economic impacts between 2000 and 2007:

- Ongoing operations between 2000 and 2007 directly supported 5,968 jobs with an average annual payroll of $198.7 million. Taking into account the multiplier impacts, the District's ongoing operations had an average annual impact of 13,210 jobs with an average annual economic impact of $397.9 million.

[1] Table 12 presents the data used to calculate this average.

[2] In April 2000, the District's citizens passed a 20-year, $284 million bond issue for the purpose of air conditioning all sites, replacing all portables, building seven buildings, adding 19 new multi-purpose rooms, adding/building nine new libraries, upgrading science labs, and building infrastructure throughout the district.

- 2000 Bond Issue expenditures between 2000 and 2007 directly supported an annual average of 701 jobs with an annual average payroll of $23.2 million. Taking into account the multiplier impacts, the 2000 Bond Issue's expenditures had an annual average impact of 1,357 jobs with an annual average economic impact of $41.5 million.

- Taken together the ongoing expenditures and bond issue expenditures during the construction phase between 2000 and 2007 directly supported 6,670 jobs with an annual average payroll of $221.9 million. Taking into account the multiplier impacts , the District had an annual average impact of 14,567 jobs with an annual average economic impact of $439.4 million.

- Finally, at the end of the 2000 Bond Issue construction phase the District had in place new capital improvements and additions valued at $310.4 million.[3]

Table 1. Average Annual Economic Impact - Positions Summary

AVERAGE ANNUAL ECONOMIC IMPACT (2000 through 2007)			
	Operations	**Bond Issue**	**Total***
USD 259 Payroll Positions	5,892	34	5,926
Indirect and Induced Positions	7,172	42	7,213
Construction Company Positions	76	***667***	744
Indirect and Induced Construction Related Positions	70	***614***	684
Sum of direct positions	5,968	701	6,670
Sum of indirect and induced positions	7,242	655	7,897
Total Average Annual Positions	13,210	1,357	14,567

Positions in ***italicized, bold text*** will likely not be staffed in future time periods because the District has fully executed the construction phase of the 2000 Bond Issue.
*Detail may not sum to total due to rounding.

[3] As a result of interest earned on the bond proceeds during the construction phase, actual construction expenditures exceeded the bond proceeds by $26.4 million (the difference between $284 million in bond proceeds and $310.4 million in capital infrastructure put in place).

Table 2. Average Annual Economic Impact - Summary

AVERAGE ANNUAL ECONOMIC IMPACT (2000 through 2007)			
	Operations	**Bond Issue**	**Total***
USD 259 Payroll Earnings	$196,232,111	$1,269,237	$197,501,348
Indirect and Induced Payroll Earnings	$194,976,225	$1,261,114	$196,237,339
Construction Company Payroll Earnings	$2,505,802	***$21,890,351***	$24,396,152
Indirect and Induced Construction Related Earnings	$1,944,252	***$16,984,723***	$18,928,975
Visitor expenditures subject to retail sales tax	$2,017,272	***$72,528***	$2,089,800
Visitor expenditures subject to transient guest tax	$221,669	***$15,152***	$236,821
Sum of Payroll Earnings	$198,737,912	$23,159,588	$221,897,500
Sum of indirect and induced	$199,159,418	$18,333,517	$217,492,935
Total Average Annual Economic Impact	$397,897,330	$41,493,104	$439,390,435

Positions in ***italicized, bold text*** will likely not be staffed in future time periods because the District has fully executed the construction phase of the 2000 Bond Issue.
*Detail may not sum to total due to rounding.

Fiscal Impacts

In addition to the economic impacts discussed above, this report presents two sets of data on the fiscal impacts of the District. The first set of data presents the fiscal impacts of the District's ongoing operations on the budgets of the city of Wichita, Sedgwick County and the District itself from 2000 and 2007. The second set of data presents the fiscal impacts of the District's 20-year, 2000 Bond Issue on the budgets of the city of Wichita, Sedgwick County and the District itself.

Fiscal impacts are usually estimated using two measures 1) a return on investment percentage and 2) a benefit-cost ratio. These measures view the taxing entities' expenditures as a public investment. Public benefits are measured by tax collections. If public benefits exceed public costs then the rate of return is greater than 100 percent and the benefit-cost ratio is greater than 1. For example, a benefit-cost ratio of 1.27 shows benefits during the relevant analysis period is 127 percent of public costs. In other words, for every $1 of public expenditures the taxing entity receives back that dollar plus another 27 cents. Conversely, a benefit-cost ratio of 0.75 shows that public benefits are only 75 percent of public costs – costs exceed benefits. In other words, for every $1 of public expenditures the taxing entity receives back only 75 cents.

The rate of return and benefit-cost ratio are presented as annual values over the relevant analysis period for each taxing entity's investment in the District's operations and 2000 Bond Issue.

An opportunity cost exists for the use of public funds for education. If public funds were not used to provide public education, they would be available for alternative use. Estimating the potential economic impact of alternative uses of these opportunity costs was beyond the scope of this analysis.

To summarize the fiscal impacts:

- *District's ongoing operations:* Average annual fiscal impact of the District's ongoing operations, 2000 through 2007

Table 3. Fiscal Impact of District's Ongoing Operations, 2000-2007

	Return on Investment	Benefit-cost ratio
City of Wichita	574.0%*	6.74
Sedgwick County	386.3%*	4.86
Wichita Public Schools	27.4%	1.27
Combined Fiscal Impacts[4]	374.7%	4.75

- *2000 Bond Issue:* Average annual fiscal impact of the 20-year, 2000 Bond Issue

Table 4. Fiscal Impact of the 20-Year, 2000 Bond Issue

	Return on Investment	Benefit-cost ratio
City of Wichita*	1579.5%*	16.79
Sedgwick County*	1072.2%*	11.72
Wichita Public Schools	6.0%	1.06
Combined Fiscal Impacts	6.6%	1.07

*These ROI percentages for the city and county are relatively high since these jurisdictions derive significant benefits from increased sales tax collections as a result of the District's payroll, while incurring very few costs.

[4] Although the geographies for the city of Wichita, Sedgwick County and the Wichita Public Schools are not identical, they have been analyzed together due to the significant overlap of populations and budgetary and economic impacts among the three jurisdictions.

Cumulative Economic Impacts of Wichita Public Schools: Ongoing Operations and 2000 Bond Issue

Introduction

The Center for Economic Development and Business Research, W. Frank Barton School of Business, Wichita State University was contracted by Wichita Public Schools (USD259) to determine the economic impact of the school district's operations and the impact of the 2000 Bond Issue on the Wichita Metropolitan Statistical Area (MSA) comprised of Butler, Harvey, Sedgwick and Sumner counties.

The Wichita Public School's mission is "to provide a safe learning environment, where all students acquire the skills and knowledge necessary for success in a global community." Educational and social development of students provides increased future economic benefits through improved employment opportunities and wage gains resulting in increased income levels in the state economy.

In addition to the future economic benefits, the District's operational expenditures for supplies and equipment and salaries to employees create a current economic impact. Additional spending and consumption result from these expenditures within the MSA, thereby increasing the economic prosperity and quality of life within the region. This analysis provides an estimate of the economic impact of the District's operations.

In April 2000, the District's citizens passed a 20-year, $284 million bond issue for the purpose of air conditioning all sites, replacing all portables, building seven buildings, adding 19 new multi-purpose rooms, adding/building nine new libraries, upgrading science labs, and building infrastructure throughout the district. This analysis provides an estimate of the economic impact of the 2000 Bond Issue.

In addition to the two impact analyses, the Center estimated the fiscal impact of the District's current operations and the 2000 Bond Issue through its 20-year repayment period.

Methodology

The Center used input-output analysis with RIMS II multipliers for *other government enterprises* and *construction* to determine the District's economic impact.[5] The Center, using its Fiscal Benefit-Cost Model, analyzed the fiscal impacts of the District's operations and the 2000 Bond Issue on various local government jurisdictions as well. Analysis data were provided by Wichita Public Schools Administration for all normal K-12 operations and additional data were provided for expenditures related to the 2000 Bond Issue.

[5] Appendix A contains additional explanation of the multiplier impacts using RIMS II modeling.

Ongoing Operations Impact

The Center started its analysis by estimating the annual average economic impact of the District's ongoing operations between 2000 and 2007 on the Wichita area economy. Ongoing operations of Wichita Public Schools provided direct earnings gains through wages and salaries of district personnel. In estimating the economic impact, the added earnings of personnel are referred to as the "direct" effect, which in turn generates what are referred to as "multiplier impacts". The multiplier impact is a combination of the indirect and induced effects. The indirect effect is the regional inter-industry economic activity resulting from the direct impact, while induced effects reflect the economic activity resulting from new household spending out of the employee compensation received as part of the direct and indirect effects. Total impacts are the sum of direct effects and the multiplier impacts.

The CEDBR's fiscal model was used to estimate the multiplier effects over the analysis period. The economic impact multiplier used was the *other government enterprises* multiplier value from RIMS II for the Wichita MSA. The substitution effect was considered to be zero because if Wichita Public Schools did not provide education to the region's population another public institution would be required by law to provide educational services.[6] An opportunity cost exists for the use of public funds for education. If public funds were not used to provide public education, they would be available for alternative use. Estimating the potential economic impact of alternative uses of these opportunity costs was beyond the scope of this analysis.

Economic Impact from Jobs and Payroll Earnings

The direct economic impact from payroll earnings for Wichita Public School District was estimated to be $1.4 billion over the seven-year analysis period 2000 to 2007. Future employment was estimated to grow at the rate of 0.8 percent annually based on anticipated population growth. Average annual earnings were estimated to grow at the rate of 3.7 percent annually based on prior trends in government wage rates. The average annual employment of the district over the seven-year analysis term was 5,892 employees with average annual earnings of $196.2 million.

Multiplier impacts resulted in an additional 7,172 regional jobs estimated to earn $1.4 billion over the seven-year analysis period or approximately $195 million in average annual earnings.

The total economic impact of Wichita Public School's ongoing operations included 13,064 average annual jobs with average annual payroll totaling $391.2 million.[7]

[6] For a more complete discussion of the concept of economic substitution see "User's Guide and Instructions, Desktop Policy Model: v1007, CEDBR Fiscal Benefit-Cost Model for Local Governments in the GWEDC Region," October, 2007, pg. 11.

[7] Average annual earnings are not equivalent to total earnings divided by the number of years due to changes in employment levels and earnings growth rates.

Table 5. Operations Economic Impact – Average Annual Jobs and Payroll Earnings

SUBSTITUTION	
Firm NAICS code	S00A00 Other government enterprises
Substitution percentage applied to firm operations	0.0%
FIRM MULTIPLIERS (On-going Operations)	
Jobs	2.2172
Earnings	1.9936
AVERAGE ANNUAL ECONOMIC IMPACT OF FIRM OPERATIONS	
Average Annual Number of jobs 7-year period	
Average Annual Direct Jobs	5,892
Average Annual Total Jobs	13,064
Average Annual Payroll earnings for 7-year period	
Average Annual Direct Payroll	$196,232,111
Average Annual Total Payroll	$391,208,336

Economic Impact of Ongoing Operations Construction

The District engages in ongoing operations capital outlay budget expenditures. These expenditures provide additional direct earnings gains to the region through construction wages and salaries. Using expenditure data provided by the District, the Center estimated that an average annual of 76 construction-related positions were needed to fulfill the construction needs of the District each year of the seven-year analysis period 2000-2007 (these expenditures were separate and apart from the construction expenditures related to the 2000 Bond Issue). The average annual wage for these positions was estimated to be $32,810.[8] Construction salaries provided a direct economic impact of $17.5 million over the seven-year analysis period for an estimated annual average of $2.5 million.

Taking into account the multiplier impacts, on average, an additional 70 jobs with an estimated payroll of $1.9 million were supported annually.

As shown in Table 6, summing the direct impacts and multiplier impacts, the total impact of the District's ongoing capital improvements generate, on average, 147 jobs annually with an average annual payroll of $4.5 million between 2000 and 2007. This level of capital outlay expenditures is expected to continue irrespective of the 2000 Bond Issue.

[8] Mean annual wage for construction workers in the Wichita MSA (U.S. Department of Commerce, Bureau of Labor Statistics, Metropolitan Area Occupational Employment and Wage Estimates, Nov. 2003).

Table 6. Operations Construction Impacts – Average Annual Jobs and Payroll Earnings

AVERAGE ANNUAL CONSTRUCTION IMPACTS	
Jobs Multiplier	1.9202
Earnings Multiplier	1.7759

Average Annual Full time equivalent jobs (FTE)	76
Average Annual FTE payroll earnings	$2,505,802

Total average annual full time equivalent jobs (FTE)	147
Total average annual FTE payroll earnings	$4,450,053

Economic Impact of Visitors

The economic impact of the District extends beyond payroll earnings. Additional spending occurs as a result of the many visitors who attend fine arts events, academic competitions, sporting events, graduations, etc. It was estimated that approximately 7,710 overnight visitors attend the District's events annually, and many more visitors were drawn to District events as day visitors to the area.

These visitors provided an economic impact to the area through their spending on local goods and services, thereby increasing the taxable retail sales within the Wichita metropolitan area.

Between 2000 and 2007, the annual average visitor expenditures subject to sales tax was $2 million, and visitor expenditures subject to transient guest tax were approximately $221,669 annually. Over the seven-year period of the analysis, it was estimated that visitor expenditures subject to sales tax totaled $14.1 million and visitor expenditures subject to transient guest tax totaled $1.6 million.

Table 7. Operations Visitor Spending Impact

AVERAGE ANNUAL VISITOR SPENDING 2000-2007 (Normal Operations)	
Average annual visitor expenditures subject to retail sales tax	$2,017,272
Average annual visitor expenditures subject to transient guest tax	$221,669
TOTAL VISITOR SPENDING 2000-2007 (Normal Operations)	
Visitor expenditures subject to retail sales tax	$14,120,902
Visitor expenditures subject to transient guest tax	$1,551,686

Table 8. Operations Average Annual Influx of Dollars

AVERAGE ANNUAL ECONOMIC IMPACT OF DISTRICT OPERATIONS	
USD 259 Payroll Earnings	$196,232,111
Indirect and Induced Payroll Earnings	$194,976,225
Contract Construction Payroll Earnings	$2,505,802
Indirect and Induced Construction Related Earnings	$1,944,252
Visitor expenditures subject to retail sales tax	$2,017,272
Visitor expenditures subject to transient guest tax	$221,669
Total Average Annual Economic Impact	$397,897,330

To summarize: The District's ongoing operations and typical capital expenditures between 2000 and 2007 totaled an annual average economic impact of $398 million.

Appendix B includes a table that quantifies the present value of net fiscal benefits to the city of Wichita, Sedgwick County and the District that result from the ongoing operations of the District.

2000 Bond Issue Impact

Overview of 2000 Bond Issue

In April 2000, the District's citizens passed a 20-year, $284 million general obligation bond issue for the purpose of air conditioning all sites, replacing all portables, building seven buildings, adding 19 new multi-purpose rooms, adding/building nine new libraries, upgrading science labs, and building infrastructure throughout the district. This analysis provides an estimate of the economic impact of the 2000 Bond Issue.

As a result of interest earned on the bond proceeds during the construction phase, actual construction expenditures exceeded the bond proceeds by $26.4 million (the difference between $284 million in bond proceeds and $310.4 million in bond funded capital infrastructure put in place).

Bond expenditures began in the 2000-2001 school year and ended in the 2006-2007 school year. A total of $306.5 million was spent on buildings and improvements and $3.9 million was spent on furniture, fixtures and equipment. Total expenditures were nearly $310.4 million.

Table 9. 2000 Bond Issue Expenditures on Building and Equipment

Year	Building and improvements	Furniture, fixtures and equipment (including machinery)	Total
2000-2001	$2,644,131	$0	$2,644,131
2001-2002	$9,752,148	$1,257,435	$11,009,583
2002-2003	$35,128,075	$606,933	$35,735,008
2003-2004	$37,696,764	$779,590	$38,476,354
2004-2005	$72,303,399	$1,063,661	$73,367,060
2005-2006	$148,216,400	$196,495	$148,412,895
2006-2007	$723,990	$2,391	$726,381
Total	$306,464,907	$3,906,505	$310,371,412

Economic Impact of Construction

The economic impact of the 2000 Bond Issue was analyzed over a seven-year period between 2000, when construction began, and 2007 when construction was completed.

The District's bond expenditures provided additional direct earnings gains to the region through construction company wages and salaries. The estimated number of construction company jobs that resulted from the bond was 4,670 positions over the construction period or an annual average of 667 positions. The average annual wage for these positions was estimated to be $32,810. Construction company salaries provided an average annual direct economic impact of $21.9 million.

Table 10. 2000 Bond Issues – Estimated Number of Construction Workers and Salaries

Year	Estimated Number of Construction Company Workers	Estimated Construction Company Salaries
2000-2001	40	$1,322,066
2001-2002	149	$4,876,074
2002-2003	535	$17,564,038
2003-2004	574	$18,848,382
2004-2005	1,102	$36,151,700
2005-2006	2,259	$74,108,200
2006-2007	11	$361,995
Full Time Equivalent	4,670	$153,232,455

Note: Detail may not sum to total due to rounding.

The Bond Issue also provided a multiplier construction impact. As a result of the District's expenditures, local firms added additional personnel to their payrolls to accommodate the increased business demands. It is estimated that 4,298 positions were staffed over the construction period resulting in additional payroll of nearly $118.9 million. The annual average number of jobs created from multiplier effects was 614 with average annual earnings of nearly $17 million.

Total annual average construction impacts resulted in 1,281 full time equivalent construction company related positions over the construction period providing an estimated annual average payroll of $38.9 million. Total payroll earnings over the seven-year bond period were $272.1 million.

Table 11. 2000 Bond Issue Construction Impacts – Annual Average Jobs and Payroll Earnings

ANNUAL AVERAGE CONSTRUCTION IMPACTS FROM THE 2000 BOND ISSUE	
Jobs Multiplier	1.9202
Earnings Multiplier	1.7759
Annual Average Full time equivalent jobs (FTE)	667
Annual Average FTE payroll earnings	$21,890,351
Annual Average Total full time equivalent jobs (FTE)	1,281
Annual Average Total FTE payroll earnings	$38,875,074

Economic Impact of Jobs and Payroll Earnings

Additional personnel were hired by the District as a result of the 2000 bond issue. A total of 90 new positions were added over the seven-year construction period of the Bond. The average annual salary of these employees was $36,988 resulting in estimated direct payroll earnings of $8.9 million over the seven-year analysis period or approximately $1.3 million in average annual earnings. There were 34 average annual positions over the period of the analysis.

Table 12. Additional Employees Related to the 2000 Bond Issue

Year	Number of New Bond Related Employees	Net Additional New Bond Related Employees
2000-2001	0	0
2001-2002	0	0
2002-2003	0	0
2003-2004	23	23
2004-2005	43	20
2005-2006	82	39
2006-2007	90	8
Over 7-year Period	238	90

Full Time Equivalent	238	90
Annual Average Employment*	34	13

*The annual average of 34 positions captures the impact of increased payroll expenditures more fully. Using the annual average of 13 underestimates these impacts.

Multiplier economic effects resulted in an additional average annual 42 jobs. These positions generated, on average, $1.3 million per year in additional payroll. The total economic impact of the new/additional employees as a result of the District's 2000 Bond

construction phase between 2000 and 2007 was, on average, 76 jobs with a payroll of $2.5 million annually.

Table 13. 2000 Bond Issue Construction Period 2000 to 2007 Economic Impact – Jobs and Payroll Earnings

SUBSTITUTION	
Firm NAICS code	S00A00 Other government enterprises
Substitution percentage applied to firm operations	0.0%

FIRM MULTIPLIERS	
Jobs	2.2172
Earnings	1.9936

AVERAGE ANNUAL ECONOMIC IMPACT OF BOND JOBS AND WAGES	
Average Annual Number of jobs 7-year period	
Average Annual Direct Jobs	34
Average Annual Total Jobs	76

Average Annual Payroll earnings for 7-year period	
Average Annual Direct Payroll	$1,257,592
Average Annual Total Payroll	$2,507,135

Economic Impact of Visitors

The economic impact of the 2000 Bond Issue extended beyond payroll earnings. Additional spending occurred as a result of the Bond-related visitors to the region. These visitors included inspectors, vendors, experts, government officials, etc. It was estimated that there were approximately 2,405 overnight visitors to the region during the construction period.

These visitors provided an economic impact to the area through their spending on local goods and services, thereby increasing the taxable retail sales within the Wichita metropolitan area.

The annual average visitor expenditures subject to sales tax over the construction period of the bond were estimated to be $72,528, and visitor expenditures subject to transient guest tax were approximately $15,152 annually. Over the seven-year period of the analysis, it was estimated that visitor expenditures subject to sales tax totaled $507,696 and visitor expenditures subject to transient guest tax totaled $106,061.

Table 14. 2000 Bond Issue Visitor Spending Impact

AVERAGE ANNUAL VISITOR SPENDING 2000-2007 (2000 Bond Issue)	
Average annual visitor expenditures subject to retail sales tax	$72,528
Average annual visitor expenditures subject to transient guest tax	$15,152
TOTAL VISITOR SPENDING 2000-2007 (2000 Bond Issue)	
Visitor expenditures subject to retail sales tax	$507,696
Visitor expenditures subject to transient guest tax	$106,061

Table 15. 2000 Bond Issue Average Annual Influx of Dollars

AVERAGE ANNUAL ECONOMIC IMPACT OF BOND ISSUE OF 2000	
USD 259 Payroll Earnings	$1,269,237
Indirect and Induced Payroll Earnings	$1,261,114
Construction Company Payroll Earnings	$21,890,351
Indirect and Induced Construction Related Earnings	$16,984,723
Visitor expenditures subject to retail sales tax	$72,528
Visitor expenditures subject to transient guest tax	$15,152
Total Average Annual Economic Impact	$41,493,104

To summarize: taking into account the direct construction activity, visitors, new payroll positions and multiplier effects, the average annual economic impact of the District's 2000 Bond Issue between 2000 and 2007 was $41.5 million per year.

The data above examined the impact of the construction phase of the 2000 Bond Issue only. Data estimates shown in Appendix C present estimates of the present value of net fiscal benefits to the city of Wichita, Sedgwick County, and the District that resulted from the full 20-year payback period of the bond.

Cumulative Economic Impacts of Wichita Public Schools: Ongoing Operations and 2000 Bond Issue

To summarize the economic impacts between 2000 and 2007:

- Ongoing operations between 2000 and 2007 directly supported 5,968 jobs with an average annual payroll of $198.7 million. Taking into account the multiplier impacts, the District's ongoing operations had an average annual impact of 13,210 jobs with an average annual economic impact of $397.9 million.

- 2000 Bond Issue expenditures between 2000 and 2007 directly supported an annual average of 701 jobs with an annual average payroll of $23.2 million. Taking into account the multiplier impacts, the 2000 Bond Issue's expenditures had an annual average impact of 1,357 jobs with an annual average economic impact of $41.5 million.

- Taken together, the ongoing expenditures and bond issue expenditures during the construction phase between 2000 and 2007 directly supported 6,670 jobs with an annual average payroll of $221.9 million. Taking into account the multiplier impacts, the District had an annual average impact of 14,567 jobs with an annual average economic impact of $439.4 million.

- Finally, at the end of the 2000 Bond Issue construction phase the District had in place new capital improvements and additions valued at $310.4 million.[9]

[9] As a result of interest earned on the bond proceeds during the construction phase, actual construction expenditures exceeded the bond proceeds by $26.4 million (the difference between $284 million in bond proceeds and $310.4 million in capital infrastructure put in place).

Table 16. Average Annual Economic Impact - Positions Summary

AVERAGE ANNUAL ECONOMIC IMPACT (2000 through 2007)			
	Operations	**Bond Issue**	**Total***
USD 259 Payroll Positions	5,892	34	5,926
Indirect and Induced Positions	7,172	42	7,213
Construction Company Positions	76	***667***	744
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Sum of direct positions	5,968	701	6,670
Sum of indirect and induced positions	7,242	655	7,897
Total Average Annual Positions	13,210	1,357	14,567

Positions in ***italicized, bold text*** will likely not be staffed in future time periods because the District has fully executed the construction phase of the 2000 Bond Issue.
*Detail may not sum to total due to rounding.

Table 17. Average Annual Economic Impact - Summary

AVERAGE ANNUAL ECONOMIC IMPACT (2000 through 2007)			
	Operations	**Bond Issue**	**Total***
USD 259 Payroll Earnings	$196,232,111	$1,269,237	$197,501,348
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Visitor expenditures subject to retail sales tax	$2,017,272	***$72,528***	$2,089,800
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Positions in ***italicized, bold text*** will likely not be staffed in future time periods because the District has fully executed the construction phase of the 2000 Bond Issue.
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Educational Benefits to Individuals and Society

The ultimate benefits of education include increased skills and knowledge preparing individuals for career options and advancement opportunities, increased aggregate income and prosperity, and improved quality of life. It is well understood and accepted that high school graduates are at a substantial lifelong economic advantage compared to high school dropouts.

Numerous studies have been conducted demonstrating the gains resulting from educational attainment.[10] According to the Bureau of Labor Statistics median weekly

[10] CEDBR, *Effects of Training Programs: Associated Wage Gains and the Impact on the Kansas Economy*, February 2007.

earnings, labor force participation rates and unemployment rates vary by level of educational attainment for workers 25 years and older.

Table 18. Labor Statistics by Educational Attainment, 2007

Educational Attainment	Median Weekly Earnings (2007)	Labor Force Participation Rate (2007)	Unemployment Rate (2007)
Bachelor's degree or higher	$1,074	77.8%	2.0%
Some college or associates degree	$705	72.0%	3.6%
High school graduate	$605	62.8%	4.4%
Less than a high school diploma	$429	46.6%	7.1%

Successful completion of high school will likely provide additional earnings; furthermore, it results in increased labor force participation rates and lower unemployment rates.

On average, nearly 40 percent more people age 25 years and over are employed if they successfully complete high school or receive a high school equivalency. For every 1,000 high school graduates, approximately 601 will be employed in the labor force whereas 433 out of 1,000 persons 25 years and over with less than a high school diploma are likely to be employed. Clearly, employment rates improve as more education is completed.

Table 19. Employment by Educational Attainment, 2007

Educational Attainment	25 Years and Over	Number in Labor Force	Number Employed	*Percent Increase in Employment
Bachelor's degree or higher	1,000	778	763	9.8%
Some college or associates degree	1,000	720	695	15.6%
High school graduate	1,000	628	601	38.9%
Less than a high school diploma	1,000	466	433	N/A

* Percent increase in employment rate over the prior educational level

Measuring and quantifying the quality or efficiency of Wichita Public School's educational performance relative to other schools is difficult. Qualitative measures can provide insight into performance and efficiencies. Wichita Public School's students, faculty, and schools have been recognized for a variety of success measures. A listing of some of the District's success measures can be found on the District's website. Some of the achievements for the 2006-2007 school year were:

- The number of schools in Wichita achieving Adequate Yearly Progress (AYP) in reading and math on the 2007 state assessments increased from 2006.
- Thirty-one schools received the Standard of Excellence, the state's highest honor, from the Kansas Department of Education.
- Buckner Elementary was named a Blue Ribbon School by the U.S. Department of Education.
- Wichita's Reading First efforts were recognized by the Kansas Department of Education. According to KSDE, the Wichita Public Schools is the only district in Kansas that has made positive increases for two years.

- North High School's AVID (Advancement Via Individual Determination) program was named one of the Top 10 AVID programs, out of 2,700 sites, in the U.S. and other countries.

According to the Council of The Great City Schools, Wichita Public School's performance exceeds peer assessment averages for fourth and eighth grade reading and mathematics.

Table 20. "Beating the Odds" – Council of The Great City Schools

Based on 2006 Assessment Results

	CGCS 2002	CGCS 2006	**WPS 2006**
4th grade reading	43%	55%	**72.5%**
4th grade math	44%	59%	**68.8%**
8th grade reading	34%	42%	**67.8%**
8th grade math	35%	46%	**57.6%**

Source: Council of The Great City Schools

In 2006-2007, the District had 2,398 graduates and a graduation rate of 76.4 percent.[11] Graduating seniors were anonymously surveyed to determine their plans for after high school and the results of the survey are listed in the table below.

Table 21. Graduating Senior's Survey for Post Graduation Plans

What do you plan to do after high school?	**Percent of Respondents**
Employment	7%
Four-year college or university	52%
Other Post secondary (non-college, such as trade school, apprenticeship)	3%
Other type of college (including vocational college)	6%
Two-year college	25%
Unknown (I do not have a plan)	6%

Note: Not all graduating seniors responded to the survey.

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[11] The graduation rate is calculated using the following formula: # of Graduates / (# of Graduates + Year 4 Dropouts + Year 3 Dropouts + Year 2 Dropouts + Year 1 Dropouts). This is the formula used by NCES. Another formula used for the No Child Left Behind Act excludes retentions and GED graduates from the numerator.

Disclaimer

In the preparation of this report, the Center for Economic Development and Business Research assumed that all information and data provided by other reports and research is accurate and reliable. CEDBR did not take extraordinary steps to verify or audit such information, but relied on such information and data as provided for purposes of the project.

This project requires CEDBR to make predictive forecasts, estimates and/or projections (hereinafter collectively referred to as "FORWARD-LOOKING STATEMENTS"). These FORWARD-LOOKING STATEMENTS are based on information and data provided by other reports, and research involves risks, uncertainties and assumptions that are difficult to predict. The FORWARD-LOOKING STATEMENTS should not be considered as *guarantees or assurances* that a certain level of performance will be achieved or that certain events will occur. While CEDBR believes that all FORWARD-LOOKING STATEMENTS it provides are reasonable based on the information and data available at the time of writing, actual outcomes and results are dependent on a variety of factors and may differ materially from what is expressed or forecast. CEDBR does not assume any responsibility for any and all decisions made or actions taken based upon the FORWARD-LOOKING STATEMENTS provided by CEDBR.

Appendix A. Multiplier Impacts Using RIMS II[12]

Effective planning for public- and private-sector projects and programs at the national, state, and local levels requires a systematic analysis of the economic impacts of these projects and programs on the affected regions. In turn, systematic analysis of economic impacts must account for the inter-industry relationships within regions because these relationships largely determine how regional economies are likely to respond to project and program changes. Thus, regional input-output (I-O) multipliers, which account for inter-industry relationships within regions, are useful tools for conducting economic impact analysis.

RIMS II is based on an accounting framework called an I-O table. For each industry, an I-O table shows the industrial distribution of inputs purchased and outputs sold. A typical I-O table in RIMS II is derived mainly from two data sources: BEA's national I-O table, which shows the input and output structure of nearly 500 U.S. industries, and the BEA's regional economic accounts, which are used to adjust the national I-O table to show a region's industrial structure and trading patterns.

Using RIMS II for impact analysis has several advantages. RIMS II multipliers can be estimated for any region composed of one or more counties and for any industry, or group of industries, in the national I-O table. The accessibility of the main data sources for RIMS II keeps the cost of estimating regional multipliers relatively low. Empirical tests show that estimates based on relatively expensive surveys and RIMS II-based estimates are similar in magnitude.

RIMS II is widely used in both the public and private sector. In the public sector, for example, the Department of Defense uses RIMS II to estimate the regional impacts of military base closings. State transportation departments use RIMS II to estimate the regional impacts of airport construction and expansion. In the private sector, analysts and consultants use RIMS II to estimate the regional impacts of a variety of projects, such as the development of shopping malls and sports stadiums.[13]

[12] This section is taken from *Measuring Gross Economic Impacts Associated with the Amtrak High Speed Rail Corridor Program*, prepared by the Center for Urban Transportation Research, University of South Florida, March 2000, pp. 4-7.

[13] RIMS II multipliers are based on the 1997 Benchmark Input-Output Table for the Nation and 2004 regional data. Source: Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Appendix B. Fiscal Impact of Ongoing Operations for Wichita Public Schools

Fiscal impacts arise from increased/decreased government revenues and increased/decreased government costs.

In conducting this analysis the CEDBR estimated fiscal revenue increases arising from the following:

- Increased sales tax collections arising from increased spending due to new and/or higher wages in the community and increased visitor expenditures.
- Property taxes collected from new residents to the community (through home sales)
- Transient guest tax collections as a result of increased visitors to the area.
- Additional state aid for new students as a result of new residents
- Other government collections such as traffic fines or franchise fees from utilities each member of the community generates. In this analysis, other government collections occur as a result of new jobs and new residents.

Table 22. Increased Government Fiscal Revenues from Operations[14]

Increased Government Fiscal Revenues From Operations -- **NET PRESENT VALUE**						
	Sales Tax Collections	Property Tax Collections	Transient Guest Tax Collections	Additional State Aid for New Students	Other Government Collections	Total
City	$17,294,817	$42,956	$72,408	$0	$6,262,756	$23,672,936
County	$8,722,181	$49,736	$0	$0	$2,351,774	$11,123,691
School District	$0	$575,080	$0	$2,095,101	$0	$2,670,181
Total NPV	$26,016,997	$667,771	$72,408	$2,095,101	$8,614,530	$37,466,808

In conducting this analysis the CEDBR estimated fiscal cost increases arising from the following:

- Providing government services to new residents
- Providing educational funding to new students as a result of new residents

Table 23. Increased Government Fiscal Costs from Operations

Increased Government Fiscal Costs From Operations -- **NET PRESENT VALUE**			
	Other Government Costs	Cost of Educating New Students	Total
City	$3,512,126	$0	$3,512,126
County	$2,287,476	$0	$2,287,476
School District	$0	$2,095,101	$2,095,101
Total NPV	$5,799,602	$2,095,101	$7,894,703

[14] Present value is a way of expressing in today's dollars, dollars to be paid or received in the future. Today's dollar and a dollar to be received or paid at differing times in the future are not comparable because of the time value of money. The Center applied a discount rate to make the dollars comparable – by expressing them in today's dollars or in present value.

Fiscal impacts are usually estimated using two measures 1) a return on investment percentage and 2) a benefit-cost ratio. These measures view the taxing entities expenditures as a public investment. Public benefits are measured by tax collections. If public benefits exceed public costs then the rate of return is greater than 100 percent and the benefit-cost ratio is greater than 1. For example, benefit-cost ratio of 1.27 shows benefits during the relevant analysis period are 127 percent of public costs. In other words, for every $1 of public expenditures the taxing entity receives back that dollar plus another 27 cents. Conversely, a benefit-cost ratio of .75 shows that public benefits are only 75 percent of public costs – costs exceed benefits. In other words, for every $1 of public expenditures the taxing entity receives back only 75 cents.

The rate of return and benefit-cost ratio are presented as annual values over the relevant analysis period, for each taxing entity's investment in the District's operations and 2000 Bond Issue.

Table 24. Fiscal Impact of Ongoing Operations for Wichita Public Schools

FISCAL IMPACT	
City Fiscal Impacts. - Wichita	***Discounted***
Present value of net benefits	$20,160,810
Rate of Return on Investment	
Net public benefits 7-year period	$20,160,810
Public costs 7-year period	$3,512,126
ROI	574.0%
Benefit-Cost Ratio	
Public benefits 7-year period	$23,672,936
Public costs 7-year period	$3,512,126
Benefit-Cost Ratio	6.74

County Fiscal Impacts. - Sedgwick	***Discounted***
Present value of net benefits	$8,836,215
Rate of Return on Investment	
Net public benefits 7-year period	$8,836,215
Public costs 7-year period	$2,287,476
ROI	386.3%
Benefit-Cost Ratio	
Public benefits 7-year period	$11,123,691
Public costs 7-year period	$2,287,476
Benefit-Cost Ratio	4.86

School District Fiscal Impacts. - 259 Wichita	***Discounted***
Present value of net benefits	$575,080
Rate of Return on Investment	
Net public benefits 7-year period	$575,080
Public costs 7-year period	$2,095,101
ROI	27.4%
Benefit-Cost Ratio	
Public benefits 7-year period	$2,670,181
Public costs 7-year period	$2,095,101
Benefit-Cost Ratio	1.27

Combined Fiscal Impacts. - City, County and USD 259	***Discounted***
Present value of net benefits	$29,572,105
Rate of Return on Investment	
Net public benefits 7-year period	$29,572,105
Public costs 7-year period	$7,894,703
ROI	374.6%
Benefit-Cost Ratio	
Public benefits 7-year period	$37,466,808
Public costs 7-year period	$7,894,703
Benefit-Cost Ratio	4.75

Appendix C. Fiscal Impact of 2000 Bond Issue for Wichita Public Schools

Fiscal impacts arise from increased/decreased government revenues and increased/decreased government costs.

In conducting this analysis the CEDBR estimated fiscal revenue increases arising from the following:

- Increased sales tax collections arising from increased spending due to new and/or higher wages in the community and increased visitor expenditures.
- Property taxes collected from new residents to the community (through home sales)
- Transient guest tax collections as a result of increased visitors to the area.
- Additional state aid for new students as a result of new residents
- Initial bond revenues of $284 million
- Additional Bond revenue interest $26.4 million
- Additional mill levy revenues $252.8 million
- Additional school district revenues $141.5 million
- Other government collections such as traffic fines or franchise fees from utilities each member of the community generates. In this analysis, other government collections occur as a result of new jobs and new residents.

Table 25. Increased Government Fiscal Revenues from Bond

Increased Government Fiscal Revenues From Bond -- **NET PRESENT VALUE**							
	Sales Tax Collections	Property Tax Collections	Transient Guest Tax Collections	Additional State Aid for New Students	Other Government Collections	Bond Revenues	Total
City	$2,171,615	$26,365	$4,870	$0	$261,668	$0	$2,464,519
County	$1,095,196	$27,928	$0	$0	$162,186	$0	$1,285,311
School District	$0	$217,128	$0	$782,755	$0	$569,289,761	$570,289,644
Total NPV	$3,266,812	$271,422	$4,870	$782,755	$423,854	$569,289,761	$574,039,474

Note: Bond dollars spent on capital expenditures and interest payments on the bond amounts total $704.7 million. The bond Revenues quoted above is the NPV of the $704.7 million.

In conducting this analysis the CEDBR estimated fiscal cost increases arising from the following:

- Providing government services to new residents
- Providing educational funding to new students as a result of new residents
- Bond dollars spent on capital purchases $310.4 million
- Estimated interest payments over the 20-year repayment period on the bond of $405 million

Table 26. Increased Government Fiscal Costs from Bond

Increased Government Fiscal Costs From Bond -- **NET PRESENT VALUE**				
	Other Government Costs	Cost of Educating New Students	Bond Costs*	Total
City	$146,742	$0	$0	$146,742
County	$109,651	$0	$0	$109,651
School District	$0	$782,755	$537,426,432	$538,209,187
Total NPV	$256,394	$782,755	$537,426,432	$538,465,580

*Note: Bond revenues, bond revenue interest, increased mill levy dollars and other school district revenues amount total $715.4 million. The Bond Cost quoted above is the NPV of the $715.4 million.

Fiscal impacts are usually estimated using two measures 1) a return on investment percentage and 2) a benefit-cost ratio. These measures view the taxing entities expenditures as a public investment. Public benefits are measured by tax collections. If public benefits exceed public costs then the rate of return is greater than 100 percent and the benefit-cost ratio is greater than 1. For example, benefit-cost ratio of 1.27 shows benefits during the relevant analysis period are 127 percent of public costs. In other words, for every $1 of public expenditures the taxing entity receives back that dollar plus another 27 cents. Conversely, a benefit-cost ratio of .75 shows that public benefits are only 75 percent of public costs – costs exceed benefits. In other words, for every $1 of public expenditures the taxing entity receives back only 75 cents.

The rate of return and benefit-cost ratio are presented as annual values over the relevant analysis period, for each taxing entity's investment in the District's operations and 2000 Bond Issue.

Table 27. Fiscal Impact of 2000 Bond Issue for Wichita Public Schools

FISCAL IMPACT	
City Fiscal Impacts. - Wichita	***Discounted***
Present value of net benefits	$2,317,777
Rate of Return on Investment	
Net public benefits 20-year period	$2,317,777
Public costs 20-year period	$146,742
ROI	1579.5%
Benefit-Cost Ratio	
Public benefits 20-year period	$2,464,519
Public costs 20-year period	$146,742
Benefit-Cost Ratio	16.79

County Fiscal Impacts. - Sedgwick	***Discounted***
Present value of net benefits	$1,175,659
Rate of Return on Investment	
Net public benefits 20-year period	$1,175,659
Public costs 20-year period	$109,651
ROI	1072.2%
Benefit-Cost Ratio	
Public benefits 20-year period	$1,285,311
Public costs 20-year period	$109,651
Benefit-Cost Ratio	11.72

School District Fiscal Impacts. - 259 Wichita	***Discounted***
Present value of net benefits	$32,080,458
Rate of Return on Investment	
Net public benefits 20-year period	$32,080,458
Public costs 20-year period	$538,209,187
ROI	6.0%
Benefit-Cost Ratio	
Public benefits 20-year period	$570,289,644
Public costs 20-year period	$538,209,187
Benefit-Cost Ratio	1.06

Combined Fiscal Impacts. - City, County and USD 259	***Discounted***
Present value of net benefits	$35,573,894
Rate of Return on Investment	
Net public benefits 20-year period	$35,573,894
Public costs 20-year period	$538,465,580
ROI	6.6%
Benefit-Cost Ratio	
Public benefits 20-year period	$574,039,474
Public costs 20-year period	$538,465,580
Benefit-Cost Ratio	1.07

Note: Although the geographies for the city of Wichita, Sedgwick County and the Wichita Public Schools are not identical, they have been analyzed together due to the significant overlap of populations and budgetary and economic impacts among the three jurisdictions.