

Economic Impacts of the Postsecondary Programs of the SAISD Foundation and San Antonio ISD

Study conducted by:

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I. Executive Summary

The vision of the SAISD Foundation is that “every student and teacher thrives in SAISD public schools.”¹ To achieve this vision, one area in which the Foundation focuses is providing support and resources to help the graduates of SAISD schools “achieve postsecondary success”² through various programs. To reach these goals, the SAISD Foundation partners deeply with the San Antonio ISD, Department of Postsecondary Initiatives (SAISD).

The SAISD Foundation hired Dr. Steve Nivin to conduct a social ROI study to examine the significant return on investment made in this postsecondary programming. Since 2017, SAISD and the SAISD Foundation have jointly funded full-time, campus-based college bound advisors (CBAs) at all high schools in SAISD. These CBAs are focused on career exploration, college readiness and ensuring students make a strong match for their college selection. Through the College Tour program, the Foundation provides funding to give students the opportunity to visit colleges for both exploration and where they have been accepted. SAISD Postsecondary staff facilitate and lead these trips.³ The Foundation and SAISD also work to increase the dual credit enrollment and completion at no cost while in high school, as this will increase the number of graduates from SAISD who enroll in college and complete their degrees.⁴ The Foundation also provides annual scholarships to over 150 students who have enrolled in college. One program is the Emergency Gap Awards that help provide funding to students for housing deposits, enrollment fees, and other financial requirements before they begin to receive their

¹ Source: <https://saisdfoundation.com/about/>

² Source: <https://saisdfoundation.com/about/what-we-do/>

³ *ibid*

⁴ *ibid*

college financial aid, or for those already enrolled in college, the gap awards might help buy equipment such as a computer or help with other financial needs the student might face while in college.⁵ Lastly, the Postsecondary Navigators program “provides hands-on support for students through complex enrollment processes and troubleshoot with students through to college graduation.”⁶

The ultimate result of these programs is that more students who graduate from SAISD schools continue their education and pursue a college degree or workforce training. The collaboration between SAISD and the SAISD Foundation is achieving these results as evidenced by the fact that “56% of the class of 2022 had enrolled in college within one year of high school graduation – a new all-time high for SAISD.”⁷ This is a huge accomplishment given that only 19% of the parents of students in SAISD have had any postsecondary education,⁸ and the education of the parents is a strong determinant of the education level that their children will achieve (Beegle, 2003; Haskins, 2015; Ermisch and Pronzato, 2010; Bjorklund and Salvanes 2010; De Serf, 2002; Chevalier et al. 2013; Gratz et al., 2006; Charles and Hurst, 2002; Sacerdote, 2004; Sheridan, 2001; Huang, 2012; Dubow et al., 2010; Scheeren et al., 2017; Corak, n.d.). Furthermore, with the support provided to the students by the Foundation programs throughout their college careers, they are also more likely to finish their degrees. By attaining more education beyond high school, be it receiving a certificate through a workforce training program or completing a college degree, this will enhance their incomes throughout their lifetimes. The purpose of this study was to project the potential economic impacts of these programs.

⁵ ibid

⁶ ibid

⁷ Source: *SAISD Foundation 2022-2023 Annual Report*, p. 13.

⁸ Source: <https://saisdfoundation.com/about/what-we-do/>

From 2017 through 2022, the SAISD Foundation has supported the efforts of 4,083 SAISD graduates to pursue bachelor's degrees and 3,966 students to pursue associate's degrees. After adjusting for the percentage who complete their degrees, periods of unemployment some may experience over their careers, and some leaving the area, it is projected that the increase in cumulative incomes across all these graduates over their careers will total \$2.2 billion. This increase in income will result in additional spending and economic activity in the local economy that will support 14,833 jobs over the period of their careers. The workers in these jobs supported by this economic activity will earn \$753.3 million in income, including benefits. The overall economic impact on the local economy will amount to \$1.4 billion. In other words, by supporting and enhancing the opportunities for these graduates to successfully pursue education beyond high school, the programs and support provided by SAISD and the SAISD Foundation will enhance the growth of the Bexar County economy by \$1.4 billion⁹ over the careers of these graduates. Based on a 46-year career, this means the average annual economic impacts will result in the support of 322 jobs whose workers will earn \$15.9 million yielding an overall economic impact of \$29.4 million.

Over the terms of their careers, the enhanced economic activity will generate \$57.1 million in additional revenues to local governments within Bexar County. On average, these government agencies will see an increase in their annual revenues of \$1.2 million. The State of Texas will garner \$65.5 million over the entire time-period (\$1.4 million annually), and the Federal government will experience an increase in revenues of \$167.9 million over the entire career period or \$3.7 million annually on average.

⁹ Based on contributions to gross domestic product.

By providing the students with the support they need to complete their college degree, most of them will be able to pursue careers in which they will be able to earn substantially higher incomes compared to the incomes they would have earned if they had only attained their high school diploma. This means that most of them will not need the social safety net benefits provided by various government agencies. Therefore, the SAISD and SAISD Foundation programs will also yield a savings in social safety net expenditures. It is estimated that 588 of these students will have received social safety net benefits throughout their careers were it not for these programs to support them in completing their degrees. On average, these payments are estimated to be \$6,223 per person per year for a total annual safety net savings \$3.7 million per year. Over the period of a 44-year career, the total social safety net savings will amount to \$160.9 million.

The annual expenditures on these programs were approximately \$3.5 million over the period of this study.¹⁰ This results in cumulative expenditures of \$21.1 million from 2017 to 2022. As shown in Table 1, based on the average annual overall economic impacts - including the increase in incomes, economic impacts of the spending derived from these incomes, and the social safety net savings - this results in a return on investment of \$3.84 per \$1.00 spent. Considering the cumulative impacts over the entire careers of these SAISD graduates, the return on investment is \$176.86 per \$1.00 spent on these programs.

¹⁰ Source: SAISD Foundation

Table 1. Return on Investment of SAISD Foundation

	<i>Impacts (2023 \$)</i>	<i>Return on Investment Per Dollar of Program Expenditures</i>	<i>Average Annual Return on Investment Per Dollar of Program Expenditures</i>
Increase in Incomes	\$2,221,464,269	\$105.24	\$2.29
Economic Impact of Spending	\$1,350,904,440	\$64.00	\$1.39
Social Safety Net Savings	\$160,967,728	\$7.63	\$0.17
Total	\$3,733,336,437	\$176.86	\$3.84

Note. Average annual ROI is calculated based on a 46-year career.

The remaining sections discuss the methodologies used in the analysis, the detailed results, and a conclusion.

II. Methodology and Results

II.A. Economic and Fiscal Impacts of Increased Spending

Based on data provided by the SAISD Foundation, there will be 1,644 students who will receive a bachelor’s degree and 1,603 students who will receive associate’s degrees based on the 48% completion rate of the students who have participated in these programs. The calculations to derive these figures are provided in the following table.

Table 2. Number of Students Receiving Degrees

	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>
Students enrolled in bachelor's program	680	698	640	618
Students enrolled in associate's program	744	676	608	594
Students receiving bachelor's degree	245	251	230	222
Students receiving associate's degree	268	243	219	214

	<i>2021</i>	<i>2022</i>	<i>Total</i>
Students enrolled in bachelor's program	694	753	4,083
Students enrolled in associate's program	635	739	3,996
Students receiving bachelor's degree	333	361	1,644
Students receiving associate's degree	305	355	1,603

Note. Completion rate of 48% was multiplied by students enrolled to get students receiving degrees.

Using data on the median earnings by level of educational attainment for the population 25 years and over in 2022,¹¹ a person who attains an associate’s degree earns \$8,513 per year more than the weighted average of the median earnings of those with less than a high school diploma and those with a high school diploma. Those students who attain a bachelor’s degree earn \$29,360 more than those with a high school diploma or do not graduate from high school. Using these increases in incomes and adjusting for 15% of these students leaving the area and an unemployment rate of 5%, this results in 1,327 students receiving a bachelor’s degree and 1,295 students receiving an associate’s degree and working in Bexar County. Multiplying the number of students who attain an associate’s degree and work in Bexar County by the increase in wages results in a total increase in incomes per year of \$11,022,183. A similar calculation for those who attain a bachelor’s degree and work in Bexar County gives a projected annual increase in incomes of \$38,964,633. It is likely that some of the students will attain higher degrees, but for

¹¹ Source: American Community Survey, ACS 1-Year Estimate 2022. <https://api.census.gov/data/2022/acs/acs1/subject>

this analysis, it was assumed the associate's or bachelor's degree was their terminal degree. In that sense, these figures are conservative. It was assumed that those who attain a bachelor's degree will start work at the age of 23, on average, accounting for four to five years to complete the degree and about a year to find employment. For those receiving an associate's degree, it was assumed that it will take two to three years on average to complete these degrees plus about a year to find employment, so these students will start work at the age of 21 on average. It was assumed they will work until the age of 67 on average, corresponding to the retirement age considered for Social Security.¹² This results in an average career spanning 44 years for those receiving a bachelor's degree and 46 years for those attaining an associate's degree. Multiplying the number of years of work by the annual increase in incomes gives the total increase in incomes over their careers of \$507,020,397 for the students earning an associate's degree and \$1,714,443,872 for the students who will earn a bachelor's degree.

The increased incomes earned by those workers will also result in additional economic activity as these higher earnings are spent in the local economy. To estimate the spending patterns that would occur from this increase in income, data on household expenditures by category of spending in the city of San Antonio was pulled from ESRI. The proportion of spending in each category (e.g., food away from home, apparel, and health care) to the total was calculated. Data on the total personal income earned and the total disposable personal income earned in Texas¹³ in 2022 was pulled from the U.S. Bureau of Economic Analysis.¹⁴ The proportion of total disposable

¹² Source: <https://www.ssa.gov/oact/progdata/nra.html>

¹³ Data for Texas was used because it was the closest geography to San Antonio for which the data were available.

¹⁴ Source:

<https://apps.bea.gov/iTable/?reqid=70&step=1&acrdrn=6#eyJhcHBpZCI6NzAsInN0ZXBzIjpbMSwyNCwyOSwyNSwzMSwyNiwyNywzMF0sImRhdGEiOltbIlRhYmxlSWQlLCIyMyJdLFsiQ2xhc3NpZmljYXRpb24iLCJOb24tSW5kdXN0cnkiXSxbk1ham9yX0FyZWEiLCIwIl0sWyJTdGF0ZSIzWyIwIl1dLFsiQXJlYSIsWyI0ODAwMCJdXSxbIjN0YXRpc3RpYyIsWyItMSJdXSxbIlVuaXRfb2ZfbWVhc3VyZSIsIkxldmVscyJdLFsiWWVhciIsWyIyMDIyIl1dLFsiWWVhckJlZ2luIiwilTEiXSxbIlIlYXJfRw5kiwiLTEiXV19>

income to total personal incomes was calculated, indicating that 87.9% income earned was actually available for spending (i.e., disposable income) after paying taxes and other government assessments. The total increase in income was multiplied by 87.9% to get the amount of disposable income available to be spent. The proportion spent in each category was multiplied by the total disposable income to get an estimate of the amount spent in each category. The spending activity was then matched with an appropriate industry (e.g., food away from home was assumed to occur in the full-service restaurant industry) and was run through the IMPLAN input-output model for the Bexar County economy.¹⁵

The economic impacts, including the indirect and induced multiplier effects, of the spending resulting from the increased incomes is shown in Table 3. As described in the previous section, these impacts are the results of spending derived from the increased incomes the students earn over the course of their careers. This economic activity will support 22,870 jobs, and the workers in these jobs will earn incomes, including benefits, of about \$1.1 billion dollars. The overall economic impact to the local economy will be \$2.1 billion.

To give a look at the average annual economic impacts, the results in Table 4 were averaged over a 46-year career. While those attaining a bachelor's degree are assumed to work 44 years, those who attain an associate's degree are assumed to work 46 years, so 46 years was used to calculate the average annual impacts in order to provide more conservative impacts. On average, the increased economic activity will support 322 jobs with incomes flowing to these workers of \$15.9 million per year. The average annual economic impact will amount to almost \$29.4 million.

¹⁵ For a more detailed discussion of the use of the IMPLAN input-output model, see Appendix A.

Table 3. Total Economic Impacts of Spending Derived from Increased Income

<i>Impact</i>	<i>Employment</i>	<i>Labor Income (2023 \$)</i>	<i>Economic Impact (2023 \$)</i>
Direct	8,773	402,425,048	\$758,527,220
Indirect	3,416	192,375,957	\$330,218,631
Induced	2,645	140,518,222	\$262,158,589
Total	14,833	735,319,227	\$1,350,904,440

Table 4. Average Annual Economic Impacts of Spending Derived from Increased Income

<i>Impact</i>	<i>Employment</i>	<i>Labor Income (2023 \$)</i>	<i>Economic Impact (2023 \$)</i>
Direct	191	\$8,748,371	\$16,489,722
Indirect	74	\$4,182,086	\$7,178,666
Induced	58	\$3,054,744	\$5,699,100
Total	322	\$15,985,201	\$29,367,488

Note. Average impacts are based on a 46-year career.

The revenues that will flow to various government agencies at all levels due to the enhanced economic activity of the increased incomes is shown in Table 5. The city governments (i.e., municipalities, towns, and villages) within Bexar County will receive over \$325.3 thousand per year for a total of \$14.9 million over the careers of these workers. The school districts and other special districts (e.g., fire districts, public improvement districts) will receive \$655.9 thousand each year and a cumulative \$30.2 million over the careers of the graduates. The Bexar County government will experience a cumulative increase in revenues of \$11.9 million equating to over \$259.8 thousand in revenues per year on average. The State of Texas and the Federal government will also see their budgets expand, as they will each receive \$65.5 million and \$167.9 million, respectively, over the careers of these workers. Across all government agencies, the economic activity generated by the increased incomes will generate \$6.3 million in revenues

on average each year leading to a cumulative amount of revenues over their careers of \$290.5 million.

Table 5. Revenues to Governments and Other Taxing Entities (2023 \$)

	<i>Total</i>	<i>Average Per Year</i>
City Governments	\$14,957,059	\$325,153
School Districts and Other Special Districts	\$30,171,879	\$655,910
Bexar County	\$11,951,442	\$259,814
State of Texas	\$65,487,286	\$1,423,637
Federal Government	\$167,932,957	\$3,650,716
Total	\$290,500,622	\$6,315,231

Note. Average impacts are based on a 46-year career.

II.B. Social Safety Net Savings

With the support of the SAISD Foundation, the students are able to successfully attain a college degree. Without a college degree, some of them are more likely to have much lower incomes over their careers and will need benefits from the various social safety net programs the federal, state, and local governments provide. This is indicated by the fact that 21.3% of the population with only a high school diploma were receiving social safety net benefits in 2022.¹⁶ The students who are able to complete their college degree through the SAISD Foundation programs will also provide a benefit to the community in reducing the amount of social safety net payments provided by the various government agencies.

To calculate these savings the total value of the total government expenditures on welfare and social services as reported by the U.S. Bureau of Economic Analysis was pulled from the

¹⁶ Source: <https://www.census.gov/library/stories/2022/05/who-is-receiving-social-safety-net-benefits.html>

Federal Reserve Economic Database (FRED).¹⁷ It was necessary to convert the total government expenditures on welfare and social services to per capita expenditures, so data were pulled on the population below 125% of the poverty line. Since social safety net benefits may be provided for those who earn a multiple of the poverty line with benefits decreasing as the income increases, the threshold of 125% of the population was used to calculate the per capita expenditures.¹⁸ The expenditures for the years from 2011 to 2019 were used to calculate the average per capita expenditures. This decade of data provides an assessment of the expenditures based on more current programs and economic conditions. The data for 2020 to 2023 were not used because of the extraordinarily large increases in the social safety benefits provided due to the COVID-19 pandemic. The expenditures were provided in current dollar values for each year, so they were adjusted to 2023-dollar values using the inflation rate for each year based on the Consumer Price Index for all items across all cities as reported by the U.S. Bureau of Labor Statistics.¹⁹ This resulted in an average annual social safety net payment of \$6,223 per person.

The number of students who would have received these payments if they did not attain their college degree was assumed to be 588. This figure was calculated by multiplying the total number of students who attained a college degree with the support of the SAISD Foundation, 2,760, by 21.3%, the percentage of the population with a high school diploma who were receiving social safety net benefits in 2022 (see footnote 18). The number of students of 588 was multiplied by the average annual social safety net payment of \$6,223 to get a total social safety net savings

¹⁷ Source: <https://fred.stlouisfed.org/series/G160371A027NBEA>

¹⁸ Source: <https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-poverty-people.html>

¹⁹ <https://www.bls.gov/cpi/data.htm>

of \$3,658,357 per year. Assuming a 44-year career, the total social safety net savings will amount to \$160,967,728.²⁰

III. Conclusion

Through its various programs, the SAISD Foundation encourages and supports its graduates in their pursuit of higher education. Additionally, the Foundation provides vital resources to help ensure they are successful in completing their training program or attaining their degree. This gives these graduates opportunities they would likely not otherwise have, which will ultimately raise the standard of living for the students, their families, and future generations and even lift them out of the persistent cycle of poverty. Furthermore, by enhancing the quality of the workforce in the local economy, the SAISD Foundation plays a fundamental role in driving the economy to new levels of economic development into the future which would not otherwise be attainable.

²⁰ While a 46-year career is assumed to calculate the average annual economic impacts from increased incomes in Table 4, a 44-year career is used to calculate the total social safety net savings because it provides a more conservative estimate as does using a 46-year career in Table 4.

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Appendix A

Input-Output Models and Economic Impact Analysis

Economic impact analysis measures the effects on an economy of the operations of an organization or new spending activity. Input-output models are commonly used to measure these impacts, as it is in this study. An input-output model “tracks the interdependence among various producing and consuming sectors of an economy. More particularly, it measures the relationship between a given set of demands for final goods and services and the inputs requires to satisfy those demands.”²¹ In the case of this study, the increased incomes of the graduates will result in additional spending by them in the local economy. This economic activity generates revenue to businesses that is used to pay their workers’ salaries and benefits, purchase inputs from local suppliers, and pay government taxes and fees. The direct economic impact is derived from the production activity of the businesses and the salaries and benefits they are then able to pay their workers. This also generates additional economic activity oftentimes referred to as the multiplier effects.

The multiplier can be separated into two effects: the indirect effect and the induced effect. The indirect effect results from the company purchasing inputs (physical goods or services) from its local suppliers. This then sets off additional spending by the supplier in its purchases of inputs and payment of salaries and benefits to its employees. The induced effect is derived from the spending of the employees of the company resulting from the incomes they receive. This is where the economic impact really begins to spread throughout the economy as workers spend their incomes to buy the various goods and services that they need and desire.

²¹ <https://support.implan.com/hc/en-us/articles/115009666948-Input-Output-I-O-Analysis>

The economic activity also benefits the government at various levels as the spending by businesses, their employees, and others generate tax revenues and fees. For instance, these activities will generate excise, income, and property tax revenues, social security contributions, and various license fees.

Of course, not all this economic activity is captured within the local economy. There are leakages as businesses and individual consumers purchase goods and services outside of the local economy causing some money to leak or flow out of the local economy. This is also the case as federal and state taxes and fees are paid resulting from these activities. These leakages are accounted for in the model and are not counted as part of the economic impact. In fact, they reduce the impact of these activities.

There are generally three basic multipliers used to measure the overall impacts. The output multiplier measures the direct, indirect, and induced changes in output across the economy resulting from a change in economic activity within the local economy. The employment multiplier measures the direct, indirect, and induced changes in full-time equivalent employment across the economy resulting from this change in economic activity. Finally, the earnings or employee compensation multiplier measures the direct, indirect, and induced changes in labor income (including benefits) across the economy resulting from the change in economic activity. Like the proverbial ripples resulting from a rock being thrown in a pond, the multiplier effects will register successive rounds of effects until eventually the leakage from each round halts the process.

Input-output analysis was introduced by Wassily Leontief for which he later received the Nobel Prize in economics in 1973.²² An input-output model describes the economic interactions

²² For an example of his seminal work, see: Leontief, Wassily et al., *Studies in the Structure of the American Economy: Theoretical and Empirical Explorations in Input-Output Analysis*, New York: Oxford University Press, 1953.

or trade flows among businesses, households, and governments and shows how changes in one area of the economy impact other areas. The multipliers that result from these models are the expressions of these interactions. The analysis is conducted using the IMPLAN input-output model for Bexar County. The IMPLAN model measures the economic interactions across 546 industries.²³

²³ Further description of the IMPLAN input-output model can be found at the following link:
<https://support.implan.com/hc/en-us/articles/360038285254-How-IMPLAN-Works>