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Cost-Benefit Analysis of Haven for Hope

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Abstract

Haven for Hope began operations in 2010 with the mission “to offer a place of hope and new beginnings by providing, coordinating, and delivering an efficient system of care for people experiencing homelessness in San Antonio” (Haven for Hope(a), n.d.). With its 183 partners and numerous volunteers, Haven for Hope has provided care for 40,000 people who have experienced homelessness (Haven for Hope, 2022, p. 4). The purpose of this study was to measure the net benefits of the services provided by Haven for Hope to the community from 2007 through 2019. The benefits measured in the study included the economic and fiscal impacts of Haven for Hope operations, the economic and fiscal impacts of the volunteers at Haven for Hope, benefits of reduced crime, benefits of providing school stability to children, and the benefits of medical care, housing, and other care services. Haven for Hope has provided net benefits to the community in the range of \$2.9 billion to \$8.2 billion with an average of about \$5.6 billion. Measured by the benefit-cost ratio, the benefits to the community generated by Haven for Hope per dollar spent (measured as the organization’s total expenses) ranged from \$15.29 to \$41.89 with an average of \$28.72. While this study only covers the net benefits through 2019, Haven for Hope continues to set the standard for service to persons experiencing homelessness, as exemplified by the instrumental role of the organization and its partners in the community’s ability to respond to the COVID-19 pandemic.

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I. Executive Summary

Cost-Benefit Analysis of Haven for Hope

Haven for Hope began operations in 2010 with the mission “to offer a place of hope and new beginnings by providing, coordinating, and delivering an efficient system of care for people experiencing homelessness in San Antonio.” Haven for Hope has become a model of excellence for how to establish and operate a facility to effectively and efficiently serve those who are experiencing homelessness. With its 183 partners and numerous volunteers, Haven for Hope has provided care for 40,000 people who have experienced homelessness. The purpose of this study was to measure the net benefits of the services provided by Haven for Hope to the community from 2007 through 2019.¹ The value of the benefits and total expenses measured in the study are provided in the following table. Haven for Hope has provided net benefits to the community of \$5.6 billion. In other words, for each dollar spent to create and operate Haven for Hope, the community has received \$29 in benefits.

Net Benefits of Haven for Hope	
Economic Impacts of Haven for Hope Operations	\$379,615,599
Economic Impacts of Volunteers	\$3,075,564
Benefits from Reduced Crime	\$142,520,706
Benefits from School Stability	\$166,333,206
Benefits of Medical Care, Housing, & Other Care Services	\$5,079,298,276
Total Benefits	\$5,770,843,351
Total Expenses	\$200,906,014
Net Benefits	\$5,569,937,337
Benefit-Cost Ratio (Benefits per dollar of expenses)	\$29

¹ While operations did not begin until 2010, expenses to establish Haven for Hope began in 2007, so while the benefits were measured from 2010 through 2019, the expenses were calculated going back to 2007.

While the scope of this study only analyzed the benefits through 2019, it is also worth noting that Haven for Hope has continued to innovate and push its model of excellence in serving persons experiencing homelessness and the broader San Antonio community. This is exemplified through its contributions to the community's response to the COVID-19 pandemic. While much of the community was in lockdown and experiencing unprecedented economic stress due to the pandemic, Haven for Hope made numerous adaptations to their operations in order to keep safely providing their services. This included the creation and implementation of Operation Hope Away from Haven focused on serving their highest-risk clients who had become exposed to COVID-19 and to maintain social distancing.

As shown in this analysis, Haven for Hope's impact on the San Antonio community has been profound, especially for those they serve, but their overwhelmingly positive impacts extend well into the broader community. By providing a path to a new beginning for those who are experiencing homelessness, Haven for Hope's work towards the achievement of their mission contributes substantially to both the quality of life of those they serve and all who live in San Antonio and Bexar County. By helping those persons experiencing homelessness find permanent housing and providing them with the care, guidance, and skills each individual needs to begin a successful journey to self-sufficiency, these benefits will be felt throughout their lifetimes and will also serve as a catalyst for economic development well into the future.

II. Haven for Hope Overview

From its beginnings in 2010, Haven for Hope has been successful in fulfilling its mission “to offer a place of hope and new beginnings” (Haven for Hope(a), n.d.). They achieve this mission by addressing the root causes of homelessness through an “approach [that] is person-centered, trauma-informed and recovery-oriented.” (Haven for Hope(a), n.d.). Haven for Hope is the only provider of services to persons experiencing homelessness in San Antonio where families are never denied access to their services (Haven for Hope, 2022, p.3). In collaboration with its 183 partners (seventy of them being onsite), the services offered to the community are listed in Table 1. (Haven for Hope, 2022, p. 3):

Table 1. Services Provided at Haven for Hope

1,700 beds in 3 dorms, courtyard and hotel	Public restrooms & showers
ID recovery/legal services	Laundry services
Medical, dental & vision care	Indoor sleeping environment
Behavioral healthcare	Clothing & toiletries provided
On site detox, substance use recovery & sober living	Move out support
Counseling	Rental assistance
Case management	Spiritual services
GED classes	Hair care services
Job skills development	Three hot meals daily
Job placement	Post office
Veterans services	Fitness center
Onsite child care & after school care	Kennel and cattery for pets
Children's programs	Low barrier option with indoor sleeping

Through this extensive support and with the “radical compassion” Haven for Hope and its 183 partners provide for those in our community experiencing homelessness, it is truly a “transformational campus” where “individuals and families are empower[ed] to transform their lives” (Haven for Hope(b), n.d.).

The results Haven for Hope has achieved is evidence that they are truly transforming lives. Since Haven for Hope opened, they have served 40,000 people who have experienced homelessness (Haven for Hope, 2022, p. 4), and the people they have served are a microcosm of the entire population of Bexar County as shown in Table 2. They have provided 11.6 million services to persons experiencing homelessness in San Antonio. After one year upon graduating from Haven for Hope, ninety-two percent of these graduates remain in housing. In part, this high housing retention rate is the result of the fact that five hundred clients of Haven for Hope find employment. Ultimately, this has resulted in a 77% reduction in the number of people experiencing homelessness in downtown San Antonio since Haven for Hope opened (Haven for Hope, 2022, pp. 3-4).

Table 2. Share of Population Served at Haven for Hope Compared to Bexar County Population by Race and Ethnicity: 2019

<i>Race</i>	<i>Bexar County</i>	<i>Haven for Hope</i>
White	84.3%	72.8%
Black	8.6%	23.8%
Asian	3.3%	0.3%
American Indian	1.2%	1.1%
Native Hawaiian	0.2%	0.2%
Multiple	2.4%	1.8%

<i>Ethnicity</i>	<i>Bexar County</i>	<i>Haven for Hope</i>
Hispanic	60.7%	47.5%
Non-Hispanic	39.3%	52.5%

Source: U.S. Census and Haven for Hope

These results are why Haven for Hope has become a model as to how an organization and a community can successfully assist those who are experiencing homelessness. Even with the onset of the COVID-19 pandemic, Haven for Hope innovated and adapted in order to continue to serve people experiencing homelessness with their “radical compassion” in a manner that kept

the people they serve, their staff and volunteers, and the broader San Antonio community as safe as possible. Remarkably, Haven for Hope maintained their level of service with no evictions from their on-campus housing or facilities. A key innovation in achieving this success through the pandemic was their collaboration with the City of San Antonio, MetroHealth, and their many partner agencies to create and implement Operation Hope Away from Haven. This Operation expanded their operations into a local hotel in order to continue to provide services to their highest-risk clients while maintaining social distancing and other protocols during the pandemic. The success of Operation Hope Away from Haven is yet another illustration of the success and impacts Haven for Hope has on the San Antonio community, even during very difficult times.

It is the purpose of this study to assess the net economic benefits of Haven for Hope over the period from 2007 to 2019. This covers the period back to 2007 as costs were incurred to establish the organization before Haven for Hope began serving persons experiencing homelessness in 2010 through 2019. The benefits measured in this analysis are shown in Table 3. The benefits measured included the economic impacts of the Haven for Hope operations. This captures the effects of their employment and spending in the local economy. The operations and services provided by Haven for Hope are supported by a dedicated team of volunteers, so the economic value of the services they provide are calculated using standard economic impact techniques. The benefits of the volunteers extend beyond those that could be measured in this analysis because the volunteers help develop social capital in a community. The benefits derived from enhanced social capital may result in more empathy and compassion for persons experiencing homelessness and a greater understanding of the causes of homelessness. More broadly, social capital may also have the effect of making the overall economy run more efficiently while also reducing inequality.

There is a substantial body of research showing that facilities and services, such as those provided by Haven for Hope, lead to a reduction in crime in the community in which they exist. The benefits from reduced crime capture the social benefits of this reduced criminal activity to San Antonio and the Bexar County area. These benefits include reduction in criminal justice system costs, tangible costs to the victim, crime career costs, and pain and suffering costs. In total, the benefits derived from the reduced criminal activity are about \$142 million.

Haven for Hope serves many children whose families are experiencing homelessness. The McKinney-Vento Homeless Assistance Act requires that students who are experiencing homelessness “have the right to remain in their schools of origin” if they move and “transportation must be provided to or from a student’s school of origin” (U.S. Department of Education, 2016, p. 2). While they are at Haven for Hope, these children are kept in the same school they were attending before they came to Haven for Hope. In yet another example of the radical compassion and respect and dignity with which they care for persons experiencing homelessness, Haven for Hope works with each of the school districts so the children at Haven for Hope are the first ones picked up in the morning and the last one dropped off each day, so none of the other students become aware that their classmates are staying at Haven for Hope. Being able to have the stability provided by staying in the same school can have significant benefits to the educational outcomes of these students. In other words, being moved from school to school even a few times has been shown to negatively affect educational outcomes. This is likely to have effects on the wages these students will earn over their lifetimes once they enter the workforce. The benefits of providing them this school stability is projected to yield higher wages of \$89 million for the population of students served at Haven for Hope over their careers. This increased income will also result in more economic activity due to the increased spending

of the students served at Haven for Hope. This will result in enhanced economic growth that will generate more jobs and incomes for others in the local economy contributing an additional \$77.2 million in benefits.

The last benefits measured are the value of the medical care, housing, and other care services provided at Haven for Hope. These services improve the quality of life and even extend the lives of those who receive these services. For example, it is well documented that persons experiencing homelessness have higher mortality rates, so by finding them homes, these mortality rates may be reduced. Additionally, providing those who are experiencing homelessness with a full range of healthcare will also likely improve their quality of life. Based on these effects, the value of these services is calculated using a measure called a quality-adjusted life year. It is standard practice in cost-benefit analysis to provide a range for these values, so low, high, and average values were calculated in this analysis. The average value of these services is estimated to be \$5.1 billion with a range from \$2.4 billion to \$7.7 billion.

The costs of Haven for Hope used to calculate the net benefits were the organization's total expenses from 2007 to 2019. While operations did not begin until 2010, there were expenditures from 2007 to 2009, so those costs are included in the analysis.

Table 3. Net Benefits of Haven for Hope: 2007-2019

<i>Haven for Hope Operations</i>	
Employment	3,459
Employee compensation	\$166,230,831
Contributions to gross regional product	\$208,951,142
Output	\$379,615,599
Revenues to local, state, and federal governments	\$2,049,613
 <i>Economic Impacts of Volunteers</i>	
Employment	13
Employee compensation	\$604,881

Contributions to gross regional product	\$1,039,776
Output	\$3,075,564
Revenues to local, state, and federal governments	\$204,186

Benefits from Reduced Crime

Reduction in criminal justice system costs	\$102,000,000
Reduction in other social costs of crime	\$40,520,706

Benefits from School Stability

Increased lifetime earnings	\$89,145,146
Increased employment supported	528
Increased labor income	\$24,612,419
Increased contribution to gross regional product	\$42,714,836
Increased output	\$77,188,060

Benefits of Medical Care, Housing, & Other Care Services

Average Value

By placement in housing by staff	\$1,905,883,319
By finding housing on own	\$3,173,414,958
Total number who attained housing	\$5,079,298,276

Low Value

By placement in housing by staff	\$893,382,806
By finding housing on own	\$1,487,538,261
Total number who attained housing	\$2,380,921,067

High Value

By placement in housing by staff	\$2,898,530,880
By finding housing on own	\$4,826,235,248
Total number who attained housing	\$7,724,766,129

Total Benefits

Average	\$5,770,843,351
Low	\$3,072,466,141
High	\$8,416,311,203

<i>Total Expenses: 2007-2019</i>	\$200,906,014
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Net Benefits

Average	\$5,569,937,337
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Low	\$2,871,560,127
High	\$8,215,405,189
<i>Benefit-Cost Ratio</i>	
Average	\$28.72
Low	\$15.29
High	\$41.89

Over its history of operations from 2010 to 2019, Haven for Hope has provided net benefits to the community in the range of \$2.9 billion to \$8.2 billion with an average of about \$5.6 billion. Measured by the benefit-cost ratio, the benefits to the community generated by Haven for Hope per dollar spent (measured as the organization’s total expenses) ranged from \$15.29 to \$41.89 with an average of \$28.72.

III. The Economic and Fiscal Impacts of Haven for Hope Operations

II.1. Economic Impact Concepts

Economic impact analysis measures the effects on an economy of the operations of an organization or new spending activity. 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. All of this 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 of 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 1973.² An input-output model describes the economic interactions 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 the San Antonio metropolitan statistical area. The IMPLAN model measures the economic interactions across 546 industries.

II.2. Data and Adjustments to Impact Results

The IMPLAN input-output model for the San Antonio Metropolitan Statistical Area (MSA) was used to calculate the economic and fiscal impacts of the operations of Haven for Hope. The total income, employment, and employee compensation were pulled from the Form 990 filed for each year and were input into the model as industry events.

Since Haven for Hope is a non-profit, two adjustments were made to the economic and fiscal impact outputs from the model. One, the direct taxes on production and income and the direct taxes on enterprises at the state and local and federal government levels were summed and then subtracted from the direct gross regional product (GRP) and output impacts. Two, the model automatically calculates the direct tax payments as if the organizations were for-profit entities, but since they are non-profits, the direct tax payments were removed from the fiscal impact results. In other words, only the tax revenues generated by the induced and indirect economic activity generated by the operations of Haven for Hope were included in the fiscal impacts of the operations.

² 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.

Over the period from 2010 to 2019, the operations at Haven for Hope supported average employment of 346 jobs per year or 3,459 jobs in total, although these are not unique jobs in that some of the positions are present from year-to-year (see Table 4). The workers in these jobs earned income, including benefits, over the ten years of \$166.2 million. The economic impact of the operations of Haven for Hope as measured by contributions to gross regional product in the San Antonio metropolitan economy amounted to almost \$209.0 million, and as measured by total output generated in the economy, the overall economic impacts exceeded \$379.6 million.

Table 4. Economic Impacts of Haven for Hope Operations: 2010-2019
Contributions to GRP

<i>Year</i>	<i>Employment³</i>	<i>Labor Income (2021 \$)</i>	<i>(2021 \$)</i>	<i>Output (2021 \$)</i>
2010	109	\$8,762,037	\$11,422,831	\$26,944,146
2011	215	\$11,711,463	\$14,658,683	\$25,684,464
2012	264	\$12,480,407	\$15,630,732	\$27,533,562
2013	318	\$14,594,529	\$18,289,789	\$32,388,960
2014	358	\$16,192,064	\$20,210,501	\$34,555,693
2015	372	\$17,054,896	\$21,397,516	\$38,262,949
2016	412	\$18,266,684	\$23,036,860	\$42,999,312
2017	418	\$20,716,639	\$25,990,526	\$46,459,349
2018	506	\$23,192,737	\$29,120,234	\$52,406,724
2019	487	\$23,259,375	\$29,193,472	\$52,380,439
Total	3,459	\$166,230,831	\$208,951,142	\$379,615,599
Average	346	\$16,623,083	\$20,895,114	\$37,961,560

NOTE: All impacts include direct and multiplier effects.

The economic activity of the operations of Haven for Hope as previously discussed also generated revenues to government agencies at all levels. As shown in Table 5, over the ten-year period, \$10.5 million in revenues flowed to the various government agencies due to the

³ While the total employment figure is reported in the table, it is important to note that this does not mean all of these jobs were new jobs supported by the operations because some jobs will exist through several years. In other words, the employment is not an indication of the new jobs supported by the operations in that year. Some jobs in the previous year will carry over to the next year, so employment is not technically cumulative. Labor income, GRP, and output are cumulative across years.

economic activity stimulated by Haven for Hope. On average, the cities and towns within the San Antonio area received almost \$104 thousand dollars per year, and the school districts and other specials districts received revenues of \$229 thousand annually. The county governments in the area received almost \$84,000 per year, while the State of Texas and Federal governments received \$404 thousand and \$1.2 million on average each year, respectively.

Table 5. Fiscal Impacts of Haven for Hope Operations by Year (2021 \$)

<i>Government Agency</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>
Cities and Towns	\$62,182	\$71,920	\$76,818
School Districts and Other Special Districts	\$137,430	\$158,912	\$169,736
Counties	\$50,130	\$57,941	\$61,888
State	\$242,521	\$279,927	\$299,003
Federal	\$775,773	\$846,610	\$905,194
Total	\$1,268,037	\$1,415,309	\$1,512,639
<i>Government Agency</i>	<i>2013</i>	<i>2014</i>	<i>2015</i>
Cities and Towns	\$90,038	\$98,400	\$105,665
School Districts and Other Special Districts	\$198,947	\$217,417	\$233,479
Counties	\$72,539	\$79,270	\$85,131
State	\$350,472	\$382,932	\$411,327
Federal	\$1,062,054	\$1,152,910	\$1,248,721
Total	\$1,774,051	\$1,930,929	\$2,084,323
<i>Government Agency</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>
Cities and Towns	\$115,360	\$128,332	\$144,098
School Districts and Other Special Districts	\$254,908	\$283,563	\$318,401
Counties	\$92,951	\$103,393	\$116,097
State	\$449,193	\$499,560	\$560,958
Federal	\$1,374,617	\$1,516,479	\$1,704,999
Total	\$2,287,028	\$2,531,326	\$2,844,552
<i>Government Agency</i>	<i>2019</i>	<i>2010-2019</i>	<i>Annual Average</i>
Cities and Towns	\$144,320	\$1,037,132	\$103,713
School Districts and Other Special Districts	\$318,891	\$2,291,685	\$229,169
Counties	\$116,275	\$835,614	\$83,561
State	\$561,812	\$4,037,706	\$403,771
Federal	\$1,706,640	\$12,293,996	\$1,229,400

Total	\$2,847,938	\$20,496,134	\$2,049,613
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The operations of Haven for Hope also impacts many other industries across the San Antonio metropolitan economy. This results from the spending of the organization to support their operations, as well as the spending of their employees (i.e., the indirect and induced multiplier effects). The top twenty industries impacted based on total employment supported by the economic activities of Haven for Hope are shown in Table 6. These industries include restaurants, real estate, hospitals, and retail, among others. The impact on all industries is provided in a table in Appendix B.

Table 6. Impacts on Employment of Haven for Hope Operations by Industry: 2010-2019 (Top 20 Industries)

<i>Industry</i>	<i>Total Employment</i>
Community food, housing, and other relief services, incl. rehabilitation services	2,194
Full-service restaurants	115
Other real estate	83
Other financial investment activities	50
Limited-service restaurants	44
Employment services	40
Services to buildings	38
Monetary authorities and depository credit intermediation	32
Hospitals	29
Management of companies and enterprises	26
All other food and drinking places	23
Retail - General merchandise stores	23
Offices of physicians	21
Home health care services	21
Retail - Food and beverage stores	20
Couriers and messengers	20
Management consulting services	19
Individual and family services	19
Truck transportation	17
Accounting, tax preparation, bookkeeping, and payroll services	16

IV. Impacts of Volunteers at Haven for Hope

III.1. Methodology

Data on the number of individual and group volunteers and the total number of hours of service contributed by the volunteers for each fiscal year from 2013 through 2019. The service hours for individuals were not recorded for 2013 and 2014, but the number of individual volunteers for these years was provided. In order to get an estimate of the dollar value of the contribution of the volunteers to Haven for Hope, the total number of service hours was multiplied by the average wage (discussed below), so it was necessary to estimate the number of service hours of the individual volunteers for 2013 and 2014. In order to get this estimate, the average number of service hours per individual volunteers was calculated for each year from 2015 through 2019. The average across all of those years was calculated and multiplied by the number of individual volunteers in 2013 and 2014 to get an estimate of the number of individual volunteer service hours in those respective years. The total number of individual volunteers and service hours by year is provided in Table 7.

Wages were pulled from the U.S. Bureau of Labor Statistics Occupational Employment Statistics database for the San Antonio metropolitan statistical area.⁴ In order to calculate an average wage to be used to calculate an estimate of the value of the contribution of the volunteers, occupations were selected that match the kind of activities in which the volunteers engage at Haven for Hope. The average wage across all of these occupations was calculated (see Table 8) and then multiplied by the number of volunteer hours contributed each year to get the dollar value of the contribution of the volunteers as shown in Table 7. Data were only available

⁴ Source: https://www.bls.gov/oes/current/oes_41700.htm#21-0000

as of May 2019, so this wage was used across all years. The impact results as shown in Tables 9 and 10 were adjusted to 2021-dollar values for comparison purposes across years.

Table 7. Volunteer Contribution by Year

	<i>Number of Volunteers</i>	<i>Volunteer Service Hours</i>	<i>Volunteer Contributed Value</i>
2013	1,124	4,205	\$52,856
2014	1,525	5,581	\$70,151
2015	1,464	8,623	\$108,391
2016	1,895	9,178	\$115,367
2017	2,227	13,600	\$170,952
2018	3,175	18,339	\$230,521
2019	2,575	14,087	\$177,074
Total	13,985	73,613	\$925,312

Table 8. Average Wage by Occupation

<i>Occupation Code</i>	<i>Occupation Title</i>	<i>Average Hourly Wage</i>
21-0000	Community and Social Service Occupations	23.48
35-2011	Cooks, Fast Food	10.82
35-2012	Cooks, Institution and Cafeteria	13.43
35-2014	Cooks, Restaurant	12.26
35-2015	Cooks, Short Order	10.55
35-2019	Cooks, All Other	15.69
35-2021	Food Preparation Workers	13.20
35-3023	Fast Food and Counter Workers	10.69
35-3031	Waiters and Waitresses	10.30
35-3041	Food Servers, Nonrestaurant	11.70
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	10.27
35-9021	Dishwashers	10.76
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	10.17
35-9099	Food Preparation and Serving Related Workers, All Other	12.76
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	12.75
37-2012	Maids and Housekeeping Cleaners	11.30
37-2019	Building Cleaning Workers, All Other	10.08
37-2021	Pest Control Workers	18.67
37-3011	Landscaping and Groundskeeping Workers	14.00

39-2021	Animal Caretakers	12.47
39-3091	Amusement and Recreation Attendants	10.64
39-9011	Childcare Workers	10.45
	Average of All Occupations	12.57

III.2. Value of the Contribution of Volunteers Measured by Economic Impacts

Volunteers contribute valuable unpaid work to many nonprofit organizations, including Haven for Hope. However, since they are not employees of the organization and do not get paid for their work, the direct employment and labor income are zeroed out in the economic impact figures provided in Table 9. Additionally, the direct labor income is subtracted from the direct contribution to gross regional product (GRP) and the output. The full indirect and induced multiplier effects are included in the assessments of their economic impacts.

Looking at the contribution and impacts of the volunteers in 2019 as an example, there were 2,575 volunteers who contributed 14,087 service hours with an estimated value of \$177,074. As shown in Table 8, the impacts on employment and labor income of the volunteers amounts to 2.44 jobs with labor income of \$115,754. These figures only include the indirect and induced effects. The number of volunteers and the estimate of the dollar value of their contributed work are not counted in the economic impacts.⁵ The contributions to GRP of \$198,979 and output of \$588,561 include all of the economic impacts – direct, indirect, and induced – less the direct labor income subtracted from the direct contributions to GRP and output. The fiscal impacts are shown in Table 10.

⁵ See the following link on this methodology from IMPLAN for further details.
<https://implanhelp.zendesk.com/hc/en-us/articles/360049725453-Volunteers-Estimating-the-Economic-Impact-of-Free-Labor>

Table 9. Economic Impacts of Volunteers at Haven for Hope

<i>Year</i>	<i>Employment</i>	<i>Labor Income (2021 \$)</i>	<i>Contributions to GRP (2021 \$)</i>	<i>Output (2021 \$)</i>
2013	0.73	\$34,552	\$59,394	\$175,683
2014	0.97	\$45,858	\$78,829	\$233,169
2015	1.49	\$70,856	\$121,799	\$360,271
2016	1.59	\$75,416	\$129,638	\$383,458
2017	2.36	\$111,752	\$192,099	\$568,213
2018	3.18	\$150,693	\$259,037	\$766,209
2019	2.44	\$115,754	\$198,979	\$588,561
Total	12.75	\$604,881	\$1,039,776	\$3,075,564
Average	1.82	\$86,412	\$148,539	\$439,366

Table 10. Fiscal Impacts of Volunteers at Haven for Hope (2021 \$)

<i>Year</i>	<i>Cities and Towns</i>	<i>School Districts and Other Special Districts</i>	<i>Counties</i>	<i>State</i>	<i>Federal</i>	<i>Total</i>
2013	\$583	\$1,287	\$469	\$2,270	\$7,054	\$11,664
2014	\$773	\$1,709	\$623	\$3,012	\$9,363	\$15,480
2015	\$1,195	\$2,640	\$963	\$4,655	\$14,466	\$23,918
2016	\$1,272	\$2,810	\$1,025	\$4,954	\$15,397	\$25,458
2017	\$1,884	\$4,164	\$1,518	\$7,341	\$22,816	\$37,723
2018	\$2,541	\$5,615	\$2,048	\$9,899	\$30,766	\$50,868
2019	\$1,952	\$4,313	\$1,573	\$7,604	\$23,633	\$39,074
Total	\$10,199	\$22,538	\$8,219	\$39,735	\$123,496	\$204,186
Average	\$1,457	\$3,220	\$1,174	\$5,676	\$17,642	\$29,169

III.3. Other Contributions of Volunteers

These numbers illustrating the economic impacts of the volunteers at Haven for Hope provide a measure of the value of their contributions, but they do not capture the full value to the community and even more so to the local economy. This is because volunteering is a key factor in the development of trust among the diversity of people in the community (Putnam, 2000; Wilson & Musick, 2000) further enhancing the social capital of a community (Miller et al., 2011; Afif, 2010; Fox, 2019).

While not measured, a value contribution that warrants consideration, the social capital is defined as “connections among individuals – social networks and the norms of reciprocity and trustworthiness that arise from them” (Putnam, 2000, p. 19), or to broaden the definition a bit, social capital is “the shared experiences, webs of relationships, and norms of reciprocity that underpin the smooth functioning of society” (Cortright, 2015a, p. 4). “The smooth functioning of society” certainly includes the local economy, and as such, enhances the economic impacts of volunteering through its effects on social capital.

[A] sense of mutual obligation is important both to society, and the effective function of markets. When we live in communities, places where most people have a strong sense of mutual obligation to look out for and take care of one another, social problems are lessened and economies run more smoothly...One of the most fundamental of these measures [of social capital] is volunteering (Cortright, 2017).

However, as Putnam (2000) documented over two decades ago in his publication, *Bowling Alone*, social capital has been on the decline, and we have been experiencing some of its effects, as he so presciently foresaw. Cortright has also more recently discussed the continued decline in social capital and its effects through his research.

The civic commons, the places we share with the rest of society, are where interaction underpins opportunity and democracy.

While cities continue to fulfill this critical role, there is compelling evidence that the connective tissue that binds us together is coming apart. In particular, it appears that the level of social capital—the connections and norms of reciprocity that smooth interpersonal actions and support community—has declined in the United States over several decades (Cortright, 2015a, p. 2).

The possibility that the enhancement of social capital through the volunteer activities at Haven for Hope arrests some of this decline lends even more to its importance. This holds true for volunteerism generally, but specifically to the issue of homelessness, the volunteer opportunities at Haven for Hope provide many people with more empathy for persons experiencing homelessness and a deeper understanding of the causes of homelessness. This may serve as a catalyst to find solutions to the reduction of homelessness that may otherwise not have occurred or would have taken longer to be conceived and implemented were it not for the volunteer opportunities at Haven for Hope.

Social capital also has the potential of being a driver of economic policy. There often exists a tension between whether an economic policy will make the economy more efficient or more equitable. Efficiency and equity are often times deemed to be mutually exclusive; public policy can achieve one or the other but not both. The evidence provided by the research seems to indicate that the development of social capital through volunteering may make the economy both more efficient and potentially more equitable. In other words, volunteering, through its effects on the development of social capital, removes the barrier between efficiency and equity. This may especially be the case with respect to homelessness as the work of Haven for Hope in collaboration with its volunteers and partners helps reduce the inequities in housing, income, health, and education while building trust among disparate groups that makes the local economy function more efficiently.

V. Social Benefits Associated with Reduction in Crime

Many people experiencing homelessness suffer with various health ailments, including mental illness and substance use (Baggett et al., 2013; Burt, 1999; Breakey et al., 1989; Wright, 1990; Hwang, 2000; Koegel et al., 1988; Koegel & Burnam, 1988; Susser et al. 1989; Gelberg et

al., 1990; Ferencik, 1991; Fischer & Breakey, 1991; Gelberg & Linn, 1992; Gelberg & Leake, 1993; Nusselder et al., 2013; Fazel et al., 2008; Nielsen et al., 2011; Beijer et al, 2011). In Bexar County, 51% of patients experiencing homelessness have a mental illness diagnosis (Capital Healthcare Planning, 2018, p. 16). Besides engaging in criminal activity out of necessity due to severe deprivation of resources, being mentally ill or engaging in substance use may also lead to criminal activity among persons experiencing homelessness (Solarz, 1985; Dover, 2017; Martell et al., 1995). This means that providing persons experiencing homelessness with more expansive access to healthcare is not only compassionate, but it may also reduce criminal activity and the associated costs in the community (Doleac, 2018).

Bondurant et al. (2016) analyzed the effects on crime of increasing the number of substance abuse treatment (SAT) facilities in a community. As they argue, SAT facilities may reduce crime by reducing the use of drugs and reducing related illegal financial activity and reducing the violence oftentimes associated with the drug trade (Bondurant et al., 2016, p. 2). They also note that since a large number of drug abusers also have mental illnesses that exacerbate their addiction and related violent behavior, SAT facilities can help ameliorate such violent behavior and related crimes by “direct[ing] patients towards treatment for underlying mental health problems” (Bondurant et al., 2016, p. 2).

However, there is often concern among residents in the neighborhoods near a SAT facility that it will cause crime to increase because it attracts people who are more prone to commit crimes. Bondurant et al. (2016) find the opposite in their research when analyzing the effects of increasing SAT facilities at the county level.

Our analysis reveals significant and robust evidence that expanding access to SAT through additional treatment facilities reduces local crime. The effects appear to

be particularly pronounced for relatively serious violent and financially motivated crimes: homicides, aggravated assaults, robbery, and motor vehicle theft. We do not find significant effects on more frequent but less serious crimes (simple assault, burglary, and larceny), nor do we find a significant effect on sexual assault. Overall, we find that an additional treatment facility reduces felony-type crimes by 0.10 percent annually (Bondurant et al., 2016, pp. 3-4).

Through their analysis, they find that an additional SAT facility reduces the mortality rate associated with drug abuse by 0.5% annually resulting in a reduction “in a county’s annual drug-related mortality costs by 4.2 to 4.8 million dollars” (Bondurant et al., 2016, p. 18) based on a value per life saved between 7 to 8 million dollars. Beyond these reductions in the social cost of crime, they find “that an additional SAT facility in a county municipal crime costs by 0.14% annually, which corresponds to approximately \$700,000 per municipality” (Bondurant et al., 2016, p. 18). The results in a total reduction in crime costs to local governments of about \$4.2 million annually, assuming an average of six municipal governments in each county. The upshot is that adding a SAT facility in a local community may yield total annual benefits between 8.4 to 9 million dollars (Bondurant et al., 2016, p. 18).

Similarly, Haven for Hope directs the people they serve with mental illness and/or drug addiction to their partners who can provide appropriate treatments. Additionally, they work with local law enforcement agencies helping those involved in related criminal activities to receive treatment instead of just being incarcerated. The social benefits derived from increasing accessing to a broad scope of health services through the programs provided by Haven for Hope and their partners are analyzed elsewhere in this report and thus cover these benefits discussed by Bondurant et al. While Haven for Hope is not specifically a SAT facility, it seems reasonable

that the services they provide in collaboration with their healthcare partners and law enforcement agencies to increase access to health care, especially for mental illness and substance use, effectively make it an additional SAT facility in the San Antonio community.

Another important service provided to persons experiencing homelessness at Haven for Hope is assistance with attaining the various public services available to them, including Medicaid coverage. “28% of patients identified as Homeless (or Near Homeless) had Medicaid coverage” (Capital Healthcare Planning 2018, 18). This expands their access to healthcare and hopefully helps them feel better and enhances their quality of life. This is the compassionate thing to do and in and of itself provides some justification for the existence of these programs, but beyond that, there is a benefit to the community of increasing their access to healthcare by getting them their Medicaid benefits.

In an analysis of the expansion of Medicaid services across states between 2001 and 2008, Wen et al. (2017) find that the increased access to healthcare through expansion of Medicaid yields a “benefit-cost ratio of 1.8 to 3.2, that is, a 10 percent relative increase in the SUD [substance use disorder] treatment rate at an average cost of \$1.6 billion yields a crime reduction benefit of \$2.9 billion to \$5.1 billion” (Wen et al, 2017, p. 68). Their study focuses on the benefits from reduction in crime due to increased access to treatment for substance use through the Medicaid expansion, but “it’s possible that Medicaid expansions affect criminal behavior through other channels as well – for instance, it also increases access to mental health care and reduces financial instability” (Doleac, 2016). To this latter point, Aos et al. (2006) find that the crime reduction resulting from receiving mental health treatment yields social benefits of \$0.26 per dollar spent on treatment. Vogler (2018) also analyzes the effects of the expansion of Medicaid on reduction in crime and the related social cost savings. His analysis focuses on the

expansion with the implementation of the Affordable Care Act. He finds that in those states that chose to increase Medicaid coverage, the incidence of violent crime fell by 6.0% and property crime fell by 3.1% with an overall reduction in criminal activity of 3.3% compared to those states that chose not to increase Medicaid coverage. This results in a social cost savings of \$13 billion (Vogler, 2018, p. 3).

Haven for Hope in collaboration with its partners are increasing access to healthcare, especially treatment for mental illness and substance use, assisting their clients in getting Medicaid, Veterans benefits, and other social services. As shown by the research discussed above, these services are found to reduce criminal activity. This has also been the case for the services provided by Haven for Hope. In a study conducted by Center for Healthcare Services – Restoration Center, these services provided by Haven for Hope along with their collaborations with local law enforcement agencies have resulted in “\$100 million in cost savings for jails, emergency rooms and courtrooms for City and County governments.” These services have also resulted in \$2 million in savings for the San Antonio Police Department by allowing officers to be back on the streets due to Haven for Hope’s campus and the services offered there (as cited in Haven for Hope, 2022, p.4).

However, crime has costs to society beyond the costs to local governments. In other words, there is a social cost to crime. While these social costs include those of the criminal justice system, they also include tangible costs to the victim, crime career costs, and pain and suffering costs (McCollister et al., 2011, pp. 6-9). Tangible victim costs can include “medical expenses, cash losses, property theft or damage, and lost earnings because of injury and other victimization-related consequences” (McCollister et al., 2011, p. 7). Crime career costs are the productivity losses derived from “an individual choos[ing] to engage in illegal activities as

opposed to legal employment that contributes to Gross Domestic Product (GDP)” (McCollister et al., 2011, p. 7). Accounting for the social costs of crime, therefore, provides a broader or more complete measure of the costs of crime to society.

In order to calculate the value of the reduction in social costs of crime, it was assumed that the annual social cost of crime is \$1,551,538 per 1,000 people (Bondurant et al., 2016, p. 16). This figure was multiplied by the Bexar County population each year from 2010 to 2019 to get the total social costs of crime. Applying the same 0.14% reduction in crime costs (Bondurant et al., 2016, p. 16) as was used to calculate the crime cost savings to local governments yields the estimated reduction in social costs of crime. As shown in Table 11, this results in a total reduction in the social costs of crime in Bexar County of \$40.5 million over the ten-year period covered in this analysis. McCollister et al. (2010) found that the tangible costs to the victim, crime career costs, and pain and suffering costs comprise about 35% of the total social costs of crime across a range of criminal activity, while the costs to the criminal justice system account for the balance of the social costs. Our measure of these former components of the social costs fits with the findings of the Center for Healthcare Services – Restoration Center on the reduction in the costs to the local criminal justice system derived from the services provided at Haven for Hope.

Table 11. Reduction in Social Cost of Crime

<i>Year</i>	<i>Bexar County Population</i>	<i>Social Cost of Crime</i>	<i>Reduction in Social Cost of Crime</i>
2019	1,997,417	\$3,099,068,377	\$4,338,696
2018	1,979,294	\$3,070,949,854	\$4,299,330
2017	1,952,946	\$3,030,069,931	\$4,242,098
2016	1,918,444	\$2,976,538,767	\$4,167,154
2015	1,890,984	\$2,933,933,533	\$4,107,507
2014	1,846,354	\$2,864,688,392	\$4,010,564
2013	1,813,421	\$2,813,591,591	\$3,939,028

2012	1,784,731	\$2,769,077,966	\$3,876,709
2011	1,756,262	\$2,724,907,231	\$3,814,870
2010	1,714,773	\$2,660,535,471	\$3,724,750
	Total		\$40,520,706

VI. Benefits from Providing Medical Care, Housing, and Other Care

Haven for Hope and its partners provide a number of interventions or elements of care for each individual person. For example, these include medical care, dental care, mental health care, meals, temporary housing, facilitation with applications for government support programs, job search guidance, and assistance finding permanent housing. Many of those who receive some combination of these elements of care are able to extend their lives and enhance their quality of life. One common way to measure the value of these benefits in cost-benefit analysis is through the use of the quality-adjusted life-year.

The quality-adjusted life year (QALY) is the academic standard for measuring how well all different kinds of medical treatments lengthen and/or improve patients' lives, and therefore the metric has served as a fundamental component of cost-effectiveness analyses in the US and around the world for more than 30 years. If evidence shows that a treatment helps lengthen life or improve quality of life, these benefits are comprehensively summed up to calculate how many additional QALYs the treatment provides...(Institute for Clinical and Economic Review, n.d., para. 3)

It is well documented that persons experiencing homelessness have lower mortality rates (Ackeret et al., 2014; Aldridge, 2015; Baggett et al., 2015; Hwang, 2000; Roncarati et al., 2018; Roncarati et al., 2020; Nusselder et al., 2013; Romaszko, 2017). So, while the various interventions provided by Haven for Hope and its partners may not all fit under the definition of

a “medical treatment,” the combination of the treatments, even if not considered medical, could result in the enhancement of the quantity and/or quality of life of the people they serve.

“Estimating the number of quality-adjusted life years (QALYs) enables comparison with interventions that save lives or enhance the quality of life” (Fuguitt and Wilcox, 1999, p. 278).

This technique has been applied to assess the value of medical treatments of persons experiencing homelessness (Ackeret et al., 2014; Aldridge, 2015). It is on this basis that in order to measure the social benefits of the interventions provided by Haven for Hope, the value of the quality-adjusted life years (QALY) attained by the people helped with the services at Haven for Hope are calculated. This methodology is summarized in the following description.

The term “quality-adjusted life-year” or “QALY” is a measure of health outcomes pertaining to disease burden and is used to assess the value of medical interventions. As health can be defined as length of life and the quality of life, the QALY combines the two factors into a single figure.

In other words, quality-adjusted life-year measures how many additional months or years of life of a reasonable quality a patient or person may gain due to treatment (Health Analytics, 2022, para. 1 and 2).

The calculation of the number of quality-adjusted life years and the related social benefits relied upon plug-in values from published research and data provided by Haven for Hope. According to Aldridge (2015), each year a person experiences homelessness is equivalent to the loss of 0.117 quality-adjusted life year. Romazsco et al. (2017) find that “the average life span of a homeless person was shorter by about 17.5 years than that recorded for the general population” (p. 1). Additionally, a study of the mortality rates of persons experiencing homelessness in Rotterdam found that the “life expectancy at age 30 years was 11.0 (95% CI 9.1-12.9) and 15.9

(95% CI 10.3-21.5) years lower for homeless men and women compared to men and women in the general population respectively” (Nusselder et al., 2013, p. 1). In a study of unsheltered adults experiencing homelessness adults in Boston, Massachusetts, the average age at death of a person experiencing homelessness was 53 years (Roncarati et al., 2018, para. 9). The average age of a person receiving services at Haven for Hope is 42 years. In order to be conservative in terms of estimated life span a person experiencing homelessness in San Antonio, it is assumed they will live another eleven years on average if they continue to experience homelessness. This corresponds to the age at death of persons experiencing homelessness of 53 years as found in Roncarati et al. (2018), and the result of the research of Nusselder et al. (2013) that the life span of men experiencing homelessness is eleven years lower than the general population.

Since a year of homelessness was found to be equivalent to 0.117 quality-adjusted life year, multiplying the 0.117 by eleven years results in 1.287 quality-adjusted life years persons experiencing homelessness would lose if they continued to experience homelessness. With services provided by Haven for Hope, many of the homeless will attain shelter and gain the quality-adjusted life years they would have lost were they to experience homelessness.

The gain of 1.287 quality-adjusted life years can be translated into a dollar value by multiplying this figure by the value of a statistical life instead of placing a value on each life. “The proper value of the risk reduction benefits for government policy is society’s willingness to pay for the benefits. In the case of mortality risk reduction, the benefit is the value of the reduced probability of death that is experienced by the affected population, not the value of the lives that have been saved ex post” (Viscusi and Aldy, 2003, p.2). “The Value of a Statistical Life: A Critical Review of Market Estimates Throughout the World.” NBER. p. 2) This follows the best practices recommended for application of cost-benefit analysis to assess the net benefits of

federal government policies. “OMB [Office of Management and Budget] has published guidelines for all Federal agencies, such as its report with respect to the use of ‘best practices’ in these analyses (U.S. OMB 1996). The guidance recommends the use of a value of a statistical life to monetize the benefits associated with rules that change the population’s mortality risk” (Viscusi and Aldy, 2003, p. 55).

The value of a statistical life is a measure of how much people are willing to pay for a reduction in their mortality risk. The value of a statistical life is not the value that a specific individual places on their life or willingness ability to pay. The following discussion from the U.S. Environmental Protection Agency clarifies what the value of a statistical life measures.

In the scientific literature, these estimates of willingness to pay for small reductions in mortality risks are often referred to as the "value of a statistical life." This is because these values are typically reported in units that match the aggregate dollar amount that a large group of people would be willing to pay for a reduction in their individual risks of dying in a year, such that we would expect one fewer death among the group during that year on average. This is best explained by way of an example. Suppose each person in a sample of 100,000 people were asked how much he or she would be willing to pay for a reduction in their individual risk of dying of 1 in 100,000, or 0.001%, over the next year. Since this reduction in risk would mean that we would expect one fewer death among the sample of 100,000 people over the next year on average, this is sometimes described as "one statistical life saved." Now suppose that the average response to this hypothetical question was \$100. Then the total dollar amount that the group would be willing to pay to save one statistical life in a year would be \$100 per person \times 100,000 people, or \$10 million. This is what is meant by the "value of a statistical life." Importantly, this is not

an estimate of how much money any single individual or group would be willing to pay to prevent the certain death of any particular person (U.S. Environmental Protection Agency, n.d., para. 2).

In some instances, the value of a life is equated to the wage or income a person earns, or it is argued that the value of a statistical life is too high because the person is not able to pay that much money. Such an argument is not correct given what the value of a statistical life measures. Furthermore, it is also not appropriate given that a person experiencing homelessness earns little to no income, so arguing that their lives are worth the value of the income or wages they earn over their lifetime is similar to saying their lives are worth nothing or very little at best. The same issue arises with the idea that the value of a statistical life cannot represent the willingness to pay of a person experiencing homelessness because they cannot afford to pay such an amount, but again, this is not what the value of a statistical life measures, as stated above.

To calculate the value of a statistical life for this analysis, the guidance on the value to use from the U.S. Department of Health and Human Services was used as the base figures. Their average recommended value for the U.S. is \$9.6 million with a range between \$4.5 million and \$14.6 million (U.S. Department of Health and Human Services, 2016, p. 15). Since these figures are in 2014 dollar values, they were adjusted to 2020 values using the Consumer Price Index for all urban consumers in the U.S. (i.e., CPI-U). These adjustments gave an average value of \$10,495,174 with a range from \$4,919,613 to \$15,961,411. In addition, these figures are adjusted to reflect the local socio-economic and demographic conditions, since the value of a statistical life varies across many of these factors such as income, gender, age, occupation, and culture among others (Blomquist, 2004; Kochi, Hubbell, and Kramer, 2006; Lindhjem, Navrud, Braathen, and Biauxque, 2011; Mrozek and Taylor, 2002; Viscusi, 1993; Viscusi and Aldy,

2003). There is also evidence of a positive income elasticity of the value of a statistical life, so it is common practice to adjust the value of a statistical life with differences in income over time and across places (Kneiser and Viscusi, 2019; U.S. Department of Transportation, 2016; Hammitt and Robinson, 2011). This is done by multiplying the figures by the weighted average of the difference in median earnings by educational attainment of the population in the U.S. who are 25 years and older and the same population in Bexar County. This resulted in a reduction of 7.4%. The figures were then adjusted further to be more representative of the incomes of those who seek services at Haven for Hope. This adjustment was done by multiplying the proportion of median earnings of those who are 25 years or older in Bexar County relative to the median earnings of those in Bexar County who have attained at least some college education. This is a further reduction in the value of a statistical life of 59.7%.⁶ With these adjustments the average value of statistical life for someone who receives services at Haven for Hope is \$5,797,098 with a low of \$2,717,390 and a high of \$8,816,420.

The value of a life year is then calculated using an annuity factor based on the discount rate of 5.40%, equivalent to the rate on the tax-exempt general obligation bonds issued by the City of San Antonio and the average additional years of the life span of those at Haven for Hope assuming they experience homelessness for eleven years. This gives an annuity factor of 8.13. The annuity factor is then divided into the average value of a statistical life resulting in an average value of a life year of \$712,643. This value of a life year is multiplied by the number of quality adjusted life years of 1.287 to get the total value of services provided by Haven for Hope per person of \$917,172.

⁶ The data used for the income calculations were pulled from the U.S. Census 2019 American Community Survey 1-year estimates for Bexar County.

In order to calculate the total value of the benefits of the medical, housing and other care services provided by Haven for Hope, it is necessary to determine the number of unique people who received these services. One of the core functions of Haven for Hope is to help people get back into housing, so the number of persons experiencing homelessness at Haven for Hope who were placed into housing is counted as the number who received these various services. The purpose of these figures is to establish a measure of the benefits of these services provided to those who receive them. The range of services that each person received surely varies from person to person, but finding housing is fundamental to ameliorating any health and other issues beyond the treatment received at Haven for Hope. As such, those who were placed in housing were counted as the number who received these various services.

There are a few ways to analyze the count of the number of people who receive services, as well. One is the number of people who were placed in housing by the Haven staff. A second measure is the number of people who were at Haven and likely received other services but found permanent housing on their own. Lastly, the third measure is the sum of the former two counts. These figures are shown in the following table.

**Table 12. Number of People Placed in Housing:
2010-2019**

Placed in Housing by Staff	2,078
Found Their Own Housing	3,460
Total	5,538

Note. Haven for Hope did not have housing funding until 2015, so there were not many people placed in housing from 2010-2014.

These calculations are derived from data on the number of those placed in housing by Haven for Hope staff and the number of those who found housing on their own from 2010 through 2019. Data were also provided on the recidivism rates based in one-year, two-year, three-year, four-year, and five-year returns. In order to account for potential double-counting of people who return to Haven, the number of those who found housing either with the help of staff or on their own was reduced by the five-year recidivism rate. The five-year recidivism rates are not available beyond 2014 because of the time period covered (e.g., 2015 is only four years from 2019), so beyond 2014, the five-year recidivism rate for 2014 was used in all of the years 2015 through 2019. It is possible to use the one-year, two-year, three-year, or four-year recidivism rates for the years 2015 through 2019 but using the five-year recidivism rate for 2014 provided a more conservative measure as it was larger since it captured more people who may have returned in year five.

This value was multiplied by the number of people placed in housing by Haven for Hope staff (2,078), the number of people who found housing on their own (3,460), and the total number of people who were housed after receiving services at Haven for Hope (5,538), as shown in Table 13.

Table 13. Value of Medical Care, Housing, & Other Care Services

<i>Average Value of a Statistical Life</i>	
By placement in housing by staff	\$1,905,883,319
By finding housing on own	\$3,173,414,958
Total number who attained housing	\$5,079,298,276
<i>Low Value of a Statistical Life</i>	
By placement in housing by staff	\$893,382,806
By finding housing on own	\$1,487,538,261
Total number who attained housing	\$2,380,921,067

High Value of a Statistical Life

By placement in housing by staff	\$2,898,530,880
By finding housing on own	\$4,826,235,248
Total number who attained housing	\$7,724,766,129

VII. Benefits from School Stability

For families that who have school-age children, Haven for Hope coordinates with the local school districts to have the school buses come to Haven for Hope to pick-up and drop-off the children and take them to the same school they were attending before they began staying at Haven. Furthermore, the pick-up and drop-off times are coordinated, so the students are the first to be picked-up in the mornings and the last to be dropped-off in the afternoon in order to keep other students on the school bus and at their school from knowing where they are staying. Maintaining stability in their schools is important because moving schools has been shown to reduce academic attainment and increase the probability that students will not complete high school (Haveman et al., 1991; Rumberger & Larson, 1998; Roy et al., 2008; U.S. General Accounting Office, 1994; Mehana & Reynolds, 2004; Swanson & Schneider, 1999; Scanlon & Devine, 2001). Furthermore, “the effects of mobility intensify when school and residential mobility are combined” (Roy et al., 2008, p. 8). Since these students are already experiencing residential mobility, being able to stay in the same school may reduce the intensity of these impacts.

Improving the students’ academic attainment will also likely lead to them earning higher wages over their lifetimes, which will help provide a long-term boost to the local economy. This part of the analysis provides a projection of the economic benefits measured by the potentially higher wages they may earn.

The research by Haveman et al. (1991) showing that if a student moves schools three times at any point before graduation, the probability of graduating from high school declines from 88% to 80%. More specifically, with three moves during the ages of 12 to 15 years, the probability declines to 74%, and with three moves between the ages of four and seven, the probability declines to 71%. Haveman et al. obtain these results even after controlling for a number of other potential effects, such as gender, race/ethnicity, religion, “child’s family position” (e.g., number of siblings), time spent by parents caring for the child, education level of the parents, “family economic circumstances” (e.g., number of years family was in poverty, whether child’s grandparents were poor, and family stressors, such as parental separations and number of times the family moved (Haveman et al., 1991, pp. 138-139). Rumberger and Larson (1998) use similar control variables as Haveman et al. (1991) with the addition of some measures for school characteristics and student engagement and show that students who change schools during high school are 50% more likely to not graduate compared to students who did not change school. According to data from the Texas Education Agency, the high school completion rate (including equivalency) was 92.4% in 2018 (the most recent year in which data are available).⁷ It is important to keep in mind the control variables these studies used because they account for many of the conditions, characteristics, and circumstances in which the students at Haven for Hope may also have experienced and which may influence their ability to graduate from high school. By controlling for these factors, these studies isolate the effects of moving schools on educational attainment and as such, provide “clean” plug-in values in for use in this analysis.

In order to be as conservative in the calculations as possible, it was assumed that moving schools would have reduced high school graduation rates among the cohort of students at Haven

⁷ Source: <https://tea.texas.gov/reports-and-data/school-performance/accountability-research/completion-graduation-and-dropout/annual-dropout-data-2018-19>

for Hope an additional 8%. This is conservative because based on the aforementioned research the reduced graduation rate could be as high as 26% or 29% depending on the age of the student or 50% if they move while already in high school. Subtracting the 8% from the 92% high school completion rate, this results in the assumption of 84% of the students completing high school even if they had moved schools. According to data provided by Haven for Hope, they have served 2,468 unique students since 2010. Based on the high school completion rate in 2018, this would mean there would have been 2,280 who would have typically completed high school, and assuming an 8% reduction in completion rates if they would have moved schools would result in 2,073 students who would have completed high school. This means that by allowing the students to stay in their schools, an additional 207 will complete high school.⁸

By completing high school, the students will likely be able to earn a higher wage as they enter the workforce. The amount of this higher wage was calculated by taking the difference between the median annual earnings of the population age 25 years and older in Bexar County in 2019 who have not completed high school (equal to \$23,458) and the weighted average median annual earnings of those in the same population who have completed high school or some higher level of education (equal to \$41,404).⁹ This results in annual median earnings that will be \$17,946 higher on average.

To get to the total amount of increased wages by providing school stability requires additional adjustments. Not all of these students will join the workforce, so it is assumed that 66.0% will participate in the labor force upon completion of their education, equivalent to the

⁸ $2,280 - 2,073 = 207$

⁹ Data source: U.S. Census Bureau 2019 ACS 1-Year Estimates.

<https://data.census.gov/cedsci/table?q=bexar%20county%20educational%20attainment&tid=ACSST1Y2019.S1501>

labor force participation rate in Bexar County as of 2019.¹⁰ Furthermore, some will experience unemployment during their careers, so the calculation was also adjusted by the average unemployment rate in the San Antonio Metropolitan Statistical Area from January 2000 through December 2019, which equals 5.0%.¹¹ Since some workers will move outside of the area in the future, so this is accounted by applying the outmigration rate in Bexar County from 2014-2018 of 4.5% based on data from the U.S. Census is necessary.¹² Lastly, it is assumed that each person will have a working career of forty years based on working from age 25 to 65. The calculations are shown in Table 14.

Table 14. Calculations of the Benefits of Keeping Students in Their Same School

<i>Data Used in Calculations</i>	<i>Calculations</i>	
A) # children served	2,468	
B) All students graduation rate: 2018	92.40%	
C) Assumed % students who will complete high school even with moves	84%	
D) # students who would typically complete high school	2,280	A*B
E) # students who will complete high school even with moves	2,073	A*C
F) # students who will not complete high school b/c of moves	207	D-E
G) Difference in wage w/o HS diploma and with diploma or higher education	\$17,946	
H) Total lost wages annually (assuming all employed)	\$3,720,333	F*G
I) Labor force participation rate in Bexar County: 2019	66.0%	
J) Average unemployment rate in San Antonio MSA: Jan 2000-Dec 2019	5.0%	
K) Outmigration rate for Bexar County: 2014-2018	4.5%	
L) Total lost wages annually with adjustments	\$2,228,629	H*I*(1-J)*(1-K)
M) # working years (Age 25-65)	40	
N) Total lost wages over career	\$89,145,146	L*M

¹⁰ Data source: U.S. Census Bureau 2019 ACS 1-Year Estimates.

<https://data.census.gov/cedsci/table?q=Bexar%20County%20Employment&tid=ACSST1Y2019.S2301>

¹¹ Data source: Federal Reserve Bank of Dallas

¹² <https://flowmapper.geo.census.gov/map.html#>

Under these assumptions, the program to keep the children in the same schools they were attending before they came to Haven for Hope is projected to add over \$89 million to the total wages of this population of students over their working lives. Another way to consider the impacts of this program is that it adds over \$2.2 million in additional earnings on average per year to the local economy because the students have a barrier removed that facilitates their graduating from high school and attaining even higher levels of education for some. The upshot is that by improving the chance these students will get more education and training the program enhances their future productivity leading to faster growth in the San Antonio economy.

These higher earnings will also register additional economic impacts as these workers will have the financial means to spend more on various goods and services in the local economy than they otherwise would. This increase in income was run through the IMPLAN input-output model to calculate these impacts, which are shown in the following table. Since these are impacts resulting from higher compensation, the impacts are only measured as an induced multiplier effect. The spending resulting from the higher incomes earned over their lifetimes will support 528 jobs with the workers earning \$24.6 million in compensation. The economic activity will contribute \$42.7 million in gross regional product and output of \$77.2 million.

Table 15. Economic Impacts from Lifetime Higher Incomes due to School Stability

<i>Employment</i>	<i>Labor Income (2021 \$)</i>	<i>Contributions to GRP (2021 \$)</i>	<i>Output (2021 \$)</i>
528	\$24,612,419	\$42,714,836	\$77,188,060

The impacts will also extend to various government agencies as they receive higher revenues due to the enhanced economic activity (see Table 16). The cities and towns within the San Antonio MSA will receive revenues exceeding \$449 thousand, and school districts and other special districts will see their revenues increase by over \$1.0 million. Revenues of \$373 thousand will flow to counties within the region. The State of Texas and Federal governments will receive revenues of almost \$1.8 million and \$5.4 million, respectively.

Table 16. Fiscal Impacts from Lifetime Higher Incomes due to School Stability

<i>Government Agency</i>	<i>Revenues</i>
Cities and Towns	\$449,324
School Districts and Other Special Districts	\$1,032,598
Counties	\$373,446
State	\$1,772,260
Federal	\$5,382,582
Total	\$9,010,209

VIII. Response of Haven for Hope to the COVID-19 Pandemic

While the time period of the analysis in this study only covers through 2019, it is worth briefly discussing the response of Haven for Hope to the COVID-19 pandemic that began in 2020 because it is yet another illustration of the substantial and important contributions that Haven for Hope makes to our community. The COVID-19 pandemic presented many very difficult and unique challenges for every person and organization, yet those organizations providing essential services to the community had to find ways to meet these challenges even during lockdown and through the slow period of reengaging in typical daily activities. Haven for

Hope not only rose to meet these extraordinarily difficult challenges, but they yet again became a model of excellence.

The team at Haven for Hope made numerous adaptations to their operations in order to keep providing their services while ensuring the health and safety of their staff, volunteers, those experiencing homelessness, and the broader San Antonio community. For instance, they implemented head to toe sleeping in the courtyard and campus and developed activities for the children that allowed them to maintain social distancing. They also continued to provide children assistance with their schoolwork in a socially distanced manner. Being in lockdown and having your movements restricted greatly affected the morale of people everywhere. Recognizing that this may be an issue, Haven for Hope created a “joy” team of staff whose purpose it was to spread cheer and joy throughout the Haven for Hope community (Haven for Hope(a), 2020). Additionally, Haven for Hope has had forty interns from various universities, some of whom were in the Army ROTC programs at their schools, including the University of Kentucky, Our Lady of the Lake University, University of Oklahoma, University of Southern California, University of Texas at San Antonio, University of Texas at Austin, and University of Texas at Arlington (Haven for Hope, personal communication, July 3, 2022).

In collaboration with the City of San Antonio, MetroHealth, and its other partner agencies, Haven for Hope created Operation Hope Away from Haven at a local hotel for their highest-risk clients in order to ensure they continued to receive the care they needed should they become exposed and to aid in social distancing. A 27-page operational plan was developed and implemented for the hotel. Along with being able to closely monitor and provide these clients the care they need, Operation Hope Away from Haven also provided many other services, such as:

- Blankets and sheets

- Towels and washcloths
- Hygiene products
- Coffee and water
- Three meals per day
- Snacks
- Oversized clothing and shoes
- Medication disposal and purchase
- Medical equipment purchase
- Transportation
- Mail distribution (Haven for Hope(b), 2020, p. 4)

Operation Hope Away from Haven was a resounding success at continuing to provide their highest-risk clients with the services and care they needed while limiting the spread of COVID-19 so much so that it continues in operation to this day. Like Haven for Hope has long been, their response in collaboration with the City of San Antonio and their Partner Agencies to the COVID-19 pandemic has become a model.

IX. Conclusion

Haven for Hope has become a model of excellence for how to establish and operate a facility to effectively and efficiently serve those who are experiencing homelessness. As shown in this analysis, their impact on the San Antonio community has been profound, especially for those they serve, but their overwhelmingly positive impacts extend well into the broader community. In this study, the benefits to the community provided by the services of Haven for Hope during the period from when it started serving persons experiencing homelessness in 2010 through 2019 were calculated. Besides the economic and fiscal impacts of the operations of Haven for Hope, including the important contributions of their numerous partners and volunteers, Haven for Hope is a place where the 40,000 people they have served have been able to find hope and seek a new beginning. The broad array of services provided by Haven for Hope to those persons experiencing homelessness help them not only find permanent housing, but provide them with the care, guidance, and skills each individual needs to begin a successful journey to self-sufficiency. Of course, this enhances their quality of life, but they also become more positively engaged in the community and more productive members in the local economy. As such, the services provided by Haven for Hope yield benefits throughout their lifetimes.

Since 2007 when efforts to establish Haven for Hope began, total expenses for Haven for Hope through 2019 have amounted to \$200.9 million, but this investment has garnered a substantial return. The net benefits range from \$2.9 billion to \$8.2 billion with an average of \$5.6 billion. Based on the benefit-cost ratio, this means that for each dollar spent in establishing and operating Haven for Hope has generated an average of \$28.72 in benefits to the community with a range of \$15.29 to \$41.89.

While the scope of this study only analyzed the benefits through 2019, it is also worth noting that Haven for Hope has continued to innovate and push its model of excellence in serving persons experiencing homelessness and the broader San Antonio community. This is exemplified through its contributions to the community's response to the COVID-19 pandemic. While much of the community was in lockdown and experiencing unprecedented economic stress due to the pandemic, Haven for Hope made numerous adaptations to their operations in order to keep safely providing their services. This included the creation and implementation of Operation Hope Away from Haven focused on serving their highest-risk clients who had become exposed to COVID-19 and to maintain social distancing.

Haven for Hope's work towards the achievement of their mission has shown to have significantly positive, even lifesaving, impacts on those persons experiencing homelessness. These impacts, in and of themselves, yield substantial benefits to the community, but they will also enhance the quality of life throughout San Antonio and be a catalyst for economic development well into the future.

Appendix A: Economic Impacts of Haven for Hope Operations by Year

Table A1. Economic Impacts of Haven for Hope Operations: 2010

<i>Impact</i>	<i>Employment</i>	<i>Labor Income (2021 \$)</i>	<i>Contributions to GRP (2021 \$)</i>	<i>Output (2021 \$)</i>
Direct	29	\$4,954,195	\$5,163,966	\$14,849,740
Indirect	41	\$1,944,718	\$2,980,874	\$6,263,676
Induced	40	\$1,863,123	\$3,277,991	\$5,830,730
Total	109	\$8,762,037	\$11,422,831	\$26,944,146

Table A2. Economic Impacts of Haven for Hope Operations: 2011

<i>Impact</i>	<i>Employment</i>	<i>Labor Income (2021 \$)</i>	<i>Contributions to GRP (2021 \$)</i>	<i>Output (2021 \$)</i>
Direct	128	\$7,573,393	\$7,751,146	\$12,583,224
Indirect	34	\$1,647,896	\$2,525,903	\$5,307,652
Induced	53	\$2,490,174	\$4,381,634	\$7,793,589
Total	215	\$11,711,463	\$14,658,683	\$25,684,464

Table A3. Economic Impacts of Haven for Hope Operations: 2012

<i>Impact</i>	<i>Employment</i>	<i>Labor Income (2021 \$)</i>	<i>Contributions to GRP (2021 \$)</i>	<i>Output (2021 \$)</i>
Direct	171	\$8,055,652	\$8,246,693	\$13,523,855
Indirect	37	\$1,771,081	\$2,714,722	\$5,704,413
Induced	56	\$2,653,674	\$4,669,317	\$8,305,293
Total	264	\$12,480,407	\$15,630,732	\$27,533,562

Table A4. Economic Impacts of Haven for Hope Operations: 2013

<i>Impact</i>	<i>Employment</i>	<i>Labor Income (2021 \$)</i>	<i>Contributions to GRP (2021 \$)</i>	<i>Output (2021 \$)</i>
Direct	208	\$9,402,615	\$9,627,918	\$15,949,312
Indirect	44	\$2,088,718	\$3,201,598	\$6,727,480
Induced	66	\$3,103,195	\$5,460,273	\$9,712,167
Total	318	\$14,594,529	\$18,289,789	\$32,388,960

Table A5. Economic Impacts of Haven for Hope Operations: 2014

<i>Impact</i>	<i>Employment</i>	<i>Labor Income (2021 \$)</i>	<i>Contributions to GRP (2021 \$)</i>	<i>Output (2021 \$)</i>
Direct	239	\$10,558,833	\$10,795,101	\$16,725,514
Indirect	46	\$2,190,369	\$3,357,409	\$7,054,885
Induced	73	\$3,442,861	\$6,057,991	\$10,775,294
Total	358	\$16,192,064	\$20,210,501	\$34,555,693

Table A6. Economic Impacts of Haven for Hope Operations: 2015

<i>Impact</i>	<i>Employment</i>	<i>Labor Income (2021 \$)</i>	<i>Contributions to GRP (2021 \$)</i>	<i>Output (2021 \$)</i>
Direct	243	\$10,949,602	\$11,216,999	\$18,929,121
Indirect	52	\$2,478,953	\$3,799,752	\$7,984,375
Induced	77	\$3,626,341	\$6,380,765	\$11,349,453
Total	372	\$17,054,896	\$21,397,516	\$38,262,949

Table A7. Economic Impacts of Haven for Hope Operations: 2016

<i>Impact</i>	<i>Employment</i>	<i>Labor Income (2021 \$)</i>	<i>Contributions to GRP (2021 \$)</i>	<i>Output (2021 \$)</i>
Direct	270	\$11,541,726	\$11,848,169	\$21,693,208
Indirect	59	\$2,840,937	\$4,354,603	\$9,150,277
Induced	82	\$3,884,021	\$6,834,088	\$12,155,827
Total	412	\$18,266,684	\$23,036,860	\$42,999,312

Table A8. Economic Impacts of Haven for Hope Operations: 2017

<i>Impact</i>	<i>Employment</i>	<i>Labor Income (2021 \$)</i>	<i>Contributions to GRP (2021 \$)</i>	<i>Output (2021 \$)</i>
Direct	262	\$13,302,249	\$13,626,870	\$22,980,055
Indirect	63	\$3,009,463	\$4,612,920	\$9,693,075
Induced	93	\$4,404,928	\$7,750,736	\$13,786,219
Total	418	\$20,716,639	\$25,990,526	\$46,459,349

Table A9. Economic Impacts of Haven for Hope Operations: 2018

<i>Impact</i>	<i>Employment</i>	<i>Labor Income (2021 \$)</i>	<i>Contributions to GRP (2021 \$)</i>	<i>Output (2021 \$)</i>
Direct	330	\$14,855,825	\$15,223,164	\$26,004,117
Indirect	71	\$3,405,493	\$5,219,957	\$10,968,635
Induced	105	\$4,931,419	\$8,677,113	\$15,433,972
Total	506	\$23,192,737	\$29,120,234	\$52,406,724

Table A10. Economic Impacts of Haven for Hope Operations: 2019

<i>Impact</i>	<i>Employment</i>	<i>Labor Income (2021 \$)</i>	<i>Contributions to GRP (2021 \$)</i>	<i>Output (2021 \$)</i>
Direct	311	\$14,914,802	\$15,281,439	\$25,954,438
Indirect	71	\$3,398,987	\$5,209,985	\$10,947,681
Induced	105	\$4,945,586	\$8,702,048	\$15,478,320
Total	487	\$23,259,375	\$29,193,472	\$52,380,439

Table A11. Economic Impacts of Haven for Hope Operations: 2010-2019

<i>Impact</i>	<i>Employment</i>	<i>Labor Income (2021 \$)</i>	<i>Contributions to GRP (2021 \$)</i>	<i>Output (2021 \$)</i>
Direct	2,191	\$106,108,892	\$108,781,465	\$189,192,584
Indirect	518	\$24,776,617	\$37,977,723	\$79,802,150
Induced	750	\$35,345,322	\$62,191,954	\$110,620,865
Total	3,459	\$166,230,831	\$208,951,142	\$379,615,599

Appendix B: Employment Impacts of Haven for Hope Operations by Industry

Table B1. Impacts on Employment of Haven for Hope Operations by Industry: 2010-2019

<i>Industry (Numbers = IMPLAN Industry Codes)</i>	<i>Total Employment</i>
495 - Community food, housing, and other relief services, incl. rehabilitation services	2,194
509 - Full-service restaurants	115
447 - Other real estate	83
442 - Other financial investment activities	50
510 - Limited-service restaurants	44
472 - Employment services	40
476 - Services to buildings	38
441 - Monetary authorities and depository credit intermediation	32
490 - Hospitals	29
469 - Management of companies and enterprises	26
511 - All other food and drinking places	23
411 - Retail - General merchandise stores	23
483 - Offices of physicians	21
488 - Home health care services	21
406 - Retail - Food and beverage stores	20
421 - Couriers and messengers	20
462 - Management consulting services	19
493 - Individual and family services	19
417 - Truck transportation	17
456 - Accounting, tax preparation, bookkeeping, and payroll services	16
468 - Marketing research and all other misc. professional, scientific, and technical services	14
412 - Retail - Miscellaneous store retailers	14
473 - Business support services	14
512 - Automotive repair and maintenance, except car washes	13
491 - Nursing and community care facilities	13
517 - Personal care services	13
477 - Landscape and horticultural services	13
409 - Retail - Clothing and clothing accessories stores	12
422 - Warehousing and storage	12
444 - Insurance carriers, except direct life	12
396 - Wholesale - Other durable goods merchant wholesalers	12
520 - Other personal services	11
455 - Legal services	11
445 - Insurance agencies, brokerages, and related activities	11
475 - Investigation and security services	11

526 - Postal service	11
413 - Retail - Nonstore retailers	10
448 - Tenant-occupied housing	10
494 - Child day care services	10
420 - Scenic and sightseeing transportation and support activities for transportation	10
482 - Other educational services	10
521 - Religious organizations	10
398 - Wholesale - Grocery and related product wholesalers	10
407 - Retail - Health and personal care stores	10
485 - Offices of other health practitioners	9
400 - Wholesale - Other nondurable goods merchant wholesalers	9
439 - Nondepository credit intermediation and related activities	8
525 - Private households	8
470 - Office administrative services	8
60 - Maintenance and repair construction of nonresidential structures	8
418 - Transit and ground passenger transportation	8
484 - Offices of dentists	8
486 - Outpatient care centers	7
534 - Other local government enterprises	7
410 - Retail - Sporting goods, hobby, musical instrument and book stores	7
513 - Car washes	7
88 - Poultry processing	6
402 - Retail - Motor vehicle and parts dealers	6
480 - Elementary and secondary schools	6
499 - Independent artists, writers, and performers	6
408 - Retail - Gasoline stores	6
446 - Funds, trusts, and other financial vehicles	6
393 - Wholesale - Professional and commercial equipment and supplies	6
403 - Retail - Furniture and home furnishings stores	5
404 - Retail - Electronics and appliance stores	5
505 - Fitness and recreational sports centers	5
440 - Securities and commodity contracts intermediation and brokerage	5
524 - Labor and civic organizations	5
405 - Retail - Building material and garden equipment and supplies stores	5
463 - Environmental and other technical consulting services	4
492 - Residential mental retardation, mental health, substance abuse and other facilities	4
436 - Data processing, hosting, and related services	4
481 - Junior colleges, colleges, universities, and professional schools	4
433 - Wired telecommunications carriers	4
465 - Advertising, public relations, and related services	4

460 - Computer systems design services	4
519 - Dry-cleaning and laundry services	4
516 - Personal and household goods repair and maintenance	4
457 - Architectural, engineering, and related services	4
503 - Gambling industries (except casino hotels)	3
11 - Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	3
479 - Waste management and remediation services	3
504 - Other amusement and recreation industries	3
152 - Printing	3
61 - Maintenance and repair construction of residential structures	3
424 - Periodical publishers	3
450 - Automotive equipment rental and leasing	3
515 - Commercial and industrial machinery and equipment repair and maintenance	3
489 - Other ambulatory health care services	3
451 - General and consumer goods rental except video tapes and discs	2
401 - Wholesale - Wholesale electronic markets and agents and brokers	2
93 - Bread and bakery product, except frozen, manufacturing	2
533 - Local government electric utilities	2
487 - Medical and diagnostic laboratories	2
443 - Direct life insurance carriers	2
458 - Specialized design services	2
466 - Photographic services	2
532 - Local government passenger transit	2
453 - Commercial and industrial machinery and equipment rental and leasing	2
467 - Veterinary services	2
395 - Wholesale - Machinery, equipment, and supplies	2
429 - Motion picture and video industries	2
414 - Air transportation	2
522 - Grantmaking, giving, and social advocacy organizations	2
500 - Promoters of performing arts and sports and agents for public figures	2
496 - Performing arts companies	2
431 - Radio and television broadcasting	2
514 - Electronic and precision equipment repair and maintenance	2
497 - Commercial Sports Except Racing	2
425 - Book publishers	2
478 - Other support services	2
459 - Custom computer programming services	2
461 - Other computer related services, including facilities management	2
392 - Wholesale - Motor vehicle and motor vehicle parts and supplies	2
528 - Other federal government enterprises	2

474 - Travel arrangement and reservation services	2
471 - Facilities support services	1
20 - Oil and gas extraction	1
423 - Newspaper publishers	1
10 - All other crop farming	1
464 - Scientific research and development services	1
397 - Wholesale - Drugs and druggists' sundries	1
394 - Wholesale - Household appliances and electrical and electronic goods	1
47 - Electric power transmission and distribution	1
501 - Museums, historical sites, zoos, and parks	1
428 - Software publishers	1
502 - Amusement parks and arcades	1
13 - Poultry and egg production	1
438 - Internet publishing and broadcasting and web search portals	1
523 - Business and professional associations	1
14 - Animal production, except cattle and poultry and eggs	1
518 - Death care services	1
415 - Rail transportation	1
399 - Wholesale - Petroleum and petroleum products	1
434 - Wireless telecommunications carriers (except satellite)	1
452 - Video tape and disc rental	1
506 - Bowling centers	1
139 - Other millwork, including flooring	1
137 - Wood windows and door manufacturing	1
435 - Satellite, telecommunications resellers, and all other telecommunications	1
204 - Ready-mix concrete manufacturing	1
391 - All other miscellaneous manufacturing	1
437 - News syndicates, libraries, archives and all other information services	1
104 - Bottled and canned soft drinks & water	1
19 - Support activities for agriculture and forestry	1
135 - Engineered wood member and truss manufacturing	1
90 - Meat processed from carcasses	0
49 - Water, sewage and other systems	0
138 - Cut stock, resawing lumber, and planing	0
3 - Vegetable and melon farming	0
89 - Animal, except poultry, slaughtering	0
207 - Other concrete product manufacturing	0
147 - Paperboard container manufacturing	0
87 - Frozen cakes and other pastries manufacturing	0
385 - Sign manufacturing	0

426 - Directory, mailing list, and other publishers	0
40 - Electric power generation - Fossil fuel	0
498 - Racing and Track Operation	0
507 - Hotels and motels, including casino hotels	0
419 - Pipeline transportation	0
348 - Motor vehicle electrical and electronic equipment manufacturing	0
215 - Iron and steel mills and ferroalloy manufacturing	0
133 - Wood preservation	0
96 - Tortilla manufacturing	0
6 - Greenhouse, nursery, and floriculture production	0
94 - Cookie and cracker manufacturing	0
16 - Commercial logging	0
43 - Electric power generation - Wind	0
352 - Other motor vehicle parts manufacturing	0
454 - Lessors of nonfinancial intangible assets	0
143 - All other miscellaneous wood product manufacturing	0
209 - Gypsum product manufacturing	0
29 - Sand and gravel mining	0
28 - Stone mining and quarrying	0
154 - Petroleum refineries	0
365 - Wood kitchen cabinet and countertop manufacturing	0
239 - Sheet metal work manufacturing	0
18 - Commercial hunting and trapping	0
340 - Automobile manufacturing	0
341 - Light truck and utility vehicle manufacturing	0
48 - Natural gas distribution	0
430 - Sound recording industries	0
132 - Sawmills	0
248 - Turned product and screw, nut, and bolt manufacturing	0
106 - Breweries	0
92 - Seafood product preparation and packaging	0
12 - Dairy cattle and milk production	0
64 - Other animal food manufacturing	0
193 - Other plastics product manufacturing	0
240 - Ornamental and architectural metal work manufacturing	0
2 - Grain farming	0
203 - Cement manufacturing	0
383 - Doll, toy, and game manufacturing	0
42 - Electric power generation - Solar	0
103 - All other food manufacturing	0

97 - Roasted nuts and peanut butter manufacturing	0
188 - Plastics pipe and pipe fitting manufacturing	0
236 - Fabricated structural metal manufacturing	0
211 - Cut stone and stone product manufacturing	0
4 - Fruit farming	0
98 - Other snack food manufacturing	0
140 - Wood container and pallet manufacturing	0
246 - Spring and wire product manufacturing	0
84 - Fluid milk manufacturing	0
105 - Manufactured ice	0
99 - Coffee and tea manufacturing	0
65 - Flour milling	0
275 - Air conditioning, refrigeration, and warm air heating equipment manufacturing	0
79 - Canned fruits and vegetables manufacturing	0
238 - Metal window and door manufacturing	0
259 - Other fabricated metal manufacturing	0
205 - Concrete block and brick manufacturing	0
177 - Soap and other detergent manufacturing	0
508 - Other accommodations	0
5 - Tree nut farming	0
350 - Motor vehicle seating and interior trim manufacturing	0
153 - Support activities for printing	0
81 - Dehydrated food products manufacturing	0
245 - Hardware manufacturing	0
381 - Jewelry and silverware manufacturing	0
237 - Plate work manufacturing	0
198 - Brick, tile, and other structural clay product manufacturing	0
432 - Cable and other subscription programming	0
190 - Polystyrene foam product manufacturing	0
247 - Machine shops	0
258 - Fabricated pipe and pipe fitting manufacturing	0
377 - Surgical appliance and supplies manufacturing	0
155 - Asphalt paving mixture and block manufacturing	0
206 - Concrete pipe manufacturing	0
86 - Ice cream and frozen dessert manufacturing	0
416 - Water transportation	0
121 - Other textile product mills	0
37 - Metal mining services	0
345 - Motor home manufacturing	0
78 - Frozen specialties manufacturing	0

148 - Paper bag and coated and treated paper manufacturing	0
191 - Urethane and other foam product (except polystyrene) manufacturing	0
91 - Rendering and meat byproduct processing	0
8 - Cotton farming	0
349 - Motor vehicle transmission and power train parts manufacturing	0
102 - Spice and extract manufacturing	0
46 - Electric power generation - All other	0
175 - Paint and coating manufacturing	0
186 - Plastics packaging materials and unlaminated film and sheet manufacturing	0
77 - Frozen fruits, juices and vegetables manufacturing	0
252 - Valve and fittings, other than plumbing, manufacturing	0
386 - Gasket, packing, and sealing device manufacturing	0
337 - Wiring device manufacturing	0
111 - Broadwoven fabric mills	0
157 - Petroleum lubricating oil and grease manufacturing	0
21 - Coal mining	0
149 - Stationery product manufacturing	0
36 - Support activities for oil and gas operations	0
213 - Mineral wool manufacturing	0
361 - Boat building	0
346 - Travel trailer and camper manufacturing	0
351 - Motor vehicle metal stamping	0
172 - Pharmaceutical preparation manufacturing	0
333 - Storage battery manufacturing	0
208 - Lime manufacturing	0
251 - Electroplating, anodizing, and coloring metal	0
384 - Office supplies (except paper) manufacturing	0
380 - Dental laboratories	0
389 - Broom, brush, and mop manufacturing	0
62 - Maintenance and repair construction of highways, streets, bridges, and tunnels	0
178 - Polish and other sanitation good manufacturing	0
196 - Other rubber product manufacturing	0
382 - Sporting and athletic goods manufacturing	0
202 - Glass product manufacturing made of purchased glass	0
126 - Women's and girls' cut and sew apparel manufacturing	0
230 - Crown and closure manufacturing and metal stamping	0
34 - Other nonmetallic minerals	0
194 - Tire manufacturing	0
109 - Tobacco product manufacturing	0
379 - Ophthalmic goods manufacturing	0

375 - Blind and shade manufacturing	0
222 - Other aluminum rolling, drawing and extruding	0
235 - Prefabricated metal buildings and components manufacturing	0
233 - Cutlery, utensil, pot, and pan manufacturing	0
185 - Other miscellaneous chemical product manufacturing	0
15 - Forestry, forest products, and timber tract production	0
367 - Nonupholstered wood household furniture manufacturing	0
371 - Custom architectural woodwork and millwork	0
160 - Industrial gas manufacturing	0
376 - Surgical and medical instrument manufacturing	0
250 - Metal coating and nonprecious engraving	0
388 - Fasteners, buttons, needles, and pins manufacturing	0
125 - Men's and boys' cut and sew apparel manufacturing	0
74 - Nonchocolate confectionery manufacturing	0
76 - Confectionery manufacturing from purchased chocolate	0
187 - Unlaminated plastics profile shape manufacturing	0
101 - Mayonnaise, dressing, and sauce manufacturing	0
214 - Miscellaneous nonmetallic mineral products manufacturing	0
197 - Pottery, ceramics, and plumbing fixture manufacturing	0
199 - Flat glass manufacturing	0
364 - All other transportation equipment manufacturing	0
38 - Other nonmetallic minerals services	0
156 - Asphalt shingle and coating materials manufacturing	0
227 - Ferrous metal foundries	0
184 - Photographic film and chemical manufacturing	0
216 - Iron, steel pipe and tube manufacturing from purchased steel	0
366 - Upholstered household furniture manufacturing	0
300 - Computer terminals and other computer peripheral equipment manufacturing	0
119 - Textile bag and canvas mills	0
127 - Other cut and sew apparel manufacturing	0
170 - Pesticide and other agricultural chemical manufacturing	0
347 - Motor vehicle gasoline engine and engine parts manufacturing	0
272 - Other commercial service industry machinery manufacturing	0
124 - Cut and sew apparel contractors	0
260 - Farm machinery and equipment manufacturing	0
307 - Semiconductor and related device manufacturing	0
374 - Mattress manufacturing	0
80 - Canned specialties	0
229 - Custom roll forming	0
264 - Oil and gas field machinery and equipment manufacturing	0

274 - Heating equipment (except warm air furnaces) manufacturing	0
243 - Metal cans manufacturing	0
180 - Toilet preparation manufacturing	0
373 - Showcase, partition, shelving, and locker manufacturing	0
387 - Musical instrument manufacturing	0
356 - Other aircraft parts and auxiliary equipment manufacturing	0
164 - Plastics material and resin manufacturing	0
284 - Other engine equipment manufacturing	0
108 - Distilleries	0
117 - Carpet and rug mills	0
128 - Apparel accessories and other apparel manufacturing	0
173 - In-vitro diagnostic substance manufacturing	0
100 - Flavoring syrup and concentrate manufacturing	0
323 - Lighting fixture manufacturing	0
141 - Manufactured home (mobile home) manufacturing	0
257 - Small arms, ordnance, and accessories manufacturing	0
151 - All other converted paper product manufacturing	0
354 - Aircraft manufacturing	0
107 - Wineries	0
118 - Curtain and linen mills	0
231 - Iron and steel forging	0
343 - Motor vehicle body manufacturing	0
123 - Other apparel knitting mills	0
82 - Cheese manufacturing	0
120 - Rope, cordage, twine, tire cord and tire fabric mills	0
242 - Metal tank (heavy gauge) manufacturing	0
297 - Scales, balances, and miscellaneous general purpose machinery manufacturing	0
195 - Rubber and plastics hoses and belting manufacturing	0
325 - Household cooking appliance manufacturing	0
122 - Hosiery and sock mills	0
327 - Household laundry equipment manufacturing	0
131 - Other leather and allied product manufacturing	0
331 - Switchgear and switchboard apparatus manufacturing	0
176 - Adhesive manufacturing	0
344 - Truck trailer manufacturing	0
130 - Footwear manufacturing	0
162 - Other basic inorganic chemical manufacturing	0
181 - Printing ink manufacturing	0
303 - Other communications equipment manufacturing	0
277 - Special tool, die, jig, and fixture manufacturing	0

224 - Copper rolling, drawing, extruding and alloying	0
321 - Software and other prerecorded and record reproducing	0
326 - Household refrigerator and home freezer manufacturing	0
273 - Air purification and ventilation equipment manufacturing	0
362 - Motorcycle, bicycle, and parts manufacturing	0
113 - Nonwoven fabric mills	0
244 - Metal barrels, drums and pails manufacturing	0
116 - Fabric coating mills	0
276 - Industrial mold manufacturing	0
280 - Rolling mill and other metalworking machinery manufacturing	0
369 - Institutional furniture manufacturing	0
315 - Totalizing fluid meter and counting device manufacturing	0
261 - Lawn and garden equipment manufacturing	0
306 - Bare printed circuit board manufacturing	0
339 - All other miscellaneous electrical equipment and component manufacturing	0
220 - Secondary smelting and alloying of aluminum	0
332 - Relay and industrial control manufacturing	0
328 - Other major household appliance manufacturing	0
228 - Nonferrous metal foundries	0
161 - Synthetic dye and pigment manufacturing	0
288 - Conveyor and conveying equipment manufacturing	0
169 - Fertilizer mixing	0
189 - Laminated plastics plate, sheet (except packaging), and shape manufacturing	0
355 - Aircraft engine and engine parts manufacturing	0
35 - Drilling oil and gas wells	0
301 - Telephone apparatus manufacturing	0
302 - Broadcast and wireless communications equipment manufacturing	0
314 - Industrial process variable instruments manufacturing	0
319 - Watch, clock, and other measuring and controlling device manufacturing	0
310 - Other electronic component manufacturing	0
296 - Fluid power pump and motor manufacturing	0
279 - Machine tool manufacturing	0
129 - Leather and hide tanning and finishing	0
305 - Printed circuit assembly (electronic assembly) manufacturing	0
370 - Wood office furniture manufacturing	0
115 - Textile and fabric finishing mills	0
324 - Small electrical appliance manufacturing	0
363 - Military armored vehicle, tank, and tank component manufacturing	0
223 - Nonferrous metal (exc aluminum) smelting and refining	0
171 - Medicinal and botanical manufacturing	0

269 - All other industrial machinery manufacturing	0
342 - Heavy duty truck manufacturing	0
167 - Nitrogenous fertilizer manufacturing	0
311 - Electromedical and electrotherapeutic apparatus manufacturing	0
265 - Semiconductor machinery manufacturing	0
266 - Food product machinery manufacturing	0
329 - Power, distribution, and specialty transformer manufacturing	0
359 - Railroad rolling stock manufacturing	0
293 - Packaging machinery manufacturing	0
174 - Biological product (except diagnostic) manufacturing	0
358 - Propulsion units and parts for space vehicles and guided missiles manufacturing	0
313 - Automatic environmental control manufacturing	0
304 - Audio and video equipment manufacturing	0
262 - Construction machinery manufacturing	0
241 - Power boiler and heat exchanger manufacturing	0
285 - Pump and pumping equipment manufacturing	0
289 - Overhead cranes, hoists, and monorail systems manufacturing	0
286 - Air and gas compressor manufacturing	0
1 - Oilseed farming	0
298 - Electronic computer manufacturing	0
330 - Motor and generator manufacturing	0
287 - Elevator and moving stairway manufacturing	0
270 - Optical instrument and lens manufacturing	0
317 - Analytical laboratory instrument manufacturing	0
316 - Electricity and signal testing instruments manufacturing	0
312 - Search, detection, and navigation instruments manufacturing	0
7 - Tobacco farming	0
44 - Electric power generation - Geothermal	0
320 - Blank magnetic and optical recording media manufacturing	0
17 - Commercial fishing	0
57 - Construction of new single-family residential structures	0
427 - Greeting card publishing	0
221 - Aluminum sheet, plate, and foil manufacturing	0
449 - Owner-occupied dwellings	0
73 - Sugar cane mills and refining	0
546 - * Employment and payroll of federal govt, non-military	0
31 - Potash, soda, and borate mineral mining	0
210 - Abrasive product manufacturing	0
278 - Cutting tool and machine tool accessory manufacturing	0
56 - Construction of other new nonresidential structures	0

529 - State government passenger transit	0
142 - Prefabricated wood building manufacturing	0
212 - Ground or treated mineral and earth manufacturing	0
159 - Petrochemical manufacturing	0
182 - Explosives manufacturing	0
39 - Electric power generation - Hydroelectric	0
72 - Beet sugar manufacturing	0
318 - Irradiation apparatus manufacturing	0
63 - Dog and cat food manufacturing	0
282 - Speed changer, industrial high-speed drive, and gear manufacturing	0
309 - Electronic connector manufacturing	0
192 - Plastics bottle manufacturing	0
536 - * Not an industry (Scrap)	0
134 - Veneer and plywood manufacturing	0
368 - Other household nonupholstered furniture manufacturing	0
255 - Small arms ammunition manufacturing	0
268 - Printing machinery and equipment manufacturing	0
68 - Wet corn milling	0
136 - Reconstituted wood product manufacturing	0
322 - Electric lamp bulb and part manufacturing	0
95 - Dry pasta, mixes, and dough manufacturing	0
71 - Breakfast cereal manufacturing	0
225 - Nonferrous metal, except copper and aluminum, shaping	0
24 - Gold ore mining	0
263 - Mining machinery and equipment manufacturing	0
360 - Ship building and repairing	0
281 - Turbine and turbine generator set units manufacturing	0
539 - * Employment and payroll of state govt, education	0
66 - Rice milling	0
114 - Knit fabric mills	0
146 - Paperboard mills	0
543 - * Employment and payroll of local govt, hospitals and health services	0
530 - State government electric utilities	0
165 - Synthetic rubber manufacturing	0
542 - * Employment and payroll of local govt, education	0
183 - Custom compounding of purchased resins	0
110 - Fiber, yarn, and thread mills	0
338 - Carbon and graphite product manufacturing	0
179 - Surface active agent manufacturing	0
150 - Sanitary paper product manufacturing	0

537 - * Not an industry (Rest of world adjustment)	0
201 - Glass container manufacturing	0
22 - Copper, nickel, lead, and zinc mining	0
23 - Iron ore mining	0
253 - Plumbing fixture fitting and trim manufacturing	0
112 - Narrow fabric mills and schiffli machine embroidery	0
295 - Fluid power cylinder and actuator manufacturing	0
544 - * Employment and payroll of local govt, other services	0
33 - Other chemical and fertilizer mineral mining	0
41 - Electric power generation - Nuclear	0
291 - Power-driven handtool manufacturing	0
32 - Phosphate rock mining	0
294 - Industrial process furnace and oven manufacturing	0
26 - Uranium-radium-vanadium ore mining	0
527 - Federal electric utilities	0
535 - * Not an industry (Used and secondhand goods)	0
299 - Computer storage device manufacturing	0
70 - Fats and oils refining and blending	0
538 - * Not an industry (Noncomparable foreign imports)	0
335 - Fiber optic cable manufacturing	0
54 - Construction of new highways and streets	0
254 - Ball and roller bearing manufacturing	0
50 - Construction of new health care structures	0
545 - * Employment and payroll of federal govt, military	0
83 - Dry, condensed, and evaporated dairy product manufacturing	0
283 - Mechanical power transmission equipment manufacturing	0
531 - Other state government enterprises	0
145 - Paper mills	0
85 - Creamery butter manufacturing	0
217 - Rolled steel shape manufacturing	0
55 - Construction of new commercial structures, including farm structures	0
25 - Silver ore mining	0
541 - * Employment and payroll of state govt, other services	0
69 - Soybean and other oilseed processing	0
30 - Other clay, ceramic, refractory minerals mining	0
390 - Burial casket manufacturing	0
53 - Construction of new educational and vocational structures	0
234 - Handtool manufacturing	0
75 - Chocolate and confectionery manufacturing from cacao beans	0
308 - Capacitor, resistor, coil, transformer, and other inductor manufacturing	0

163 - Other basic organic chemical manufacturing	0
372 - Office furniture, except wood, manufacturing	0
144 - Pulp mills	0
290 - Industrial truck, trailer, and stacker manufacturing	0
27 - Other metal ore mining	0
267 - Sawmill, woodworking, and paper machinery	0
219 - Alumina refining and primary aluminum production	0
256 - Ammunition, except for small arms, manufacturing	0
357 - Guided missile and space vehicle manufacturing	0
292 - Welding and soldering equipment manufacturing	0
271 - Photographic and photocopying equipment manufacturing	0
378 - Dental equipment and supplies manufacturing	0
58 - Construction of new multifamily residential structures	0
52 - Construction of new power and communication structures	0
45 - Electric power generation - Biomass	0
249 - Metal heat treating	0
67 - Malt manufacturing	0
232 - Nonferrous forging	0
540 - * Employment and payroll of state govt, hospitals and health services	0
166 - Artificial and synthetic fibers and filaments manufacturing	0
168 - Phosphatic fertilizer manufacturing	0
158 - All other petroleum and coal products manufacturing	0
218 - Steel wire drawing	0
51 - Construction of new manufacturing structures	0
9 - Sugarcane and sugar beet farming	0
336 - Other communication and energy wire manufacturing	0
334 - Primary battery manufacturing	0
200 - Other pressed and blown glass and glassware manufacturing	0
226 - Secondary processing of other nonferrous metals	0
353 - Motor vehicle steering, suspension component (except spring), and brake systems mfg.	0
59 - Construction of other new residential structures	0
Total	3,459

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