



Memorandum

Date: July 24, 2023

To: Scottsdale Unified School District Governing Board

From: Jim Rounds
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Re: SUSD's Economic Benefits & Value Proposition

For nearly 130 years, Scottsdale residents have come to expect the premiere public education experience offered by the Scottsdale Unified School District (“SUSD”). However, the benefits are not just enjoyed locally. Indeed, SUSD’s continuing high level of performance has benefited the state as a whole and the district will continue to be a significant supplier of workforce talent for decades to come.

As part of a strategic planning exercise to examine impacts on the economy, SUSD commissioned an economic analysis from Arizona State University (“ASU”). The analysis, *The Economic and Fiscal Impacts of Scottsdale Unified School District and the Value of Their High School Graduates*, studied and reported by the Seidman Research Institute at ASU, validates the extent to which the local economy, as well as all of Arizona, benefits from the district’s high level of performance.

The study evaluates the economic impact of the SUSD’s business enterprise and that of its “workforce product” (i.e., the monetary contribution of its graduates to the State of Arizona). However, the economic benefits of SUSD go beyond the findings found in the initial analysis. This memorandum summarizes select findings from additional calculations related to data contained in the ASU report along with a few assumptions that are necessary for economic modeling.

The Value Proposition Concept and ROI

The SUSD economic performance demonstrates the value of investing in education, and the extent of the district’s value proposition for taxpayers. A value proposition represents the added value an activity or organization contributes above and beyond benchmark statistic. In this case, SUSD’s performance is modeled and compared to average district performance statistics.

Furthermore, the concept of return-on-investment, or ROI, is introduced to measure the extent to which the SUSD cost to educate students is above or below the fiscal benefits later derived from high performing students becoming high performing professionals.

In both cases, including the value proposition and ROI, the analyses identify that SUSD produces a significant economic benefit for the City of Scottsdale and the State of Arizona as a whole.



Key Observations - Higher Volume and Higher Quality

SUSD provides a positive impact on the state and local economies by not just providing a large volume of student graduates, but also in terms of providing higher levels of academic achievement. This combination of quantity and quality has produced a disproportionately positive impact on the state's ability to grow its economy.

A number of key observations were identified through this secondary economic review of SUSD impact on the economy. These include:

- The performance of SUSD graduates makes the district a significant contributor to the state's overall economic development plan.
- SUSD's high school graduation rate was approximately 94%.¹ This compares to just 78% for the state as a whole. The district also produces a higher college enrollment rate compared to the state (75% versus 46%), and a higher 2- to 4-year college completion rate (49% versus 25%).²
- If SUSD performed at the state average (i.e., a high school graduate rate of 78% versus 94%), the district would graduate approximately 300 less high school students per year. Over a 10-year period, the compounding fiscal impact of 300 less graduates per year equals nearly \$170M, and approaches \$500M within 20 years.
- This means there would be a \$170M to \$500M loss of state and local tax revenues if SUSD performed at the state average.
- Over a 40-year period (i.e., a conservative estimate for the length of a person's professional career), SUSD's value proposition reaches over \$1.0B.
- When comparing the 13-year operations cost of educating a student (i.e., approximately \$10,700 per year³) versus the 40-year fiscal gains, the ROI is 5:1.
- This means that for every \$1 spent on educating SUSD students, the state and local governments collect approximately \$5 in tax revenues from the activity generated by SUSD graduates, producing a positive ROI for taxpayers.
- Home buyers may be willing to pay a premium for homes located in areas with reputable schools and higher academic performance. This perception of quality can positively influence property values.
- The high level of performance produced by SUSD has a 1% to 4% impact on property values. When applied to the total value of all residential property in Scottsdale, the premium added to the total by SUSD is \$1.1B to \$4.1B.

¹ Arizona School Report Cards, Arizona Department of Education (2021-2022 School Year); Arizona State University <https://azreportcards.azed.gov/districts/detail/4240>

² Arizona High School Report Card, Arizona Board of Regents (2022). <https://www.azregents.edu/high-school-report-card>

³ School District Spending Analysis, Arizona Auditor General (FY2022). <https://sdspending.azauditor.gov>; Note: Including capital costs, the ROI is approximately the same value.



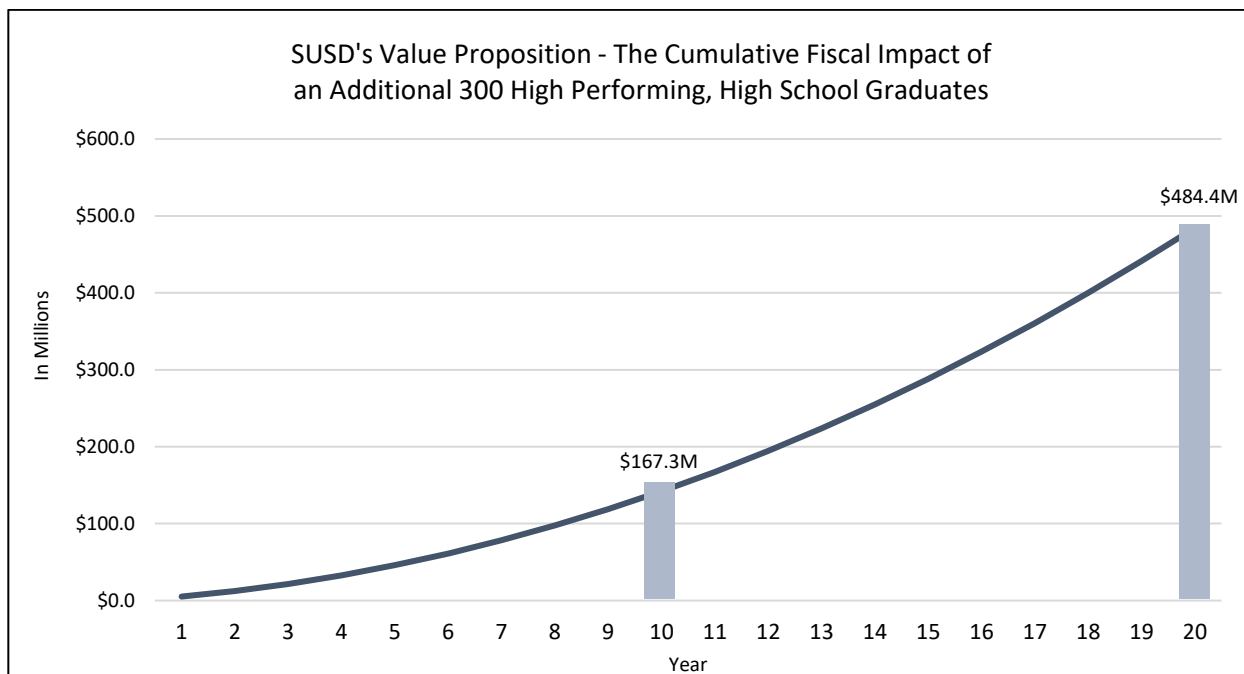
Fiscal Benefits at the Margin

The marginal values, or the difference between SUSD’s performance and the state’s performance, represents SUSD’s *value proposition*. Keep in mind that the SUSD value proposition grows exponentially over time. Each year another class of high performing students enters the workforce, thus adding to the previous total. In addition, the previous cohorts increase their levels of productivity as they progress through their careers, earning more income, and paying more taxes over time.

In 2022, nearly 1,900 students graduated from SUSD (approximately 94% of the enrolled students).⁴ However, if SUSD performed at the state average (i.e., 78%), only about 1,600 students would have graduated. The difference, approximately 300 graduates per year, is the marginal value of high quality SUSD operations.

For context, the cumulative fiscal benefit of an additional 300 students graduating from SUSD each year reaches nearly \$170M within 10 years, and approaches \$500M within 20 years, and more than \$1B over 40 years, or approximately the length of a person’s professional career.

The fiscal benefits are the result of a large number of graduates earning a high school diploma, attending college, and/or receiving a college degree. They also earn more income than their counterparts over the course of their lives. The benefits include the annual state and local tax revenues generated by the income, sales, and property taxes levied on the graduates’ personal income, retail spending, and their homes.



Note: The fiscal impact includes the annual state and local tax revenues.

Source: U.S. Bureau of Labor Statistics; Arizona Department of Education; Arizona Board of Regents; Rounds Consulting Group.

⁴ Arizona School Report Cards, Arizona Department of Education (2021-2022 School Year).
<https://azreportcards.azed.gov/districts/detail/4240>



Fiscal Benefits of SUSD Alumni

The ASU report identified that SUSD alumni that currently work in the state and pay taxes earned approximately \$3.2B in wages in 2021. This includes graduates from the past 50+ years with a high school diploma, associate’s degrees, undergraduate degrees, and graduate degrees.

The overall fiscal impact of these workers summed to \$228.2M in 2021.⁵ This is a large number by any standard. However, it is the marginal benefit, or SUSD’s value proposition, that truly separates SUSD from other districts.

An economic model was developed to quantify the marginal benefit, or value proposition, of SUSD’s historical performance compared to the average district. Assuming SUSD’s performance matched that of the state, the SUSD graduates working in the state would earn approximately \$2.7B in wages and generate \$189.4M in tax revenues (versus the \$3.2B and \$228.2M).

The annual net-benefit above the statewide average, or SUSD’s value proposition, is \$550.4M in wages and \$38.8M in tax revenues.

Over a 20-year period, the cumulative net-benefit is equal to nearly \$500M and reaches over \$1B in 40 years.

Annual Wage and State and Local Tax Revenues Payments of SUSD Graduates Working in Arizona		
	In 2021	Net-Benefit in 2021
Employee-Earned Wages	\$3.2B	\$550.4M
State and Local Tax Revenues	\$228.2M	\$38.8M

Source: Arizona State University; Rounds Consulting Group

20- & 40-Year Cumulative State and Local Tax Revenues Payments of SUSD Graduates Working in Arizona		
	20-Year Net-Benefit	40-Year Net-Benefit
State and Local Tax Revenues	\$500.0M	\$1.0B

Source: Arizona State University; Rounds Consulting Group

Note: The forecast model assumes the SUSD graduation rate and performance levels remain at the same level over the next 10 and 20 years, and the enrollment numbers remain near the current annual average.

Fiscal Benefits Compared to Fiscal Costs – ROI

A final analysis relates to the extent to which student costs are exceeded by the fiscal gains of the local SUSD workers. To begin with, the estimated annual operations cost of a student in school is \$10,700.⁶ Over four years of high school, the cost aggregates to \$42,800.

⁵ The Economic and Fiscal Impacts of Scottsdale Unified School District and the Value of Their High School Graduates, Seidman Research Institute, Arizona State University.

⁶ School District Spending Analysis, Arizona Auditor General (FY2022).



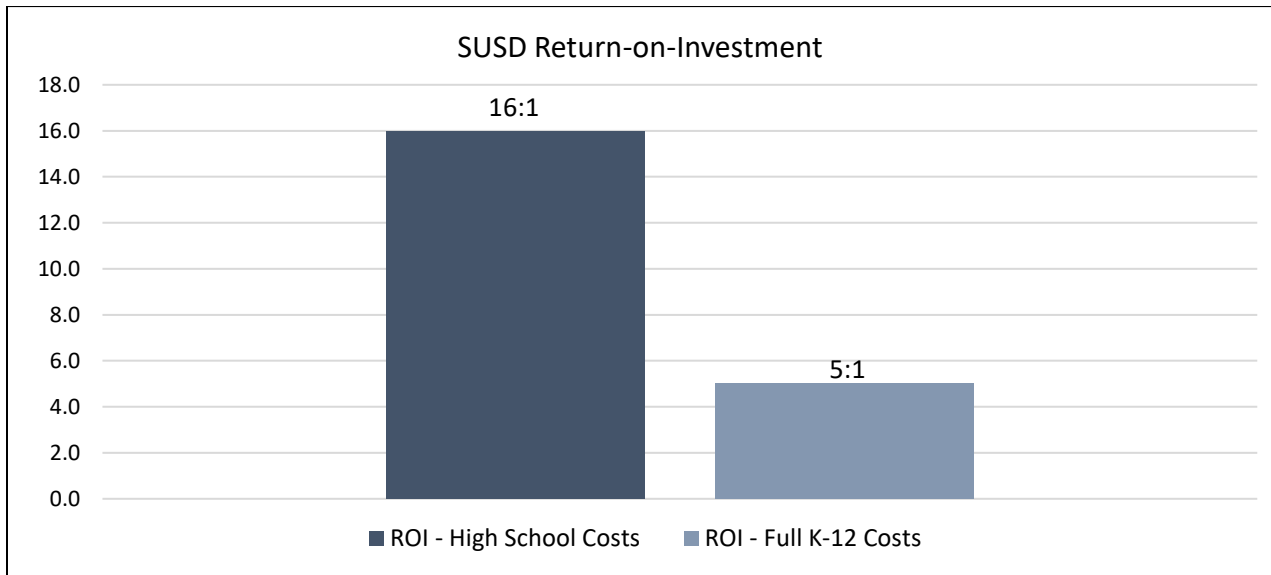
In investment terms, for a project to provide a positive ROI for taxpayers, the graduate would need to pay more than \$42,800 in state taxes over a specified period of time. In this case, the analysis period is 40 years (a conservative estimate for the average number of years worked per individual during their lifespan).

ROI – High School Costs: If we model the fiscal benefits of a SUSD graduate working in the state, paying taxes, and generating other dynamic economic activity, the state and local government entities receive over \$17,000 in taxes each year. This includes the personal income taxes, sales taxes, vehicle taxes/fees, and property taxes, among others, generated by the graduates as well as the taxes generated by the indirect and induced households that are supported by the SUSD graduates.

Over 40 years, the typical worker is responsible for nearly \$700,000 in state and local taxes. *This represents a positive ROI of 16:1 – meaning that for every \$1 spent on high school education, the state and local governments collect approximately \$16 in taxes.*

ROI – Full K-12 Costs: A second calculation considers the fact that students also learn lifelong skills before high school. Therefore, the ROI calculation is adjusted to compare the aforementioned \$700,000 in state and local taxes that an SUSD graduate generates over 40 years to a school cost of \$140,000 over 13 years, from kindergarten to 12th grade. *In this scenario, the ROI is 5:1, making it a very favorable ROI ratio.*

Note: Since it is likely that an individual will likely work more than 40 years and continue to spend and produce tax revenues into their remaining non-working years, the ROI estimates can be considered conservative.



Source: U.S. Bureau of Labor Statistics; Arizona Department of Education; Arizona Board of Regents; Arizona Auditor General; Rounds Consulting Group.



Impact on Property Values

Based on a review of existing literature and ASU's report, test scores and school ratings can have an impact on property values in several ways:

- Higher test scores and favorable school ratings are often associated with better educational quality. Home buyers, particularly those with children, may be willing to pay a premium for homes located in areas with reputable schools and higher academic performance. This perception of quality can positively influence property values.
- Areas with highly regarded schools and excellent test scores tend to attract more potential buyers, resulting in increased demand and competition for properties in those areas. This heightened competition can drive up home prices.
- Homes located within the boundaries of top-rated schools or districts often maintain their value or appreciate more over time. Home buyers may view these properties as desirable long-term investments, as the strong demand for such homes is likely to continue.

Based on studies that compare the academic achievement of a school district with property values, and the economic modeling prepared specifically for this exercise, the high level of performance produced by SUSD has a positive 1% to 4% impact on property values. In other words, residents' home values would be between 1% and 4% less if SUSD was an average performing school district.

For perspective, the total value of all residential property in the City of Scottsdale alone equals \$102.3B.

If the 1% to 4% SUSD premium is applied to this base, the SUSD contribution to the City total is \$1.1B to \$4.1B in property value premiums.

Advancing Economic Development Multipliers

There exist arguments that the ROI values provided in the previous examples are conservative considering the fact that many of the SUSD graduates will be filling "base sector" jobs, improve the skills and productivity of the state's workforce, and support high-value industries (such as advanced manufacturing, healthcare, and finance).

This enhances the state's ability to recruit high-paying businesses in key target industries, enhancing the "multiplier" effects and generating additional demand for more workers in supporting occupations. Typically, the creation of higher wage jobs results in more money circulating throughout the economy and creating the additional supporting jobs that are also needed.



The typical multiplier value in a mid- to high-wage occupation is 2.0 or more, meaning that as one worker is employed, a second worker is demanded somewhere else in the economy. Advancing high-paying business recruitment and fostering growth in key target industries will enhance the multiplier effect over time.

The previous analyses capture this economic scenario to a partial extent, but more advanced modeling would be required to capture the full impact of enhancing the multiplier impact. However, it is roughly estimated that the statistics included in this review are understated by between 10% and 20%.