

An Economic and Community Benefit Analysis of Lighthouse Youth & Family Services

June 24, 2020

FINAL REPORT

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Executive Summary

Lighthouse Youth Services, Inc. d/b/a Lighthouse Youth & Family Services, established in 1969, assists children, youth, and families in the State of Ohio with various needs. Lighthouse Youth & Family Services' programs and services include mental health, education, juvenile justice, shelter and housing assistance, as well as foster care and adoption. Lighthouse Youth & Family Services also provides community assistance in Cultural Competency Training and training services for foster parents.

Lighthouse Youth & Family Services commissioned the Economics Center to conduct an economic and community benefit analysis of the services provided by the Organization in the counties of Hamilton, Ross, and Montgomery, as well as the State of Ohio where applicable. The analysis involved quantifying the various benefits and/or avoided costs resulting from services provided by Lighthouse Youth & Family Services to youth and families as well as monetizing the benefits to society.

The Economics Center quantified the economic impact of Lighthouse Youth & Family Services' operations on Hamilton County, Montgomery County, and Ross County. Nearly all of the operations expenditures occurred in Hamilton County each fiscal year as the majority of Lighthouse Youth & Family Services' offices are located in the County. Over the fiscal years (FY) 2012 to 2019, Lighthouse Youth & Family Services had a total of approximately \$227.2 million in operations expenditures, averaging approximately \$28.4 million per fiscal year (FY2018 dollars).¹ Table 1 shows Lighthouse Youth & Family Services' expenditures by fiscal year and relative geography.

Table 1: Lighthouse Youth & Family Services Operations Expenditures, FY2012-FY2019 (FY2018\$)

Expenditures (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Hamilton County	\$18.63	\$21.26	\$21.77	\$22.21	\$23.67	\$25.79	\$24.04	\$23.20	\$180.57
Montgomery County	\$0.49	\$0.57	\$0.55	\$0.63	\$0.75	\$0.72	\$0.64	\$0.63	\$4.98
Ross County	\$5.29	\$5.38	\$5.22	\$5.04	\$5.25	\$5.06	\$5.05	\$5.31	\$41.60
Total Expenditures	\$24.41	\$27.21	\$27.54	\$27.88	\$29.67	\$31.57	\$29.73	\$29.14	\$227.15

Source: Economics Center calculations using data provided by Lighthouse Youth & Family Services.

The Economics Center accounted for economic leakage, or the outflow of money spent on goods and services outside of each county. Multipliers from the Regional Input-Output Modeling System (RIMS II) from the Bureau of Economic Analysis were used to calculate the indirect (and induced) economic impact from these direct expenditures, for each geography.² Similar methodology was used on Lighthouse Youth & Family Services' capital expenditures, to derive the economic impact of the Organization's capital

¹ All dollars in this report are expressed in Fiscal Year 2018 dollars (represented as Lighthouse Youth & Family Services' fiscal year from July 1 to June 30) unless otherwise stated.

² Direct expenditures are the dollars an organization spends. Indirect and induced economic impacts occur as a result of an organization's direct expenditures. Lighthouse Youth & Family Services' direct spending generates economic activity in the economy as the organization purchases services or materials. As such, this direct spending creates economic activity in terms of output, jobs, and earnings.

expenditures on the counties of Hamilton, Montgomery, Ross. Table 2 demonstrates the economic impact of operations expenditures across all three counties,³ while Table 3 shows the economic impact of Lighthouse Youth & Family Services' capital expenditures in the three counties.⁴

Table 2: Economic Impact of Lighthouse Youth & Family Services Operations in the Counties of Hamilton, Montgomery, and Ross, FY2012-FY2019 (FY2018\$)

Output (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Direct	\$16.31	\$17.54	\$18.56	\$18.94	\$20.20	\$21.57	\$20.28	\$19.76	\$153.16
Indirect	\$9.45	\$10.34	\$10.90	\$11.10	\$11.88	\$12.78	\$11.95	\$11.56	\$89.96
Total	\$25.76	\$27.88	\$29.46	\$30.04	\$32.08	\$34.35	\$32.23	\$31.32	\$243.12
Earnings (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Direct	\$12.95	\$12.58	\$13.95	\$14.81	\$15.12	\$15.83	\$15.37	\$14.60	\$115.21
Indirect	\$4.68	\$4.51	\$5.22	\$5.63	\$5.85	\$6.08	\$5.96	\$5.66	\$43.59
Total	\$17.63	\$17.09	\$19.17	\$20.44	\$20.97	\$21.91	\$21.33	\$20.26	\$158.80
Jobs	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Direct	354	344	388	415	397	444	399	373	3,114
Indirect	172	166	192	205	199	222	200	189	1,545
Total	526	510	580	620	596	666	599	562	4,659

Source: Economics Center calculations using data from Emsi and RIMS II, as well as data provided by Lighthouse Youth & Family Services.

³ Lighthouse Youth & Family Services provided information on the number of employees for FY2015 to FY2019 as well as their expenditures and employee earnings (direct earnings) for FY2012 to FY2019. Due to data limitations, the number of Lighthouse Youth & Family Services employees was not available for FY2012 to FY2014. Therefore, the Economics Center estimated the number of employees for these three fiscal years for each geographic area based on the weighted average earnings per employee across FY2015 to FY2019. The weighted average was then used in comparison to total employee earnings (direct earnings) for each geographic area provided by Lighthouse Youth & Family Services to estimate the number of direct employees for FY2012 to FY2014.

⁴ In FY2012, FY2015, FY2016, and FY2019 there were less than one full- or part-time job indirectly supported by Lighthouse Youth & Family Services capital expenditures (displayed as "<1").

Table 3: Economic Impact of Lighthouse Youth & Family Services Capital Expenditures in the Counties of Hamilton, Montgomery, and Ross, FY2012-FY2019 (FY2018\$)

Output (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Direct	\$0.18	\$0.32	\$1.13	\$0.22	\$0.24	\$0.74	\$16.54	\$0.38	\$19.75
Indirect	\$0.10	\$0.18	\$0.50	\$0.10	\$0.09	\$0.32	\$6.29	\$0.14	\$7.72
Total	\$0.28	\$0.50	\$1.63	\$0.32	\$0.33	\$1.06	\$22.83	\$0.52	\$27.47
Earnings (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Direct	\$0.05	\$0.08	\$0.37	\$0.05	\$0.05	\$0.15	\$1.93	\$0.06	\$2.74
Indirect	\$0.02	\$0.02	\$0.09	\$0.01	\$0.02	\$0.05	\$1.03	\$0.02	\$1.26
Total	\$0.07	\$0.10	\$0.46	\$0.06	\$0.07	\$0.20	\$2.96	\$0.08	\$4.00
Jobs	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Direct	1	1	6	1	1	3	27	1	41
Indirect	<1	1	2	<1	<1	2	23	<1	28
Total	>1	2	8	>1	>1	5	50	>1	69

Source: Economics Center calculations using data from Emsi and RIMS II, as well as data provided by Lighthouse Youth & Family Services.

Fiscal Impact

Fiscal impacts of Lighthouse Youth & Family Services operations and capital expenditures were calculated at the municipality level in terms of income tax revenue generated from the earnings paid to the direct employees across Lighthouse Youth & Family Services locations. Income tax revenue for the cities of Cincinnati and Dayton generated by the direct wages from Lighthouse Youth & Family Services operations ranged from \$207,440 in FY2013 to \$280,695 in FY2017. The total amount of income tax revenue generated from the direct earnings by fiscal year is shown in Table 4. Across all eight fiscal years, wages earned by Lighthouse Youth & Family Services employees generated a total of approximately \$2.0 million in earnings tax revenue for the cities of Cincinnati and Dayton.⁵

⁵ Income tax revenue for the Lighthouse Youth & Family Services' location in the Village of Bainbridge located in Ross County, Ohio was not calculated, as the locality does not have an earnings tax.

Table 4: Income Tax Revenue Generated from Direct Earnings due to Lighthouse Youth & Family Services Operations FY2012-FY2019 (FY2018\$)

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
City of Cincinnati	\$205,897	\$198,908	\$229,135	\$246,281	\$251,359	\$270,735	\$259,663	\$245,957	\$1,907,935
City of Dayton	\$7,422	\$8,532	\$8,178	\$9,632	\$11,335	\$9,960	\$8,748	\$7,850	\$71,657
Total	\$213,319	\$207,440	\$237,313	\$255,913	\$262,694	\$280,695	\$268,411	\$253,807	\$1,979,592

Source: Economics Center calculations using data provided by Lighthouse Youth & Family Services.

Benefit-Cost Analysis

Through an extensive literature review, as well as utilizing data from federal and local sources, and case data provided by Lighthouse Youth & Family Services, the Economics Center quantified various benefits and/or avoided costs experienced by clients as well as society resulting from Lighthouse Youth & Family Services' services. Several categories of services were monetized, including juvenile justice, clinical services, and housing and shelter. The broad juvenile justice category included Hamilton County, Montgomery County, and Ross County Juvenile Justice Services (JJS), residential treatment group homes, the Youth Center at Paint Creek, and Paint Creek Academy. Clinical services included outpatient mental health services, early childhood intervention, and foster care and adoption services. Homeless Youth Services included the Safe and Supported Program,⁶ Mecum House, Sheakley Center for Youth, Street Outreach, Independent Living, and Transitional Living, Rapid Re-housing, and Permanent Supportive Housing programs. Lighthouse Youth & Family Services also operates Lighthouse Community School, included in the analysis in its own category.

Overall, the net benefits of Lighthouse Youth & Family Services' programs and services were positive for each fiscal year. In other words, the monetized benefits outweighed the costs (Lighthouse Youth & Family Services' expenditures) when aggregated across the services and programs provided by Lighthouse Youth & Family Services. The costs of providing each program and/or service was aggregated and then compared to the monetized benefits, in order to calculate the net benefits of each category of programs or services. It is important to note that the benefits of Lighthouse Youth & Family Services' programs and services may be understated due to lack of literature and/or data available to monetize impacts.

As shown in Table 5, the total net benefits of Lighthouse Youth & Family Services to Hamilton, Ross, and Montgomery counties amounted to approximately \$367.3 million across all eight fiscal years analyzed in this study (FY2012 to FY2019). Lighthouse Youth & Family Services, in each fiscal year, was found to have positive net benefits overall,

⁶ Lighthouse Youth & Family Services' Safe and Supported Program included the Host Home Program, as well as Cultural Competency Training. As such, the costs of providing the Safe and Supported Program included these services. For the Benefit-Cost Analysis, however, the Economics Center utilized only outcome data on the Host Home Program.

which accrued to individuals assisted and their surrounding communities (shown in the last row of Table 5). The Organization, over FY2012 to FY2019, had total net benefits of \$26.2 million or more in each of the eight fiscal years. Notably, the category of Homeless Youth Services was found to have positive net benefits for every fiscal year, while the net benefits of Lighthouse Community School⁷ and Juvenile Justice Services varied in terms of being positive or negative.

Table 5 details the associated net benefits of each category of services, the economic impacts of Lighthouse Youth & Family Services operations and capital improvements, and the fiscal impacts generated due to operations expenditures. Other Lighthouse Youth & Family Services expenditures included programs and services not monetized, such as Wraparound and administrative services.

Table 5: Net Benefits Per Category of Lighthouse Youth & Family Services Services, in the Counties of Hamilton, Montgomery, and Ross, FY2012-FY2019 (FY2018\$)

Net Benefits (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Juvenile Justice	(\$0.24)	(\$0.51)	\$9.13	\$10.48	\$13.05	\$5.76	\$10.37	\$5.40	\$53.44
Clinical Services	(\$6.72)	(\$7.66)	(\$7.27)	(\$4.60)	(\$6.19)	(\$8.10)	(\$8.90)	(\$4.61)	(\$54.05)
Homeless Youth Services	\$7.58	\$18.54	\$19.72	\$15.18	\$13.22	\$10.73	\$11.56	\$14.25	\$110.78
Lighthouse Community School	\$0.88	\$1.59	\$0.37	(\$0.77)	(\$0.04)	\$0.32	\$0.37	\$0.76	\$3.48
<i>Economic Impact of Operations</i>	\$25.77	\$27.88	\$29.45	\$30.05	\$32.08	\$34.35	\$32.23	\$31.32	\$243.13
<i>Economic Impact of Capital Expenditures</i>	\$0.28	\$0.50	\$1.63	\$0.33	\$0.33	\$1.06	\$22.83	\$0.52	\$27.48
<i>Fiscal Impact of Operations</i>	\$0.21	\$0.21	\$0.24	\$0.26	\$0.26	\$0.28	\$0.27	\$0.25	\$1.98
<i>Other Lighthouse Youth & Family Services Expenditures</i>	(\$1.59)	(\$2.32)	(\$1.85)	(\$2.17)	(\$2.25)	(\$2.89)	(\$2.61)	(\$3.31)	(\$18.99)
Total	\$26.17	\$38.23	\$51.42	\$48.76	\$50.46	\$41.51	\$66.12	\$44.58	\$367.25

Source: Economics Center calculations based on relevant literature, as well as data provided by Lighthouse Youth & Family Services, the U.S. Census Bureau, the Bureau of Labor Statistics.

A Return on Investment (ROI) for each fiscal year was calculated by dividing the total net benefits by the total cost.⁸ Across the eight fiscal years, Lighthouse Youth & Family Services' ROI ranged from 107.3 percent in FY2012 to 222.5 percent in FY2018. The ROI was positive for all fiscal years, indicating positive returns to youth and society compared to the investments made by Lighthouse Youth & Family Services in support of the Organization's programs and services. For example, in FY2012, every \$1.00 invested by

⁷ This variation for Lighthouse Community School was caused by the change in the number of students each year graduating with a high school diploma or GED.

⁸ Total cost is the direct expenditures made by Lighthouse before economic leakage was applied.

Lighthouse Youth & Family Services generated \$2.07 in total economic activity, for a ROI of 107.3 percent.

The overall ROI for Lighthouse Youth & Family Services across FY2012 to FY2019 was 161.7 percent. This indicates that for every \$1.00 invested by Lighthouse Youth & Family Services, \$2.62 of total economic activity occurred for a ROI of 161.7 percent for this eight-year period.

Introduction

Lighthouse Youth Services, Inc. d/b/a Lighthouse Youth & Family Services was established fifty years ago in 1969. Lighthouse Youth & Family Services' mission is to empower young people and families to succeed through a continuum of care that promotes healing and growth. The Organization offers a variety of services for youth and families which include, but are not limited to, services involving foster care and adoption, shelter and housing, mental health, juvenile justice, and education.

Lighthouse Youth & Family Services offices are located throughout Southwest Ohio, serving the counties of Hamilton, Montgomery, and Ross. Most offices are located within Hamilton County however Lighthouse Youth & Family Services has centers in Montgomery and Ross counties offering juvenile justice services. Ross County is also home to the Lighthouse Youth Center at Paint Creek.

Lighthouse Youth & Family Services commissioned the Economics Center to conduct an economic and community benefit analysis of the services provided by the Organization in the counties of Hamilton, Ross, and Montgomery, as well as to the State of Ohio, where applicable, across fiscal years (FY) 2012 to 2019. This involved quantifying the various benefits and/or avoided costs of services experienced by the individuals served by Lighthouse Youth & Family Services, as well as to society.

Economic Impact Analysis

Economic Impact of Lighthouse Youth & Family Services Operations

Lighthouse Youth & Family Services' operations expenditures in fiscal years 2012 to 2019 and the resulting economic impact in terms of output, earnings, and jobs supported were examined. The Economics Center quantified the economic impact of Lighthouse Youth & Family Services operations on Hamilton County, Montgomery County, and Ross County.⁹ Nearly all of the operations expenditures occurred in Hamilton County as the majority of

⁹ Lighthouse Youth & Family Services' expenditures were divided into the three counties based on office location. For example, expenditures for Montgomery County Juvenile Justice Services were included in Montgomery County. Ross County included the Youth Center at Paint Creek, Paint Creek Academy, as well as Ross County Juvenile Justice Services. Hamilton County included Hamilton County Juvenile Justice Services, Clinical Services, Homeless Youth Services, and Lighthouse Community School.

Lighthouse Youth & Family Services offices and services are located in the County. Over the fiscal years 2012 to 2019, Lighthouse Youth & Family Services made a total of \$227.2 million in operations expenditures, with annual expenditures ranging from \$24.4 million in FY2012 to \$31.6 million in FY2017.¹⁰ Table 6 shows Lighthouse Youth & Family Services operations expenditures by fiscal year and geography.

Table 6: Lighthouse Youth & Family Services Operations Expenditures, FY2012-FY2019 (FY2018\$)

Expenditures (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Hamilton County	\$18.63	\$21.26	\$21.77	\$22.21	\$23.67	\$25.79	\$24.04	\$23.20	\$180.57
Montgomery County	\$0.49	\$0.57	\$0.55	\$0.63	\$0.75	\$0.72	\$0.64	\$0.63	\$4.98
Ross County	\$5.29	\$5.38	\$5.22	\$5.04	\$5.25	\$5.06	\$5.05	\$5.31	\$41.60
Total Expenditures	\$24.41	\$27.21	\$27.54	\$27.88	\$29.67	\$31.57	\$29.73	\$29.14	\$227.15

Source: Economics Center calculations using data provided by Lighthouse Youth & Family Services.

The Economics Center accounted for economic leakage, or the outflow of money spent on goods and services outside of each county. In other words, the total amount of expenditures that occurred each county (detailed in the table above) did not remain in the county, but rather some dollars leaked out as goods and services were provided by vendors outside of the respective counties.¹¹ After accounting for economic leakage, Lighthouse Youth & Family Services' direct expenditures that remained in each county were less than the Organization's total operations spending for each fiscal year.

When factoring for economic leakage in FY2012, for example, Lighthouse Youth & Family Services' direct expenditures that remained in Hamilton County totaled \$14.3 million (from the \$18.6 million in pre-leakage expenditures). Post economic leakage expenditures were \$329,836 for Montgomery County (from \$490,777), and \$1.7 million for Ross County (from \$5.3 million). After applying economic leakage, RIMS II multipliers from the Bureau of Economic Analysis were used to calculate the indirect economic impact from the direct expenditures that occurred in each geography. RIMS II multipliers are industry-specific multipliers applied to expenditure categories, in order to calculate the indirect economic impact at each geographic level. The direct and indirect expenditures by fiscal year and county were then summed, to calculate the total economic impact. The multipliers used in this analysis were from the Bureau of Economic Analysis (RIMS II) and the economic leakage data was retrieved from Emsi.¹²

In addition to their expenditures, Lighthouse Youth & Family Services also provided direct employee earnings for FY2012 to FY2019, as well as the number of (direct) employees for FY2015 to FY2019. Due to data limitations, the number of Lighthouse Youth & Family

¹⁰ All dollars in this report are expressed in FY2018 dollars unless otherwise stated.

¹¹ Economic leakage is the demand for products and services that were not able to be directly met within the respective counties. This economic leakage was accounted for when quantifying the impacts of Lighthouse Youth & Family Services' operations, and therefore, the total impact numbers only include the money that was retained in the respective local economy.

¹² (Economic Modeling Specialists International, 2019)

Services employees was not available for FY2012 to FY2014. Therefore, the Economics Center estimated the number of employees for these three fiscal years for each County based on the weighted average earnings per employee across FY2015 to FY2019. The weighted average was then used in comparison to total employee earnings (direct earnings) to estimate the number of direct employees for FY2012 to FY2014.

For Hamilton County in FY2019, the combined direct and indirect impact of Lighthouse Youth & Family Services operations resulted in a total economic output of \$28.6 million and 514 jobs supported with earnings that totaled \$17.2 million, as shown in Table 7. Fiscal Year 2017 had the largest economic impact with \$31.6 million in total output and 617 jobs with earnings amounting to \$18.8 million.

Table 7 shows the remaining fiscal years' economic impacts as well, for Hamilton County. Across all eight fiscal years, Lighthouse Youth & Family Services expenditures in Hamilton County totaled \$136.6 million, which generated a total output of approximately \$221.6 million, supported a total of 4,227 jobs with earnings of \$132.8 million.¹³

Table 7: Economic Impact of Lighthouse Youth & Family Services Operations Expenditures in Hamilton County, FY2012-FY2019 (FY2018\$)

Output (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Direct	\$14.29	\$15.45	\$16.53	\$16.92	\$18.02	\$19.50	\$18.25	\$17.67	\$136.63
Indirect	\$8.85	\$9.71	\$10.29	\$10.49	\$11.20	\$12.13	\$11.33	\$10.92	\$84.92
Total	\$23.14	\$25.16	\$26.82	\$27.41	\$29.22	\$31.63	\$29.58	\$28.59	\$221.55
Earnings (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Direct	\$9.80	\$9.47	\$10.91	\$11.73	\$11.97	\$12.89	\$12.36	\$11.71	\$90.84
Indirect	\$4.46	\$4.30	\$5.04	\$5.43	\$5.62	\$5.87	\$5.77	\$5.48	\$41.97
Total	\$14.26	\$13.77	\$15.95	\$17.16	\$17.59	\$18.76	\$18.13	\$17.19	\$132.81
Jobs	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Direct	306	296	341	362	346	401	353	331	2,736
Indirect	165	159	185	198	191	216	194	183	1,491
Total	471	455	526	560	537	617	547	514	4,227

Source: Economics Center calculations using data from Emsi, RIMS II, and Lighthouse Youth & Family Services.

In terms of the economic impact to Montgomery County in FY2019, the combined direct and indirect impacts of Lighthouse Youth & Family Services operations resulted in a total

¹³ Lighthouse Youth & Family Services provided direct expenditures and direct employee earnings for FY2012 to FY2019. Information on the number of employees/jobs was also provided for FY2015 to FY2019 from Lighthouse Youth & Family Services. Due to data limitations, the number of direct employees was not available for FY2012 to FY2014. The Economics Center therefore estimated the number of direct employees for these three fiscal years based on the weighted average per employee earnings for FY2015 to FY2019. The weighted average was then compared to the total direct earnings in FY2012 to FY2014 to estimate the number of direct employees for these fiscal years.

economic output of \$649,676 and 10 jobs supported with total earnings of approximately \$436,000, as shown in Table 8. The largest economic impact occurred in FY2016 with a total output of \$771,000 and 12 jobs with earnings of \$617,000. Table 8 displays the operations impact of Lighthouse Youth & Family Services for FY2012 to FY2019 in Montgomery County. Total eight-fiscal-year spending was \$3.3 million, which generated a total economic output of approximately \$5.1 million and supported a total of 77 jobs with earnings of approximately \$4.0 million.¹⁴

Table 8: Economic Impact of Lighthouse Youth & Family Services Operations Expenditures in Montgomery County, FY2012-FY2019 (FY2018\$)

Output (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Direct	\$0.33	\$0.38	\$0.37	\$0.42	\$0.51	\$0.48	\$0.42	\$0.42	\$3.33
Indirect	\$0.18	\$0.20	\$0.19	\$0.22	\$0.26	\$0.26	\$0.22	\$0.23	\$1.76
Total	\$0.51	\$0.58	\$0.56	\$0.64	\$0.77	\$0.74	\$0.64	\$0.65	\$5.09
Earnings (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Direct	\$0.30	\$0.34	\$0.33	\$0.39	\$0.45	\$0.40	\$0.35	\$0.31	\$2.87
Indirect	\$0.11	\$0.12	\$0.12	\$0.14	\$0.16	\$0.15	\$0.13	\$0.13	\$1.06
Total	\$0.41	\$0.46	\$0.45	\$0.53	\$0.61	\$0.55	\$0.48	\$0.44	\$3.93
Jobs	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Direct	5	6	6	7	8	7	6	7	52
Indirect	3	3	3	3	4	3	3	3	25
Total	8	9	9	10	12	10	9	10	77

Source: Economics Center calculations using data from Emsi, RIMS II, and Lighthouse Youth & Family Services.

For Ross County in FY2019, the combined direct and indirect impacts of Lighthouse Youth & Family Services operations resulted in a total economic output of \$2.1 million and 38 jobs supported with earnings of \$2.6 million, as shown in Table 9. Table 9 additionally displays the economic impact for FY2012 to FY2018 for Ross County. Across all eight fiscal years, Lighthouse Youth & Family Services operations expenditures in Ross County totaled \$13.2 million, which generated a total output of \$16.5 million and supported a total of 355 jobs with earnings of \$22.1 million.¹⁵

¹⁴ Lighthouse Youth & Family Services provided direct expenditures and direct employee earnings for FY2012 to FY2019. Information on the number of employees/jobs was provided for FY2015 to FY2019 from Lighthouse Youth & Family Services. Due to data limitations, FY2012 to FY2014 number of direct employees was not available. The Economics Center estimated the number of direct employees for these three fiscal years based on the weighted average per employee earnings for FY2015 to FY2019. The weighted average was then compared to the total direct earnings in FY2012 to FY2014 to estimate the number of direct employees for these fiscal years.

¹⁵ Lighthouse Youth & Family Services provided direct expenditures and direct employee earnings for FY2012 to FY2019. Information on the number of employees/jobs was provided for FY2015 to FY2019 from Lighthouse Youth & Family Services. Due to data limitations, FY2012 to FY2014 number of direct employees was not available. The Economics Center estimated the number of direct

Table 9: Economic Impact of Lighthouse Youth & Family Services Operations Expenditures in Ross County, FY2012-FY2019 (FY2018\$)

Output (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Direct	\$1.69	\$1.70	\$1.66	\$1.61	\$1.67	\$1.59	\$1.61	\$1.67	\$13.20
Indirect	\$0.43	\$0.43	\$0.41	\$0.40	\$0.42	\$0.39	\$0.40	\$0.41	\$3.29
Total	\$2.12	\$2.13	\$2.07	\$2.01	\$2.09	\$1.98	\$2.01	\$2.08	\$16.49
Earnings (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Direct	\$2.85	\$2.77	\$2.71	\$2.70	\$2.70	\$2.54	\$2.65	\$2.58	\$21.50
Indirect	\$0.11	\$0.08	\$0.07	\$0.06	\$0.07	\$0.06	\$0.06	\$0.06	\$0.57
Total	\$2.96	\$2.85	\$2.78	\$2.76	\$2.77	\$2.60	\$2.71	\$2.64	\$22.07
Jobs	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Direct	43	42	41	46	43	36	40	35	326
Indirect	4	4	4	4	4	3	3	3	29
Total	47	46	45	50	47	39	43	38	355

Source: Economics Center calculations using data from Emsi, RIMS II, and Lighthouse Youth & Family Services.

Table 10 shows the total economic impact of Lighthouse Youth & Family Services operations aggregated across the three counties for FY2012 to FY2019, in terms of output, jobs, and earnings. Across all fiscal years, Lighthouse Youth & Family Services' direct operations expenditures totaled \$153.2 million. These expenditures generated a total output of \$243.1 million, supported a total of 4,659 jobs with earnings of approximately \$159.0 million.¹⁶

employees for these three fiscal years based on the weighted average per employee earnings for FY2015 to FY2019. The weighted average was then compared to the total direct earnings in FY2012 to FY2014 to estimate the number of direct employees for these fiscal years.

¹⁶ For each geographical area, Lighthouse Youth & Family Services provided direct expenditures and direct employee earnings for FY2012 to FY2019. Information on the number of employees/jobs was provided for FY2015 to FY2019 from Lighthouse Youth & Family Services. Due to data limitations, FY2012 to FY2014 number of direct employees was not available. The Economics Center estimated the number of direct employees for these three fiscal years based on the weighted average per employee earnings for FY2015 to FY2019, in each Ohio County. The weighted average was then compared to the total direct earnings in FY2012 to FY2014 to estimate the number of direct employees for these fiscal years in each County.

Table 10: Economic Impact of Lighthouse Youth & Family Services Operations Expenditures in the Counties of Hamilton, Montgomery, and Ross, FY2012-FY2019 (FY2018\$)

Output (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Direct	\$16.31	\$17.54	\$18.56	\$18.94	\$20.20	\$21.57	\$20.28	\$19.76	\$153.16
Indirect	\$9.45	\$10.34	\$10.90	\$11.10	\$11.88	\$12.78	\$11.95	\$11.56	\$89.96
Total	\$25.76	\$27.88	\$29.46	\$30.04	\$32.08	\$34.35	\$32.23	\$31.32	\$243.12
Earnings (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Direct	\$12.95	\$12.58	\$13.95	\$14.81	\$15.12	\$15.83	\$15.37	\$14.60	\$115.21
Indirect	\$4.68	\$4.51	\$5.22	\$5.63	\$5.85	\$6.08	\$5.96	\$5.66	\$43.59
Total	\$17.63	\$17.09	\$19.17	\$20.44	\$20.97	\$21.91	\$21.33	\$20.26	\$158.80
Jobs	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Direct	354	344	388	415	397	444	399	373	3,114
Indirect	172	166	192	205	199	222	200	189	1,545
Total	526	510	580	620	596	666	599	562	4,659

Source: Economics Center calculations using data from Emsi, RIMS II, and Lighthouse Youth & Family Services.

Economic Impact of Lighthouse Youth & Family Services Capital Expenditures

The Economics Center quantified the economic impact of Lighthouse Youth & Family Services' capital expenditures in Hamilton, Montgomery, and Ross counties for FY2012 to FY2019. Capital expenditures included items such as building improvements, parking lot repairs, and security system updates, among others. It is important to note that capital expenditures result in short-term economic impacts, as employment associated with repairs and construction are temporary. Therefore, the economic impact of capital improvements was calculated separately from the on-going economic impact of Lighthouse Youth & Family Services' operations expenditures.

The same methodology as calculating the economic impact of Lighthouse Youth & Family Services' operations expenditures was utilized. Lighthouse Youth & Family Services provided their capital expenditures for FY2012 to FY2019. Economic leakage was applied to these capital expenditures for each fiscal year in order to focus on dollars that remained within each county's economy. RIMS II multipliers were used in the calculations determining total output, jobs, and earnings.

Table 11 shows the economic impact of Lighthouse Youth & Family Services' capital expenditures for FY2012 to FY2019 in Hamilton County. Total direct capital expenditures across the eight fiscal years amounted to \$18.6 million, which generated a total economic output of \$25.9 million. Lighthouse Youth & Family Services' capital expenditures

supported a total of 60 jobs in Hamilton County with approximately \$3.5 million in earnings.¹⁷

Table 11: Economic Impact of Lighthouse Youth & Family Services Capital Expenditures in Hamilton County, FY2012-FY2019 (FY2018\$)

Output (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Direct	\$0.14	\$0.32	\$0.47	\$0.21	\$0.15	\$0.45	\$16.50	\$0.34	\$18.58
Indirect	\$0.09	\$0.18	\$0.29	\$0.09	\$0.06	\$0.17	\$6.28	\$0.13	\$7.29
Total	\$0.23	\$0.50	\$0.76	\$0.30	\$0.21	\$0.62	\$22.78	\$0.47	\$25.87
Earnings (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Direct	\$0.04	\$0.08	\$0.11	\$0.05	\$0.02	\$0.05	\$1.92	\$0.04	\$2.31
Indirect	\$0.01	\$0.02	\$0.05	\$0.01	\$0.01	\$0.03	\$1.02	\$0.02	\$1.17
Total	\$0.05	\$0.10	\$0.16	\$0.06	\$0.03	\$0.08	\$2.94	\$0.06	\$3.48
Jobs	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Direct	1	1	2	1	<1	1	27	1	34
Indirect	<1	1	1	<1	<1	1	23	<1	26
Total	>1	2	3	>1	<1	2	50	>1	60

Source: Economics Center calculations using data from Emsi, RIMS II, and Lighthouse Youth & Family Services.

Table 12 details the economic impacts of Lighthouse Youth & Family Services capital expenditures in Montgomery County for FY2012 to FY2019. Capital expenditures across the eight fiscal years totaled approximately \$210,000 and generated a total economic output of \$337,000. Lighthouse Youth & Family Services capital expenditures also supported 2 jobs in Montgomery County with approximately \$90,000 in earnings.¹⁸

¹⁷ In FY2012, FY2015, FY2016, and FY2019, there was less than one full- or part-time job directly and/or indirectly supported by Lighthouse Youth & Family Services' capital expenditures. This indicates that the amount of output and subsequent earnings did not support one total job, but rather a portion of a full- or part-time job.

¹⁸ In FY2018 and FY2019 there was less than one job directly and indirectly supported by Lighthouse Youth & Family Services' capital expenditures.

Table 12: Economic Impact of Lighthouse Youth & Family Services Capital Expenditures in Montgomery County, FY2012-FY2019 (FY2018\$)¹⁹

Output	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Direct	\$0	\$0	\$0	\$0	\$0	\$198,899	\$10,788	\$278	\$209,965
Indirect	\$0	\$0	\$0	\$0	\$0	\$120,533	\$6,538	\$168	\$127,239
Total	\$0	\$0	\$0	\$0	\$0	\$319,432	\$17,326	\$446	\$337,204
Earnings	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Direct	\$0	\$0	\$0	\$0	\$0	\$61,700	\$3,346	\$86	\$65,132
Indirect	\$0	\$0	\$0	\$0	\$0	\$23,847	\$1,293	\$33	\$25,173
Total	\$0	\$0	\$0	\$0	\$0	\$85,547	\$4,639	\$119	\$90,305
Jobs	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Direct	0	0	0	0	0	1	<1	<1	1
Indirect	0	0	0	0	0	1	<1	<1	1
Total	0	0	0	0	0	2	<1	<1	2

Source: Economics Center calculations using data from Emsi, RIMS II, and Lighthouse Youth & Family Services.

The economic impacts of Lighthouse Youth & Family Services capital expenditures in Ross County for FY2012 to FY2019 are shown in Table 13. Total expenditures across the eight fiscal years amounted to \$962,000, for a total economic output of \$1.3 million. Lighthouse Youth & Family Services capital expenditures in the County supported a total of 7 jobs with approximately \$424,000 in earnings.²⁰

¹⁹ For locations in Montgomery County, Lighthouse Youth & Family Services did not make any capital expenditures for Fiscal Years 2012 to 2016.

²⁰ In FY2012 and FY2015 to FY2019, there was less than one job directly and/or indirectly supported by Lighthouse Youth & Family Services' capital expenditures.

Table 13: Economic Impact of Lighthouse Youth & Family Services Capital Expenditures in Ross County, FY2012-FY2019 (FY2018\$)²¹

Output	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Direct	\$42,852	\$0	\$655,059	\$19,033	\$95,449	\$86,704	\$21,475	\$41,631	\$962,203
Indirect	\$13,910	\$0	\$212,632	\$6,178	\$29,123	\$25,098	\$6,674	\$11,466	\$305,081
Total	\$56,762	\$0	\$867,691	\$25,211	\$124,572	\$111,802	\$28,149	\$53,097	\$1,267,284
Earnings	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Direct	\$16,498	\$0	\$252,195	\$7,328	\$34,062	\$33,176	\$7,839	\$15,778	\$366,876
Indirect	\$2,833	\$0	\$43,302	\$1,258	\$5,929	\$1,669	\$1,359	\$287	\$56,637
Total	\$19,331	\$0	\$295,497	\$8,586	\$39,991	\$34,845	\$9,198	\$16,065	\$423,513
Jobs	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Direct	<1	0	4	<1	1	1	<1	<1	6
Indirect	<1	0	1	<1	<1	<1	<1	<1	1
Total	<1	0	5	<1	>1	>1	<1	<1	7

Source: Economics Center calculations using data from Emsi, RIMS II, and Lighthouse Youth & Family Services.

Table 14 details the total economic impact of Lighthouse Youth & Family Services capital expenditures across the three counties. Capital expenditures in Fiscal Year 2018 supported the greatest number of jobs and earnings, as more than 75.0 percent of all capital expenditures were made in that fiscal year. Across all fiscal years, Lighthouse Youth & Family Services capital expenditures totaled \$19.8 million (FY2018\$), generated a total output of \$27.5 million, and supported 69 jobs with earnings of approximately \$4.0 million.²²

²¹ For Ross County locations, Lighthouse Youth & Family Services did not make capital any expenditures in FY2013.

²² For FY2012, FY2015, FY2016, and FY2019, there was less than one full- or part-time job indirectly supported by Lighthouse Youth & Family Services capital expenditures.

Table 14: Economic Impact of Lighthouse Youth & Family Services Capital Expenditures in Hamilton, Montgomery, and Ross Counties, FY2012-FY2019 (FY2018\$)

Output (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Direct	\$0.18	\$0.32	\$1.13	\$0.22	\$0.24	\$0.74	\$16.54	\$0.38	\$19.75
Indirect	\$0.10	\$0.18	\$0.50	\$0.10	\$0.09	\$0.32	\$6.29	\$0.14	\$7.72
Total	\$0.28	\$0.50	\$1.63	\$0.32	\$0.33	\$1.06	\$22.83	\$0.52	\$27.47
Earnings (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Direct	\$0.05	\$0.08	\$0.37	\$0.05	\$0.05	\$0.15	\$1.93	\$0.06	\$2.74
Indirect	\$0.02	\$0.02	\$0.09	\$0.01	\$0.02	\$0.05	\$1.03	\$0.02	\$1.26
Total	\$0.07	\$0.10	\$0.46	\$0.06	\$0.07	\$0.20	\$2.96	\$0.08	\$4.00
Jobs	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Direct	1	1	6	1	1	3	27	1	41
Indirect	<1	1	2	<1	<1	2	23	<1	28
Total	>1	2	8	>1	>1	5	50	>1	69

Source: Economics Center calculations using data from Emsi, RIMS II, and Lighthouse Youth & Family Services.

Fiscal Impact of Lighthouse Youth & Family Services Operations

Fiscal impacts of Lighthouse Youth & Family Services operations expenditures were calculated at the municipal level in terms of income tax revenue generated for the wages earned by those directly employed by Lighthouse Youth & Family Services. All of Lighthouse Youth & Family Services' Hamilton County locations are located within the City of Cincinnati, while the Montgomery County Juvenile Justice program is located within the City of Dayton. The Village of Bainbridge in Ross County²³ does not collect income tax revenue. Ross County locations were therefore excluded in the fiscal impact calculations.

The City of Cincinnati earnings tax rate is 2.1 percent,²⁴ and the City of Dayton's earnings tax rate is 2.5 percent.²⁵ These earnings tax rates were applied to the direct earnings of the Lighthouse Youth & Family Services employees working at facilities in Hamilton County as well as those at the Montgomery County Juvenile Justice program across FY2012 to FY2019.²⁶

²³ Locations in Bainbridge, Ohio include the Lighthouse Youth Center at Paint Creek, the Paint Creek Academy, and Ross County Community Juvenile Justice Services.

²⁴ (Income Taxes, 2019)

²⁵ (Tax Information and Forms, 2019)

²⁶ Hamilton and Montgomery direct earnings, as a result of Lighthouse Youth & Family Services' operations and capital expenditures, are shown in Tables 7 and 8.

The earnings tax revenue generated by the wages earned by Lighthouse Youth & Family Services employees that accrued to the City of Cincinnati and the City of Dayton ranged from \$207,440 in FY2013 to \$280,695 in FY2017. The amount of income tax revenue generated per fiscal year resulting from the direct wages is shown in Table 15. Across the eight fiscal years, approximately \$2.0 million in earnings tax revenue was generated for the cities of Cincinnati and Dayton.

Table 15: Income Tax Revenue Generated from Lighthouse Youth & Family Services Operations, FY2012-FY2019 (FY2018\$)

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
City of Cincinnati	\$205,897	\$198,908	\$229,135	\$246,281	\$251,359	\$270,735	\$259,663	\$245,957	\$1,907,935
City of Dayton	\$7,422	\$8,532	\$8,178	\$9,632	\$11,335	\$9,960	\$8,748	\$7,850	\$71,657
Total	\$213,319	\$207,440	\$237,313	\$255,913	\$262,694	\$280,695	\$268,411	\$253,807	\$1,979,592

Source: Economics Center calculations using data provided by Lighthouse Youth & Family Services.

Methodology and Data

Benefit-Cost Analysis

The Economics Center quantified the benefits which accrued to those served by Lighthouse Youth & Family Services, avoided costs that would have been borne by the individuals served by Lighthouse Youth & Family Services as well as benefits to the residents of Hamilton, Montgomery, and Ross Counties, and the associated costs of the services offered by Lighthouse Youth & Family Services. Benefit-Cost calculations include findings from literature²⁷ describing the societal and individual impacts of services provided by Lighthouse Youth & Family Services, as well as calculations of the dollar value of the benefits received, or the costs avoided. The literature reviewed emphasizes the impacts of services in foster care and adoption, juvenile justice, outpatient mental health services, early intervention, and shelter/housing for young adults experiencing homelessness.

Demographic and outcome data on youth who had received services were provided by Lighthouse Youth & Family Services. Quantified costs avoided and benefits from literature, based on the specific services received, were then applied to youth assisted by Lighthouse Youth & Family Services. The aggregate total cost and benefit numbers of each program or service were then compared to determine the net benefits²⁸ of Lighthouse Youth & Family Services' programs and services. A Return on Investment (ROI) per fiscal year was calculated, which is the amount of benefits received per unit of cost, across the programs and services provided by Lighthouse Youth & Family Services.

²⁷ Data for costs and benefits dollar amounts were collected through literature review, as well as local, state, and federal sources.

²⁸ Net benefits are defined as the total benefits (or avoided costs) minus the cost of providing the specific program or service. The cost numbers for each program were the dollars Lighthouse Youth & Family Services expended in order to provide the program or service.

The methodology for calculating the benefits and costs avoided for each program or service varied. Specific methodological information is therefore described in each program's section. Where appropriate, the Economics Center adjusted dollar amounts found in literature for inflation, using the Consumer Price Index (CPI) or medical CPI. When applicable, the Economic Center regionally adjusted dollar amounts from other states to the State of Ohio using the Bureau of Economic Analysis' Regional Price Parities (RPP).^{29,30}

Lighthouse Youth & Family Services Data

Demographic data were provided by Lighthouse Youth & Family Services for the Fiscal Years 2012 to 2019. Table 16 details the number of Lighthouse Youth & Family Services clients assisted by program, by fiscal year. The data described more than 48,000 interventions provided by the Organization during this time period.³¹ On average, Lighthouse Youth & Family Services delivered approximately 6,000 interventions per fiscal year.³² As shown in the Table 16, the greatest number of youth across the eight fiscal years received outpatient mental health services, followed by early childhood intervention.³³

²⁹ The Regional Price Parities adjusted dollar amounts to Ohio dollars, as the price of various items differ geographically.

³⁰ (Bureau of Economic Analysis, 2017)

³¹ It is important to note, however, that there may be duplicated children across the programs. For example, one child may have received outpatient mental health services in addition to services in homeless youth housing. As such, the total number of children or clients per fiscal year may contain duplicates. Since a child may receive services spanning more than one fiscal year, there may be duplicates fiscal year to fiscal year.

³² Children may be receiving support from Lighthouse Youth & Family Services across multiple programs and fiscal years.

³³ Dashes shown for Ross County JJS, High Fidelity Wraparound, and Safe and Supported Host Home programs indicate that data was not available for these fiscal years.

**Table 16: Lighthouse Youth & Family Services Clients per Program, FY2012-
FY2019**

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Hamilton County JJS	283	372	393	320	442	408	333	311	2,862
Youth Center at Paint Creek	144	146	145	161	154	99	88	89	1,026
Montgomery County JJS	50	68	84	77	68	65	143	114	669
Ross County JJS	-	-	-	-	42	113	86	83	324
Residential Treatment	78	68	74	81	65	53	57	64	540
Outpatient Mental Health Services	1,006	1,217	1,617	1,884	2,002	1,982	2,628	2,972	15,308
Early Intervention Services	1,639	1,452	1,267	1,172	1,190	1,173	1,190	1,245	10,328
Foster Care and Adoption	331	324	323	378	362	398	269	306	2,691
Wraparound	177	208	206	198	245	315	192	199	1,740
High Fidelity Wraparound	-	-	-	-	-	-	40	43	83
Safe and Supported Host Homes	-	-	-	-	-	4	3	3	10
Mecum House	444	736	778	734	623	494	504	566	4,879
Sheakley Center for Youth	123	287	314	272	262	265	312	291	2,126
Street Outreach	107	258	336	309	253	193	147	181	1,784
Independent Living	154	141	113	162	171	228	171	222	1,362
Permanent Supportive Housing	71	32	38	51	56	43	85	103	479
Rapid Re-housing and Transitional Living	95	143	130	144	126	160	155	149	1,102
Lighthouse Community School	86	95	102	99	105	90	76	86	739
Total	4,788	5,547	5,920	6,042	6,166	6,083	6,479	7,027	48,052

Source: Data provided by Lighthouse Youth & Family Services.

Each fiscal year, the majority of clients assisted across Lighthouse Youth & Family Services' programs were male. Further, more than half of the youth assisted by Lighthouse Youth & Family Services each fiscal year were Black or African American. Table 17 displays gender and race data for clients assisted over FY2012 to FY2019.

Table 17: Demographic Data for all Lighthouse Youth & Family Services Programs, FY2012-FY2019

Demographics	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Number of Youth	4,788	5,547	5,920	6,042	6,166	6,083	6,479	7,027	48,052
% Male	55.56%	57.28%	56.70%	56.47%	57.95%	56.58%	55.86%	55.87%	56.53%
% Female	44.13%	42.34%	43.07%	43.26%	41.22%	42.19%	42.86%	43.05%	42.74%
% Gender Non-Conforming	0.00%	0.00%	0.00%	0.02%	0.00%	0.03%	0.08%	0.06%	0.02%
% Transgender	0.25%	0.34%	0.20%	0.15%	0.10%	0.20%	0.63%	0.67%	0.33%
% Other	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.03%	0.03%	0.01%
% Unknown	0.06%	0.04%	0.03%	0.10%	0.73%	1.00%	0.54%	0.32%	0.37%
% Black or African American	57.72%	60.64%	60.51%	60.68%	59.54%	55.41%	49.91%	51.36%	56.73%
% White or Caucasian	33.79%	30.56%	31.09%	31.89%	31.27%	29.47%	30.15%	30.44%	31.00%
% Other Race/ Unknown	3.11%	3.80%	3.27%	3.30%	4.60%	5.47%	11.21%	11.01%	5.97%
% Multi or Bi-Racial	5.38%	5.00%	5.13%	4.13%	4.59%	9.65%	8.73%	7.19%	6.30%

Source: Economics Center calculations using data provided by Lighthouse Youth & Family Services.

Outcome Data

Data on client outcomes for the Organization’s Homeless Youth Services as well as for Juvenile Justice Services, were provided by Lighthouse Youth & Family Services. It is important to note however that the demographic data for these programs are slightly different than outcome data, as not all individuals assisted by Lighthouse Youth & Family Services had outcome data available. As such, the number of Lighthouse Youth & Family Services clients with outcomes in these programs is less than the number with demographic data, which was collected when the individual was initially reached by the Organization. Information on the number of youth graduating each fiscal year from Lighthouse Community School and Paint Creek Academy were also provided.

It is important to note that each program may support and provide services to some individuals across fiscal years. For example, an individual receiving services in FY2012 may have also received services in FY2013 and would therefore be counted twice. As such, when monetizing the benefits received by the children assisted and/or avoided costs for each program, the Economics Center de-duplicated the number of children across all fiscal years based on child ID if the quantified benefits were classified as lifetime (such as lifetime earnings).³⁴

³⁴ De-duplication of Lighthouse Youth & Family Services data across all fiscal years was necessary to calculate lifetime impacts. This was done for the Mecum House housing program in order to

Other Data Notes

Data availability varied by program. For example, the number of children adopted out of foster care were available for FY2014 through FY2019. According to Lighthouse Youth & Family Services, there were no children adopted in Fiscal Years 2012 and 2013. Data for youth receiving services from the Hamilton County Juvenile Justice Services (JJS) and Montgomery County JJS had data available for FY2016 to FY2019. Ross County JJS data were available for FY2016 to FY2019, as the program was not in operation prior to FY2016. Outcome data on youth receiving services from Lighthouse Youth & Family Services' Residential Treatment program were available for FY2016 to FY2019. Data on students attending the Paint Creek Academy were available for the Fiscal Years 2014 to 2019, while data for the Safe and Supported Host Home Program included the number of children assisted across FY2017 to FY2019.

Programs and Services Not Monetized

Lighthouse Youth & Family Services additionally provided various other programs including historical programs and youth mentoring services. Expenditure information on these services was provided by Lighthouse Youth & Family Services; however, outcome data were not available. As such, the benefits and costs avoided in providing these services were not monetized in this analysis. These costs are included in the Benefit-Cost Analysis, however, as "other Lighthouse Youth & Family Services expenditures" in each fiscal year.

Due to data limitations, Wraparound and High Fidelity Wraparound were not able to be monetized. As detailed per-youth information on the specific services received were not available, the benefits of these two programs were not able to be quantified and applied to the youth receiving these services.

In the Juvenile Justice section, Ross County JJS and the Residential Treatment program were not able to be monetized due to data limitations, as was the Independent Living program in the Homeless Youth Services section due to lack of literature available. Early childhood intervention benefits for infants and toddlers were also not able to be monetized due to limitations in literature specifically for the ages of zero to three years old. The Street Outreach Program was also not able to be monetized as, while receiving assistance from Lighthouse Youth & Family Services, youth were still considered unsheltered homeless individuals, as the Street Outreach program itself does not provide housing or shelter services.

For some programs as stated above, benefits were not able to be calculated for certain fiscal years and programs due to data limitations. As an example, outcome data were not available for Hamilton County JJS for FY2012 and FY2013, even though the program was in operation and Lighthouse Youth & Family Services had expenditures for these two fiscal years. As the number of youth admitted and discharged from the various programs in

appropriately quantify the future/lifetime earnings likely to be seen by the youth discharged from this Lighthouse Youth & Family Services program.

Hamilton County JJS were not available, benefits for these fiscal years were not able to be quantified.

Furthermore, there were instances in the data in which Lighthouse Youth & Family Services programs and services did not assist any youth in a specific fiscal year. For these instances, the benefits were assumed to be zero dollars, as there were no youth receiving services from Lighthouse Youth & Family Services. An example of this was seen in the Foster Care and Adoption services for FY2012 and FY2013, in which no children were adopted from foster care.

The instances in which these variations in data/literature availability and calculations occur are further detailed and described in each program's section of the analysis.

The Impacts of Lighthouse Youth & Family Services' Programs and Benefit-Cost Analysis

This section details relevant literature on the impacts of programs and services provided by Lighthouse Youth & Family Services on youth themselves as well as impacts to the community and/or economy as a result of the Organization's interventions. The services provided by Lighthouse Youth & Family Services that are analyzed in this report include programs in Juvenile Justice, Clinical Services, Homeless Youth Services, and Lighthouse Community School. There were multiple programs and services within the three categories of Juvenile Justice, Clinical Services, and Homeless Youth Services.

Juvenile Justice Services included Residential Treatment Services, Hamilton, Ross, and Montgomery Counties' Community Juvenile Justice Services, as well as the Lighthouse Youth Center at Paint Creek and Paint Creek Academy. Clinical Services included School-Based and Outpatient Mental Health Services, Foster Care and Adoption Services, Early Intervention Services, and Wraparound Services. Homeless Youth Services included the Safe and Supported Program, Mecum House, Sheakley Center for Youth, Street Outreach, Independent Living, Permanent Supportive Housing, and Transitional Living and Rapid Re-housing Programs.

The benefits and costs for services provided by Lighthouse Youth & Family Services where data and literature permitted were monetized. The following sections outline the benefits and costs of each service or program, as described in academic literature, which were applied to Lighthouse Youth & Family Services case data. In this report, the costs of each program or service was the amount of money spent to provide the service, in the form of Lighthouse Youth & Family Services operations expenditures. On the other side, the benefits were the individual and/or societal benefits from the program or services provided by Lighthouse Youth & Family Services. In some cases, the benefits are considered avoided costs. For example, when a youth experiencing homelessness received shelter from a Lighthouse Youth & Family Services program, the costs associated with continuing to experience unsheltered homelessness were avoided. The benefits and costs for each program were then compared to calculate the overall net benefits and the ROI of Lighthouse Youth & Family Services' programs and services per fiscal year.

Juvenile Justice

Juvenile crime has a large impact on society, encompassing damage to property, harm to victims, and the monetary costs of providing law enforcement and judicial system services. Crime is expensive, both in terms of monetary costs to the criminal justice system and the inestimable costs to victims, varying based on the type of crime committed. Governments must therefore provide funding to operate the criminal justice system, incarcerate offenders, provide victim restitution, make up for lost tax revenues, and run crime prevention agencies and programs.

Young delinquents contribute a larger share of crimes than their proportion of the population. These crimes have extensive expenses for those harmed by the crimes and those responsible for remediating them; not to mention impacts to the delinquents themselves.

Adolescents who have been adjudicated delinquent, particularly those who are incarcerated or sent to out-of-home treatment centers, are often defined by a different set of demographic characteristics than those which adolescents exhibit broadly. Incarcerated juveniles tend to struggle in their education, have limited math and reading skills³⁵ and are far less likely to graduate from high school.³⁶ A 2013 study in Illinois, as reported by Teigen (2015), found that youth sent to institutions were 13.0 percent less likely to graduate and 22.0 percent more likely to recidivate and go to prison as an adult, compared to youth placed in alternative services.³⁷ This aspect is further dampened if the youth is a repeat offender, according to Cohen (1998).³⁸

Many youth in the juvenile justice system also struggle with substance abuse and/or mental health issues. Chassin (2008) found that nearly half of youth (48.0%)³⁹ detained for crimes tested positive for drug use in 2000.⁴⁰ Importantly, however, the majority of correctional facilities do not offer substance abuse treatment. In 2013, Lambie and Randell reported only 36.0 percent of correctional facilities offered substance abuse treatment services across the nation.⁴¹ Furthermore, only 16.0 percent of incarcerated youth who would have benefitted from treatment, received it.⁴² In terms of mental health, Pullman et al. (2006)⁴³ found that the majority of youth met diagnostic criteria for psychiatric disorders in Cook County, Illinois.^{44,45} By some estimates, as recorded in Lambie and Randell (2013), between 70.0 percent and 95.0 percent of incarcerated youth

³⁵ (Aron & Zweig, 2003)

³⁶ (Mendel, 2011)

³⁷ (Teigen, 2015)

³⁸ (Cohen, 1998)

³⁹ The source stated 56.0 percent of boys and 40.0 percent of girls detained.

⁴⁰ (Chassin, 2008)

⁴¹ (Lambie & Randell, 2013)

⁴² (Lambie & Randell, 2013)

⁴³ Survey was taken between 1995 and 1998.

⁴⁴ The source stated that 60.0 percent of male adolescent delinquents and 68.0 percent of females met diagnostic criteria for psychiatric disorders.

⁴⁵ (Pullman, et al., 2006)

had at least one psychiatric diagnosis,⁴⁶ often attributable to substance abuse, family dysfunction, lack of social achievement, and peer influences.

Due to the large and widespread impacts, there is a large case to be made for reducing juvenile crime costs by any means necessary. One proposed solution is to improve public education, as increases in educational success have been directly linked to decreases in likelihood of delinquency.⁴⁷ Other solutions include the often-chosen institutionalization of youth, and other cost-efficient community-based alternatives. Compared to community-based programs, however, incarceration has been found to be far less cost-effective and produces worse (higher) recidivism rates for youth.^{48,49}

Petteruti et al. (2009), compared alternatives to youth incarceration and found that recidivism rates were reduced up to 22.0 percent, based on the type of program. Comparatively, recidivism rates for incarcerated youth were approximately 50.0 to 70.0 percent rearrested within two years of release.⁵⁰ Incarceration can also impact a youth's education and future employment opportunities upon release, as well as fail to provide the necessary mental and developmental services.⁵¹ Treatment in a juvenile facility was also found to disrupt important relationships and community contact, and introduce juveniles to other delinquent peers which may expose them to further trauma or poor influences.⁵² Many of these facilities are obsolete, unnecessary, and inadequate in their service provisions, according to Mendel (2011).⁵³ Furthermore, the source stated that widespread physical abuse, use of force, sexual abuse, unchecked youth violence, and overreliance on isolation and restraint make institutions dangerous for confined youth.⁵⁴

According to information from the Ohio Juvenile Justice Association (2015), the daily cost of caring for one youth in a state-run juvenile detention facility in Ohio was \$561.28 (FY2014\$).⁵⁵ Adjusting this amount for inflation derives the daily cost in FY2018 dollars of \$592.72 (FY2018\$).

Fortunately, a wide selection of evidence and community-based treatment services and programs exist for adjudicated delinquents, which attempt to treat various aspects of the youth's life and criminality/criminal behaviors. Indeed, literature has found such programs to have benefits including the reduction of re-arrests and re-incarceration rates, compared to youth not enrolled in the programs. These programs and services include, but are not limited to, Functional Family Therapy (FFT), sex offender treatment, and Reentry Services. Other services typically offered by Lighthouse Youth & Family Services involve youth mental health, alcohol and drug abuse treatments, educational services,

⁴⁶ (Lambie & Randell, 2013)

⁴⁷ (Lambie & Randell, 2013)

⁴⁸ (McCarthy, Schiraldi, & Shark, 2016)

⁴⁹ (Petteruti, Walsh, & Velazquez, 2009)

⁵⁰ (Petteruti, Walsh, & Velazquez, 2009)

⁵¹ (Petteruti, Walsh, & Velazquez, 2009)

⁵² (Petteruti, Walsh, & Velazquez, 2009)

⁵³ (Mendel, 2011)

⁵⁴ (Mendel, 2011)

⁵⁵ (Ohio Juvenile Justice Association, 2015)

and residential treatment/group homes. The following literature details the various benefits and outcomes of youth participating in these types of programs and therapy services.

Functional Family Therapy

Functional Family Therapy (FFT)⁵⁶ focuses on youth and young adults between the ages of 11 and 18 years old who have problems with delinquency, violence, or substance abuse. Functional Family Therapy may be provided in the home, and is centered on family interactions, emotional connections, and strengthening parental ability to provide guidance. According to Aos et al. (2001), FFT was found to be very effective in youth with histories of substance abuse, as well as delinquent behavior.⁵⁷

Sexton and Turner (2010) analyzed the effectiveness of Family Functional Therapy (FFT) compared to probation services, one year after three to six months of treatment. This study found that FFT reduced youth behavioral problems⁵⁸ and that treatment resulted in statistically significant declines of various types of recidivisms compared to the control group (35.0% reduction in felony, 30.0% in violent, and a 21.0% in misdemeanor recidivisms).⁵⁹ Overall, Sexton and Turner (2010) reported that between the high adherent FFT treatment group and the control group, the treatment group had lower felony recidivism rates (14.5% compared to 22.2%). This equated to a 7.7 percentage point difference between the two groups. In other words, the FFT treatment group was 7.7 percentage points less likely to recidivate.⁶⁰

Conducting a seven year post-treatment follow up study in the State of Washington, Aos et al. (2001), found that FFT offers a basic criminal recidivism effect size of -0.25, which translated to a reduction in offenses/convictions or re-offenses of 12.3 percentage points due to FFT treatment.⁶¹ This study also estimated costs avoided per offense/victimization in terms of taxpayer criminal justice system costs avoided, as well as victim monetary expenses and quality of life costs. Expressed in the year 2000 dollars, the source stated the estimated expected cost burden to taxpayers for one offense was \$30,944, while victim monetary costs were \$14,253 per victimization, and quality of life costs of \$27,803 per victimization (2000\$).

Similarly, Taxy et al. (2012) found lower rates of rearrests among youth in the Washington D.C. area after receiving FFT treatment for three to four months.⁶² The study compared simulations of FFT and standard community supervision⁶³ and found that 64 out of 150 juveniles in the FFT group were rearrested, compared to 83 in the community

⁵⁶ Also referenced as Family Functional Therapy, in literature sources.

⁵⁷ (Aos S. , Phipps, Barnoski, & Lieb, 2001)

⁵⁸ Provided that the therapists followed the treatment model (defined as high adherent in the study).

⁵⁹ (Sexton & Turner, 2010)

⁶⁰ (Sexton & Turner, 2010)

⁶¹ (Aos S. , Phipps, Barnoski, & Lieb, 2001)

⁶² (Taxy, Liberman, Roman, & Downey, 2012)

⁶³ According to the study, when FFT is not provided/used, standard community supervision is the service received by the youth.

supervision group. This equated to a decrease of approximately 23.0 percent in rearrests due to FFT treatment.⁶⁴ Other studies have found various recidivism reductions, such as Barnoski and Aos' (2004) 38.0 percent reduction in felony recidivism at eighteen months post discharge from FFT treatment,⁶⁵ and Aos et al.'s (2006) 15.9 percent reduction, at thirteen years post discharge.⁶⁶

Reentry Services

Reentry Services assist juvenile offenders in reentering their communities. Such services typically include some type of intensive aftercare program, therapy services, as well as community engagement and workforce development. Especially for youth, reentry services are critical for re-integration into a positive, pro-social daily life. Formerly incarcerated youth often find negative outcomes after returning to the community. In order to address the many challenges youth face in reentering their communities, researchers suggest that a valid, successful reentry program must address the family, substance abuse, peer association, school achievement, and mental and behavioral health.⁶⁷ In other words, it should be comprehensive and individualized in order to be most effective.

Abrams et al. (2014) detailed the Aftercare for Indiana through Mentoring (AIM) program for youth reentering the Indianapolis metropolitan area. The AIM program included life skills training and youth mentoring services for youth reentering their communities. The analyses found that after at least one year of participation, youth four years later had lower re-offense rates than those which did not participate in the program. Results indicated that less than half (44.0%) of the AIM program participants were incarcerated, compared to 62.0 percent of the control group receiving no AIM services. This difference was found to be statistically significant.⁶⁸

Bouffard and Bergseth (2008)⁶⁹ found that youth served by reentry programs were half as likely to test positive for drugs within six months post-release and display decreases in risk scores by 17.3 percent (a decrease of 3.7 percentage points), compared to youth receiving regular probation services.⁷⁰ Regression analysis results indicated a few statistically significant results. Youth receiving reentry services were less likely than the comparison group to experience a new official court contact (37.0% versus 49.0%) and were marginally less likely to have new criminal contacts. For those who did have new

⁶⁴ (Taxy, Liberman, Roman, & Downey, 2012)

⁶⁵ (Barnoski & Aos, 2004)

⁶⁶ (Aos, Miller, & Drake, Evidence-Based Public Policy Options to Reduce Future Prison Construction, Criminal Justice Costs, and Crime Rates, 2006)

⁶⁷ (Youth.Gov)

⁶⁸ (Abrams, Mizel, Nguyen, & Shlonsky, 2014)

⁶⁹ Youth compared were those receiving reentry services to those receiving traditional probation services after release from an out-of-home placement.

⁷⁰ (Bouffard & Bergseth, 2008)

court and criminal contacts, the youth that received reentry services had fewer contacts at six months post-release than their comparison youth.⁷¹

Project SUPPORT, described by Unruh et al. (2014), is a reentry intervention program focused on youth with mental health disorders or special education classifications in the State of Oregon. It provided training and coordinated planning for release, as well as job placement and educational opportunities, social skill instruction, and wraparound services.⁷² Researchers found that at thirty-six months post-release, recidivism rates were lower for the SUPPORT group in comparison to a control group which received typical parole services.⁷³ Twelve months after reentry, 14.5 percent of SUPPORT youth had recidivated, compared to 33.0 percent of the control group.⁷⁴

Calleja et al. (2016) analyzed the effectiveness of reentry services in the State of Michigan. In the study, 117 male juvenile offenders received specialized reentry services, compared to 156 who had received basic reentry services or treatment as usual.⁷⁵ According to Calleja et al., "specialized reentry services provided to the participants consisted of standardized assessment of substance abuse and functional ability, as well as individualized case management for prescribing dosages of reentry services to address each identified treatment need."⁷⁶ For basic reentry services, according to the study, services ranged from "reentry planning exclusively while in residential placement for up to 6 months, to community-based monitoring following release."⁷⁷ Specialized reentry services for the treatment group, consisted of 6 months of case management services, along with a range of 1 to 12 or more sessions of mental health/substance abuse services.⁷⁸ Recidivism rates were reported for both groups at two years' post-program completion. Results found that the overall recidivism rate for the control group was 24.0 percent, compared to 16.0 percent for the treatment group.⁷⁹ The source further examined two types of recidivism, which included new offenses that did not result in confinement, as well as those which did result in confinement. For the former, recidivism rates were 9.5 percent for the control group and 4.3 percent for the treatment group. For new offenses resulting in confinement, recidivism rates were 18.9 percent for the control group and 8.5 percent for the treatment group; a difference of 10.4 percentage points.⁸⁰

Sex Offender Treatment

According to a study completed by Letourneau and Bordin (2008), juveniles, excluding prostitution accounted for 17.0 percent to 20.0 percent of all sexual crimes.⁸¹ Ertl and McNamara (1997) stated that nearly half of all adult sexual offenders reported their first

⁷¹ (Bouffard & Bergseth, 2008)

⁷² (Unruh, Gau, & Waintrup, 2008)

⁷³ (Unruh, Gau, & Waintrup, 2008)

⁷⁴ (Unruh, Gau, & Waintrup, 2008)

⁷⁵ (Calleja, Dadah, Fisher, & Fernandez, 2016)

⁷⁶ (Calleja, Dadah, Fisher, & Fernandez, 2016)

⁷⁷ (Calleja, Dadah, Fisher, & Fernandez, 2016)

⁷⁸ (Calleja, Dadah, Fisher, & Fernandez, 2016)

⁷⁹ (Calleja, Dadah, Fisher, & Fernandez, 2016)

⁸⁰ (Calleja, Dadah, Fisher, & Fernandez, 2016)

⁸¹ (Letourneau & Borduin, 2008)

sexual offense during adolescence.⁸² The majority of treatment options for juvenile sex offenders opt for a cognitive-behavioral treatment with relapse prevention model, often including taking responsibility for the crime, reducing or correcting cognitions, building relationship skills, promoting empathy, building support networks, and controlling arousal.⁸³ Dolan (2009) stated that the primary goal of cognitive-behavioral treatment is to utilize cognitive restructuring to reduce recidivism and improve social competence.⁸⁴

Various meta-analyses have shown that cognitive-behavioral treatment can lower recidivism, but does so modestly.⁸⁵ Specifically, in the State of Washington, Aos et al. (2001) found that juvenile sex offender treatment which primarily included cognitive-behavioral treatment decreased recidivism rates by several percentage points. According to the source, 46.0 percent of non-treated juvenile delinquents recidivated compared to 39.9 percent of juveniles who completed treatment.⁸⁶ Just as with Functional Family Therapy, the study estimated costs avoided per offense/victimization in terms of taxpayer criminal justice system costs avoided, as well as victim monetary expenses and quality of life costs. Expressed in the year 2000 dollars, the study stated the expected cost burden to taxpayers for one offense was estimated to be \$32,581, while victim monetary costs were \$14,089 per victimization, and quality of life costs of \$30,633 per victimization (2000\$).

In a 20-year follow-up study conducted by Worling et al. (2010), the effectiveness of the Sexual Abuse: Family Education and Treatment (SAFE-T) Program was analyzed.⁸⁷ SAFE-T, according to Worling et al, is a "specialized and community-based program that provided sexual abuse assessment, treatment, and consultation, and long-term support."⁸⁸ These services were provided to children/adolescents and their families, those who had been sexually abused by or within their families, those who had sexual behavior problems, and/or those who had sexually offended.⁸⁹ The study was conducted with 148 adolescents between the ages of 12 and 19 years old. The treatment group consisted of 58 adolescents who participated in at least a ten-month specialized treatment at the SAFE-T Program. Approximately one-third of the treatment group (18 out of 58) dropped out before completing treatment but participated for at least 12 months of the SAFE-T program.⁹⁰ The average length of treatment was 24.4 months, overall. The comparison group comprised 90 adolescents; and 67.0 percent of the comparison group received some form of treatment outside of the SAFE-T Program. The study categorized recidivism data as sexual offenses, violent nonsexual offenses, and nonviolent offenses. The treatment group was less likely to offend on all three levels, which were all found to be statistically significant. Overall, 38.0 percent of the treatment group at 20-year follow up

⁸² (Ertl & McNamara, 1997)

⁸³ (Letourneau & Borduin, 2008)

⁸⁴ (Dolan, 2009)

⁸⁵ (Dolan, 2009)

⁸⁶ (Aos S. , Phipps, Barnoski, & Lieb, 2001)

⁸⁷ (Worling, Litteljohn, & Bookalam, 2010)

⁸⁸ (Worling, Litteljohn, & Bookalam, 2010)

⁸⁹ (Worling, Litteljohn, & Bookalam, 2010)

⁹⁰ Those who dropped out of the after 12 months were considered part of the treatment group.

had any type of recidivism charge, compared to 57.0 percent of the control group.⁹¹ This equated, therefore, to a difference of 19.0 percentage points.

Residential Treatment

Lighthouse Youth & Family Services additionally provides residential treatment services. Residential Treatment centers provide services to abused and neglected youth suffering from trauma and other mental or behavioral health problems. According to Hair (2005), residential treatment centers are 24-hour out-of-home placements for youth with mental and/or behavioral problems.⁹² These centers typically offer trauma or other mental health treatment services, in addition to providing the youth with housing services.

Literature has found that residential treatment services provide many benefits to youth, such as improved functioning, decreased symptoms of depression and anxiety, and positive educational outcomes. Zimmerman et al. (2000) evaluated residential treatment for youth with histories of mental health issues and delinquency related problems, between the ages of 11 and 15 years old in the State of Ohio. The average length of treatment was approximately one year and outcomes were measured at a baseline, at 3 months, 7.5 months, and 12 months.⁹³ While results were not consistent in terms of statistical significance, the study found evidence of improved functioning in program participants, due to residential treatment services. Delinquency related problems showed improvement, as well as youth self-reported measures of behavioral problems and in staff-measured behavioral problems. The study also stated improvements in ability to participate and progress in treatment. The majority of these overall improvements were seen in the first six months of treatment, and no further gains were seen later with treatment.⁹⁴

Hair (2005) focused on outcomes of youth at discharge and after being discharged from residential treatment, using studies over the 1993 to 2003 time period. Results at the time of discharge were positive, and included decreased symptoms such as depression, anxiety, and suicidal tendencies.⁹⁵ Outcomes after discharge were also stated. As reported in Hair (2005), one study of a facility in Chicago was conducted six years post-discharge from a residential treatment program. Results found that approximately 29.0 percent of the youth "persisted in antisocial behaviors into adulthood."⁹⁶ Another study cited reported 60.0 percent of youth at 24 months post-discharge were successful across three areas: "absence of illegal activities, academic achievement, and level of care (in other words, a more restrictive level of care was not necessary)."⁹⁷ An additional source cited by Hair (2005) found that 6 months after discharge, nearly all program participants were attending school and reported improvements in their quality of life.⁹⁸ Risk of out-of-

⁹¹ (Worling, Litteljohn, & Bookalam, 2010)

⁹² (Hair, 2005)

⁹³ (Zimmerman, Shapiro, Welker, & Pierce, 2000)

⁹⁴ (Zimmerman, Shapiro, Welker, & Pierce, 2000)

⁹⁵ (Hair, 2005)

⁹⁶ (Hair, 2005)

⁹⁷ (Hair, 2005)

⁹⁸ (Hair, 2005)

home placements were found to be minimal, according to another study cited by Hair (2005), in that, 32.0 percent of youth were at risk one year post-discharge.⁹⁹

Trauma Therapy in Residential Treatment

For trauma therapy services, Lighthouse Youth & Family Services uses Structured Sensory Interventions for Traumatized Children, Adolescents and Parents (SITCAP). SITCAP tasks the individual with completing drawings and other activities. These are then paired with treatment questions to target the sensations felt in a traumatic event and to bring the sensations to the surface in a safe environment to treat the individual.¹⁰⁰ In terms of SITCAP for adjudicated youth, Raider et al. (2008) reported that the treatment program “integrates cognitive strategies with sensory, implicit” ones.¹⁰¹ Further, Raider et al. (2008) went on to state that SITCAP was “designed to move adjudicated adolescents from victim to survivor thinking, and in ways which allow them to become more resilient to future trauma.”¹⁰² Steele and Kuban (2010) found the trauma treatment significantly (statistically) reduced “PTSD reactions and related mental health symptoms.”¹⁰³ Raider et al. (2008) analyzed SITCAP treatment for traumatized youth in an Ohio residential treatment facility. Results found that the youth receiving SITCAP therapy services experienced a statistically significant decline in trauma symptoms, aggressive and rule-breaking behaviors, depression, and other mental health symptoms once treatment was finished.¹⁰⁴

Lighthouse Youth & Family Services Juvenile Justice Services

According to their website, Lighthouse Youth & Family Services’ juvenile justice services aim to reduce the likelihood of criminal activity for youth in the future through fostering skills in workforce development, various treatment services, engagement with the community, and educational progression.¹⁰⁵ Directed at individuals aged 13 to 22, juvenile justice services include centers located in Hamilton, Montgomery, and Ross counties, as well as the Lighthouse Youth Center at Paint Creek and Paint Creek Academy.¹⁰⁶ Also included in the Lighthouse Youth & Family Services’ juvenile justice services are group homes or residential treatment centers, which include the Youth Development Center and New Beginnings. All youth in residential treatment can receive SITCAP trauma interventions and therapy, mental health counseling, substance abuse treatment, life skills training, and opportunities for volunteering.¹⁰⁷

⁹⁹ (Hair, 2005)

¹⁰⁰ (Raider, Steele, Delillo-Storey, Jacobs, & Kuban, 2008)

¹⁰¹ (Raider, Steele, Delillo-Storey, Jacobs, & Kuban, 2008)

¹⁰² (Raider, Steele, Delillo-Storey, Jacobs, & Kuban, 2008)

¹⁰³ (Steele & Kuban, Structured sensory trauma interventions, 2010)

¹⁰⁴ (Raider, Steele, Delillo-Storey, Jacobs, & Kuban, 2008)

¹⁰⁵ (Juvenile Justice, 2019)

¹⁰⁶ (Juvenile Justice, 2019)

¹⁰⁷ Based on email communication with Lighthouse Youth & Family Services.

Hamilton County Community Juvenile Justice Services

Lighthouse Youth & Family Services' program in Hamilton County Community Juvenile Justice Services (JJS) include services such as Alternative Placement, Functional Family Therapy, Individualized Docket Services, and Reentry Services. Alternative Placement services are provided to youth at risk of being removed from their home and placed in a juvenile residential facility, while FFT is home-based therapy for youth with delinquent, emotional, or behavioral problems, or substance abuse according to Lighthouse Youth & Family Services' website.¹⁰⁸ Individualized Docket Services (LIDS), include case management services, therapy, educational support, and substance abuse treatment.¹⁰⁹ Reentry services offered by Lighthouse Youth & Family Services include therapy, Seven Challenges substance abuse treatment, community engagement, and workforce development programs.¹¹⁰

Demographic Data

Hamilton County JJS supported an average of 358 youth per fiscal year, across FY2012 to FY2019. Table 18 details the number of youth receiving services from Hamilton County Juvenile Justice Services over this time period. The greatest number of individuals occurred in FY2016 with 442 youth assisted, while the lowest number assisted occurred in FY2012 with 283 youth. Across all eight fiscal years, Lighthouse Youth & Family Services assisted a total of 2,862 individuals. As can be seen in Table 18, the majority of youth assisted each fiscal year were male. Most youth assisted in each fiscal year were black or African American. The average age of youth receiving services for most of the fiscal years was 16 years old, with the exception of FY2014's average age of 17 years old.

¹⁰⁸ (Hamilton County Community Juvenile Justice Services, 2019)

¹⁰⁹ (Hamilton County Community Juvenile Justice Services, 2019)

¹¹⁰ (Hamilton County Community Juvenile Justice Services, 2019)

Table 18: Hamilton County JJS Demographics, FY2012-FY2019

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Number of Youth	283	372	393	320	442	408	333	311	2,862
% Male	80.57%	86.29%	83.21%	83.12%	77.15%	78.92%	84.38%	85.85%	82.21%
% Female	19.08%	13.44%	16.28%	15.63%	18.55%	15.20%	15.02%	13.19%	15.83%
% Gender Non-Conforming	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
% Transgender	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
% Other	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
% Unknown	0.35%	0.27%	0.51%	1.25%	4.30%	5.88%	0.60%	0.96%	1.96%
% Black/ African American	69.96%	73.92%	76.59%	68.75%	58.60%	65.93%	57.06%	58.52%	66.18%
% White/ Caucasian	26.15%	23.12%	18.83%	22.50%	24.20%	19.36%	21.92%	20.58%	21.98%
% Other Race/ Unknown	1.06%	0.27%	2.04%	7.19%	13.35%	11.52%	15.02%	14.79%	8.28%
% Multi or Bi-Racial	2.83%	2.69%	2.54%	1.56%	3.85%	3.19%	6.00%	6.11%	3.56%
Average Age	16	16	17	16	16	16	16	16	16

Source: Economics Center Calculations using data provided by Lighthouse Youth & Family Services.

Outcome Data

Outcomes were not available for all individuals assisted by Lighthouse Youth & Family Services for FY2012 to FY2019.¹¹¹ Outcome data at fiscal year of discharge for Hamilton County Community JJS was provided by Lighthouse Youth & Family Services for Fiscal Years 2016 to 2019 for a total of 547 unique youth, detailed in the first row of Table 19 below.¹¹² Outcome variables for each fiscal year included whether youth progressed towards or achieved different goals (education, employment, and treatment), was convicted of a new crime, and successfully completed services during their time in the program/receiving services from Lighthouse Youth & Family Services.

Overall, 16.6 percent of youth discharged from Hamilton County JJS over FY2016 to FY2019 were adjudicated or convicted of a new crime while in treatment services. The majority of youth with these goals made progress in their educational and mental health treatment goals each fiscal year, as well as participated in pro-social activities in their schools and communities. The majority of youth each fiscal year also increased in strengths shown by the Child Adolescent Needs and Strengths (CANS) assessment. During their time receiving treatment services across the fiscal years, 318 out of 494 youth experienced an increase in strengths as measured by CANS; while CANS indicated a decrease in needs for 293 youth. Overall, a total of 301 youth from FY2016 to FY2019 successfully completed services at Hamilton County JJS, out of 547 youth in total.

¹¹¹ Lighthouse Youth & Family Services provided data for FY2016 to FY2019. As data was not available for FY2012 to FY2015, dashes are displayed for these fiscal years in Table 19.

¹¹² The number of youth by fiscal year was based on the fiscal year of discharge from the program.

Table 19: Hamilton County Community Juvenile Justice Services Youth with Outcomes and Percentages Progress towards Goals, FY2012-FY2019 (% "Yes")

FY of Discharge	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Number of Youth	-	-	-	-	163	121	123	140	547
Was client adjudicated or convicted of a new crime?	-	-	-	-	18.40%	14.88%	16.26%	16.43%	16.64%
Made Progress/Achieved Educational Goals?	-	-	-	-	78.29%	72.17%	77.78%	78.13%	76.76%
Made progress toward employment goals?	-	-	-	-	60.18%	65.63%	62.89%	63.11%	62.84%
Engaged in structured/Unstructured pro-social activities?	-	-	-	-	63.80%	67.77%	70.83%	62.86%	65.99%
Progress made toward MH Treatment Goals?	-	-	-	-	80.86%	78.81%	85.71%	83.82%	82.24%
Progress made toward AOD Treatment Goals?	-	-	-	-	66.32%	60.23%	70.27%	69.74%	66.37%
Progress made toward Sex Offender Treatment Goals?	-	-	-	-	83.33%	62.50%	100.00%	76.19%	78.05%
CANS indicates increase in strengths?	-	-	-	-	67.09%	58.42%	65.63%	64.75%	64.37%
CANS indicates decrease in needs?	-	-	-	-	62.66%	58.42%	53.92%	57.55%	58.60%
Successfully complete services?	-	-	-	-	55.83%	52.07%	55.28%	56.43%	55.03%

Source: Data provided by Lighthouse Youth & Family Services.

Completed Services

The number of youth completing services from FY2016 to FY2019 were provided by Lighthouse Youth & Family Services.¹¹³ A total of 858 youth completed services at Hamilton County JJS, over this time period. The greatest number of youth completed services and were discharged in FY2019, followed by FY2017 with 301 youth and 281 youth, respectively. In terms of programs within Hamilton County JJS, the greatest number of youth in each varied across the fiscal years. Table 20 details the number of unique youth completing services by year of discharge and by Hamilton County JJS service received.

¹¹³ Lighthouse Youth & Family Services provided data for FY2016 to FY2019. As data was not available for FY2012 to FY2015, dashes are displayed in Table 20.

Table 20: Hamilton County Community Juvenile Justice Services Completed by Year of Discharge, FY2012-FY2019

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Completed Services	-	-	-	-	56	281	220	301	858
Functional Family Therapy (FFT)	-	-	-	-	4	55	51	51	161
Reentry Services	-	-	-	-	40	24	31	27	122
LIDS Docket Services	-	-	-	-	3	47	45	29	124
Alternative Placement (ATP)	-	-	-	-	0	0	2	23	25
Community Management Services	-	-	-	-	9	155	88	52	304
Prevention and Diversion	-	-	-	-	0	0	2	119	121
Sex Offender Services – Mental Health	-	-	-	-	0	0	1	0	1

Source: Data provided by Lighthouse Youth & Family Services.

Costs of Hamilton County Community Juvenile Justice Services

Expenditures for Hamilton County JJS over Fiscal Years 2012 to 2019 were provided by Lighthouse Youth & Family Services. Total spending was \$13.4 million, averaging approximately \$1.7 million per fiscal year (FY2018\$). Table 21 below shows the Organization’s spending per fiscal year in this category of services.

Table 21: Hamilton County Community Juvenile Justice Services Costs, FY2012-FY2019 (FY2018\$)

Program Costs (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Hamilton County JJS	\$1.65	\$1.81	\$1.76	\$1.53	\$1.73	\$1.72	\$1.58	\$1.58	\$13.36

Source: Data provided by Lighthouse Youth & Family Services.

Benefits of Hamilton County Community Juvenile Justice Services

Functional Family Therapy

Utilizing data from Sexton and Turner (2010), the Economics Center monetized the impacts of the reduction in recidivism rates as a result of Lighthouse Youth & Family Services’ FFT treatment program. According to the study, the rate for those who had received FFT treatment was 7.7 percentage points lower at one-year post-treatment-completion, than the rate of the comparison group.¹¹⁴ This finding was then applied to the number of youth completing FFT treatment in each fiscal year, as reported in Table 20 above.

¹¹⁴ (Sexton & Turner, 2010)

For example, in FY2019, there were 51 discharged youth who had completed FFT services. Applying the 7.7 percentage point number, thereby estimated the number of youth avoiding recidivism due to FFT treatment services; as this was the difference between the treatment and control group reported in Sexton and Turner (2010). This calculation for FY2019 determined that 4 youth avoided recidivism as a result of completing FFT treatment from Lighthouse Youth & Family Services. The remaining fiscal years were calculated in the same manner.

To further explain this calculation, Sexton and Turner (2010) reported rates of recidivism of 14.5 percent compared to 22.2 percent for FFT treatment and control groups, respectively. Applying the treatment group percentage (14.5%) to the 51 youth completing FFT treatment in FY2019, for example, equated to 7 youth recidivating. In absence of FFT services for the 51 youth receiving them from Lighthouse Youth & Family Services, a total of 11 youth would have recidivated (22.2% rate of the control group multiplied by 51 youth). As these youth did receive services from Lighthouse Youth & Family Services however, the difference of 4 youth between the treatment and control groups would have recidivated. In other words, a lack of FFT treatment services would have caused 4 additional youth to recidivate, than if they would have received and completed FFT services. As such, these 4 youth avoided recidivism costs due to completing FFT treatment services in FY2019 from Lighthouse Youth & Family Services.

The costs per recidivism, in terms of criminal justice system costs, victim monetary costs, and quality of life costs were taken from Aos et al. (2001). These numbers, expressed in 2000 dollars, were then adjusted for inflation to be expressed in FY2018 dollars using the Consumer Price Index (CPI). The Economics Center also regionally adjusted the numbers from the State of Washington to the State of Ohio using the BEA's Regional Price Parities.¹¹⁵ After these adjustments were made, the criminal justice system cost for one offense was \$37,895, while the victim monetary cost was \$17,455, and the quality of life cost was \$34,048 (FY2018\$). In total therefore, one offense/reconviction had a total cost of \$89,398 (FY2018\$).

This total cost per offense, under the assumption that one offense/reconviction per youth was prevented, was applied to the number of Lighthouse Youth & Family Services youth estimated to have avoided recidivism. Table 22 displays the total criminal justice system and victim costs avoided as a result of youth completing FFT treatment services, as well as the calculated number of youth for each fiscal year avoiding these costs. In total, more than \$1.0 million in criminal justice system costs and victim costs were avoided as a result of the Lighthouse Youth & Family Services FFT treatment program.¹¹⁶

¹¹⁵ (Bureau of Economic Analysis, 2017)

¹¹⁶ The dashes in Table 22 indicate that data were not available from Lighthouse Youth & Family Services for these fiscal years.

Table 22: FFT Costs Avoided, FY2012-FY2019 (FY2018\$)

FFT	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Completed FFT Services	-	-	-	-	4	55	51	51	161
Avoiding Reconviction due to FFT Treatment	-	-	-	-	0	4	4	4	12
Criminal Justice System Costs	\$-	\$-	\$-	\$-	\$0	\$151,580	\$151,580	\$151,580	\$454,740
Victim Monetary Costs	\$-	\$-	\$-	\$-	\$0	\$69,820	\$69,820	\$69,820	\$209,460
Victim Quality of Life Costs	\$-	\$-	\$-	\$-	\$0	\$136,192	\$136,192	\$136,192	\$408,576
Total	\$-	\$-	\$-	\$-	\$0	\$357,592	\$357,592	\$357,592	\$1,072,776

Source: Economics Center calculations using data provided by Lighthouse Youth & Family Services, the Bureau of Economic Analysis, Aos et al. (2001), and Sexton and Turner (2010).

Reentry Services

The number of discharged youth each fiscal year who had received and completed at least 6 months of reentry services is shown in Table 23.¹¹⁷ In total, across FY2016 to FY2019 for which data were available, 122 youth completed services and were discharged from the Hamilton County JJS reentry program.

Table 23: Discharged Youth Completing Reentry Services, FY2012-FY2019

Reentry	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Completed Services	-	-	-	-	40	24	31	27	122

Source: Data provided by Lighthouse Youth & Family Services.

To monetize the impacts or benefits of Hamilton County JJS reentry services, the Economics Center utilized data from Calleja et al. (2016) and Aos et al. (2001). The study by Calleja et al. (2016) reported a 10.4 percentage point incarceration rate difference at a two-year follow up, between youth who had participated in a specialized reentry program compared to a control group. Using this percentage difference, the Economics Center calculated the number of youth likely to avoid incarceration as a result of completing Lighthouse Youth & Family Services' reentry services. This calculation is shown in the first row of Table 24. A total of 12 youth avoided incarceration under this assumption.

To further explain this calculation, Calleja et al. (2016) reported percentages of incarceration of 8.5 percent compared to 18.9 percent for reentry services treatment and control groups, respectively. Applying the treatment group percentage (8.5%) to the 27 youth completing reentry services in FY2019, for example, equated to 2 youth being

¹¹⁷ Dashes in Table 23 indicate that data were not available from Lighthouse Youth & Family Services for these fiscal years.

incarcerated. In absence of reentry services for the 27 youth receiving them from Lighthouse Youth & Family Services, a total of 5 youth would have been incarcerated (18.9% control group rate multiplied by the 27 youth). As these youth did receive services from Lighthouse Youth & Family Services however, the difference of 3 youth between the treatment and control groups would have been incarcerated. In other words, in absence of reentry services from Lighthouse Youth & Family Services, an additional 3 youth would have been incarcerated. As these youth did receive reentry services, however, they thereby effectively avoided incarceration.

To monetize the justice system cost savings as a result of the number of youth avoiding incarceration, the Economics Center utilized data from Aos et al. (2001).¹¹⁸ The study cited average incarceration costs for individuals in Washington state, which were adjusted by Bureau of Economic Analysis Regional Price Parities in order to calculate costs for the State of Ohio.¹¹⁹ The cost figures were also adjusted for inflation to be expressed in FY2018 dollars, in addition to regionally adjusting to the State of Ohio. The average cost for incarceration for one individual after all calculations were completed was \$26,291 (FY2018\$).¹²⁰ Applying this avoided amount to the number of youth avoiding incarceration as a result of reentry services is shown in Table 24. In total, more than \$315,000 in criminal justice system costs were avoided as a result of Lighthouse Youth & Family Services' reentry program.¹²¹

Table 24: Incarceration Costs Avoided, FY2012-FY2019 (FY2018\$)

Reentry	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Avoiding Incarceration due to Reentry Services	-	-	-	-	4	2	3	3	12
Incarceration Costs	\$-	\$-	\$-	\$-	\$105,164	\$52,582	\$78,873	\$78,873	\$315,492

Source: Economics Center calculations using data provided by Lighthouse Youth & Family Services, the Bureau of Economic Analysis, Calleja et al. (2016), and Aos et al. (2001).

Total Costs Avoided

As the two programs of FFT and Reentry services detailed above are provided within Hamilton County JJS, total avoided costs for the overall category are shown in Table 25. Overall, the monetized programs/services within Hamilton County JJS avoided a total of \$1.4 million in criminal justice system costs, victim costs, and avoided costs associated with juvenile justice facility placement.¹²²

¹¹⁸ (Aos S. , Phipps, Barnoski, & Lieb, 2001)

¹¹⁹ (Bureau of Economic Analysis, 2017)

¹²⁰ The \$26,291 included police, court, and incarceration costs.

¹²¹ Dashes in Table 24 indicate that data were not available from Lighthouse Youth & Family Services for these fiscal years.

¹²² Data were not available for FY2012 to FY2015 from Lighthouse Youth & Family Services. As such, the costs avoided for these fiscal years are displayed as dashes. In years for which data were available, at times there were zero costs avoided due to the assumptions/calculations and the

Table 25: Total Hamilton County JJS Costs Avoided, FY2012-FY2019 (FY2018\$)

Costs Avoided	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
FFT	\$-	\$-	\$-	\$-	\$0	\$357,592	\$357,592	\$357,592	\$1,072,776
Reentry	\$-	\$-	\$-	\$-	\$105,164	\$52,852	\$78,873	\$78,873	\$315,492
Total	\$-	\$-	\$-	\$-	\$105,164	\$410,444	\$436,465	\$436,465	\$1,388,268

Source: Economics Center calculations using data provided by Lighthouse Youth & Family Services, Aos et al. (2001), the Bureau of Economic Analysis, Calleja et al. (2016), and Sexton and Turner (2010).

Lighthouse Youth Center at Paint Creek and Paint Creek Academy

Established in 1986, the Lighthouse Youth Center at Paint Creek provides services to male youth between the ages of 15 and 18 years old, who have been “adjudicated delinquent by a juvenile court,” according to Lighthouse Youth & Family Services’ website.¹²³ While at the Youth Center, youth receive a variety of services and treatments, which may include sex offender treatment, mental health services, and/or treatment for substance abuse. Within the Youth Center at Paint Creek, youth may also work on obtaining their high school diploma or GED at Lighthouse’s Paint Creek Academy.¹²⁴

Prior academic studies have outlined the Youth Center at Paint Creek’s impact on youth compared to youth discharged from juvenile detention centers. Greenwood and Rand (1993) reported that Paint Creek Center youth, one year post-discharge, had higher rates of employment, greater numbers of friends, fewer rates of substance/drug use, and fewer re-arrests and incarcerations (albeit not statistically significant) than comparison youth.^{125,126} Another study by Gordon et al. (2000) analyzed youth outcomes at a minimum of two years post-discharge from the Center, compared to similar youth discharged from nearby juvenile detention centers. Data were gathered for youth admitted between 1986 to mid-1995 to the Lighthouse Youth Center, as well as youth admitted to comparison juvenile institutions.¹²⁷ The study found that regardless of race, youth discharged from the Lighthouse Youth Center were less likely to have a reconviction and/or recommitment than the comparison youth from detention centers.¹²⁸

number of youth being discharged from the program. In these instances, data are displayed as zero dollars.

¹²³ (Lighthouse Youth Center at Paint Creek, 2019)

¹²⁴ (Lighthouse Youth Center and Paint Creek, 2019)

¹²⁵ (Greenwood & Rand, 1993)

¹²⁶ (Gordon, Moriarty, & Grant, 2000)

¹²⁷ (Gordon, Moriarty, & Grant, 2000)

¹²⁸ (Gordon, Moriarty, & Grant, 2000)

"I think [Paint Creek Academy] makes [youth] more job ready. So when they go out into the community, they are either ready to continue their education and be a more invested and engaged student, or they have some foundational things for their career- because a lot of jobs you have to at least have a GED or a high school diploma. So I feel like they kind of get that stepping stone. And they've learned to overcome adversity, so I think they have this greater ability to be better employees...I feel like it really gives them this confidence and this preparedness, to kind of have this grit to overcome challenges that they are going to face in the future. And I think that makes an employee better, because they are able to be redirected and they are able to not give up if they don't get a job on the first try. I feel like, economically, that has positive impacts on the community."

-Lighthouse Youth & Family Services Staff Member at Paint Creek Academy

Demographic Data

Demographic data for the Lighthouse Youth Center at Paint Creek and the Paint Creek Academy was provided by Lighthouse Youth & Family Services. The Youth Center at Paint Creek supported an average of 128 youth per fiscal year, from FY2012 to FY2019. The greatest number was in FY2015 with 161 youth assisted, while the lowest number of youth assisted occurred in FY2018. Overall, Lighthouse Youth & Family Services assisted 1,026 youth across all eight fiscal years. For all fiscal years except FY2015 and FY2016, the majority of youth assisted were black or African American. The average youth age for all fiscal years was 17 years old. These demographic details are displayed in Table 26.

Table 26: Youth Center at Paint Creek Demographics, FY2012-FY2019

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Number of Youth	144	146	145	161	154	99	88	89	1,026
% Black/ African American	61.81%	56.16%	57.93%	45.34%	41.56%	56.57%	63.64%	62.92%	54.58%
% White/ Caucasian	28.47%	32.19%	31.72%	44.10%	41.56%	36.36%	23.86%	23.60%	33.82%
% Other Race/ Unknown	2.08%	4.10%	2.07%	0.62%	11.69%	4.04%	5.68%	6.74%	4.48%
% Multi or Bi-Racial	7.64%	7.54%	8.28%	9.94%	5.19%	3.03%	6.82%	6.74%	7.12%
Average Age	17	17	17	17	17	17	17	17	17

Source: Economics Center Calculations using data provided by Lighthouse Youth & Family Services.

Lighthouse Youth & Family Services provided information on students attending the Paint Creek Academy as well. Over FY2014 to FY2019, Lighthouse Youth & Family Services' Paint Creek Academy served 700 youth (duplicated), shown in Table 27.¹²⁹ On average, over this period, 14.3 percent of students each year were enrolled in the GED program, approximately 79.0 percent of students participated in the PLATO online program, and 30.0 percent of students had IEPs overall.

Table 27: Paint Creek Academy Youth Served, FY2012-FY2019

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Number of Youth	-	-	146	135	124	99	107	89	700
Students in PASS program (Path to Achieving Self-Sufficiency)	-	-	146	135	124	99	107	89	700
Students in GED prep program	-	-	41	8	7	15	19	10	100
Students participating in the PLATO program (Online Programming)	-	-	109	118	99	81	68	75	550
Students with an IEP	-	-	37	45	41	29	34	24	210

Source: Data provided by Lighthouse Youth & Family Services.

Outcome Data

Outcome data for discharged youth from the Youth Center at Paint Creek was provided by Lighthouse Youth & Family Services for Fiscal Years 2016 to 2019 and included a total of 207 unique youth, shown in the first row of Table 28.¹³⁰ Outcomes each fiscal year included whether the youth progressed towards or achieved different goals (education, employment, treatment), was convicted of a new crime, and successfully completed services.

Overall, less than 5.0 percent of youth were adjudicated or convicted of a new crime. The large majority of youth with these treatment goals made progress in their education, employment, and mental health (MH) treatment goals. As measured by CANS, a total of 136 youth discharged across FY2016 to FY2019 experienced an increase in strengths, while 117 youth saw a decrease in needs.¹³¹ Overall, a total of 116 youth successfully completed services at the Youth Center at Paint Creek.¹³²

¹²⁹ Data for FY2012 and FY2013 were not available from Lighthouse Youth & Family Services, and are displayed as dashes in Table 27.

¹³⁰ Data for FY2012 to FY2015 were not available from Lighthouse Youth & Family Services, and are displayed as dashes in Table 28.

¹³¹ Out of 185 youth with CANS goals.

¹³² Across all fiscal years, 88 individuals did not complete services and three were listed as "neutral".

Table 28: Youth Center at Paint Creek: Youth with Outcomes and Percentages Progress towards Goals, FY2012-FY2019 (% "Yes")

FY of Discharge	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Number of Youth	-	-	-	-	73	46	54	34	207
Was client adjudicated or convicted of a new crime?	-	-	-	-	8.22%	2.17%	3.70%	2.94%	4.83%
Made Progress/Achieved Educational Goals?	-	-	-	-	89.04%	91.30%	90.57%	91.18%	90.29%
Made progress toward employment goals?	-	-	-	-	64.38%	82.22%	73.58%	79.41%	73.17%
Engaged in structured/Unstructured pro-social activities?	-	-	-	-	47.95%	52.17%	72.22%	75.76%	59.71%
Progress made toward MH Treatment Goals?	-	-	-	-	72.41%	94.74%	78.72%	89.66%	81.98%
Progress made toward AOD Treatment Goals?	-	-	-	-	78.69%	89.74%	86.67%	84.62%	84.21%
Progress made toward Sex Offender Treatment Goals?	-	-	-	-	63.64%	66.67%	62.50%	100.00%	68.29%
CANS indicates increase in strengths?	-	-	-	-	61.11%	86.05%	70.37%	82.35%	73.51%
CANS indicates decrease in needs?	-	-	-	-	50.00%	72.09%	61.11%	76.47%	63.24%
Successfully complete services?	-	-	-	-	56.16%	56.52%	49.06%	71.88%	56.86%

Source: Data provided by Lighthouse Youth & Family Services.

Lighthouse Youth & Family Services provided outcome data for youth attending the Paint Creek Academy. Over the FY2014 to FY2019 time period, a total of 65 students received their high school diploma from Paint Creek Academy, while 30 obtained their GED, as shown in Table 29.¹³³ Overall, across the six fiscal years for which data were available, 95 students graduated from the Academy with either a high school diploma or completed a GED.

Table 29: Outcomes for Paint Creek Academy Youth, FY2012-FY2019

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Youth Discharged	-	-	72	81	73	46	54	37	363
Received diploma	-	-	9	13	18	5	11	9	65
Received GED	-	-	12	1	0	4	11	2	30

Source: Data provided by Lighthouse Youth & Family Services.

¹³³ Dashes in Table 29 for FY2012 and FY2013 are displayed, as data were not available from Lighthouse Youth & Family Services for these fiscal years.

Costs of Lighthouse Youth Center at Paint Creek and Paint Creek Academy

Expenditures for the Youth Center at Paint Creek and Paint Creek Academy over FY2012 to FY2019 were provided by Lighthouse Youth & Family Services. Total spending over this time period was \$40.6 million, averaging \$5.1 million per fiscal year. Table 30 shows Lighthouse Youth & Family Services spending per fiscal year for providing services at Paint Creek.

Table 30: Lighthouse Youth Center at Paint Creek and Paint Creek Academy Costs, FY2012-FY2019 (FY2018\$)

Program Costs (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Lighthouse Youth Center at Paint Creek and Paint Creek Academy	\$5.29	\$5.38	\$5.22	\$5.04	\$5.04	\$4.83	\$4.79	\$5.02	\$40.61

Source: Data provided by Lighthouse Youth & Family Services.

Benefits of Lighthouse Youth Center at Paint Creek and Paint Creek Academy

Lighthouse Youth Center at Paint Creek

As the Youth Center at Paint Creek avoids youth incarceration in a state-run juvenile justice facility, the Economics Center calculated avoided daily costs if the youth were placed in an Ohio juvenile justice facility instead of the Youth Center at Paint Creek. The Economic Center utilized the daily cost of caring for one youth in a state-run juvenile detention facility in Ohio, provided by the Ohio Juvenile Justice Association (2015).¹³⁴ In FY2018 dollars, the cost per day was calculated as \$592.72 per youth.

It is important to note that youth at the Youth Center at Paint Creek are in fact incarcerated, however the Lighthouse Youth & Family Services' program is a less expensive alternative when compared to an Ohio Department of Youth Services (ODYS) Facility. According to Lighthouse Youth & Family Services, the Youth Center at Paint Creek has a daily cost of \$174 per youth (2019\$), which is significantly less expensive per day, than the ODYS facility cost. Adjusted to FY2018 dollars, the daily cost of the Youth Center at Paint Creek was \$169.15 per youth. This indicated a cost savings of approximately \$424 per day per youth when compared to an ODYS facility (FY2018\$).

The Economics Center utilized program start and end dates for each individual youth, to determine the total number of youth at the Center during any point in each fiscal year and if the youth received services for more than one fiscal year. For example, if a youth was admitted in FY2012, then the youth was counted as one individual in FY2012. If the same youth was discharged in FY2014, then this youth was counted as one individual receiving services in FY2012, FY2013, and FY2014. On the other hand, if a youth was admitted and discharged in the same fiscal year, then this youth would only be counted once in that fiscal year. This calculation over time was necessary, as these youth would continually have avoided placement in a state-run juvenile justice detention facility for

¹³⁴ (Ohio Juvenile Justice Association, 2015)

the entire time they were at the Youth Center at Paint Creek. The Economics Center calculated the number of days in each fiscal year each youth received services from the Youth Center at Paint Creek, which varied based on admission and discharge (program start and end) dates.

Then, once this calculation was made, the daily \$424 per youth of cost savings, as calculated above, was multiplied by the number of days in each fiscal year each youth received services. This calculation, therefore, determined the amount of detention facility cost savings since the youth were admitted to the Youth Center at Paint Creek instead of another ODYS facility. The total costs avoided totaled approximately \$66.8 million, as shown in Table 31. In other words, due to the Youth Center at Paint Creek, \$66.8 million in total detention facility costs across FY2012 to FY2019 were avoided or saved.

Table 31: Youth Center at Paint Creek State-Run Juvenile Justice Facility Avoided Costs, FY2012-FY2019

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
State-Run Juvenile Justice Facility Avoided Costs (\$M)	\$9.05	\$9.14	\$8.38	\$10.22	\$10.52	\$7.34	\$5.60	\$6.59	\$66.84

Source: Economics Center calculations using data provided by Ohio Juvenile Justice Association (2015) and Lighthouse Youth & Family Services.

Lighthouse Youth & Family Services provided rates of recidivism for youth who had been discharged after completing services at the Youth Center at Paint Creek, compared to other State Youth Services Facilities. Over Fiscal Years 2016 to 2019, a total of 269 youth were discharged from the Youth Center at Paint Creek, shown in Table 32 below.¹³⁵

Table 32: Youth Discharged from the Youth Center at Paint Creek FY2012-FY2019

FY of Discharge	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Number of Youth Discharged	-	-	-	-	5	123	50	91	269

Source: Economics Center calculations based on data provided by Lighthouse Youth & Family Services.

Data provided by Lighthouse Youth & Family Services included one- and two-year post discharge rates for the years 2016 to 2014. On average across these years, 10.3 percent of youth had recidivated at one-year post discharge from the Youth Center at Paint Creek. In comparison, 25.5 percent of youth discharged from Ohio Department of Youth Services (ODYS) Facilities had recidivated.¹³⁶ Two years post discharge, Paint Creek youth had an average recidivism rate of 23.3 percent, compared to 40.2 percent for ODYS youth; a

¹³⁵ Data provided by Lighthouse Youth & Family Services showed zero youth being discharged from the program for FY2012 to FY2015. This was due to the fiscal year of discharge not being available for many individuals and therefore these fiscal years were omitted from the analysis.

¹³⁶ Information provided by Lighthouse Youth & Family Services.

difference of 16.9 percentage points.¹³⁷ As the average recidivism rates for ODYS facilities were higher than the Youth Center at Paint Creek's average recidivism rate, there were costs avoided as a result. Applying the 16.9 percentage point difference in recidivism rates at two years' post-discharge, the Economics Center estimated the number of incarcerated youth if they had been discharged from an ODYS facility instead of the Youth Center at Paint Creek.

The first row in Table 33 below details this calculation, as well as the total amount of avoided incarceration costs, using adjusted data from Aos et al. (2001) (\$26,291 in FY2018\$). Across FY2016 to FY2019, a total of approximately \$1.2 million in incarceration costs were avoided for those discharged from the Youth Center at Paint Creek.

Table 33: Incarceration Costs Avoided for Youth Discharged from the Youth Center at Paint Creek

FY of Discharge	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Number of Youth Avoiding Incarceration	-	-	-	-	1	21	8	15	45
Incarceration Costs Avoided	\$-	\$-	\$-	\$-	\$26,291	\$552,111	\$210,328	\$394,365	\$1,183,095

Source: Economics Center calculations based on data provided by Lighthouse Youth & Family Services.

In total, youth at the Youth Center at Paint Creek avoided \$68.0 million in incarceration costs and other state-run juvenile detention facility costs across FY2012 to FY2019. Table 34 below displays this information.

Table 34: Total Costs Avoided due to the Youth Center at Paint Creek

FY of Discharge	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
State-Run Juvenile Justice Facility Costs (\$M)	\$9.05	\$9.14	\$8.38	\$10.22	\$10.52	\$7.34	\$5.60	\$6.59	\$66.84
Incarceration Costs (\$M)	\$-	\$-	\$-	\$-	\$0.03	\$0.55	\$0.21	\$0.39	\$1.18
Total Costs Avoided (\$M)	\$9.05	\$9.14	\$8.38	\$10.22	\$10.55	\$7.89	\$5.81	\$6.98	\$68.02

Source: Economics Center calculations based on data provided by Lighthouse Youth & Family Services.

Paint Creek Academy

Using outcome data provided by Lighthouse Youth & Family Services, the impact of students graduating from Paint Creek Academy with a GED or high school diploma was monetized for FY2014 to FY2019.¹³⁸ As these students graduated from the Paint Creek Academy, the assumption was that they otherwise would not have obtained a high school

¹³⁷ Information provided by Lighthouse Youth & Family Services.

¹³⁸ Outcomes for FY2012 and FY2013 for youth graduating from Paint Creek Academy were not available from Lighthouse Youth & Family Services.

diploma or GED. As such, these youth would receive the full benefit of their lifetime earnings due to their higher education attainment, or graduation from the Paint Creek Academy.

The Economics Center utilized IPUMS data for the State of Ohio on earnings by educational attainment, as well as labor force participation and unemployment rates. As IPUMS data is in calendar years, data for the years 2012 to 2017 were collected and then averaged, to determine earnings, labor force participation, and unemployment rates by fiscal year.¹³⁹ Data were additionally collected for individuals ages 16 to 65 years old.¹⁴⁰ Labor force participation, unemployment rate, and annual earnings were calculated for FY2012 to FY2019 in age increments.¹⁴¹

The Economics Center calculated labor force participation and unemployment rate over time and age, to account for the number of the youth not participating in the labor force, as well as those who would be unemployed. Using the calculated labor force participation rates and unemployment rates, the number of active and employed youth assisted by Lighthouse Youth & Family Services' Paint Creek Academy was calculated for each fiscal year, from the number of students graduating with a diploma or GED. The number of youth active and employed in the labor force varied each fiscal year, due to variation in labor force participation rates across the ages, as well as variation in the number of Paint Creek Academy graduates.

Annual earnings estimated from IPUMS data for each fiscal year were multiplied by the appropriate number of years, based on the age increments (i.e. multiplied by 5 for a five-year age increment or two for a 2-year age increment, for example). Calculated earnings were then applied to the number of Paint Creek Academy graduates active and employed in the labor force, by age increment and type of education (high school diploma or GED).

As an example calculation, in FY2019, there were 9 youth graduating with a high school diploma and 2 youth graduating with a GED. The calculated labor force participation rate for FY2019 for youth age 16 to 20 was 65.7 percent for those with a GED and 69.3 percent for those with a high school diploma. The unemployment rate in FY2019 for these 16 to 22 year olds was estimated to be 23.7 percent for youth with a GED and 14.9 percent for those with a high school diploma. Using these data, the number of youth

¹³⁹ IPUMS data were provided in calendar years, according to the U.S. Census one-year estimates. Therefore, the Economics Center averaged 2012 and 2013 data to determine FY2013, and so on. The last year of data available from IPUMS was 2017, and therefore FY2017 (average of 2016 and 2017 years). For FY2018, as IPUMS data were not yet available for this year, FY2017 numbers were assumed. Data on Paint Creek Academy students for FY2012 and FY2013 were not available from Lighthouse Youth & Family Services, and therefore earnings and subsequent calculations for these two fiscal years were not able to be calculated.

¹⁴⁰ Data from age 16 to 65 were gathered under the assumption that individuals would retire at age 65.

¹⁴¹ Age breakdowns were 16 to 20 years old; 21 to 26 years old; 27 to 32 years old; 33 to 38 years old; 39 to 44 years old; 45 to 50 years old; 51 to 56 years old; 57 to 62 years old; and then 63 to 65 years old.

active and employed in the labor force with a GED in FY2019 was 1 youth, and 5 youth with a high school diploma.¹⁴²

Average annual earnings for youth age 16 to 20 were \$8,350 for those with a GED and \$7,954 for those with a high school diploma (FY2018\$), according to IPUMS data for FY2019.¹⁴³ Multiplying these earnings by four, determined the four-year earnings of this age group was \$33,400 for GED students and \$31,814 for those with a high school diploma. Applying these earnings amounts to the number of youth active and employed in the labor force equated to total earnings of \$33,400 for the 1 youth with a GED, and \$159,070 for the 5 youth with a high school diploma. These calculations were also completed for the remaining age groups, up to age 65, by education level and fiscal year. The total earnings were then summed across all age increments to calculate the total lifetime earnings received by youth graduating from Paint Creek Academy with either a GED or high school diploma.

Total lifetime earnings, shown in Table 35, ranged from \$5.6 million in FY2017 to \$12.4 million in FY2018. Total lifetime earnings across all fiscal years amounted to approximately \$56.4 million as a result of youth graduating from Lighthouse Youth & Family Services' Paint Creek Academy.¹⁴⁴

Table 35: Paint Creek Academy Lifetime Earnings, FY2012-FY2019 (FY2018\$)

Paint Creek Academy	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Lifetime Earnings for Youth with High School Diploma (\$M)	\$-	\$-	\$5.79	\$8.57	\$11.89	\$3.65	\$7.79	\$6.30	\$43.99
Lifetime Earnings for Youth with GED (\$M)	\$-	\$-	\$4.38	\$0.66	\$0.00	\$1.96	\$4.62	\$0.74	\$12.36
Total Lifetime Earnings (\$M)	\$-	\$-	\$10.17	\$9.23	\$11.89	\$5.61	\$12.41	\$7.04	\$56.35

Source: Economics Center calculations using data provided by Lighthouse Youth & Family Services and IPUMS data.

Montgomery County Community Juvenile Justice Services

Montgomery County Community Juvenile Justice Services (JJS) is located in Dayton, Ohio and offers youth counseling services, which include sex offender specific treatment, as

¹⁴² For the GED calculation: 2 Paint Creek Academy youth * 65.7 percent labor force participation rate = 1 youth active in the labor force. To calculate the number unemployed, the 1 youth active in labor force was multiplied by the 23.7 percent unemployment rate to equal 0 youth. Then, 1 youth active minus 0 unemployed equals a total of 1 youth active and employed in the labor force, at ages 16 to 22. The same methodology was used for the 9 youth graduating with a high school diploma, to calculate 6 youth active and 1 unemployed, for a total of 5 youth active and employed, at ages 16 to 22.

¹⁴³ In this age cohort in FY2019, according to IPUMS data, earnings for youth with GEDs were higher than earnings for youth with a high school diploma.

¹⁴⁴ Lifetime productivity for youth in FY2016 with a GED was zero dollars as there were no youth that year graduating from Paint Creek Academy with a GED. Dashes for FY2012 and FY2013 indicate that data were not available from Lighthouse Youth & Family Services for these two fiscal years.

well as reentry services.¹⁴⁵ Montgomery County JJS reentry services include intensive aftercare program services, as well as therapy, community engagement, and workforce development, according to Lighthouse Youth & Family Services' website.¹⁴⁶

Demographic Data

Montgomery County JJS supported an average of 84 youth per fiscal year, from FY2012 to FY2019. The greatest number of youth were served in FY2019 with 114 youth assisted, while the lowest number of youth assisted occurred in FY2012. The majority of youth assisted each fiscal year were male. On average, 42.2 percent each fiscal year were black or African American. The average age was 16 years old. These demographic details are displayed below in Table 36. Lighthouse Youth & Family Services assisted 669 youth across all eight fiscal years.

Table 36: Montgomery County JJS Demographics, FY2012-FY2019

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Number of Youth	50	68	84	77	68	65	143	114	669
% Male	96.00%	97.06%	91.67%	88.31%	91.18%	87.69%	89.51%	90.35%	91.03%
% Female	4.00%	2.94%	8.33%	11.69%	7.35%	9.23%	8.39%	7.90%	7.77%
% Gender Non-Conforming	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
% Transgender	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
% Other	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
% Unknown	0.00%	0.00%	0.00%	0.00%	1.47%	3.08%	2.10%	1.75%	1.20%
% Black/ African American	46.00%	41.18%	41.67%	50.65%	42.65%	47.69%	39.16%	35.96%	42.15%
% White/ Caucasian	54.00%	52.94%	48.81%	45.45%	48.53%	43.08%	38.46%	39.48%	44.84%
% Other Race/ Unknown	0.00%	2.94%	2.38%	2.60%	5.88%	4.62%	16.78%	18.42%	8.67%
% Multi or Bi-Racial	0.00%	2.94%	7.14%	1.30%	2.94%	4.61%	5.60%	6.14%	4.34%
Average Age	15	16	16	15	15	15	16	16	16

Source: Economics Center Calculations using data provided by Lighthouse Youth & Family Services.

Outcome Data

Outcome data on fiscal year of discharge from Montgomery County JJS was provided by Lighthouse Youth & Family Services for Fiscal Years 2016 to 2019, for a total of 203 unique youth, detailed in the first row of Table 37.¹⁴⁷ Outcomes included whether the youth progressed towards or achieved different goals (education, employment, treatment), was convicted of a new crime, and successfully completed services.

¹⁴⁵ (Montgomery County Community Juvenile Justice Services, 2019)

¹⁴⁶ (Montgomery County Community Juvenile Justice Services, 2019)

¹⁴⁷ For FY2012 to FY2015, data were not available from Lighthouse Youth & Family Services; displayed as dashes in Table 37.

Overall, less than 16.0 percent were adjudicated or convicted of a new crime. Most youth made progress in their educational goals and mental health treatment goals each fiscal year. As measured by CANS, a total of 131 discharged youth across FY2016 to FY2019 experienced an increase in strengths, while a total of 122 youth saw a decrease in needs. Overall, a total of 114 youth successfully completed services at Montgomery County JJS.¹⁴⁸

Table 37: Montgomery County JJS Youth with Outcomes and Percentages Progress towards Goals, FY2012-FY2019 (% "Yes")

FY of Discharge	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Number of Youth	-	-	-	-	25	51	53	74	203
Was client adjudicated or convicted of a new crime?	-	-	-	-	8.00%	15.69%	13.21%	20.27%	15.76%
Made Progress/Achieved Educational Goals?	-	-	-	-	91.30%	93.18%	90.38%	87.32%	90.00%
Made progress toward employment goals?	-	-	-	-	50.00%	80.00%	76.67%	65.12%	68.97%
Engaged in structured/Unstructured pro-social activities?	-	-	-	-	48.00%	65.96%	68.63%	62.50%	63.13%
Progress made toward MH Treatment Goals?	-	-	-	-	87.50%	82.98%	86.54%	86.49%	85.79%
Progress made toward AOD Treatment Goals?	-	-	-	-	83.33%	57.14%	75.86%	62.86%	67.86%
Progress made toward Sex Offender Treatment Goals?	-	-	-	-	100.00%	75.86%	82.61%	82.86%	82.47%
CANS indicates increase in strengths?	-	-	-	-	100.00%	75.00%	86.67%	75.00%	79.39%
CANS indicates decrease in needs?	-	-	-	-	100.00%	70.73%	77.78%	69.44%	73.49%
Successfully complete services?	-	-	-	-	82.61%	54.90%	50.94%	54.05%	56.72%

Source: Data provided by Lighthouse Youth & Family Services.

Completed Services

The number of youth completing services each fiscal year according to the type of treatment services received were provided by Lighthouse Youth & Family Services, shown in Table 38. Data for FY2012 to FY2015 were not available.¹⁴⁹ From FY2016 to FY2019, 259 youth completed services at Montgomery County JJS in sex offender treatment,

¹⁴⁸ Across all fiscal years, 67 youth did not complete services, 1 youth moved, 2 youth were labeled as "n/a," and 19 were labeled as "neutral."

¹⁴⁹Data for FY2012 to FY2015 are displayed as dashes, indicating that data were not available from Lighthouse Youth & Family Services for these fiscal years.

reentry services, as well as involving mental health and substance abuse. Overall, 77 youth completed sex offender treatment and 105 youth completed reentry services. There were 72 youth who had received mental health services over this time period, along with 5 youth completing substance abuse services.

Table 38: Montgomery County Community Juvenile Justice Services Youth and Services Completed, FY2012-FY2019

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Completed Services	-	-	-	-	2	61	36	160	259
Youth Counseling (Sex Offender Treatment)	-	-	-	-	2	61	36	6	105
Reentry Services	-	-	-	-	0	0	0	77	77
Mental Health	-	-	-	-	0	0	0	72	72
Substance Use	-	-	-	-	0	0	0	5	5

Source: Data provided by Lighthouse Youth & Family Services.

Costs of Montgomery County Community Juvenile Justice Services

Lighthouse Youth & Family Services provided expenditures for Montgomery County JJS for FY2012 to FY2019, which totaled approximately \$5.0 million, averaging \$0.6 million per fiscal year. Table 39 shows the cost of providing sex offender and reentry services at Montgomery JJS per fiscal year.

Table 39: Montgomery County Community Juvenile Justice Services Costs, FY2012-FY2019 (FY2018\$)

Program Costs (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Montgomery County Community JJS	\$0.49	\$0.57	\$0.56	\$0.63	\$0.75	\$0.72	\$0.64	\$0.63	\$4.99

Source: Data provided by Lighthouse Youth & Family Services.

Benefits of Montgomery County Community JJS

Reentry Services

To monetize the impacts or benefits of Lighthouse Youth & Family Services' reentry services in Montgomery JJS, the Economics Center utilized data from Calleja et al. (2016) and Aos et al. (2001). The Economics Center determined the number of youth who completed between six months and one year of services based on the dates of admission and discharge from the Montgomery JJS reentry services program.¹⁵⁰ The number of youth each fiscal year that avoided incarceration as a result of one year of Lighthouse Youth & Family Services' reentry services is shown in Table 40. Of the 77 youth who

¹⁵⁰ As most youth received reentry services from Lighthouse Youth & Family Services between 6 months and 1 year, the Economics Center applied data from Calleja et al. (2016) to this population, as a conservative estimate.

completed reentry services, 45 youth received and completed between six months and one year of reentry services.¹⁵¹

Table 40: Montgomery County Youth Completing Between Six Months and One Year of Reentry Services, FY2012-FY2019

Reentry	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Completed Services	-	-	-	-	0	0	0	77	77
Completed six months to one year of Reentry services	-	-	-	-	0	0	0	45	45

Source: Economics Center calculations based on data provided by Lighthouse Youth & Family Services.

The Economics Center applied the percentage difference in incarceration rates from Calleja et al. (2016) to the number of youth completing between six months and one year of reentry services in each fiscal year, shown in the first row of Table 41 below. A total of five youth avoided incarceration under this assumption.¹⁵²

To monetize the justice system cost savings as a result of the number of youth avoiding incarceration, the Economics Center utilized data from the Washington State Institute for Public Policy, as reported in Aos et al. (2001).¹⁵³ These numbers were adjusted to State of Ohio dollar amounts using BEA’s Regional Price Parity as well as adjusted for inflation.¹⁵⁴ The average costs for incarceration for one individual was \$26,291 (FY2018\$). Applying this incarceration cost to the number of Lighthouse Youth & Family Services youth avoiding incarceration as a result of reentry services is shown in Table 41. In total, more than \$131,000 in criminal justice system costs were avoided as a result of Lighthouse Youth & Family Services’ reentry program at Montgomery County JJS.¹⁵⁵

¹⁵¹ Data for FY2012 to FY2015 were not available from Lighthouse Youth & Family Services and are displayed as dashes in Table 40. For FY2016 to FY2018, there were zero youth completing reentry services from Montgomery County JJS.

¹⁵² In FY2019, a total of 45 youth completed between six months and one year of Lighthouse Youth & Family Services’ reentry services; and 45 * 10.4 percent is rounded to 5 youth avoiding incarceration.

¹⁵³ (Aos S. , Phipps, Barnoski, & Lieb, 2001)

¹⁵⁴ (Bureau of Economic Analysis, 2017)

¹⁵⁵ As data were not available for FY2012 to FY2015 from Lighthouse Youth & Family Services, dashes are displayed for these fiscal years in Table 41. For FY2016 to FY2018, as zero youth completed reentry services from Montgomery County JJS, the dollars in benefits were also therefore zero.

Table 41: Montgomery County Incarceration Costs Avoided, FY2012-FY2019 (FY2018\$)

Reentry	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Avoiding Incarceration	-	-	-	-	0	0	0	5	5
Incarceration Costs	\$-	\$-	\$-	\$-	\$0	\$0	\$0	\$131,454	\$131,454

Source: Economics Center calculations using data provided by Lighthouse Youth & Family Services, the Bureau of Economic Analysis, Calleja et al. (2016), and Aos et al. (2001).

Sex Offender Treatment

Utilizing data from Worling et al. (2010), the Economics Center monetized the impacts of the reduction in re-convictions as a result of Lighthouse Youth & Family Services’ sex offender treatment program under Montgomery JJS. According to the Worling et al., the sex offender treatment group had a reduced rate of recidivism of 19.0 percentage points at a 20-year follow up, compared to a control group.¹⁵⁶ This reduction in recidivism was applied to the number of youth completing sex offender treatment in each fiscal year, as reported in Table 38. In other words, for each fiscal year the 19.0 percentage point difference in recidivism rates, due to sex offender treatment, was applied to the number of youth completing services provided by Lighthouse Youth & Family Services.

For example, in FY2017, there were 61 youth who had completed sex offender treatment services. Under the assumption that 19.0 percentage points of these youth would avoid reconviction, it was calculated that 12 youth avoided reconviction as a result of completing Lighthouse Youth & Family Services’ sex offender treatment. Out of the 105 youth across all eight fiscal years that had completed sex offender treatment, 20 youth avoided reconvictions, shown in the first two rows of Table 42 below.

The costs per re-conviction, in terms of criminal justice system costs, victim monetary costs, and quality of life costs were utilized by Aos et al. (2001). These numbers, expressed in 2000 dollars, were then adjusted for inflation to be expressed in FY2018 dollars, as well as regionally adjusted from the State of Washington to the State of Ohio using the BEA’s Regional Price Parities.¹⁵⁷ After these adjustments were made, the criminal justice system cost for one offense was \$39,899, while the victim monetary cost was \$17,254, and the quality of life cost was \$37,513 (FY2018\$). In total therefore, one offense/reconviction had a total cost of \$94,666 (FY2018\$). This total cost per offense, under the assumption that one offense/reconviction per youth is prevented, was applied to the number of Lighthouse Youth & Family Services youth who avoided reconvictions.

Table 42 displays the total criminal justice system and victim costs avoided as a result of youth completing sex offender treatment services, as well as the estimated number of youth avoiding recidivism for each fiscal year. In total, approximately \$1.9 million in

¹⁵⁶ (Worling, Litteljohn, & Bookalam, 2010)

¹⁵⁷ (Bureau of Economic Analysis, 2017)

criminal justice system costs and victim costs were avoided as a result of the Lighthouse Youth & Family Services' sex offender treatment program.¹⁵⁸

Table 42: Montgomery County Sex Offender Treatment Costs Avoided, FY2012-FY2019 (FY2018\$)

Sex Offender Treatment	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Youth Completed Services	-	-	-	-	2	61	36	6	105
Youth Avoiding Reconviction	-	-	-	-	0	12	7	1	20
Criminal Justice System Costs	\$-	\$-	\$-	\$-	\$0	\$478,788	\$279,293	\$39,899	\$797,980
Victim Monetary Costs	\$-	\$-	\$-	\$-	\$0	\$207,048	\$120,778	\$17,254	\$345,080
Victim Quality of Life Costs	\$-	\$-	\$-	\$-	\$0	\$450,156	\$262,591	\$37,513	\$750,260
Total	\$-	\$-	\$-	\$-	\$0	\$1,135,992	\$662,662	\$94,666	\$1,893,320

Source: Economics Center calculations using data provided by Lighthouse Youth & Family Services, the Bureau of Economic Analysis, Worling et al. (2010), and Aos et al. (2001).

Total Costs Avoided

As the two programs detailed above are provided within Montgomery County JJS, total avoided costs for the Montgomery County JJS are shown in Table 43. Overall, the sex offender treatment and reentry services provided within Montgomery County JJS avoided approximately \$2.0 million in criminal justice system costs, incarceration costs, and victim costs.¹⁵⁹

Table 43: Total Montgomery County JJS Costs Avoided, FY2012-FY2019 (FY2018\$)

Costs Avoided	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Reentry	\$-	\$-	\$-	\$-	\$0	\$0	\$0	\$131,454	\$131,454
Sex Offender Treatment	\$-	\$-	\$-	\$-	\$0	\$1,135,992	\$662,662	\$94,666	\$1,893,320
Total	\$-	\$-	\$-	\$-	\$0	\$1,135,992	\$662,662	\$226,120	\$2,024,774

Source: Economics Center calculations using data provided by Lighthouse Youth & Family Services, Aos et al. (2001), Worling et al. (2010), Calleja et al. (2016), and the Bureau of Economic Analysis.

Ross County Community Juvenile Justice Services

Ross County Community Juvenile Justice Services (JJS), located in Chillicothe, Ohio, provides a variety of services including sex offender treatment, mental health, and

¹⁵⁸ Data for FY2012 to FY2015 were not available from Lighthouse Youth & Family Services.

¹⁵⁹ For FY2012 to FY2015 data were not available from Lighthouse Youth & Family Services.

services for youth struggling with substance abuse, according to Lighthouse Youth & Family Services' website.¹⁶⁰

While benefits were not able to be monetized due to data availability, Lighthouse Youth & Family Services provided demographic and outcome information which is described here. The Organization's expenditures are also described in this section, as they are included in the overall Benefit-Cost Analysis calculations.

Demographic Data

Demographic data for Ross County JJS youth was provided by Lighthouse Youth & Family Services for fiscal years 2016 to 2019.¹⁶¹ Ross County JJS supported an average of 81 youth per fiscal year, across the FY2016 to FY2019. The greatest number was in FY2017 with 113 youth assisted, while the lowest number of youth assisted occurred in FY2016. Across all eight fiscal years, Lighthouse Youth & Family Services assisted 324 individuals. The majority of youth assisted each fiscal year were male. On average 12.7 percent each fiscal year were black or African American and the average age was 16 years old. Demographic details are displayed in Table 44.

Table 44: Ross County JJS Demographics, FY2012-FY2019

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Number of Youth	-	-	-	-	42	113	86	83	324
% Male	-	-	-	-	66.67%	64.60%	65.11%	67.47%	65.74%
% Female	-	-	-	-	7.14%	19.47%	27.91%	25.30%	21.60%
% Gender Non-Conforming	-	-	-	-	0.00%	0.00%	0.00%	0.00%	0.00%
% Transgender	-	-	-	-	0.00%	0.00%	0.00%	0.00%	0.00%
% Other	-	-	-	-	0.00%	0.00%	0.00%	0.00%	0.00%
% Unknown	-	-	-	-	26.19%	15.93%	6.98%	7.23%	12.66%
% Black/ African American	-	-	-	-	11.90%	14.16%	10.47%	13.25%	12.65%
% White/ Caucasian	-	-	-	-	33.34%	14.16%	32.56%	30.12%	25.62%
% Other Race/ Unknown	-	-	-	-	54.76%	68.14%	50.00%	51.81%	57.41%
% Multi or Bi-Racial	-	-	-	-	0.00%	3.54%	6.97%	4.82%	4.32%
Average Age	-	-	-	-	16	16	15	15	16

Source: Economics Center Calculations using data provided by Lighthouse Youth & Family Services.

¹⁶⁰ (Ross County Community Juvenile Justice Services, 2019)

¹⁶¹ Data were not available for FY2012 to FY2015 from Lighthouse Youth & Family Services. Dashes are used to indicate this in Table 44.

Outcome Data

Outcome data for discharged youth at Ross County JJS were provided by Lighthouse Youth & Family Services for Fiscal Years 2015 to 2019.¹⁶² A total of 126 youth were discharged, as detailed in the first row of Table 45. Outcomes each fiscal year included whether the youth progressed towards or achieved different goals (education, employment, treatment), was convicted of a new crime, and successfully completed services.

Overall, approximately 21.0 percent of youth in each fiscal year were adjudicated or convicted of a new crime. Most youth made progress in educational goals and mental health treatment goals each fiscal year, with the exception of FY2015. Most youth were identified by CANS as having increased strengths and decreased needs, and successfully completed services each fiscal year; aside from FY2015. As measured by CANS, a total of 83 youth across the fiscal years had an increase in strengths, while a total of 81 youth experienced a decrease in needs. Overall, a total of 80 youth from FY2015 to FY2019 successfully completed services at Ross County JJS.

Table 45: Ross County JJS Youth with Outcomes and Percentages Progress towards Goals, FY2012-FY2019 (% "Yes")

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Number of Youth	-	-	-	3	22	29	41	31	126
Was client adjudicated or convicted of a new crime?	-	-	-	100.00%	9.09%	10.34%	31.71%	16.13%	20.63%
Made Progress/Achieved Educational Goals?	-	-	-	33.33%	85.71%	89.29%	82.86%	83.33%	83.76%
Made progress toward employment goals?	-	-	-	0.00%	35.00%	52.17%	60.71%	73.91%	54.64%
Engaged in structured/Unstructured pro-social activities?	-	-	-	0.00%	50.00%	86.21%	94.44%	93.55%	81.82%
Progress made toward MH Treatment Goals?	-	-	-	0.00%	86.36%	85.19%	91.67%	90.32%	86.55%
Progress made toward AOD Treatment Goals?	-	-	-	0.00%	76.47%	66.67%	75.00%	75.00%	70.73%
Progress made toward Sex Offender Treatment Goals?	-	-	-	0.00%	75.00%	80.00%	100.00%	100.00%	80.00%
CANS indicates increase in strengths?	-	-	-	0.00%	72.73%	75.86%	70.37%	86.67%	74.77%
CANS indicates decrease in needs?	-	-	-	0.00%	72.73%	72.41%	66.67%	86.67%	72.97%
Successfully complete services?	-	-	-	0.00%	68.18%	68.97%	60.00%	67.74%	64.00%

Source: Data provided by Lighthouse Youth & Family Services.

¹⁶² Outcome data for FY2012 to FY2014 were not available from Lighthouse Youth & Family Services. As such, dashes are displayed for these fiscal years.

Costs of Ross County Community Juvenile Justice Services

Lighthouse Youth & Family Services provided expenditures for the Ross County JJS services for the fiscal years 2016 to 2019. Prior to FY2016, Ross County JJS services were not provided by Lighthouse Youth & Family Services. Total spending across FY2016 to FY2019 was approximately \$1.0 million, averaging \$250,000 per fiscal year. Table 46 below shows Lighthouse Youth & Family Services spending per fiscal year for providing Ross County JJS services.

Table 46: Ross County Community Juvenile Justice Services Costs, FY2012-FY2019 (FY2018\$)

Program Costs (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Ross County Community JJS	\$-	\$-	\$-	\$-	\$0.21	\$0.23	\$0.26	\$0.29	\$0.99

Source: Data provided by Lighthouse Youth & Family Services.

Residential Treatment Services

Lighthouse Youth & Family Services provides residential treatment services for youth between the ages of 12 and 18, which include trauma therapy, counseling, and life skills training, among others.¹⁶³

While there is little literature on monetizing the benefits of residential treatment programs, Lighthouse Youth & Family Services’ program demographics and program expenditures are described here. Due to data limitations, the Economics Center was not able to monetize the benefits of this program.

However, that is not to say that residential treatment services do not provide any benefits to youth. Studies have found evidence of improvements in delinquency related problems, youth self-reported measures of behavioral problems, and in staff-measured behavioral problems, as well as enhanced functioning.¹⁶⁴ Other outcomes included quality of life improvements, youth continuing education/attending school, as well as having low risks of out-of-home placements after discharge from a residential treatment program.¹⁶⁵ Trauma therapy provided in residential treatment programs has been found to reduce youth trauma symptoms, aggressive and rule-breaking behaviors, depression, and other mental health symptoms.^{166,167} These benefits, in turn, may impact future educational attainment, earnings, and other outcomes.

Demographic Data

Across FY2012 to FY2019, Lighthouse Youth & Family Services assisted a total of 540 youth with residential treatment services, averaging 68 youth per fiscal year. Lighthouse

¹⁶³ (Residential Treatment Services, 2019)
¹⁶⁴ (Zimmerman, Shapiro, Welker, & Pierce, 2000)
¹⁶⁵ (Hair, 2005)
¹⁶⁶ (Raider, Steele, Delillo-Storey, Jacobs, & Kuban, 2008)
¹⁶⁷ (Steele & Kuban, Structured sensory trauma interventions, 2010)

Youth & Family Services assisted the greatest number of youth (81 youth) in FY2015. Most youth assisted each fiscal year, except for FY2013, were male. Overall, 61.1 percent were black or African American, which the average age was 16 years old. These demographic details are displayed below in Table 47.

Table 47: Residential Treatment Center Youth Demographics, FY2012-FY2019

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Number of Youth	78	68	74	81	65	53	57	64	540
% Male	53.85%	44.12%	51.35%	54.32%	63.08%	58.49%	56.14%	54.69%	54.26%
% Female	46.15%	55.88%	48.65%	45.68%	36.92%	41.51%	42.11%	43.75%	45.37%
% Gender Non-Conforming	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
% Transgender	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.75%	1.56%	0.37%
% Other	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
% Unknown	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
% Black/ African American	64.10%	69.12%	68.92%	55.56%	66.15%	58.49%	50.88%	53.13%	61.11%
% White/ Caucasian	28.21%	27.94%	25.68%	37.04%	23.08%	32.08%	47.37%	42.19%	32.60%
% Other Race/ Unknown	2.56%	1.47%	1.35%	2.47%	3.08%	7.55%	1.75%	1.56%	2.59%
% Multi or Bi-Racial	5.13%	1.47%	4.05%	4.93%	7.69%	1.88%	0.00%	3.12%	3.70%
Average Age	16	16	16	16	16	16	15	16	16

Source: Economics Center Calculations using data provided by Lighthouse Youth & Family Services.

Outcome Data

Outcome data for residential treatment centers was provided by Lighthouse Youth & Family Services for the fiscal years of discharge of FY2016 to FY2019 for a total of 126 youth, detailed in the first row of Table 48.¹⁶⁸ Outcomes each fiscal year included whether the youth progressed towards or achieved different goals (education, employment, treatment), was convicted of a new crime, and successfully completed services.

Most youth made progress in their educational and employment goals and participated in at least one type of social activity each fiscal year. A total of 47 youth discharged across FY2016 to FY2019 measured by CANS, saw an increase in strengths, while CANS indicated a decrease in needs for a total of 35 youth. Overall, a total of 78 youth from FY2016 to FY2019 successfully completed services at residential treatment centers.

¹⁶⁸ For FY2012 to FY2015, dashes in Table 48 indicate that data for these fiscal years were not available from Lighthouse Youth & Family Services.

Table 48: Residential Treatment Center Youth with Outcomes and Percentages Progress towards Goals, FY2012-FY2019 (% "Yes")

FY of Discharge	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Number of Youth	-	-	-	-	23	24	38	41	126
Was client adjudicated or convicted of a new crime?	-	-	-	-	4.35%	0.00%	2.63%	0.00%	1.59%
Made Progress/Achieved Educational Goals?	-	-	-	-	90.00%	100.00%	88.24%	94.29%	92.86%
Made progress toward employment goals?	-	-	-	-	84.62%	78.95%	58.82%	72.22%	73.13%
Engaged in structured/Unstructured pro-social activities?	-	-	-	-	100.00%	95.83%	78.95%	85.37%	88.10%
Progress made toward MH Treatment Goals?	-	-	-	-	47.37%	62.50%	61.29%	61.54%	59.29%
Progress made toward AOD Treatment Goals?	-	-	-	-	66.67%	50.00%	0.00%	N/A ¹⁶⁹	50.00%
Progress made toward Sex Offender Treatment Goals?	-	-	-	-	N/A ¹⁷⁰	75.00%	N/A ¹⁷¹	100.00%	85.71%
CANS indicates increase in strengths?	-	-	-	-	34.78%	50.00%	26.32%	41.46%	37.30%
CANS indicates decrease in needs?	-	-	-	-	8.70%	33.33%	28.95%	34.15%	27.78%
Successfully complete services?	-	-	-	-	65.22%	58.33%	55.26%	68.29%	61.90%

Source: Data provided by Lighthouse Youth & Family Services.

Completed Services

Lighthouse Youth & Family Services provided the number of youth completing services each fiscal year by type of treatment received, for FY2016 to FY2019. Data for FY2012 to FY2015 were not available from Lighthouse Youth & Family Services. Overall, a total of 98 youth completed services from the Youth Development Center, and 111 youth completed services from New Beginnings, as shown in Table 49.

¹⁶⁹ FY2019 did not have any youth with the program goal of making progress towards AOD treatment.

¹⁷⁰ FY2016 did not have any youth with the program goal of making progress towards sex offender treatment.

¹⁷¹ FY2018 did not have any youth with the program goal of making progress towards sex offender treatment.

Table 49: Residential Treatment Youth and Services Completed, FY2012-FY2019

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Completed Services	-	-	-	-	8	63	44	94	209
Youth Development Center (YDC)	-	-	-	-	5	29	20	44	98
New Beginnings	-	-	-	-	3	34	24	50	111

Source: Data provided by Lighthouse Youth & Family Services.

Costs of Residential Treatment

Lighthouse Youth & Family Services provided expenditures for the residential treatment centers over Fiscal Years 2012 to 2019. Total spending was \$14.4 million, averaging \$1.8 million per fiscal year. Table 50 shows the Organization's spending per fiscal year for providing services for the youth in Residential Treatment.

Table 50: Residential Treatment Costs, FY2012-FY2019 (FY2018\$)

Program Costs (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Residential Treatment Services	\$1.86	\$1.89	\$1.89	\$1.77	\$1.77	\$1.80	\$1.68	\$1.75	\$14.41

Source: Data provided by Lighthouse Youth & Family Services.

Clinical Services

Mental Health

Mental health encompasses an individual's emotional, psychological, and social well-being, as well as determines how they relate to others, handle stress, and make decisions.¹⁷² Mental health consists of several different areas which include behavior and emotions, as well as social and psychological "spheres," according to Kazdin (1993).¹⁷³ The presence of dysfunction in these areas impacts an individual's everyday life and may also threaten physical health. Kazdin (1993) also stated that many children and adolescents in the United States engaged in activities and/or were exposed to conditions that placed them at risk for adverse mental and physical health conditions.¹⁷⁴ According to the study, these behaviors and conditions youth were exposed to "impede the quality of current functioning and often portend deleterious physical and psychological consequences."¹⁷⁵

In 1999, the U.S. Department of Health and Human Services reported that approximately 20.0 percent of children and adolescents up to age 17, during the course

¹⁷² (Kazdin, 1993)

¹⁷³ (Kazdin, 1993)

¹⁷⁴ (Kazdin, 1993)

¹⁷⁵ (Kazdin, 1993)

of one year, experienced signs and symptoms of mental health problems.¹⁷⁶ More recent studies, such as Perfect and Morris (2011) and Avenevoli et al. (2013), have also cited percentages nearing 20.0 percent.^{177,178} With respect to specific mental health issues, an estimated 13.0 percent of children and 25.0 percent of adolescents were stated to have experienced anxiety during schooling, according to Kaffenberger (2013).¹⁷⁹ Nearly 3.0 percent of children were diagnosed with bipolar disorder by adolescence, and up to 4.6 percent of children struggled with depression, according to Perfect and Morris (2011).¹⁸⁰

Mental health issues impact children from all socioeconomic backgrounds and settings. Knopf et al. (2016) found that children from lower income communities and ethnic minorities were oftentimes more likely to develop chronic health issues¹⁸¹ as well as children in urban, high-poverty areas, where mental health risks were higher. Nabors and Reynolds (2000) noted that mental health support for urban youth was extremely important, as these individuals were more likely to be exposed to risk factors leading to mental health issues.¹⁸² Farahmand (2011) found that children from high-poverty or urban areas were less likely to receive the necessary help.¹⁸³

Despite the high prevalence of youth mental illness, many children do not receive the services they need. Atkins et al. (2006) found that approximately 80.0 percent of low-income youth in 2003 in need of mental health services had not received services in the prior year;¹⁸⁴ and that the rate approached 90.0 percent for uninsured families.¹⁸⁵ Barriers to accessing mental healthcare services existed for some youth, according to Knopf et al. (2016), especially for minorities and those living in low income communities.¹⁸⁶ Farahmand (2011) furthered this point and stated that even if children (from high-poverty or urban areas specifically) did seek out and receive mental health services, they were unlikely to continue receiving services due to the various economic and educational barriers.^{187,188} Barriers may have included transportation difficulties, being uninsured/financial constraints, lack of information or awareness of services, as well as lack of available mental healthcare providers and the stigma surrounding mental health.^{189,190}

¹⁷⁶ (American Counseling Association, American School Counselor Association, National Association of School Psychologists, & School Social Work Association of America)

¹⁷⁷ (Perfect & Morris, 2011)

¹⁷⁸ (Avenevoli, et al., 2013)

¹⁷⁹ (Kaffenberger, 2013)

¹⁸⁰ (Perfect & Morris, 2011)

¹⁸¹ (Knopf, et al., 2016)

¹⁸² (Nabors & Reynolds, 2000)

¹⁸³ (Farahmand, 2011)

¹⁸⁴ (Atkins, et al., 2006)

¹⁸⁵ (Atkins, et al., 2006)

¹⁸⁶ (Knopf, et al., 2016)

¹⁸⁷ (Farahmand, 2011)

¹⁸⁸ Economic barriers include transportation difficulty and inaccessible locations. Educational barriers include stigma and lack of information.

¹⁸⁹ (Farahmand, 2011)

¹⁹⁰ (Owens, et al., 2002)

It is critical, however, that children and adolescents receive mental health support as mental illnesses have widespread negative impacts, especially on educational attainment.^{191,192,193,194} According to Perfect and Morris (2011), youth that were struggling with mental health issues were at-risk for absenteeism, discipline problems, being retained in school, receiving poor grades, and juvenile delinquency.¹⁹⁵ Dropout rates for students with emotional and behavioral needs were approximately twice that of students with a higher degree of mental health, according to Slade (2002).¹⁹⁶ Breslau et al. (2008) conducted a national analysis on educational attainment and the presence of various mental health disorders, and found that the proportion of students dropping out/not completing high school would decline by 10.2 percent if mental disorders were absent.¹⁹⁷ Patel et al. (2007) found that poor mental health was associated with other concerns, including lower educational attainment, substance abuse, and violence, among others. The source also stated that addressing mental health needs was crucial for youth to fulfill their potential and contribute fully to their communities.¹⁹⁸

The mental health difficulties faced by children impact the economy through parent work absences and missed school days. In an in-depth analysis of the effect of the youth mental health crisis in Canada, a study by Children’s Mental Health Ontario (2019) found that Ontario’s economy lost \$421 million per year as parents missed work to care for children with anxiety. In the study, approximately 25.0 percent of parents had missed work to care for children with mental health issues, and more than 30.0 percent of children had missed school due to anxiety.^{199,200}

Assertive Community Treatment

Assertive Community Treatment (ACT) is a long-term bundle of services for individuals suffering from severe mental illness. According to Bond et al. (2001), ACT treatment focuses on caring for individuals in a community setting with close interaction between patients and healthcare professionals.²⁰¹ When compared to in-patient treatment, Rosen (2007) found that patients receiving services under ACT had reduced treatment costs and hospital bed days.²⁰² According to Bond et al. (2001), ACT services have reduced psychiatric hospital utilization, as well as increased housing stability, improved patient symptoms, and improved the quality of life for the patient.²⁰³ Burns and Santos (1995) reported that after three months of treatment, ACT patients in Great Britain showed greater improvement in symptoms, had higher satisfaction with the services, as well as

¹⁹¹ (Perfect & Morris, 2011)

¹⁹² (Slade, 2002)

¹⁹³ (Breslau, Lane, Sampson, & Kessler, 2008)

¹⁹⁴ (Patel, Flisher, Hetrick, & McGorry, 2007)

¹⁹⁵ (Perfect & Morris, 2011)

¹⁹⁶ (Slade, 2002)

¹⁹⁷ (Breslau, Lane, Sampson, & Kessler, 2008)

¹⁹⁸ (Patel, Flisher, Hetrick, & McGorry, 2007)

¹⁹⁹ (Children's Mental Health Ontario, 2019)

²⁰⁰ (Ipsos Public Affairs, 2017)

²⁰¹ (Bond, Drake, Mueser, & Latimer, 2001)

²⁰² (Alan Rosen, 2007)

²⁰³ (Bond, Drake, Mueser, & Latimer, 2001)

had fewer hospital days, compared to patients not receiving ACT treatment.²⁰⁴ According to Burns and Santos (1995), those receiving ACT treatment for three months stayed 1.2 days in the hospital, compared to 9.3 days for the comparison group.²⁰⁵ Latimer (1999) also found that ACT treatment reduced hospitalizations.²⁰⁶ The study analyzed data from 34 study-sites and estimated that a higher-fidelity ACT program reduced hospitalizations by 58.0 percent over one year if the alternative involved case management, and by 78.0 percent if the alternative did not. If the ACT program was not higher-fidelity the percentages of hospitalization reductions were found to be 35.0 percent and 55.0 percent, respectively.²⁰⁷

Importantly, fewer hospital days thereby indicates lower healthcare system costs incurred for those receiving ACT treatments. Stensland et al. (2012) reported average daily costs for different types of in-patient mental health disorders.²⁰⁸ The average per day cost across all types of disorders was \$912 (2006\$).²⁰⁹ Adjusted for inflation, the average daily cost was calculated to be \$1,357 (FY2018\$). Those receiving ACT treatment services, and staying in the hospital fewer days as a result, would thereby save the healthcare industry \$1,357 (FY2018\$) per day in medical treatment costs.

Intensive Home-Based Treatment and Home-Based Services

According to the Buckeye Ranch, "Intensive Home Based Treatment (IHBT) is designed to meet the needs of youth with serious emotional disturbances who are at risk of out-of-home placement or are returning home from placement."²¹⁰ Another source remarked that IHBT therapy assisted youth in developing behavior-managing skills to manage behaviors brought about by their severe mental health problems.²¹¹ Kalinyak et al. (2016) stated that the treatment involved a "family therapeutic approach" with the goal of providing an environment which promoted the youth's mental health.²¹² Furthermore, the source stated that IHBT emphasized the interaction patterns among family members and youth, which occurred either in the home or an office, or some other setting.²¹³ Moffett et al. (2018) found that programs like IHBT provided greater access to youth seeking help for their mental disorders, as IHBT services were provided in-home.²¹⁴

According to Kalinyak et al. (2016) IHBT was found to be effective in "engaging and retaining youths and families in treatment, as well as achieving improved outcomes."²¹⁵ Preyde et al. (2010) found that children that received IHBT showed major improvements

²⁰⁴ (Burns & Santos, 1995)

²⁰⁵ (Burns & Santos, 1995)

²⁰⁶ (Latimer, 1999)

²⁰⁷ (Latimer, 1999)

²⁰⁸ Disorders included in the study were Schizophrenia, Bipolar disorder, Depression, Drug use disorder, and alcohol use disorder.

²⁰⁹ (Stensland, Watson, & Grazier, 2012)

²¹⁰ (Home-Based Services, 2019)

²¹¹ (PEP Now Offers Intensive Home-Based Treatment (IHBT), 2019)

²¹² (Kalinyak, Gary, Killion, & Suresky, 2016)

²¹³ (Kalinyak, Gary, Killion, & Suresky, 2016)

²¹⁴ (Moffett, Brotnow, Patel, Adnopoz, & Woolston, 2018)

²¹⁵ (Kalinyak, Gary, Killion, & Suresky, 2016)

in psychosocial functioning and symptom severity. For a number of youth some of these improvements were maintained three years after discharge from the program.²¹⁶ Studies also showed that IHBT services were successful in preventing out-of-home placements.^{217,218} Specifically, Haapala and Kinney (1988) detailed such IHBT programs and found that out-of-home placements were avoided by 87.0 percent of youth one year after the service's intake.²¹⁹

School-Based Services

Schools have been viewed as a potential solution for combating poor mental health in urban children and youth, as they provide a structured environment well-suited to facilitate early identification, prevention, and intervention, according to Kern et al. (2017).²²⁰ Kern et al. found that schools have the opportunity to provide services to students who do not yet meet clinical criteria, but display early signs of mental health problems.²²¹ According to Kaffenberger (2013), Hoagwood et al. (2001), and Paternite (2005), most children who received services received them at school because of the inherent efficiency and effectiveness of utilizing schools to deliver mental health services.^{222,223,224} Approximately 75.0 percent of all mental health service contacts for children occurred within schools, which were the most common point of entry for receiving mental health services.^{225,226,227,228}

By providing mental healthcare through the education sector, as stated in Owens et al. (2005), schools were able to reach children who otherwise would not receive treatment.²²⁹ Studies have also concluded that schools had the capacity and the ability to reach more children from socioeconomically disadvantaged backgrounds with serious emotional and behavioral problems than community-based health centers.^{230,231} Furthermore, barriers to accessing mental health support for youth may be mitigated by the existence of school-based services.^{232,233,234} Research has found that students were far more likely to seek mental health support when services were readily available to

²¹⁶ (Preyde, et al., 2011)

²¹⁷ (Daleiden, Pang, Roberts, Slavin, & Pestle, 2010)

²¹⁸ (Scannapieco, Home-based Services Program: Effectiveness with at risk families, 1994)

²¹⁹ (Haapala & Kinney, 1988)

²²⁰ (Kern, et al., The Need for School-Based Mental Health Services and Recommendations for Implementations, 2017)

²²¹ (Kern, et al., The Need for School-Based Mental Health Services and Recommendations for Implementations, 2017)

²²² (Kaffenberger, 2013)

²²³ (Hoagwood, Burns, Kiser, Ringeisen, & Schoenwald, 2001)

²²⁴ (Paternite, 2005)

²²⁵ (Bruns, Moore, Stephan, Pruitt, & Weist, 2005)

²²⁶ (Langley, Nadeem, Kataoka, Stein, & Jaycox, 2010)

²²⁷ (Atkins, Hoagwood, Kutash, & Seidman, 2010)

²²⁸ (Bruns, Walrath, Glass-Siegel, & Weist, 2004)

²²⁹ (Owens, et al., 2005)

²³⁰ (Slade, 2002)

²³¹ (Catron & Weiss, 1994)

²³² (Committee on School Health, 2004)

²³³ (Slade, 2002)

²³⁴ (Atkins, et al., 2006)

them and easily accessible.^{235,236} By providing such services in schools students and families also avoided some of the stigma and intimidation often felt when going to other community-based mental health settings, according a study completed by the Committee on School Health (2004).²³⁷ The study further stated that the costs of care for mental health services in schools were “often less expensive than private or community-based services, and therefore [were not] inhibiting for health insurers, whether private or Medicaid.”²³⁸

Students attending schools with mental health services on-site were more likely to receive counseling than children attending schools which did not offer such services.²³⁹ Children with school-based options were more likely to begin counseling or therapy services than children with only community-based options. A study by Atkins et al. (2006) which offered some classrooms a school-based mental health provider and other classrooms nearby clinic services discovered that 80.0 percent of the families offered school-based care enrolled in treatment, compared to 54.5 percent of families offered clinic-based care.²⁴⁰ Research has found that children were not only more likely to begin treatment with school-based care, they were more likely to continue treatment. Juszczak et al. (2003) found that inner-city adolescents were twenty-one times more likely to receive mental health services at school-based clinics than community health centers.²⁴¹ Another study by Kaplan et al. (1998) estimated 31.0 percent of adolescents with access to school-based care had a mental health visit compared to 3.0 percent of children without access to any kind of in-school mental health services.²⁴² Atkins et al. (2006) found that 100.0 percent of children referred to school-based mental health providers were still receiving treatment three months after the initial referral, compared to 0.0 percent of the children who had been referred to community clinics. Kaffenberger (2013) found that while approximately 96.0 percent of students followed through with school-based mental healthcare, only 13.0 percent of children followed through on community center referrals.²⁴³ Similarly, according to Roness and Hoagwood (2000), 98.0 percent of children assigned to school-based counseling entered services, compared to 17.0 percent of children referred to community mental health centers.²⁴⁴

In terms of mental health services outcomes, a study by Weist et al. (1996) found that Baltimore high school students with access to school-based care who received mental health treatment showed statistically significant declines in depression and improvements in self-concept as opposed to students without school-based access and who did not receive treatment.²⁴⁵ Owens et al. (2005) found that providing mental health services in

²³⁵ (Slade, 2002)

²³⁶ (Atkins, et al., 2006)

²³⁷ (Committee on School Health, 2004)

²³⁸ (Committee on School Health, 2004)

²³⁹ (Slade, 2002)

²⁴⁰ (Atkins, et al., 2006)

²⁴¹ (Juszczak, Melinkovich, & Kaplan, 2003)

²⁴² (Kaplan, Calonge, Guernsey, & Hanrahan, 1998)

²⁴³ (Kaffenberger, 2013)

²⁴⁴ (Rones & Hoagwood, 2000)

²⁴⁵ (Weist, Paskewitz, Warner, & Flaherty, 1996)

schools led to improvements in the core symptoms of ADHD, reductions in opposition and defiance, and better academic and social functioning.²⁴⁶ Behaviorally, Atkins et al. (2006) determined that school-based mental healthcare led to improvements in parent-rated behavioral scores of children.²⁴⁷

Mental health services in schools have been found to improve aspects of school climate, reduce special education referrals, and to produce declines in disciplinary referrals, suspensions, and grade retentions.^{248,249} According to Wagner (1991), dropout rates may have decreased as a result of mental health services.²⁵⁰ School-based mental health services have been linked to increased attendance and school commitment, better social competence, and improved test scores.^{251,252,253}

A 2003 study detailing a Dallas-based Expanded School Mental Health (ESMH) program reported a 95.0 percent decrease in disciplinary referrals among treatment children, as well as a 32.0 percent decrease in absences.²⁵⁴ Bruns et al. (2005) analyzed the effect of school-based mental health programming on suspension rates. Evaluation data from the Baltimore public school system indicated that more than 95.0 percent of students referred to ESMH professionals and seen at least four times did not receive a suspension post-intervention.²⁵⁵ In a separate study by Ballard et al. (2014), researchers found that students who received ESMH treatment received .51 suspensions less than the mean number of suspensions, whereas students who received treatment as usual had an increase in suspensions of 1.66.²⁵⁶ Children First Plan, a school-based mental health program, concluded that 60.0 percent of schools under its umbrella had lower suspension and truancy rates than comparison schools without school-based options.²⁵⁷

Lighthouse Youth & Family Services' Outpatient Mental Health Services

Lighthouse Youth & Family Services' services in the category of outpatient mental health include specific services such as school- and home-based treatments, medication management, substance use treatment, and assertive community treatment. According to Lighthouse Youth & Family Services' website, services are offered to youth with severe and chronic mental health issues between the ages of 14 to 24 years old.²⁵⁸

²⁴⁶ (Owens, et al., 2005)

²⁴⁷ (Atkins, et al., 2006)

²⁴⁸ (Bruns, Walrath, Glass-Siegel, & Weist, 2004)

²⁴⁹ (American Counseling Association, American School Counselor Association, National Association of School Psychologists, & School Social Work Association of America.)

²⁵⁰ (Wagner, 1991)

²⁵¹ (Kaffenberger, 2013)

²⁵² (Owens, et al., 2005)

²⁵³ (Kern, et al., The Need for School-Based Mental Health Services and Recommendations for Implementations, 2017)

²⁵⁴ (Center for School Mental Health Assistance, 2003)

²⁵⁵ (Bruns, Moore, Stephan, Pruitt, & Weist, 2005)

²⁵⁶ (Ballard, Sander, & Klimes-Dougan, 2014)

²⁵⁷ (Center for School Mental Health Assistance, 2003)

²⁵⁸ (Case Management Services, 2019)

Demographic Data

Lighthouse Youth & Family Services provided demographic data for children assisted in the overall category of general outpatient mental health services, as well as assertive community treatment. Since FY2012, the number of children Lighthouse Youth & Family Services has supported in mental health services has grown. Across the eight fiscal years, shown in Table 51, Lighthouse Youth & Family Services supported more than 14,000 (duplicated) children in the outpatient mental health category, and an additional 862 youth in assertive community treatment.

Table 51: Outpatient Mental Health Category Number of Youth Assisted, FY2012-FY2019

Program	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Outpatient Mental Health Services	938	1,109	1,474	1,663	1,814	1,853	2,628	2,967	14,446
Assertive Community Treatment	68	108	143	221	188	129	0	5	862
Total Number of Youth	1,006	1,217	1,617	1,884	2,002	1,982	2,628	2,972	15,308

Source: Data provided by Lighthouse Youth & Family Services.

Data on age, race, and gender were provided by Lighthouse Youth & Family Services. The majority of youth assisted in each fiscal year were black or African American. Average ages per fiscal year ranged from 14 to 15 years old with an overall average of 14 years old. In five of the eight fiscal years, most of the youth assisted were male (FY2012 to FY2015, and FY2017). Table 52 shows the demographics of the total youth assisted in each fiscal year as well as the average age per fiscal year.

Table 52: Outpatient Mental Health Category Youth Demographics, FY2012-FY2019

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Number of Youth	1,006	1,217	1,617	1,884	2,002	1,982	2,628	2,972	15,308
% Male	53.78%	51.27%	50.28%	51.11%	48.95%	50.40%	49.24%	47.78%	49.86%
% Female	46.12%	48.73%	49.72%	48.89%	51.05%	49.34%	49.24%	51.04%	49.60%
% Gender Non-Conforming	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.11%	0.03%	0.03%
% Transgender	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.76%	0.87%	0.30%
% Other	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.08%	0.07%	0.03%
% Unknown	0.10%	0.00%	0.00%	0.00%	0.00%	0.26%	0.57%	0.21%	0.18%
% Black/ African American	65.61%	66.89%	65.06%	64.17%	67.93%	57.77%	49.20%	51.68%	59.24%
% White/ Caucasian	27.83%	24.40%	26.22%	28.87%	25.17%	22.81%	23.52%	25.03%	25.24%
% Other Race/ Unknown	1.99%	4.85%	3.90%	2.98%	3.00%	2.32%	14.95%	13.96%	7.26%
% Multi or Bi-Racial	4.57%	3.86%	4.82%	3.98%	3.90%	17.10%	12.33%	9.33%	8.26%
Average Age	15	14	14	14	14	14	15	15	14

Source: Economics Center calculations using data provided by Lighthouse Youth & Family Services.

Benefits and Costs of Outpatient Mental Health Services

Costs of Outpatient Mental Health Services

Costs of providing outpatient mental health services for Fiscal Years 2012 to 2019 were provided by Lighthouse Youth & Family Services. Total spending across these eight fiscal years was \$30.2 million, averaging \$3.8 million per fiscal year. Table 53 below shows the breakdown of Lighthouse Youth & Family Services expenditures for these services.

Table 53: Outpatient Mental and Health Services Cost, FY2012-FY2019 (FY2018\$)

Program Costs (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Outpatient Mental Health Services	\$2.83	\$3.42	\$3.66	\$4.07	\$4.07	\$4.17	\$4.40	\$3.57	\$30.19

Source: Data provided by Lighthouse Youth & Family Services.

Benefits of Outpatient Mental Health Services

As stated in literature, assisting youth in mental health issues is extremely important to their overall well-being and educational attainment. In the outpatient mental health services category, the Economics Center monetized the impacts of assertive community treatment services in terms of hospitalization costs avoided.

The Economics Center was not able to quantify the monetary benefits for the other categories of general outpatient mental health services as well as home-based and school-based services. While these services provide benefits to the youth receiving them, literature and/or data necessary to monetize the benefits of these programs were not available.

Assertive Community Treatment

Across Fiscal Years 2012 to 2019, Lighthouse Youth & Family Services supported 862 youth in assertive community treatment services, averaging 108 youth per fiscal year. Fiscal Year 2015 had the largest number of youth participating in the ACT program with an enrollment of 221 youth. The number of youth assisted each fiscal year ranged from 0 in FY2018 to 221 in FY2015. Table 54 details the number of youth Lighthouse Youth & Family Services provided ACT services to from FY2012 to FY2019.

Table 54: Assertive Community Treatment Services Number of Youth, FY2012-FY2019

ACT	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Number of Youth	68	108	143	221	188	129	0	5	862

Source: Data provided by Lighthouse Youth & Family Services.

Using the information outlined in the literature review above, the Economics Center monetized avoided healthcare costs as a result of Lighthouse Youth & Family Services'

ACT program. According to the Burns and Santos study (1995), individuals receiving ACT treatment services stayed 8.1 fewer days in the hospital than the control group, after three months of ACT treatment.²⁵⁹ Using data provided by Lighthouse Youth & Family Services, the average length of time for youth receiving ACT services was calculated for each fiscal year. The overall average across all fiscal years was approximately 5.4 months of ACT treatment, shown in Table 55. The average length of time for youth in ACT treatment in each fiscal year varied from 4.3 months in FY2016 to 6.6 months of treatment in FY2012.

Using this information for each fiscal year, the difference of hospital days from Burns and Santos (1995) was adjusted based on the average number of months that youth in each fiscal year had received ACT services from Lighthouse Youth & Family Services. This number ranged from 12.7 to 17.7 fewer days in the hospital, based on the average months of treatment youth received in each fiscal year from Lighthouse Youth & Family Services.^{260,261} The number of fewer days in the hospital for each fiscal year was multiplied by the average per day psychiatric hospital stay cost of \$1,357 (FY2018\$) as adjusted from data provided by Stensland et al. (2012).²⁶² The total cost avoided, per youth receiving ACT treatment was estimated to range from \$15,606 in FY2016²⁶³ to \$24,019 in FY2012²⁶⁴ in overall hospital costs, displayed in row 5 of Table 55. This amount was multiplied by the total number of youth receiving ACT treatment, for each fiscal year.

The total hospitalization costs avoided for youth receiving ACT services from Lighthouse Youth & Family Services is shown in Table 55. Also included in the table are the average treatment lengths per youth, per fiscal year, as well as the calculated fewer hospital days as a result of ACT treatment, and the daily cost of a hospitalization. Total costs ranged from approximately \$110,000 in FY2019 to \$4.4 million in FY2015. In total, across the eight fiscal years, \$16.2 million in healthcare hospitalization costs were avoided as a result of Lighthouse Youth & Family Services' ACT services.

²⁵⁹ (Burns & Santos, 1995)

²⁶⁰ This calculation was completed after adjusting the 8.1 days reduced from three months of treatment to a one-month number of 2.7 days. The 2.7 days was then multiplied by the average number of months of ACT treatment for each fiscal year. For the minimum 4.27 months of ACT treatment in FY2016 * 2.7 days reduced per month equated to 11.5 days for FY2016. The maximum average of 6.6 months * 2.7 days equated to 17.7 fewer in the hospital in FY2012. The remaining fiscal years were calculated in the same manner.

²⁶¹ This information is displayed in row 3 of Table 55.

²⁶² Shown in row 4 of Table 55.

²⁶³ This calculation was derived from the number of months youth received ACT services from Lighthouse youth & Family Services in FY2016, of 4.27 months. Adjusting the 8.1 days for three months to reflect 4.27 months of treatment equated to 11.5 days fewer in the hospital. The 11.5 days was then multiplied by the average daily cost of \$1,357 to equal \$15,606.

²⁶⁴ This calculation was derived from the number of months youth received ACT services from Lighthouse Youth & Family Services in FY2012, of 6.56 months. Adjusting the 8.1 days for three months to reflect 6.56 months of treatment equated to 17.7 days fewer in the hospital. The 17.7 days was then multiplied by the average daily cost of \$1,357 to equal \$24,019.

Table 55: Assertive Community Treatment Services Hospitalization Costs Avoided, FY2012-FY2019 (FY2018\$)

ACT	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Number of Youth	68	108	143	221	188	129	0	5	862
Average Length of Treatment (months)	6.56	5.15	5.53	5.43	4.27	4.71	0	6.02	5.38
Number of Fewer Hospital Days ²⁶⁵	17.71	13.91	14.92	14.67	11.54	12.71	0	16.26	101.72
Cost per day of Hospitalization, per youth	\$1,357	\$1,357	\$1,357	\$1,357	\$1,357	\$1,357	\$1,357	\$1,357	N/A
Total cost of Fewer Hospital Days per Youth (\$M) ²⁶⁶	\$0.02	\$0.02	\$0.02	\$0.02	\$0.02	\$0.02	\$0.00	\$0.02	\$0.14
Total (\$M)	\$1.63	\$2.04	\$2.89	\$4.41	\$2.93	\$2.22	\$0	\$0.11	\$16.24

Source: Economics Center calculations using data provided by Lighthouse Youth & Family Services, Stensland et al. (2012), and Burns and Santos (1995).

Total Costs Avoided

Table 56 details the total costs avoided for youth receiving ACT services in the Outpatient Behavior Health category. Across Fiscal Years 2012 to 2019, a total of \$16.2 million was saved in hospital related expenses for youth in assertive community treatment.

Table 56: Outpatient Mental Health Category Costs Avoided, FY2012-FY2019 (FY2018\$)

Costs Avoided	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
ACT									
Hospitalization Costs (\$M)	\$1.63	\$2.04	\$2.89	\$4.41	\$2.93	\$2.22	\$0	\$0.11	\$16.24
Total (\$M)	\$1.63	\$2.04	\$2.89	\$4.41	\$2.93	\$2.22	\$0	\$0.11	\$16.24

Source: Economics Center calculations using data provided by Lighthouse Youth & Family Services, Stensland et al. (2012), and Burns and Santos (1995).

Early Intervention

Early intervention for children at-risk for developmental delays can be critical for their future development, according to a study by Majnemer (1998).²⁶⁷ The study also stated that developmental delays in children may have been due to environmental or biological

²⁶⁵ This row was calculated as the average length of treatment * 2.7 fewer days per month. For example, in FY2012, the average length of time of 6.56 months * 2.7 fewer days per month equals approximately 17.7 fewer days in the hospital.

²⁶⁶ This calculation for FY2012, for example, was 17.7 fewer hospital days * \$1,357 daily cost to equal \$24,019. The remaining fiscal years were calculated the same way.

²⁶⁷ (Majnemer, 1998)

vulnerabilities, or diagnosed medical conditions.²⁶⁸ Notably, as stated in Currie (2000), important brain and neurological developments tended to occur early in life, particularly from birth to age three, such as “sensory, language, and motor capabilities.”²⁶⁹ Currie (2000) also found that children and families benefited from the support and structure provided by Early Intervention Programs, as such programs allowed children to mature physically, emotionally, and intellectually.²⁷⁰ In terms of impacts, literature has supported that early intervention services benefit children receiving them, as well as their families.

Shonkoff and Hauser-Cram (1987) conducted a meta-analysis of 31 studies detailing early intervention programs for disabled children less than three years of age and their families. Results found that early intervention programs promoted “developmental progress for many disabled children younger than 3 years of age.”²⁷¹ The mean effect of early intervention services was found to be 0.62, indicating a moderate positive effect. In other words, the source stated that, “on average, the best available studies of early intervention for disabled children younger than 3 years of age demonstrate a 0.62 SD [standard deviation] superiority in performance for children receiving services compared with a contrast or control study.”²⁷² The study further noted that effect results varied based on the type and extent of the child’s disability, the level of parent interaction, as well as program characteristics.²⁷³

Hebbeler et al. (2007) analyzed the impacts of the National Early Intervention Longitudinal Study, which provided Part C early intervention services to children under three years old. The report’s results were based on a nationally representative sample of 3,338 children²⁷⁴ across twenty states, entering early intervention services for the first time between September 1997 and November 1998. All children were under 31 months of age at the time of enrollment. Importantly, results were weighted to represent national estimates. The average age of referral to early intervention services was 15.5 months, while the average age of Individualized Family Service Plan (IFSP) completion (entry into early intervention services) was 17.1 months.²⁷⁵ The reasons for seeking early intervention services varied and included developmental delays, diagnosed conditions, and the risk of a developmental delay.²⁷⁶

Compared to the general population of children up to age three, children receiving early intervention services in the study were more likely to be African American, have mothers with less than a college education, and live in households with less than \$15,000 in

²⁶⁸ (Majnemer, 1998)

²⁶⁹ (Currie, 2000)

²⁷⁰ (Currie, 2000)

²⁷¹ (Shonkoff & Hauser-Cram, 1987)

²⁷² (Shonkoff & Hauser-Cram, 1987)

²⁷³ (Shonkoff & Hauser-Cram, 1987)

²⁷⁴ According to the source, early intervention plans were created for 5,668 families/children. There were 4,653 families invited to participate in the study and met the study’s eligibility criteria; and 3,338 agreed to do so.

²⁷⁵ (Hebbeler, et al., 2007)

²⁷⁶ (Hebbeler, et al., 2007)

income.²⁷⁷ Children entering early intervention services were also more likely to be in foster care compared to the general population, and more often rated as having fair or poor overall health (16.0%) compared to the general population of children (2.3%).²⁷⁸ The study noted, however, that the fair/poor health aspect was related to the income and race statuses of the early intervention population.²⁷⁹ Further, the type of early intervention services and length of treatment varied depending on the child's unique situation and age at entry. Overall, children received services for an average of 17.2 months.²⁸⁰ Most participants (63.0%) received early intervention services for the total length of 36 months, and then went on to receive additional preschool educational services after the 36 months.²⁸¹

Findings reported that families, overall, were pleased with their experience. Most felt that they had been involved in the right amount of decisions (84.0%) and felt they had received the right amount of services (72.0%). The majority were pleased with the level of individualization the services provided, with 65.0 percent stating their services were highly individualized.²⁸² Child health outcomes between entry and 36 months improved marginally with a few more children having excellent health and a few less having fair or poor health.²⁸³ In terms of communication, the study analyzed children older than one year at entry as the question was not asked to children less than one year old. Results showed that 30.0 percent of children improved in this area of functioning. Additionally, 59.0 percent of families stated an improvement in how well others understood their child's speech at 36 months.²⁸⁴

At 36 months, families were asked about their perspectives regarding their child's current quality of life, as well as future quality of life. Most responded their child's current situation was either excellent (39.0%) or very good (31.0%).²⁸⁵ Families were more positive about the future quality of their child's life, with 53.0 percent stating they viewed it as excellent. Most respondents agreed that the early intervention program had a positive impact on their family, and rated their families as much better off as a result of the program (59.0%).²⁸⁶ At 36 months, parents also reported that they knew how to care for their child's basic needs (85.0% strongly agreed), as well as how to help their child learn and develop (64.0% strongly agreed).²⁸⁷

Lighthouse Youth & Family Services' Early Intervention Services

Lighthouse Youth & Family Services provides Early Intervention services to children from infancy to age three, in which an IFSP is created for the child, outlining strategies to aid

²⁷⁷ (Hebbeler, et al., 2007)

²⁷⁸ (Hebbeler, et al., 2007)

²⁷⁹ (Hebbeler, et al., 2007)

²⁸⁰ (Hebbeler, et al., 2007)

²⁸¹ (Hebbeler, et al., 2007)

²⁸² (Hebbeler, et al., 2007)

²⁸³ (Hebbeler, et al., 2007)

²⁸⁴ (Hebbeler, et al., 2007)

²⁸⁵ (Hebbeler, et al., 2007)

²⁸⁶ (Hebbeler, et al., 2007)

²⁸⁷ (Hebbeler, et al., 2007)

the child's learning and development. Lighthouse Youth & Family Services provides service coordinators to families, in order to help them implement and create IFSPs for their specific needs and their child(ren)'s needs, according to the Organization's website.²⁸⁸

"[Lighthouse Youth & Family Services has] been absolutely wonderful to work with...They are the go-between for all the technical stuff that has to happen; the assessments, the prior written notices, the guidance, all of that comes from the service coordinator. That then lets the service provider really just focus on the outcomes and goals of those kids. It's great that they are there, because otherwise somebody has to wear all those hats, and families get terribly confused and don't know who to turn to."

-Staff Member at Hamilton County Developmental Disability Services

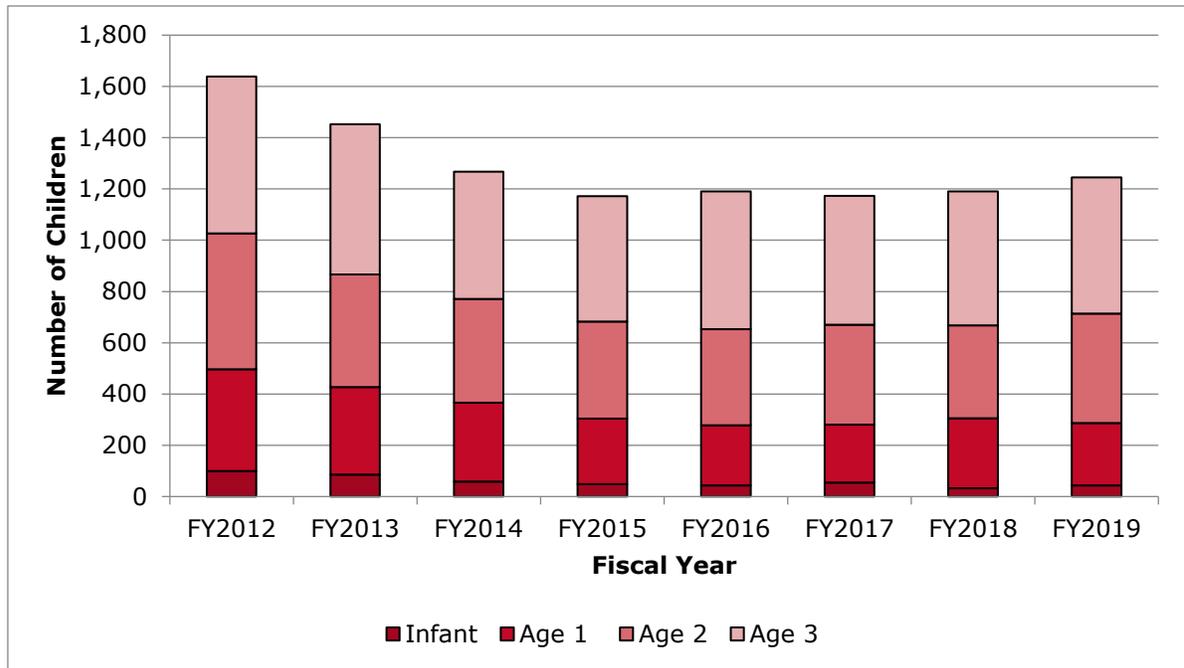
Demographic Data

Across FY2012 to FY2019, Lighthouse Youth & Family Services assisted 10,328 children with Early Intervention services.²⁸⁹ In FY2012, Early Intervention services were provided to 1,639 children. The next fiscal year, more than 1,400 children were assisted. In FY2019, a total of 1,245 children received Early Intervention services from Lighthouse Youth & Family Services. Ages of the children ranged from infancy (0 years) to 3 years, with the most common age of 3 in each fiscal year. Figure 1 details the number of children Lighthouse Youth & Family Services assisted with Early Intervention per fiscal year, as well as the breakdown by child age.

²⁸⁸ (Babies and Toddlers, 2019)

²⁸⁹ It is important to note however, that the total 10,328 children include those assisted over multiple fiscal years. In other words, if a child receives early intervention services in FY2012 and again in FY2013, then the child is counted twice, as being one child served in each fiscal year.

Figure 1: Number of Children Assisted Annually in Early Intervention by Age, FY2012-FY2019



Source: Data provided by Lighthouse Youth & Family Services.

Benefits and Costs of Lighthouse Youth & Family Services’ Early Intervention Program

Costs of Lighthouse Early Intervention Programs

The costs of the Early Intervention program across Fiscal Years 2012 to 2019 were provided by Lighthouse Youth & Family Services. Spending over this eight-year period totaled \$10.8 million, averaging approximately \$1.4 million per fiscal year. Table 57 below details the breakdown of Lighthouse Youth & Family Services’ Early Intervention program expenditures over this time period.

Table 57: Early Intervention Program Costs, FY2012-FY2019 (FY2018\$)

Program Costs (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Early Intervention	\$1.04	\$1.47	\$1.66	\$1.45	\$1.52	\$1.46	\$1.12	\$1.05	\$10.77

Source: Data provided by Lighthouse Youth & Family Services.

Benefits of Lighthouse Youth & Family Services' Early Intervention Program

While literature details benefits and outcomes of children up to age three receiving early intervention services, there is little literature conducting an extensive follow-up analysis of these children as well as providing quantified benefits. Further caveats include the provision of additional early intervention or special education services once the child reaches school age. In other words, children who had received early childhood intervention from infancy to age three may also receive educational services when they reach school age and beyond. As such, the Economics Center was not able to monetize these benefits due to literature limitations for this specific age group of children receiving early childhood intervention services.

"We [Lighthouse Youth & Family Services and Hamilton County Developmental Disability Services] are two separate organizations, but the staff works together in a team. And communication is always key between team members, so the fact that we do work well together and our supervisors have good communication amongst each other, then certainly they are helping. And it's reciprocal. Lighthouse [Youth & Family Services] is helping DDS and DDS is helping Lighthouse [Youth & Family Services] for each of them to do their jobs."

-Staff Member at Hamilton County Developmental Disability Services

Foster Care and Adoption

Many children periodically experience abuse and/or neglect, or instances where a parent/legal guardian's situation is impacting their quality of care. In many cases, according to Deutsch and Fortin (2015), maltreatment causes the child to be placed into foster care, which can result in unaddressed medical and psychological needs.²⁹⁰ Importantly, Peterson, Florence, and Klevens (2018) stated that child maltreatment incurred high costs, not only to the child, but to society.²⁹¹ Children placed in foster care typically experienced adverse circumstances and were at risk for poor health conditions.²⁹² According to Deutsch and Fortin (2015), in addition to abuse and/or neglect, children placed in foster care often experienced "homelessness, parental substance abuse, parental mental illness, pre-natal exposure to drugs, insufficient pre-

²⁹⁰ (Deutsch & Fortin, 2015)

²⁹¹ (Peterson, Florence, & Klevens, 2018)

²⁹² (Deutsch & Fortin, 2015)

natal care, prematurity, and/or family violence.”²⁹³ The study also stated that many of these adversities were related to poor health outcomes, which may continue into adulthood.²⁹⁴

According to Lighthouse Youth & Family Services’ website, when a child is removed from the home, “a court grants temporary custody to the public children’s services agency.”²⁹⁵ The caseworker then will try to place the child with a relative or a non-relative that has a relationship with the child or family.²⁹⁶ According to Lighthouse Youth & Family Services and the Ohio Department of Job and Family Services, if the caseworker is not able to place the child with a relative or close non-relative, the child is placed into a licensed foster care setting²⁹⁷ which may be a foster home, group home, or treatment facility.²⁹⁸ From the licensed foster care setting, the child may then be eventually reunited with their family, adopted, or remain in foster care until emancipation at age 18 (occasionally at age 21).²⁹⁹

Foster Care in Hamilton County

The Public Children Services Association of Ohio (PCSAO) provided information on youth in foster care in Hamilton County. In 2018, there were 3,407 children in foster care out of the 187,795 total number of children in Hamilton County, which equated to a placement rate of 18.1 children per 1,000. Of the number of children in the Hamilton County foster care system, 3.14 percent emancipated from foster care in 2018.³⁰⁰ The median number of days spent in the foster care system for these emancipated youth was 1,401 days, or approximately 3 years and 10 months.³⁰¹

Daily costs for foster care were provided by Lighthouse Youth & Family Services for the calendar years of 2014 through 2019. To calculate foster care rates for the calendar years of 2012 and 2013, the Economics Center adjusted (discounted) the 2014 data back to the years of 2012 and 2013, using the Consumer Price Index. The Economics Center converted the daily costs of foster care to monthly costs, as well as adjusted for inflation, to express the foster care costs in FY2018 dollars. Monthly foster care costs for one youth ranged from \$2,105 to \$2,153 (FY018\$) across FY2012 to FY2019.

Adoption

In addition to having lower costs than foster care,^{302, 303} adoption has been noted to provide higher levels of emotional security, sense of belonging, and general well-being for

²⁹³ (Deutsch & Fortin, 2015)

²⁹⁴ (Deutsch & Fortin, 2015)

²⁹⁵ (Foster Care and Adoption, 2019)

²⁹⁶ (Ohio Department of Jobs and Family Services, 2017)

²⁹⁷ (Foster Care and Adoption, 2019)

²⁹⁸ (Ohio Department of Jobs and Family Services, 2017)

²⁹⁹ (Ohio Department of Jobs and Family Services, 2017)

³⁰⁰ (Public Children Services Association of Ohio, 2019)

³⁰¹ (Public Children Services Association of Ohio, 2019)

³⁰² (Barth, Lee, Wildfire, & Guo, 2006)

children, according to Triseliotis (2002).³⁰⁴ Hansen (2007) reported that adopted children had higher IQs, higher educational attainment, and fewer hospital/ER visits, than foster care children.³⁰⁵ Hansen (2007) also found that adopted children were less likely to have a substance abuse issue or mental health issues, less likely to be suspended or expelled from school, and less likely to be delinquent or arrested.³⁰⁶ Furthermore, Hansen (2007) found that adopted children experienced lower unemployment rates, higher labor force participation rates, and lower rates of enrollment in public assistance programs.³⁰⁷

Emancipated Foster Youth

If children are not adopted or reunited with their families, they remain in foster care until they age out, or emancipate at the age of 18 (occasionally at age 21). When a child ages out of the foster system there are, as a result, many detrimental and avoidable costs to society due to adverse impacts for these youth. According to Courtney et al. (2007), youth who had emancipated out of the foster care system were more likely than their peers to experience homelessness, be involved in the criminal justice system, have lower educational attainment and higher unemployment rates, experience poverty, and lack basic healthcare coverage.³⁰⁸ These youth tended to have more physical and mental health problems, impaired cognitive development, and an increased likelihood of engaging in high-risk behaviors.³⁰⁹

In a study by Courtney et al. (2007), emancipated youth, at age 21, were compared to the general population of youth in the State of Wisconsin. According to the study, the majority of emancipated youth had a high school diploma or less, while approximately 70.9 percent had either no high school diploma or GED, or a high school diploma only. The general population group, in comparison, had higher levels of education, as 40.5 percent had either no high school diploma or GED, or a high school diploma only. With lower levels of educational attainment, the study found that emancipated youth had higher rates of unemployment and lower levels of earnings relative to the comparison group.³¹⁰

Courtney et al. (2007) also analyzed emancipated youth in the State of Illinois, at age 21, compared to the general population. In the Illinois study, most emancipated youth at age 21, (53.5%) had either no high school diploma or GED, or a high school diploma

³⁰³ The costs of foster care and adoption for similar children were compared over an 8-year period in North Carolina. Long-term foster care costs were found to be higher than adoption subsidies in per day costs, annualized cost, and estimated total costs.

³⁰⁴ (Triseliotis, 2002)

³⁰⁵ (Hansen, 2007)

³⁰⁶ (Hansen, 2007)

³⁰⁷ (Hansen, 2007)

³⁰⁸ (Courtney, et al., 2007)

³⁰⁹ (Courtney, et al., 2007)

³¹⁰ (Courtney, et al., 2007)

only.³¹¹ The general population group, in comparison, had higher levels of education, as 40.5 percent had either no high school diploma or GED, or a high school diploma only.³¹²

With employment outcomes, in the Wisconsin study, emancipated youth who were currently employed reported working a median of 40 hours per week earning \$8.65 per hour. The comparison group worked similar number of hours per week, however, earned 47 cents more per hour, with a median hourly wage of \$9.12 (2006\$).³¹³ This difference in earnings can be described as lost productivity. In other words, the difference of \$0.47 per hour in earnings, assuming full-time work, results in \$978 lost per year per youth (2006\$). Adjusting for inflation, this lost productivity equals \$0.58 per hour or \$1,207 annually (FY2018\$) per individual. In the Illinois study by Courtney et al. (2007), both groups worked 40 hours per week, however emancipated youth earned \$1.38 less per hour, or \$2,875 less annually (FY2018\$).³¹⁴

Further, the Wisconsin study by Courtney et al. (2007) found that rates of involvement in the criminal justice system were greater for emancipated youth than those in the general population.³¹⁵ On average at age 21, 50.5 percent of all emancipated youth had been arrested since age 18 compared to 4.0 percent of individuals in the comparison group. The study also noted that women formerly in foster care were more than twice as likely as their peers to have had a child by age 21.³¹⁶ The majority of emancipated females (70.6%) had been pregnant when interviewed at age 21, compared to 33.8 percent of general population youth.³¹⁷ Emancipated foster youth also had higher rates of hospitalizations, ER visits, and other negative health outcomes.³¹⁸ As such, a greater percentage of former foster youth had received psychological or emotional counseling and substance abuse treatment compared to the general population.³¹⁹ Similar findings were reported in the Illinois study by Courtney et al. (2007), as well, with emancipated youth at age 21 having higher rates of arrest, hospitalizations, ER visits, and pregnancy rates than the general population.³²⁰

These adverse outcomes experienced by emancipated youth have costs to society across the criminal justice and healthcare systems. Furthermore, these costs are avoided when youth are reunited with or adopted into families, instead of remaining in foster care and emancipating.

³¹¹ (Midwest Evaluation of the Adult Functioning of Former Foster Youth from Illinois: Outcomes at Age 21, 2007)

³¹² The comparison groups between the two Illinois and Wisconsin studies were the same.

³¹³ (Courtney, et al., 2007)

³¹⁴ (Midwest Evaluation of the Adult Functioning of Former Foster Youth from Illinois: Outcomes at Age 21, 2007)

³¹⁵ (Courtney, et al., 2007)

³¹⁶ (Courtney, et al., 2007)

³¹⁷ (Courtney, et al., 2007)

³¹⁸ (Courtney, et al., 2007)

³¹⁹ (Courtney, et al., 2007)

³²⁰ (Midwest Evaluation of the Adult Functioning of Former Foster Youth from Illinois: Outcomes at Age 21, 2007)

Lighthouse Youth & Family Services' Foster Care and Adoption Services

In Ohio every year, according to Lighthouse Youth & Family Services, approximately 16,000 children enter the foster care system, needing "stability, happiness, belonging, safety and love."³²¹ One way Lighthouse Youth & Family Services works to fulfill these needs for foster children, is by assisting adults in becoming foster care parents. Lighthouse Youth & Family Services supports and trains adults in the processes of becoming foster parents and offers continual assistance and resources for foster families. Lighthouse Youth & Family Services provides a variety of resources for new foster parents, such as support from Lighthouse Youth & Family Services staff, social workers, and other experienced foster parents as well as access to respite care and training services.³²² Lighthouse Youth & Family Services also reimburses foster parents for items such as school fees, clothing, and transportation mileage.³²³

Demographic Data

A total of 2,691 individuals were included in the Foster Care and Adoption category across the FY2012 to FY2019. Overall, the slight majority across the eight fiscal years identified themselves as black or African American (51.6%). The slight majority was also male (50.3%). The average number of days youth spent in foster care was 1,076 days, or approximately three years. Table 58 below details the number of individuals assisted by Lighthouse Youth & Family Services in the Foster Care and Adoption category, as well as demographic information, by fiscal year.

Table 58: Foster Care and Adoption Demographics, FY2012-FY2019

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Number of Children	331	324	323	378	362	398	269	306	2,691
% Male	44.11%	47.84%	46.75%	53.70%	54.42%	55.03%	49.07%	49.35%	50.32%
% Female	55.89%	52.16%	53.25%	46.30%	43.65%	43.72%	49.81%	50.00%	49.05%
% Gender Non-Conforming	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
% Transgender	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
% Other	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
% Unknown	0.00%	0.00%	0.00%	0.00%	1.93%	1.25%	1.12%	0.65%	0.63%
% Black/ African American	60.42%	52.47%	49.85%	53.97%	52.49%	52.26%	46.47%	42.81%	51.62%
% White/ Caucasian	30.21%	35.49%	36.22%	33.07%	32.60%	26.89%	20.82%	23.53%	30.10%
% Other Race/ Unknown	3.32%	6.17%	4.64%	5.29%	6.08%	10.05%	24.91%	27.45%	10.37%
% Multi or Bi-Racial	6.05%	5.87%	9.29%	7.67%	8.83%	10.80%	7.80%	6.21%	7.91%
Ave. days spent	642	663	751	713	1,799	2,545	398	609	1,076

Source: Data provided by Lighthouse Youth & Family Services.

³²¹ (Foster Care and Adoption, 2019)

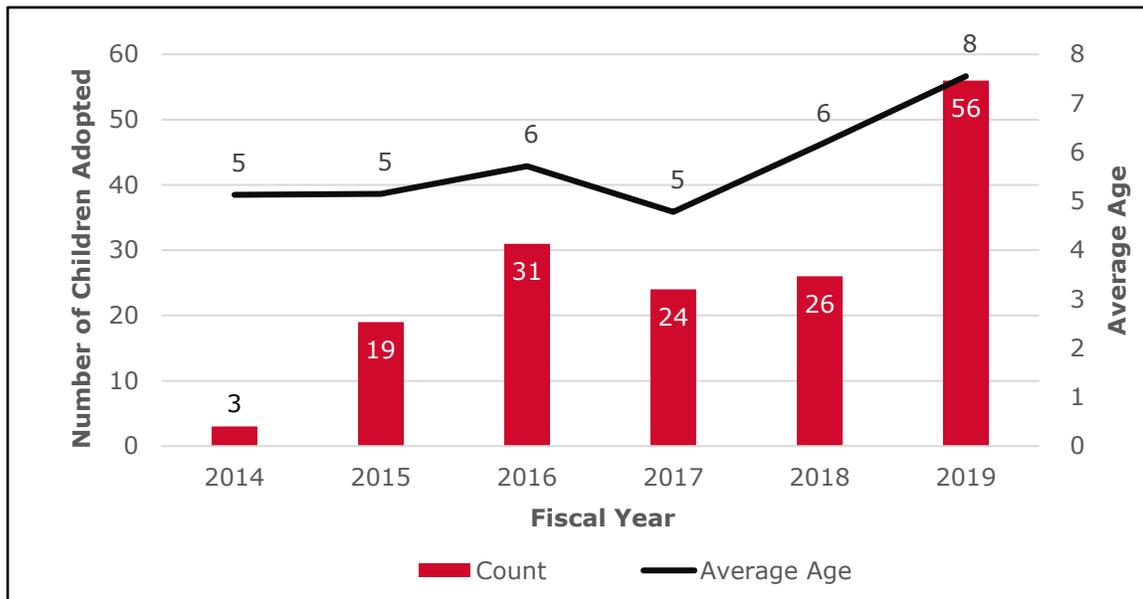
³²² (Foster Care and Adoption, 2019)

³²³ (Foster Care and Adoption, 2019)

Outcome Data

Across Fiscal Years of 2014 to 2019, a total of 159 children were adopted out of foster care. According to Lighthouse Youth & Family Services, there were no children adopted out of foster care through their services for FY2012 and FY2013. Ages of the children adopted ranged from infancy to age 18, with the overall average being 6 years old. Figure 2 shows the breakdown by fiscal year, of the number of children adopted from foster care, as well as the average age of the adopted children.

Figure 2: Number of Children Adopted Out of Foster Care, FY2014-FY2019



Source: Data provided by Lighthouse Youth & Family Services.

Benefits and Costs of Foster Care and Adoption

Costs of the Foster Care and Adoption Services

Data for FY2012 to FY2019 expenditures for foster care and adoption services were provided by Lighthouse Youth & Family Services. Total spending across these eight fiscal years was \$41.8 million, averaging \$5.2 million per fiscal year. Table 59 shows the breakdown per fiscal year of Lighthouse Youth & Family Services expenditures in providing foster care and adoption services.

Table 59: Foster Care and Adoption Program Costs, FY2012-FY2019, (FY2018\$)

Program Costs (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Foster Care and Adoption	\$4.48	\$4.80	\$5.06	\$5.06	\$5.90	\$6.66	\$5.43	\$4.45	\$41.84

Source: Data provided by Lighthouse Youth & Family Services.

Benefits of Foster Care and Adoption Services

As these children were adopted from foster care, they did not emancipate. As such, services provided by Lighthouse Youth & Family Services abated associated costs of foster care emancipation, such as lost productivity, justice system costs, healthcare costs, as well as the costs of remaining in foster care.

The Economics Center utilized the two midwest studies by Courtney et al. (2007), in Illinois³²⁴ and Wisconsin, as detailed in the literature review.³²⁵ Average percentages across the two studies and populations (former foster youth and comparison group) were calculated for arrests, productivity loss, general hospitalizations, hospital use due to pregnancy, and ER visits. Costs were then gathered for each type of outcome, via additional literature, to calculate the benefits or avoided costs. These cost numbers were then applied to the appropriate number of youth served by Lighthouse Youth & Family Services to derive the total avoided costs due to the Organization's services in this area.³²⁶

Costs of Remaining in Foster Care

In Hamilton County, the monthly costs of foster care for FY2012 to FY2019 was calculated using data provided by Lighthouse Youth & Family Services. The amount of time remaining in foster care for the adopted children was determined using data provided by Lighthouse Youth & Family Services. The Economics Center calculated the average ages of the children adopted per fiscal year, as shown in Figure 2. As children would otherwise have emancipated at age 18, the average age per fiscal year of youth adopted was subtracted by this number, to determine the average number of years to remain in foster care until emancipation. For example, in FY2014, the average age of 5 years old indicated that the adopted children would have 13 more years in foster care if they were to emancipate. The number of years were then converted into months, and the monthly costs of foster care applied.

However, it is important to note the total cost of remaining in foster care was not be applied to the total number of youth adopted each fiscal year, as it is not likely all youth would remain in foster care until emancipation. Therefore, using the 2018 Hamilton County emancipation rate of 3.14 percent,³²⁷ the Economics Center calculated the number of adopted Lighthouse Youth & Family Services youth per fiscal year, which would have otherwise emancipated from foster care if not adopted. For FY2014, the number of

³²⁴ (Midwest Evaluation of the Adult Functioning of Former Foster Youth from Illinois: Outcomes at Age 21, 2007)

³²⁵ The Illinois study was used in addition to the Wisconsin study in comparing emancipated youth to the general population in terms of arrest percentages, earnings, pregnancy rates, ER visits, and general hospitalizations. The Economics Center then used the average rates between the two studies to calculate the number of children likely to experience the respective outcomes.

³²⁶ In other words, as in the previous sections of this analysis, the appropriate number of Lighthouse youth each fiscal year likely to experience each outcome was calculated based on the differences in the average percentages of former foster youth and their peers, as provided by the two Midwest studies (Wisconsin and Illinois).

³²⁷ (Public Children Services Association of Ohio, 2019)

children likely to never be adopted/emancipate from foster care was zero, and therefore no (avoided) foster care costs were applied.³²⁸ For FY2015 through FY2018, it was estimated that one child in each fiscal year would never be adopted and remain in foster care until emancipation,³²⁹ and for FY2019, it was estimated that 2 youth would remain in foster care until emancipation.³³⁰ The total foster care cost³³¹ per fiscal year was applied to the number of children likely to never be adopted, or leave the system until emancipation.

Total foster care costs ranged from \$0 to \$539,830 per fiscal year,³³² as shown in Table 60.³³³ As these children were adopted due to Lighthouse Youth & Family Services' services, however, these foster care costs can be described as avoided costs. Across the eight fiscal years, total avoided foster care costs totaled more than \$1.8 million.

Table 60: Foster Care System Costs Avoided, FY2012-FY2019 (FY2018\$)

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Number of Youth to Remain in Foster Care until Emancipation	0	0	0	1	1	1	1	2	6
Foster Care Costs	\$0	\$0	\$0	\$326,091	\$311,706	\$341,492	\$306,180	\$539,830	\$1,825,299

Source: Economics Center calculations using data provided by Lighthouse Youth & Family Services, PCSAO, and the Ohio Department of Job and Family Services.

Criminal Justice System Costs

As in the previous juvenile justice sections, the Economics Center utilized criminal justice system costs in Washington state from Aos et al. (2001).³³⁴ Cost numbers were adjusted to the State of Ohio, using the Bureau of Economic Analysis RPPs,³³⁵ as well as for inflation to be expressed in FY2018 dollars. The average costs for incarceration, arrest,

³²⁸ As 3.14 percent of 5 youth was estimated at zero. In other words, it is likely all 5 youth would have left foster care before they emancipated at age 18; as the emancipation rate was 3.14 percent.

³²⁹ For FY2015, 20 youth were adopted, and 3.14 percent would remain in foster care until emancipation; or 1 youth, as 3.14 percent * 20 youth = approximately 1 youth. The same calculation was done for FY2016 (34 youth adopted), FY2017 (20 youth adopted), and FY2018 (35 youth adopted).

³³⁰ In FY2019, 52 youth were adopted according to Lighthouse data. 52 youth * 3.14 percent = approximately 2 youth remaining in foster care and never being adopted/leaving foster care.

³³¹ The total foster care cost per fiscal year was calculated as the monthly cost of multiplied by the number of months until emancipation at age 18, using the average age of youth adopted per fiscal year.

³³² This wide range is attributed to differences in the number of youth likely to never be adopted, as well as differences in the length of time (in months) youth stay in foster care until emancipation.

³³³ For FY2012 and FY2013, there were no children adopted according to the data provided by Lighthouse Youth & Family Services. As such, data for these two years are marked with zeros. In FY2014 however, three children were adopted according to data provided by Lighthouse Youth & Family Services. However, zero of these children were estimated to remain in foster care until emancipation.

³³⁴ (Aos S. , Phipps, Barnoski, & Lieb, 2001)

³³⁵ (Bureau of Economic Analysis, 2017)

and court costs for one individual after all calculations were completed were \$26,291 (FY2018\$).

Using the average percentages of arrest rates at age 21 from the two Midwest studies (47.9% of former foster youth vs. 4.0% of non-foster peers had been arrested since age 18), the Economics Center calculated the number of youth to apply criminal justice system costs to per fiscal year. The difference in percentages between former foster youth and the general population at age 21 was estimated at 43.9 percentage points. The Economics Center then applied these 43.9 percentage points to the number of youth adopted each fiscal year to determine the number of youth that avoided arrest, as they were adopted. Once the number of youth avoiding arrest was calculated, the Economics Center applied the annual criminal justice system cost (\$26,291 in FY2018\$).

Total criminal justice system costs avoided ranged from approximately \$26,291 in FY2014 to \$657,271 in FY2019, as detailed in Table 61.³³⁶ Total criminal justice system costs across the eight fiscal years amounted to approximately \$1.8 million in costs avoided.

Table 61: Criminal Justice System Costs Avoided, FY2012-FY2019 (FY2018\$)

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Number of Youth Avoiding Arrest	0	0	1	8	14	11	11	25	70
Arrest Costs Avoided	\$0	\$0	\$26,291	\$210,327	\$368,072	\$289,199	\$289,199	\$657,271	\$1,840,359

Source: Economics Center calculations using data provided by Lighthouse Youth & Family Services, Aos et al. (2001), and Courtney et al (2007) Midwest Studies.

Productivity

The two Midwest studies by Courtney et al. (2007) for Illinois and Wisconsin were also used to calculate lost productivity. Results from both studies showed that emancipated foster youth, when compared to their non-foster peers at age 21, earned less in hourly wages. For the Wisconsin former foster group, the median hourly wage was \$10.79 compared to \$11.37 for the non-foster comparison group (2018\$), while in the Illinois study, former foster youth earned a median of \$9.98 per hour compared to \$11.37 per hour for the comparison group (2018\$). On average across the two studies, this translated to former foster youth earning \$0.99 less per hour, or \$2,062 per year (2018\$).³³⁷

The annual earnings calculated from each study were then regionally adjusted from Illinois or Wisconsin respectively, to the State of Ohio using the BEA's RPPs.³³⁸ Former foster youth in Ohio were calculated to earn \$20,156 annually, while non-foster youth earned \$22,053, after these adjustments were made for a difference of \$1,897 in

³³⁶ For FY2012 and FY2013, there were no children adopted according to the data provided by Lighthouse Youth & Family Services. As such, data for these two years are marked with zeros.

³³⁷ Assuming full-time work at 40 hours per week, and 52 weeks per year.

³³⁸ (Bureau of Economic Analysis, 2017)

earnings (2018\$). These dollars then were adjusted to be expressed in FY2018 dollars, which equated to \$1,878 dollars (FY2018).³³⁹

The Economics Center used labor force participation and unemployment rates for individuals age 21 to 65 in Hamilton County from IPUMS. The labor force and unemployment rates for FY2014 to FY2019 were calculated for each age increment, assuming a retirement age of 65 years old.³⁴⁰ Including these two rates were necessary as the total number of youth assisted in each fiscal year may not be actively participating in the labor force and/or may be unemployed in the future.

For the first age increment, age 21 to 26, the labor force participation rate for FY2019 was 83.5 percent, while the unemployment rate for individuals in Hamilton County was 7.9 percent.³⁴¹ Based on these rates, of the 56 children adopted in FY2019, 43 youth are estimated to participate in the labor force and be employed when age 21 to 26.³⁴² The lost earnings of \$9,390³⁴³ was then multiplied by the 43 youth impacted, for a total of approximately \$404,000. This \$404,000 in earnings can be viewed as avoided productivity loss at age 21 to 26, since the children did not remain in foster care, but rather, were adopted.

Calculations for the remaining fiscal years were done in the same methodology as described above, as well as for the remaining age increments. To calculate the total lifetime earnings per fiscal year, the earnings by age increment were added together to derive the total lifetime earnings saved as a result of Lighthouse Youth & Family Services' services. Total lifetime productivity costs avoided ranged from \$172,776 in FY2014 to \$3.0 million in FY2019, as shown in Table 62. Across all eight fiscal years, lifetime productivity loss avoided totaled approximately \$8.5 million.

³³⁹ This annual FY2018 amount was then multiplied by the number of years in age increments to determine total earnings, as labor force participation and unemployment rates were estimated in age increments, below. The five-year earnings amount was used for the age increments between age 21 and 63 and was estimated as \$9,390 (FY2018\$). For the final age increment between 63 and 65 years old, two-year earnings were used, which was \$3,756 (FY2018\$).

³⁴⁰ These age increments were age 21 to 26; age 27 to 32; age 33 to 38; age 39 to 44; age 45 to 50; age 51 to 56; age 57 to 62; and, age 63 to 65.

³⁴¹ The Economics Center calculated labor force participation and unemployment rates for each fiscal year based on annual data from IPUMS. For FY2014, the average of the 2013 and 2014 rates were used; and so on for the remaining fiscal years. For FY2018 and FY2019, rates were assumed to be the same as FY2017 as this was the most recent data available from IPUMS.

³⁴² This calculation was 56 adopted youth * 83.5 percent labor force participation = 47 youth participating in the labor force. These 47 youth * 7.9 percent unemployment rate = 4 youth unemployed. Therefore, a total of 43 youth are expected to be employed and active in the labor force when age 21 to 26.

³⁴³ The five-year earnings for the age increments of 21 to 26 and was estimated at \$9,390 (FY2018\$); from the annual \$1,878 (FY2018\$).

Table 62: Avoided Lost Lifetime Productivity, FY2012-FY2019 (FY2018\$)

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Lifetime Productivity	\$0	\$0	\$172,776	\$985,950	\$1,628,226	\$1,275,162	\$1,395,354	\$3,006,678	\$8,464,146

Source: Economics Center calculations using data provided by Lighthouse Youth & Family Services, IPUMS, and Courtney et al. (2007) Midwest Studies.

Physical Health

Physical health costs for emancipated foster youth comprises pregnancy-related hospital stays, ER visits, and general hospitalizations. In all types of stays, emancipated youth had higher percentages of hospital utilizations, and therefore higher physical health costs, than their peers. In terms of the costs of each type of hospital utilization, the Economics Center gathered data from a number of studies. Xu et al. (2015) found that the median facility cost per maternity stay was \$4,215.³⁴⁴ Adjusted for inflation using the medical CPI, the median cost per maternity stay is \$4,973 in FY2018 dollars. For ER Visits, Caldwell et al. (2013) used 2006-2008 data from the Medical Expenditure Panel Survey (MEPS) and examined ER costs for the ten most frequent outpatient diagnoses (sprains, other injuries, and open wounds of extremities).³⁴⁵ The study reported that the median charge for outpatient conditions in the emergency department was \$1,233.³⁴⁶ This amount, when adjusted for inflation, is \$1,407 in FY2018 dollars. Finally, Pfuntner et al. (2006) reported the average hospital charge per stay for general hospitalizations, for the age group of 18 to 44 years old.³⁴⁷ Adjusted to FY2018 dollars, this amount is \$9,053 (FY2018\$).

Estimates of the likelihood of former foster youth and comparison youth accessing hospitals for each type of use were calculated using data from the two Midwest Studies for Illinois and Wisconsin. For pregnancy-related hospitalizations, the average percent of former foster youth ever pregnant was 71.4 percent compared to 33.8 percent of non-foster youth, across the two studies. The percentage of former foster youth utilizing ER services was also higher than the general population, with a 9.4 percentage point difference. Most former-foster youth (68.4%) had at least one ER visit over a five-year period, compared to 59.0 percent of non-foster youth, on average across the two studies; and 37.5 percent had at least one general hospitalization during the past five years, compared to 20.6 percent of the comparison population.

These percentage points were applied to the number of children adopted each fiscal year, to determine the number of youth avoiding medical costs associated with a maternity stay, ER visit, and general hospitalization. The FY2018 costs per maternity stay (\$4,973),

³⁴⁴ (Xu, et al., Wide variation found in hospital facility costs for maternity stays involving low-risk childbirth, 2015)

³⁴⁵ (Caldwell, Srebotnjak, Wang, & Hsia, How much will I get charged for this?" Patient charges for top ten diagnoses in the emergency department, 2013)

³⁴⁶ (Caldwell, Srebotnjak, Wang, & Hsia, How much will I get charged for this?" Patient charges for top ten diagnoses in the emergency department, 2013)

³⁴⁷ (Pfuntner, Wier, & Steiner, 2006)

ER visit (\$1,407) and general hospitalization (\$9,053) were applied to the number of children estimated to avoid such instances.

Table 63 below shows the estimated number of youth that the medical costs (maternity stay, ER visits, and general hospitalization costs) were attributed to, as well as the total healthcare system costs per fiscal year in terms of maternity stay, ER visit, and general hospitalizations. These costs, as in the previous sections, can be viewed as avoided costs due to services provided by Lighthouse Youth & Family Services. As these youth were adopted and did not emancipate from foster care, these costs were avoided. Total healthcare system costs avoided ranged from \$14,000 in FY2014 to \$143,000 in FY2019, for a total cost savings of approximately \$414,000.

Table 63: Healthcare System Costs Avoided, FY2012-FY2019 (FY2018\$)

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Number of Youth Avoiding Maternity Stay	0	0	1	4	6	5	5	11	32
Maternity Stay Costs	\$0	\$0	\$4,973	\$19,892	\$29,838	\$24,865	\$24,865	\$54,703	\$159,136
Number of Youth Avoiding ER visit	0	0	0	2	3	2	2	5	14
ER Visit Costs	\$0	\$0	\$-	\$2,814	\$4,221	\$2,814	\$2,814	\$7,035	\$19,698
Number of Youth Avoiding Hospitalization	0	0	1	3	5	4	4	9	26
Hospitalization Costs	\$0	\$0	\$9,053	\$27,159	\$45,265	\$36,212	\$36,212	\$81,477	\$235,378
Total Healthcare System Costs	\$0	\$0	\$14,026	\$49,865	\$79,324	\$63,891	63,891	\$143,215	\$414,212

Source: Economics Center calculations using data provided by Lighthouse Youth & Family Services, Courtney et al. (2007) Midwest Studies, Xu et al. (2015), Pfuntner et al. (2006), and Caldwell et al. (2013).

Total Costs Avoided

The total costs avoided for adopted youth assisted by Lighthouse Youth & Family Services is shown in Table 64, which includes foster care, criminal justice, healthcare, and productivity costs associated with emancipation from the foster care system as described in the above sections. Additional benefits or costs avoided for youth were not able to be monetized, such as improved well-being by being placed in foster care, and being removed from situations of abuse and neglect. While these benefits exist, literature and/or data necessary to monetize the benefits were not available.

Total avoided costs ranged from \$213,000 in FY2014 to \$4.3 million in FY2019. Total costs avoided across the eight fiscal years amounted to approximately \$12.5 million.

Table 64: Total Foster Care and Adoption Total Costs Avoided, FY2012-FY2019 (FY2018\$)

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total (\$M)
Foster Care	\$0	\$0	\$0	\$326,091	\$311,706	\$341,492	\$306,180	\$539,830	\$1.8
Criminal Justice System	\$0	\$0	\$26,291	\$210,327	\$368,072	\$289,199	\$289,199	\$657,271	\$1.8
Lifetime Productivity	\$0	\$0	\$172,776	\$985,950	\$1,628,226	\$1,275,162	\$1,395,354	\$3,006,678	\$8.5
Healthcare System	\$0	\$0	\$14,026	\$49,865	\$79,324	\$63,891	\$63,891	\$143,215	\$0.4
Total	\$0	\$0	\$213,093	\$1,572,233	\$2,387,328	\$1,969,744	\$2,054,624	\$4,346,994	\$12.5

Source: Economics Center calculations using data provided by Lighthouse Youth & Family Services, PCSAO, the Ohio Department of Job and Family Services, Aos et al. (2001), IPUMS, Courtney et al. (2007) Midwest Studies, Xu et al. (2015), Pfuntner et al. (2006), and Caldwell et al. (2013).

Homeless Youth Services

The U.S. Department of Housing and Urban Development (HUD) defines homelessness as, “an individual or family who lacks or will lose a fixed, regular, and adequate nighttime residence.”³⁴⁸ Youth under the age of 25 and those fleeing from domestic violence are also included in this category.³⁴⁹

The lack of affordable housing combined with low income families/individuals were the primary causes of family and youth homelessness, according to a 2003 study by Julianelle and Foscarinis.³⁵⁰ This shortage of affordable housing contributed to individuals and families either living out of shelters, with friends/family, or being homeless.³⁵¹ The study noted that over time, housing prices had increased while wages had not increased proportionally. High prices for housing caused lower income families to spend a larger portion of their income on rent.³⁵² This phenomenon resulted in families not being able to save for other life events or pay bills.³⁵³

Youth, specifically, tended to become homeless due to fleeing their residential circumstances, such as abuse or other family dysfunction, according to Julianelle and Foscarinis (2003).³⁵⁴ A 2016 study by the Administration for Children and Families and the Family and Youth Services Bureau on the Street Outreach Program³⁵⁵ found that the more common reasons youth became homeless for the first time were that they were

³⁴⁸ (U.S. Department of Housing and Urban Development, 2019)

³⁴⁹ (U.S. Department of Housing and Urban Development, 2019)

³⁵⁰ (Julianelle & Foscarinis, 2003)

³⁵¹ (Julianelle & Foscarinis, 2003)

³⁵² (Julianelle & Foscarinis, 2003)

³⁵³ (Julianelle & Foscarinis, 2003)

³⁵⁴ (Julianelle & Foscarinis, 2003)

³⁵⁵ (Whitbeck, Lazowitz, Crawford, & Hautala, 2016)

asked to leave by the people they were living with (51.2%), they could not find employment (24.7%), and/or they were physically abused or beaten (23.8%).^{356,357} Some youth also experienced family conflict and lack of acceptance, such as with LGBTQ+ youth. Ray (2006) reported that 20.0 to 40.0 percent of the homeless youth population identified as LGBTQ+.³⁵⁸ Furthermore, more than half (57.0%) of runaway and homeless LGBTQ+ youth reported being rejected and kicked out of their homes as a result of their gender identity or sexual orientation, according to Remafedi (1987).³⁵⁹

This section focuses on homeless youth and the impacts of being homeless for youth as well as to society. Utilizing various sources of data and academic literature provided a foundation to analyze these personal and societal impacts. The literature showed that homeless youth experience a variety of negative impacts as a result of their environments and conditions. In addition to lacking adequate shelter, homeless individuals also experienced increased medical costs,³⁶⁰ involvement with the justice system,³⁶¹ low educational attainment,³⁶² and utilization of public assistance programs.³⁶³ All of these impacts, in turn, have large economic consequences that are borne by the individual and community as a whole.

The following sections detail specific costs associated with caring for the unsheltered homeless population in terms of healthcare services, and impact on educational attainment and subsequent lifetime earnings.

Homeless Shelter Costs

Lighthouse Youth & Family Services' youth housing programs provide shelter and emergency shelter services for youth and young adults. Shelter costs avoided however were not monetized in this report. It was noted that Lighthouse Youth & Family Services program costs tended to be higher than a typical homeless shelter, due to the structure of services provided to youth. However, in providing youth safe and stable housing, Lighthouse Youth & Family Services assists youth in avoiding instances of unsheltered homelessness, and thereby avoiding the subsequent associated costs of unsheltered homelessness.

Health

Homeless individuals often suffer from mental health and physical health-related issues, as a result of housing instability, according to many literature sources. According to Lin et al. (2015), as individuals prioritized food and shelter, less attention was devoted to

³⁵⁶ The analysis examined March 2013 through September 2013 data, across 11 cities in the United States, on 656 homeless youth between the ages of 14 and 21.

³⁵⁷ (Whitbeck, Lazoritz, Crawford, & Hautala, 2016)

³⁵⁸ (Ray, 2006)

³⁵⁹ (Remafedi, 1987)

³⁶⁰ (Lin, Bharel, Zhang, O'Connell, & Clark, 2015)

³⁶¹ (Whitbeck, Lazoritz, Crawford, & Hautala, 2016)

³⁶² (Whitbeck, Lazoritz, Crawford, & Hautala, 2016)

³⁶³ (Whitbeck, Lazoritz, Crawford, & Hautala, 2016)

medical care.³⁶⁴ Isaacs (2012) noted that housing instability had negative impacts on physical and mental health for all involved.³⁶⁵ Stable housing, on the other hand, has been shown to be correlated with positive health outcomes such as better nutrition and healthier body weight, according to Lovell and Isaacs (2008).³⁶⁶

Lin et al. (2015) reported that many homeless individuals tended to be uninsured and/or did not have a primary care doctor, leading them to rely on emergency departments and hospitals for medical care.³⁶⁷ The homeless population was more likely to develop severe and life-threatening illnesses throughout their lifetimes, than those with stable housing, according to Turnbull et al. (2007).³⁶⁸ Homeless individuals more commonly suffered from infections, substance abuse, and other illnesses than those with stable housing may not have suffered from as frequently.³⁶⁹ Homeless individuals also tended to participate in activities such as violence, sexual exploitation, and addiction, according to Turnbull et al. and were six to seven times more likely to develop problems with alcohol than the general population.³⁷⁰

For youth specifically, Whitbeck et al. (2016), analyzed data from March to November 2013 for 650 individuals experiencing homelessness between the ages of 14 to 21 across 11 different cities in the United States. The study found that many youth living on the streets were suffering from depressive symptoms (61.8%), and/or had used alcohol (88.6%) and marijuana (79.0%) at least once in their lifetimes.³⁷¹ Additionally, 71.7 percent reported having experienced major trauma at some point in their lives (defined as witnessing or being a victim of violence, and/or physical or sexual abuse).³⁷² More than a quarter of the survey respondents reported engaging in sexual behavior in exchange for a place to spend the night (27.5%), while 24.1 percent did so for money. Nearly half of the female respondents reported ever being pregnant (47.3%).³⁷³

Julianelle and Foscarinis (2003) reported negative health outcomes for homeless youth. The study found that homeless youth were more likely to suffer from negative health outcomes such as ear infections, speech impediments, and were more likely to be asthmatic.³⁷⁴ The study also stated that youth often suffered emotionally as well as medically, as a result of housing instability, with issues such as depression, withdrawal, and/or anxiety.³⁷⁵ These findings were supported by Menke and Wagner (1997), which detailed health outcomes for homeless youth, as well as previously homeless youth, and youth never homeless, for ages 8 to 12, specifically. Survey results reported that homeless youth more often faced instances of depression, behavioral problems, asthma,

³⁶⁴ (Lin, Bharel, Zhang, O'Connell, & Clark, 2015)

³⁶⁵ (Isaacs, 2012)

³⁶⁶ (Lovell & Isaacs, 2008)

³⁶⁷ (Lin, Bharel, Zhang, O'Connell, & Clark, 2015)

³⁶⁸ (Turnbull, Muclke, & Masters, 2007)

³⁶⁹ (Turnbull, Muclke, & Masters, 2007)

³⁷⁰ (Turnbull, Muclke, & Masters, 2007)

³⁷¹ (Whitbeck, Lazoritz, Crawford, & Hautala, 2016)

³⁷² (Whitbeck, Lazoritz, Crawford, & Hautala, 2016)

³⁷³ (Whitbeck, Lazoritz, Crawford, & Hautala, 2016)

³⁷⁴ (Julianelle & Foscarinis, 2003)

³⁷⁵ (Julianelle & Foscarinis, 2003)

and allergies in general, than youth who were never homeless.³⁷⁶ Persistent medical conditions such as these require a higher amount of medical services, as well, further burdening the healthcare system. This results in increased healthcare services utilization and thereby increased costs in the medical industry.

Oftentimes, according to Lin et al. (2015) and Fryling et al. (2015), homeless individuals were enrolled in public health insurance such as Medicaid or were completely uninsured, which placed burdens on taxpayers and society.^{377,378} In turn, the healthcare market was impacted due to the increased and additional medical services necessary to care for homeless individuals. Hospitals incurred increased expenditures due to longer and more intensive medical/emergency department visits from homeless individuals, according to Salit et al. (1998).³⁷⁹ Longer lengths of stay for the homeless may have been attributed to the fact that medical professionals did not want to release an individual without a stable place to live or recover, according to Miguel (2018).³⁸⁰ The study found that without a proper place to heal and/or rest, an individual's illness could have potentially led to re-admission or even a more severe medical condition.³⁸¹

Salit et al. (1998) examined hospitalizations of homeless individuals in New York City using data from 1992-1993.³⁸² Of the total number of admissions of homeless individuals, approximately 52.0 percent were admitted for treatment of substance abuse or mental illness (28.5% for substance abuse and 23.0% for mental illness), compared to a total of 18.4 percent of public hospital patients and 27.2 percent of private hospital patients.³⁸³ In terms of length of stay, homeless individuals stayed on average 4 days, or 36.0 percent longer, per admission, than the other two categories of patients combined.³⁸⁴ The cost of the additional days per discharge averaged \$2,414 (1997\$).³⁸⁵ In other words, treating homeless individuals cost society an average of \$2,414 more per patient, than if the individual had stable housing.³⁸⁶ Adjusted for inflation, as well as regionally, the additional cost for treating homeless patients in the State of Ohio in FY2018 dollars was estimated at \$3,789.

Involvement in the Criminal Justice System

Research has found that many homeless youth had contact with law enforcement, were involved in gang activity, and/or carried weapons for protection. Whitbeck et al. (2016)³⁸⁷

³⁷⁶ (Menke & Wagner, 1997)

³⁷⁷ (Lin, Bharel, Zhang, O'Connell, & Clark, 2015)

³⁷⁸ (Fryling, Mazanec, & Rodriguez, 2015)

³⁷⁹ (Salit, Kuhn, Hartz, Vu, & Mosso, 1998)

³⁸⁰ (Miguel, 2018)

³⁸¹ (Miguel, 2018)

³⁸² (Salit, Kuhn, Hartz, Vu, & Mosso, 1998)

³⁸³ (Salit, Kuhn, Hartz, Vu, & Mosso, 1998)

³⁸⁴ (Salit, Kuhn, Hartz, Vu, & Mosso, 1998)

³⁸⁵ (Salit, Kuhn, Hartz, Vu, & Mosso, 1998)

³⁸⁶ (Salit, Kuhn, Hartz, Vu, & Mosso, 1998)

³⁸⁷ Whitbeck et al. (2016), analyzed data from March to November 2013 for 650 individuals experiencing homelessness between the ages of 14 to 21 across 11 different cities in the United States.

found that 77.8 percent of study participants had at least one interaction with the police, while more than half (61.8%) had been arrested at some point in their lifetimes.³⁸⁸ The study reported that two-thirds of youth (61.8%) had carried a gun or knife for protection while 29.0 percent stated they had participated in gang activity at some point in their lives.³⁸⁹

Educational Attainment and Income

Youth experiencing homelessness also tended to be negatively impacted in terms of academic performance and educational attainment. In the survey analysis by Whitbeck et al. (2016),³⁹⁰ youth experiencing homelessness most commonly had obtained a high school diploma or GED (46.8%), while approximately one-quarter had completed 11th grade (25.7%).³⁹¹ At the time of the survey, more than half of respondents (52.4%) were not currently enrolled in any type of educational program or school.³⁹²

Homeless youth also move schools more frequently than their non-homeless counterparts. Julianelle and Foscarinis (1999) reported that 41.0 percent of homeless youth attended two high schools in a school year and 28.0 percent attended three or more high schools in a school year.³⁹³ The study concluded that due to moving into different school districts homeless youth were less likely to build relationships with other youth. This instability caused these students to score lower on standardized tests and have lower academic achievements compared to other students remaining in one school.³⁹⁴

According to Education Leads Home (2019), the average graduation rate for the 2017-2018 school year for homeless youth in the State of Ohio was 60.3 percent, compared to the State's overall average of 84.3 percent.³⁹⁵ In other words, across the State, homeless youth's graduation rate was 24.0 percentage points below that of all students for the 2017-2018 school year. When a youth's academic progress is impacted, and/or they do not graduate high school as a result of homelessness, their future employment opportunities, earnings, and contribution to the state and local tax bases are also impacted.

In terms of employment and public assistance receipt for homeless youth, Whitbeck et al. (2016), in their analysis of homeless youth ages 14 to 21,³⁹⁶ found that 6.3 percent of

³⁸⁸ (Whitbeck, Lazoritz, Crawford, & Hautala, 2016)

³⁸⁹ (Whitbeck, Lazoritz, Crawford, & Hautala, 2016)

³⁹⁰ Whitbeck et al. (2016), analyzed data from March to November 2013 for 650 individuals experiencing homelessness between the ages of 14 to 21 across 11 different cities in the United States.

³⁹¹ (Whitbeck, Lazoritz, Crawford, & Hautala, 2016)

³⁹² (Whitbeck, Lazoritz, Crawford, & Hautala, 2016)

³⁹³ (Julianelle & Foscarinis, 2003)

³⁹⁴ (Julianelle & Foscarinis, 2003)

³⁹⁵ (Education Leads Home Releases Homeless Student State Snapshots, 2019)

³⁹⁶ Whitbeck et al. (2016), analyzed data from March to November 2013 for 650 individuals experiencing homelessness between the ages of 14 to 21 across 11 different cities in the United States.

respondents were employed full-time, while 16.7 percent had part-time employment, and 5.0 percent had enlisted in the military.³⁹⁷ Public assistance or state vouchers were the most common source of income for the prior month for half (50.1%) of youth in the study.³⁹⁸ The second most common source of income reported was the completion of “chores or other odd jobs” for money (41.4%).³⁹⁹

Lighthouse Youth & Family Services’ Homeless Youth

Services

Lighthouse Youth & Family Services offers many housing and shelter programs and services to youth in Hamilton County, including the Safe and Supported program, Mecum House, the Sheakley Center for Youth, Street Outreach, Independent Living, as well as Transitional Living, Rapid Re-housing, and Permanent Supportive Housing programs.

“So I think [Lighthouse Homeless Youth Services] impacts the community because we have less homeless people in our community. So if we have less homeless people in the community, what that means is these young people are working. So they are contributing positively to the economy and the community. They are more positive citizens in the community, they are probably effectively not depending on mainstream benefits as much, and so as an overall impact, that’s our goal. To teach them and to bring them out of generational poverty is our goal.”

-Lighthouse Youth & Family Services Homeless Youth Services Staff Member

Safe and Supported

Lighthouse Youth & Family Services’ Safe and Supported program assists in preventing and ending LGBTQ+ homelessness in Hamilton County, through Cultural Competency Training and Host Homes.⁴⁰⁰

³⁹⁷ (Whitbeck, Lazoritz, Crawford, & Hautala, 2016)

³⁹⁸ (Whitbeck, Lazoritz, Crawford, & Hautala, 2016)

³⁹⁹ (Whitbeck, Lazoritz, Crawford, & Hautala, 2016)

⁴⁰⁰ (Safe and Supported, 2019)

LGBTQ+ Cultural Competency Training

Lighthouse Youth & Family Services' Cultural Competency Training is a free service for youth-serving professionals and organizations, on the topic of providing supportive care to LGBTQ+ youth.⁴⁰¹ This training helps to "ensure wherever LGBTQ youth go for care, they feel welcomed and affirmed,"⁴⁰² according to Lighthouse Youth & Family Services. Training objectives include learning about and identifying risks and challenges LGBTQ+ youth, their families, and/or caregivers face, as well as increasing competency in discussions about sexual orientation and gender identity of LGBTQ+ youth.⁴⁰³ In addition to training services, Lighthouse Youth & Family Services' Safe and Supported program offers technical assistance to organizations and assistance in updating policies or forms.⁴⁰⁴

Since October of 2016, Lighthouse Youth & Family Services has provided Cultural Competency Training to hundreds of youth-serving professionals each year. From October 2016 to March 2018, Lighthouse Youth & Family Services trained a total of 1,200 professionals and foster parents.⁴⁰⁵ From July 2018 to July 2019, an additional 645 individuals received training, and from July 2019 to February 2020, Lighthouse Youth & Family Services provided training to 773 individuals.⁴⁰⁶ In FY2019, the Safe and Supported program trained a total of 636 professionals.⁴⁰⁷

From survey evaluations of the training program, participants stated that after the training session, they were more confident in their abilities to support LGBTQ+ youth. In a pre-training evaluation provided by Lighthouse Youth & Family Services (from October 2016 to April 2019), 18.1 percent of respondents felt very confident in their abilities. Post-training, however, 34.1 percent of respondents stated they were very confident.⁴⁰⁸

In a separate survey analysis provided by Lighthouse Youth & Family Services (with data from October 2016 to July 2017), respondents effectively learned and understood the risks and challenges LGBTQ+ youth face. Before the training, 21.5 percent of respondents stated they strongly agreed that they know the challenges LGBTQ+ youth face, while post-training, 50.2 percent of respondents stated they strongly agreed. Similar results were found when asked if respondents understood their role in supporting and caring for LGBTQ+ youth (24.0% pre-training and 52.9% post-training). Proficiency in certain skills also increased after training completion, such as in the topics of LGBTQ+ terminology, sexual orientation and gender identity, homelessness, violence, and discrimination.⁴⁰⁹

⁴⁰¹ (Safe and Supported, 2019)

⁴⁰² (Safe and Supported, 2019)

⁴⁰³ (LGBTQ Cultural Competency Training, 2019)

⁴⁰⁴ (LGBTQ Cultural Competency Training, 2019)

⁴⁰⁵ Information provided by Lighthouse Youth & Family Services.

⁴⁰⁶ Information provided by Lighthouse Youth & Family Services.

⁴⁰⁷ Information provided by Lighthouse Youth & Family Services.

⁴⁰⁸ Information provided by Lighthouse Youth & Family Services.

⁴⁰⁹ Information provided by Lighthouse Youth & Family Services.

Safe and Supported Host Homes

Lighthouse Youth & Family Services' Safe and Supported Host Homes program serves LGBTQ+ youth between 18 and 24 years old currently experiencing or at-risk of homelessness.⁴¹⁰ Safe and stable housing is provided through the program, via community members volunteering their homes.⁴¹¹ Hosts provide not only shelter to the youth, but also food and mentorship/coaching.⁴¹² Lighthouse Youth & Family Services provides hosts with training, support services, and stipends to provide resources or services for the youth during their time in the program.⁴¹³

Demographic Data

Data for FY2017 to FY2019 on youth and young adults supported by the Host Homes program were provided by Lighthouse Youth & Family Services. Prior to the FY2016, services in the Safe and Supported program were not provided to young adults, and there were no data available for FY2016. In FY2017, Lighthouse Youth & Family Services supported four individuals, while in FY2018 and FY2019 three individuals each were assisted, for a total of ten young adults. Overall, the majority of the young adults were black or African American and the overall average age was approximately 20 years old. Additionally, the overall average length of time in the Host Homes program was 5.7 months. Table 65 details the demographics of the ten young adults assisted by the Host Homes program from FY2017 to FY2019.

Table 65: Youth Assisted by the Safe and Supported Host Homes Program, FY2017-FY2019

Youth	Fiscal Year	Gender	Race	Age at Start Date	Length of Time (Months)
Youth 1	2017	Female	Black/ African American	23	8.2
Youth 2	2017	Agender	White/ Caucasian	24	10.9
Youth 3	2017	Female	White/ Caucasian	18	2.1
Youth 4	2017	Female	Black/ African American	19	8.2
Youth 5	2018	Male	Black/ African American	18	1.1
Youth 6	2018	Trans female	Black/ African American	19	4.7
Youth 7	2018	Trans female	Black/ African American	19	5.8
Youth 8	2019	Male	Black/ African American	21	1.4
Youth 9	2019	Female	Black/ African American	19	6.0
Youth 10	2019	Male	Caucasian/Hispanic	18	8.6

Source: Data provided by Lighthouse Youth & Family Services.

⁴¹⁰ (Host Home Program, 2019)

⁴¹¹ (Host Home Program, 2019)

⁴¹² (Host Home Program, 2019)

⁴¹³ (Host Home Program, 2019)

Outcome Data

Outcome Data for the young adults assisted in the Host Homes program were not available. However, using the demographic data provided, the Economics Center quantified the benefits of the Host Homes program in terms of homelessness avoided for the ten young adults assisted over FY2017 to FY2019. In other words, as shelter is being provided for these individuals, homelessness and the costs associated with homelessness were avoided.

Benefits and Costs of the Safe and Supported Program

Costs of the Safe and Supported Program

Lighthouse Youth & Family Services provided expenditure data for the Safe and Supported Program, for FY2016 to FY2019. Prior to FY2016, services in the Safe and Supported program were not provided. Total spending was \$901,000, averaging \$225,000 per fiscal year for which data were available. Table 66 details the cost of providing the program for this time period.⁴¹⁴

Table 66: Safe and Supported Program Costs, FY2012-FY2019 (FY2018\$)

Program Costs (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Safe and Supported	\$-	\$-	\$-	\$-	\$91,615	\$245,904	\$238,067	\$325,507	\$901,093

Source: Data provided by Lighthouse Youth & Family Services.

Benefits of the Safe and Supported Program

As homelessness is avoided as a result of Lighthouse Youth & Family Services' Safe and Supported Host Homes program, the Economics Center monetized healthcare costs avoided due to safe and stable shelter being provided to youth in the program.

Benefits of the Cultural Competency Training services additionally provided by Lighthouse Youth & Family Services in the Safe and Supported program were not able to be monetized, however, the training does provide beneficial support and information to individuals and organizations receiving these services.

Healthcare Costs

As stated in Salit et al. (1998), the additional cost per hospital admission and treatment of a homeless individual compared to a non-homeless individual was \$2,414 (1997\$).⁴¹⁵ The Economics Center then regionally adjusted this number to the State of Ohio as well as adjusted for inflation, to calculate the costs in 2018 dollars, or \$3,789 (FY2018\$). This total (increased) cost of treating a homeless individual was then applied to the number of youth assisted in the Host Homes program each fiscal year. In total, across the FY2017 to

⁴¹⁴ It is important to note, however, that the costs of providing the Safe and Supported program cover both the cultural competency training, as well as the Host Homes program.

⁴¹⁵ (Salit, Kuhn, Hartz, Vu, & Mosso, 1998)

FY2019, the Host Homes program helped to avoid approximately \$38,000 in additional hospitalization costs for the healthcare industry, as detailed in Table 67. In other words, as the young adults each avoided one hospitalization resulting from experiencing unsheltered homelessness, the healthcare industry avoided the additional costs associated with treating these individuals.

Table 66: Safe and Supported Host Home Program Avoided Healthcare Costs, FY2012-FY2019 (FY2018\$)

Safe and Supported Host Homes	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Healthcare Costs	\$-	\$-	\$-	\$-	\$-	\$15,156	\$11,367	\$11,367	\$37,890

Source: Economics Center calculations using data provided by Salit et al. (1998), the Bureau of Economic Analysis, and Lighthouse Youth & Family Services.

Total Costs Avoided

Table 68 shows healthcare costs avoided for youth assisted by Lighthouse Youth & Family Services' Host Homes program. Across FY2017 to FY2019, for which data were available, a total of approximately \$38,000 in healthcare industry costs were avoided due to the program.

Table 67: Safe and Supported Host Homes Program Avoided Total Costs, FY2012-FY2019 (FY2018\$)

Safe and Supported Host Homes	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Healthcare Costs	\$-	\$-	\$-	\$-	\$-	\$15,156	\$11,367	\$11,367	\$37,890
Total	\$-	\$-	\$-	\$-	\$-	\$15,156	\$11,367	\$11,367	\$37,890

Source: Economics Center calculations using data provided by Salit et al. (1998), the Bureau of Economic Analysis, and Lighthouse Youth & Family Services.

Mecum House

First opened in 1974, Mecum House provides shelter for youth who do not feel safe in their own homes, are neglected, and/or are physically or sexually abused.^{416,417} Mecum House services are provided to youth between 10 and 17 years old, according to Lighthouse Youth & Family Services' website.⁴¹⁸

⁴¹⁶ (Mecum House, 2019)

⁴¹⁷ (History, 2019)

⁴¹⁸ (Mecum House, 2019)

"The Mecum House allows [youth] a place to be every night, a place where they can sleep, where they are getting a meal, where they are also potentially getting mental health services, and have an active plan to be moving back home. So someone is working with their family and providing services to them and their families, to address whatever this crisis is that is going on in their lives, as opposed to them running around from place to place and no one is addressing what is happening."

-Lighthouse Youth & Family Services Homeless Youth Services Staff Member

Demographic Data

Across Fiscal Years 2012 to 2019, Mecum House supported a total of 4,879 youth, averaging approximately 610 individuals per fiscal year. In FY2019, Mecum House assisted a total of 566 youth, most of which fell between the ages of 13 and 17 years old (93.6%). At intake, approximately 7.0 percent of youth had some type of mental health issue and 3.9 percent suffered from alcohol and/or drug abuse.

Table 69 details Mecum House demographic information. As shown in Table 69, in each fiscal year, more than 90.0 percent of Mecum House youth were between 13 and 17 years old. The majority of youth each fiscal year were also black or African American.

Table 68: Mecum House Demographic Information, FY2012-FY2019

Percent	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
% Age 13-17	92.12%	94.70%	91.26%	92.51%	91.33%	88.87%	91.87%	93.64%	92.15%
% Male	53.60%	59.65%	57.71%	56.68%	56.50%	50.81%	49.01%	50.35%	54.87%
% Female	46.17%	40.22%	42.03%	43.32%	43.34%	48.79%	50.20%	49.47%	44.89%
% Gender Non-Conforming	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.20%	0.00%	0.02%
% Transgender	0.23%	0.13%	0.26%	0.00%	0.16%	0.40%	0.59%	0.18%	0.22%
% Other/ Unknown	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
% Black/ African American	77.70%	80.16%	76.48%	78.06%	77.05%	73.48%	67.66%	75.97%	76.18%
% White/ Caucasian	16.22%	12.36%	16.96%	15.40%	15.41%	19.84%	24.60%	17.84%	16.95%
% Other/ Unknown	0.23%	1.09%	0.64%	0.68%	0.80%	0.61%	1.79%	0.88%	0.84%
% Multi or Bi-Racial	5.85%	6.39%	5.92%	5.86%	6.74%	6.07%	5.95%	5.31%	6.03%
% Mental Health Issue	4.73%	3.80%	3.08%	1.36%	1.44%	1.62%	4.56%	7.24%	3.36%
% Alcohol and/or Drug Abuse	10.59%	7.07%	4.11%	2.45%	1.44%	2.83%	2.38%	3.89%	4.22%
% Chronic Homelessness	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Number of Youth	444	736	778	734	623	494	504	566	4,879

Source: Economics Center calculations using data provided by Lighthouse Youth & Family Services.

Outcome Data

While the information above details demographic information of individuals assisted by the Mecum House, outcome data were available for fewer individuals. Outcomes were available for 552 youth supported by the Mecum House in FY2019. Of these youth, there were 368 individuals who were successfully discharged to permanent housing with family or friends, or to a foster care home or group home (66.7%). The majority of those discharged to permanent housing in FY2019 were reported as staying or living with family (77.7%).

Most common youth placements overall, (permanent or not) after being discharged from Mecum House, were permanently living with family, temporarily living with family, and being placed in a foster home or foster care group home setting. Table 70 details the number of youth each fiscal year and the permanent housing placements after Mecum House discharge for FY2012 to FY2019.

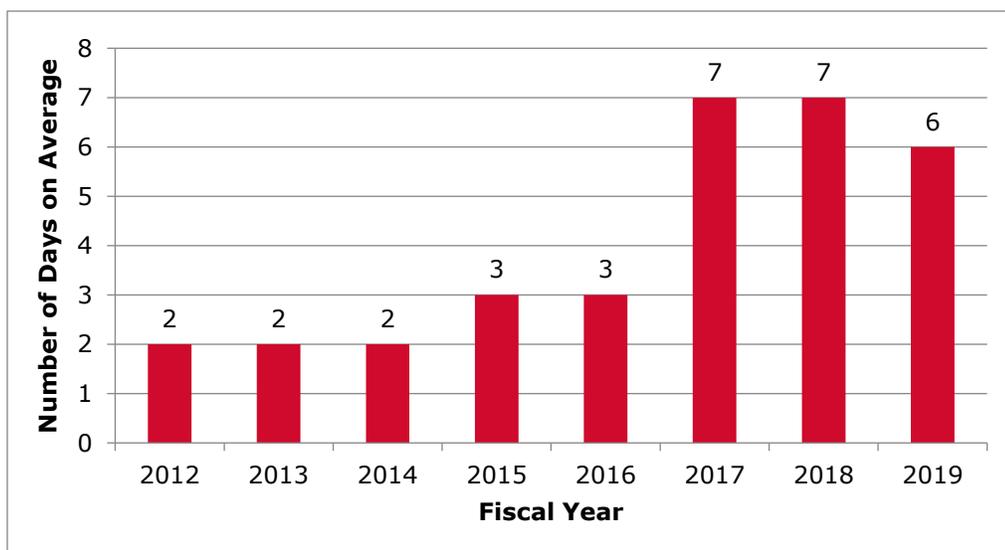
Table 69: Mecum House Discharge Outcomes, FY2012-FY2019

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Total Youth Discharged	440	734	775	728	615	475	493	552	4,812
Foster care home or group foster care home	61	64	83	74	98	85	85	86	636
Staying or living with family, permanent	278	491	497	422	305	185	206	268	2,652
Staying or living with friends, permanent	3	2	7	13	16	17	14	10	82
Permanent housing (other than RRH) for formerly homeless persons	0	0	2	0	0	0	0	2	4
Rental by client, with other ongoing housing subsidy	0	0	0	1	3	2	1	1	8
Owned by client, with ongoing housing subsidy	0	0	0	0	0	0	1	1	2
Total Discharged to Permanent Housing	342	557	589	510	422	289	307	368	3,384
Percent of Total Youth Discharged – Discharged to Permanent Housing	77.73%	75.89%	76.00%	70.06%	68.62%	60.84%	62.27%	66.66%	70.32%

Source: Data provided by Lighthouse Youth & Family Services.

Figure 3 shows the average number of days at Mecum House for discharged youth, across FY2012 to FY2019. For each fiscal year, on average, discharged youth spent 7 days or less at Mecum House.

Figure 3: Mecum House Length of Stay, FY2012-FY2019



Source: Data provided by Lighthouse Youth & Family Services.

Furthermore, Lighthouse Youth & Family Services provided information on individuals' incomes at entry and exit. Income, according to the outcome data, included wages from employment, dollars in public assistance aid, and other government assistance. From FY2012 to FY2019, a total of 11 individuals had some form of income at entry to Mecum House. For those leaving Mecum House and being discharged, 11 individuals had some form of income across FY2012 to FY2019. At exit, most discharged individuals with income had earnings from employment (7 out of 11). There was no change, however, in the number of individuals with earnings from employment from entry to exit. Three individuals at entry were receiving Supplemental Security Income and one individual was receiving Social Security Disability Insurance assistance. There was no change in the number of individuals receiving each type of income at discharge.

Benefits and Costs of the Mecum House Program

Costs of the Mecum House Program

Lighthouse Youth & Family Services provided information on expenditures for Fiscal Years 2012 to 2019 for the Mecum House Program. Total expenditures over this time period were approximately \$8.0 million, averaging \$1.0 million per fiscal year. Table 71 displays the costs of providing the Mecum House Program to youth over this time period.

Table 70: Mecum House Program Costs, FY2012-FY2019 (FY2018\$)

Program Costs (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Mecum House	\$0.97	\$0.94	\$0.95	\$0.88	\$0.91	\$1.06	\$1.16	\$1.10	\$7.97

Source: Data provided by Lighthouse Youth & Family Services.

Benefits of the Mecum House Program

Healthcare Costs

The Economics Center estimated avoided healthcare hospitalization costs associated with avoiding unsheltered homelessness, after discharge from the Mecum House.⁴¹⁹ As stated in Salit et al. (1998), the additional cost per hospital admission and treatment of a homeless individual compared to a non-homeless individual was \$2,414 (1997\$).⁴²⁰ The Economics Center then regionally adjusted this number to the State of Ohio as well as adjusted for inflation, to calculate the costs in FY2018 dollars, or \$3,789 (FY2018\$). The total (\$3,789) cost of treating a homeless individual was then applied to the number of youth discharged to permanent housing from the Mecum House program, each fiscal year. In other words, as the youth were discharged to permanent housing from Mecum House, they avoided homelessness post-discharge, as a result. In total, Table 72 shows

⁴¹⁹ Healthcare costs for youth discharged from Mecum were avoided as a result of being discharged to permanent housing. Since the youth were discharged to permanent housing, they were not homeless and avoided the increased healthcare costs associated with treating individuals experiencing unsheltered homelessness.

⁴²⁰ (Salit, Kuhn, Hartz, Vu, & Mosso, 1998)

that across FY2012 to FY2019, \$12.8 million in healthcare costs due to hospitalizations were avoided as a result of Mecum House.

Table 71: Mecum House Avoided Healthcare Costs, FY2012-FY2019 (FY2018\$)

Mecum House	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Healthcare Costs (\$M)	\$1.30	\$2.11	\$2.23	\$1.93	\$1.60	\$1.10	\$1.16	\$1.39	\$12.82

Source: Economics Center calculations using data from Salit et al. (1998) and Lighthouse Youth & Family Services.

Productivity Loss

Using information from Education Leads Home,⁴²¹ the Economics Center calculated the impact of homeless students versus housed students' educational attainment and future/lifetime earnings. It was found that students with stable housing graduate high school at a higher rate than those who were homeless (24.0 percentage points higher).⁴²² Applying this percentage to the youth in Lighthouse Youth & Family Services' Mecum House program allowed the Economics Center to estimate the increased number of youth likely to graduate from high school as a result of being housed, and thereby, their enhanced lifetime earnings. In other words, as a result of the Mecum House program, youth discharged to permanent housing are avoiding unsheltered homelessness, and therefore would be expected to graduate high school at a higher rate and have increased earnings over their lifetime.

Lighthouse Youth & Family Services provided information on de-duplicated individuals accessing Mecum House from FY2012 to FY2019. As individuals may have accessed Mecum House more than once across the eight-fiscal-year time period, in order to most accurately calculate the lifetime earnings impacts, a de-duplicated number across the fiscal years was needed. In total, across this time period, the Mecum House assisted 2,036 unique individuals.⁴²³ Due to data limitations, however, a unique de-duplicated number by fiscal year was not available.

The Economics Center calculated the ratios of the individuals discharged to permanent housing for each fiscal year. For example, in FY2019, 368 youth were discharged from Mecum House to permanent housing as displayed in Table 70. These 368 individuals therefore represent 10.9 percent of the total 3,384 individuals discharged to permanent housing over the eight fiscal years. Applying this 10.9 percent figure to the number of unique individuals (2,036) derived an estimated 221 unique individuals discharged to permanent housing in FY2019.⁴²⁴ Unique/de-duplicated estimates for the remaining fiscal years were calculated in the same way.

⁴²¹ (Education Leads Home Releases Homeless Student State Snapshots, 2019)

⁴²² (Education Leads Home Releases Homeless Student State Snapshots, 2019)

⁴²³ Information provided by Lighthouse Youth & Family Services.

⁴²⁴ This calculation was the unique 2,036 individuals * 10.9 percent to equal approximately 221 unique individuals for FY2019.

Continuing with the FY2019 example, applying the increased likelihood of graduation (24.0 percentage points) to this population of youth discharged to permanent housing indicated that, due to the Mecum House and being discharged to safe and stable housing, an additional youth 53 will graduate with their high school diploma.⁴²⁵

Labor force participation and unemployment rates, as well as annual earnings, were gathered from IPUMS,⁴²⁶ for individuals with a high school diploma and those with the educational attainment of 12th grade but no high school diploma. As IPUMS data is in calendar years, the data was averaged in order to determine earnings, labor force participation, and unemployment rates by fiscal year.⁴²⁷ These rates were gathered for individuals between the ages 16 to 65 years old,⁴²⁸ and across five-year age increments over the lifetime of assisted youth; from age 16 to 65.⁴²⁹

In FY2019, for the first age increment of 16 to 20 years old, data from IPUMS indicated that youth with a high school diploma earned approximately \$5,877 (FY2018\$) more annually than youth with 12th grade no diploma educational attainment. Multiplying this annual earnings amount by five, provided a five-year earnings differential of \$29,383 per youth. The Economics Center calculated the number of youth active and employed in the labor force of the 53 youth estimated to graduate with a high school diploma from youth assisted by Lighthouse Youth & Family Services in FY2019. Utilizing the labor force participation and unemployment rate for this age increment, 32 youth were estimated to be active and employed in the labor force between the ages of 16 to 20 years old.⁴³⁰ These 32 youth for this age increment was multiplied by the five-year earnings amount, which totaled \$940,256.⁴³¹ The remaining age increments and fiscal years were calculated with the same methodology. Earnings were summed from age 16 to 65, for each fiscal year, in order to derive the total amount of lifetime earnings.

Table 73 below details Mecum House youth lifetime earnings saved as a result of homelessness being avoided. Across the eight fiscal years, a total of \$126.7 million in productivity loss was avoided.

⁴²⁵ This calculation was $221 * 24.0$ percent to equal 53 youth.

⁴²⁶ (Ruggles, et al.)

⁴²⁷ IPUMS data were provided in calendar years, according to the U.S. Census one-year estimates. Therefore, the Economics Center averaged 2011 and 2012 data to determine FY2012, and so on. The last year of data available from IPUMS was 2017 (average of 2016 and 2017 years). For FY2018 and FY2019, as IPUMS data were not yet available for these years, FY2017 numbers were assumed.

⁴²⁸ Data from age 16 to 65 was gathered under the assumption that individuals would retire at age 65.

⁴²⁹ These age increments were 16 to 20; 21 to 26; 27 to 32; 33 to 38; 39 to 44; 45 to 50; 51 to 56; 57 to 62; and a two-year increment of 63 to 65 years old.

⁴³⁰ In FY2019, the labor force participation rate for the 16 to 20 age increment was 67.9 percent, while the unemployment rate was 12.1 percent. The 53 youth estimated to graduate with a high school diploma multiplied by the labor force participation rate equaled 36 youth active in the labor force. Then, of these 36 youth, 4 were estimated to be unemployed ($36 * 12.1\%$ unemployment rate), which totaled 32 youth.

⁴³¹ This calculation was 32 active and employed youth * \$29,383 in estimated 5-year earnings.

Table 72: Mecum House Avoided Lifetime Productivity Loss, FY2012-FY2019 (FY2018\$)

Mecum House	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Lifetime Productivity (\$M)	\$9.34	\$19.12	\$20.74	\$16.48	\$14.89	\$13.91	\$14.57	\$17.62	\$126.67

Source: Economics Center calculations using data provided by IPUMS, Education Leads Home, and Lighthouse Youth & Family Services.

Foster Care Costs

The number of youth receiving services from Mecum House each fiscal year additionally avoided costs in the foster care system. According to Lighthouse Youth & Family Services, if youth did not receive housing services from Mecum House, they would otherwise have been placed in the foster care system. Therefore, costs associated with caring for these youth in the foster care system were avoided.

As seen in the discharge data provided by Lighthouse Youth & Family Services, some youth are discharged from Mecum House to foster care settings, as positive housing outcomes. Mecum House connects youth and families to services that help stabilize them, and for some youth, being discharged to foster care is the appropriate housing placement for their needs. During their length of stay at Mecum House, however, foster care system costs are avoided as a result of youth participating in the Lighthouse Youth & Family Services housing program instead of the child welfare system.

Using daily foster care rates provided by Lighthouse Youth & Family Services, the Economics Center calculated the total avoided costs of foster care, accounting for the various lengths of time youth were at Mecum House before discharge.⁴³² Across FY2012 to FY2019, daily foster care rates ranged from \$69.21 to \$70.79 (FY2018\$), which translated to monthly costs ranging between \$2,105 and \$2,153 (FY2018\$).⁴³³ The lengths of time discharged youth were at Mecum House included "Less than one month," "1-2 months," and "3-6 months," according to data provided by Lighthouse Youth & Family Services. The number of youth discharged in each length of stay time period was then multiplied by the estimated foster care cost of that length of time, for each fiscal year.⁴³⁴ These numbers were summed to get a total cost avoided for all discharged youth and their lengths of stay in the Mecum House program. In other words, due to the youth residing in Mecum House for a length of time instead of in the foster care system, the foster care system avoided the cost of supporting and caring for these youth. Across the eight Fiscal Years of 2012 to 2019, a total of \$5.3 million in foster care costs was avoided, shown in Table 74.

⁴³² This included all youth discharged, either to temporary or permanent housing.

⁴³³ This calculation was the daily foster care cost multiplied by 365 days in one year, and then divided by 12 months, to calculate the monthly foster care rates.

⁴³⁴ For this calculation, 15 days was assumed for the length of time of "Less than one month", for "1-2 months" 1.5 months was assumed, and 4.5 months was the assumption for "3-6 months" length of time.

Table 73: Mecum House Avoided Foster Care Costs, FY2012-FY2019 (FY2018\$)

Mecum House	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Foster Care Costs (\$M)	\$0.46	\$0.77	\$0.82	\$0.76	\$0.66	\$0.56	\$0.60	\$0.66	\$5.29

Source: Economics Center calculations using data provided by Lighthouse Youth & Family Services.

Total Costs Avoided

Mecum House assisted youth and society in avoiding associated hospitalization costs, as productivity loss, and foster care costs by providing youth with safe and stable housing. Table 75 details the total avoided costs to society and youth as a result of Mecum House. Total avoided costs from FY2012 to FY2019 amounted to approximately \$144.8 million.

Table 74: Mecum House Avoided Total Costs, FY2012-FY2019 (FY2018\$)

Mecum House (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Foster Care Costs	\$0.46	\$0.77	\$0.82	\$0.76	\$0.66	\$0.56	\$0.60	\$0.66	\$5.29
Healthcare Costs	\$1.30	\$2.11	\$2.23	\$1.93	\$1.60	\$1.10	\$1.16	\$1.39	\$12.82
Lifetime Productivity	\$9.34	\$19.12	\$20.74	\$16.48	\$14.89	\$13.91	\$14.57	\$17.62	\$126.67
Total	\$11.10	\$22.00	\$23.79	\$19.17	\$17.15	\$15.57	\$16.33	\$19.67	\$144.78

Source: Economics Center calculations using data provided by IPUMS, Education Leads Home, Salit et al. (1998), and Lighthouse Youth & Family Services.

Sheakley Center for Youth

Lighthouse Youth & Family Services' Sheakley Center for Youth is another housing program aimed at youth homelessness, and first opened its doors in 2012.⁴³⁵ Shelter services through the program are offered to young adults between the ages of 18 and 24 years old,⁴³⁶ with the goal of working to resolve their homeless episode as soon as possible.⁴³⁷

Demographic Data

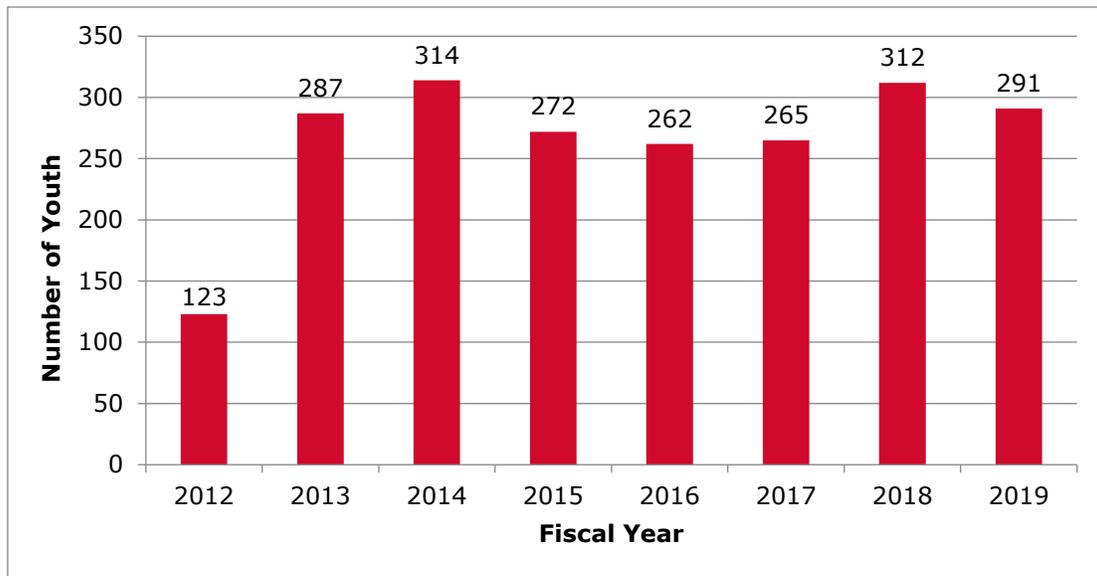
Across Fiscal Years of 2012 to 2019, the Sheakley Center housed and assisted a total of 2,126 young adults. Over time, as shown in Figure 4, the number of young adults served by the Sheakley Center has increased from 123 in FY2012 to 291 in FY2019.

⁴³⁵ (History, 2019)

⁴³⁶ (Lighthouse Sheakley Center for Youth, 2019)

⁴³⁷ (Lighthouse Sheakley Center for Youth, 2019)

Figure 4: Sheakley Center Youth Assisted, FY2012-FY2019



Source: Data provided by Lighthouse Youth & Family Services.

In FY2019, most young adults assisted were black or African American (67.0%) and did not suffer from a mental health issue or alcohol and/or drug abuse (58.8% and 92.4% respectively). Overall, across all fiscal years, the majority of young adults at the Sheakley Center for Youth were male (49.6%) and black or African American (70.5%). Approximately 4.9 percent of the young adults in the program experienced chronic homelessness, while 34.8 percent struggled with a mental health issue, and 13.5 percent with alcohol and/or substance abuse. Table 76 details FY2019 demographic information, as well as data for the remaining earlier fiscal years.

Table 75: Sheakley Center Demographics, FY2012-FY2019

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
% Age 18-24	100.00%	100.00%	100.00%	100.00%	99.62%	100.00%	100.00%	99.66%	99.91%
% Male	44.72%	43.90%	50.64%	50.00%	52.67%	49.43%	52.56%	49.83%	49.58%
% Female	52.84%	53.31%	48.40%	49.26%	46.56%	49.06%	45.84%	47.42%	48.77%
% Gender Non-Conforming	0.00%	0.00%	0.00%	0.00%	0.00%	0.38%	0.00%	0.34%	0.10%
% Transgender	2.44%	2.79%	0.96%	0.74%	0.77%	1.13%	1.60%	2.41%	1.55%
% Other/ Unknown	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
% Black/ African American	75.61%	71.08%	72.29%	77.94%	69.47%	67.17%	66.67%	67.01%	70.51%
% White/ Caucasian	21.14%	24.74%	22.93%	19.85%	24.81%	24.15%	23.40%	24.74%	23.38%
% Other/ Unknown	0.81%	0.35%	0.32%	0.00%	1.15%	0.38%	0.96%	1.72%	0.71%
% Multi or Bi-Racial	2.44%	3.83%	4.46%	2.21%	4.57%	8.30%	8.97%	6.53%	5.40%
% Mental Health Issue	26.83%	35.54%	34.39%	28.31%	26.34%	37.36%	41.99%	41.24%	34.76%
% Alcohol and/or Drug Abuse	8.94%	13.94%	24.84%	8.82%	9.54%	9.43%	19.55%	7.56%	13.45%
% Chronic Homelessness	0.00%	0.00%	0.67%	2.94%	3.44%	8.30%	12.82%	6.92%	4.86%
Total Number of Youth	123	287	314	272	262	265	312	291	2,126

Source: Economics Center calculations using data provided by Lighthouse Youth & Family Services.

Outcome Data

While the information above details demographic information of individuals assisted by the Sheakley Center, outcome data were available for fewer individuals each fiscal year. Outcomes were available for a total of 1,903 young adults over FY2012 to FY2019.

There were 252 young adults supported by the Sheakley Center in the FY2019 with outcome data available. Of these young adults, there were 113 individuals were successfully discharged to permanent housing (44.8%) in FY2019. Discharge outcomes varied across the different settings and fiscal years. The greatest number of individuals discharged to permanent housing however, lived with family and friends.

Most common placements overall, after being discharged from the Sheakley Center, were permanently living with family, permanently living with friends, and rentals with and without an ongoing housing subsidy. Table 77 details the number of young adults each fiscal year discharged from the Sheakley Center, as well as the number of individuals discharged to permanent housing and their permanent housing placements.

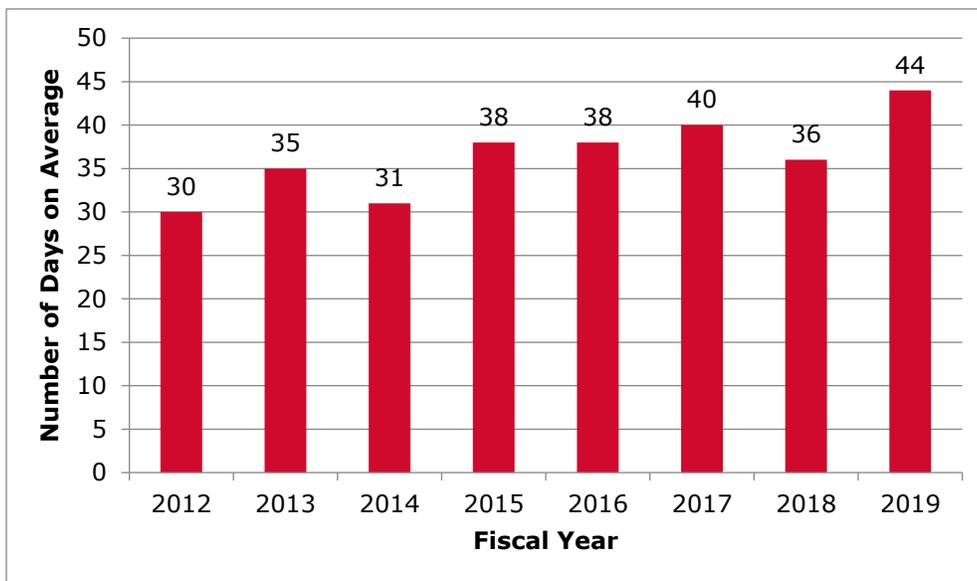
Table 76: Sheakley Center Discharge Outcomes, FY2012-FY2019

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Total Youth Discharged	96	260	287	247	240	244	277	252	1,903
Staying or living with family, permanent	16	61	62	62	86	63	73	22	445
Staying or living with friends, permanent	11	17	16	20	31	43	26	13	177
Permanent housing (other than RRH) for formerly homeless persons	1	15	13	25	7	24	3	5	93
Rental by client, with RRH or equivalent subsidy	0	0	0	0	0	0	16	37	53
Rental by client, no ongoing housing subsidy	2	16	12	13	49	29	37	17	175
Rental by client, with other ongoing housing subsidy	3	30	36	43	25	25	48	17	227
Owned by client, with ongoing housing subsidy	0	0	0	0	0	0	0	2	2
Owned by client, no ongoing housing subsidy	0	1	0	1	2	2	1	0	7
Total Discharged to Permanent Housing	33	140	139	164	200	186	204	113	1,179
Percent of Total Youth Discharged to Permanent Housing	34.38%	53.85%	48.43%	66.40%	83.33%	76.23%	73.65%	44.84%	61.96%

Source: Data provided by Lighthouse Youth & Family Services.

The length of time to obtain housing (i.e. the length of stay at the Sheakley Center) varied across the fiscal years. For most fiscal years, however, youth were discharged between one to two months, on average. Figure 5 shows the average number of days discharged youth received services from Sheakley Center per fiscal year.

Figure 5: Sheakley Center Length of Stay, FY2012-FY2019



Source: Data provided by Lighthouse Youth & Family Services.

Lighthouse Youth & Family Services provided data on individuals’ income at entry and exit from the Sheakley Center. Across all eight fiscal years (FY2012 to FY2019), a total of 637 individuals had some form of income at entry to the Sheakley Center, which included earnings from employment or some form of public assistance income. Of these, there were 425 individuals (66.7%) who had earned income from employment at entry.

At exit, or discharge, from FY2012 to FY2019 a total of 961 individuals had some form of income. Of these discharged individuals, a total of 735 had earnings from employment (76.5%). Across the eight fiscal years, from entry into the Sheakley Center there were 324 additional individuals with some form of income at exit (637 at entry compared to 961 at exit). Importantly, of this increase, 310 out of the 324 individuals had earned income from employment at exit from the program.

Benefits and Costs of the Sheakley Center

Costs of the Sheakley Center Program

Lighthouse Youth & Family Services provided information on their expenditures for FY2012 to FY2019 for the Sheakley Center. Total expenditures over this time period were approximately \$9.5 million, averaging \$1.2 million per fiscal year. Table 78 displays the costs of operating the Sheakley Center over this time period.

Table 77: Sheakley Center Program Costs, FY2012-FY2019 (FY2018\$)

Program Costs (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Sheakley Center	\$0.56	\$0.83	\$1.16	\$1.06	\$1.35	\$1.41	\$1.45	\$1.70	\$9.52

Source: Data provided by Lighthouse Youth & Family Services.

Benefits of the Sheakley Center for Youth

Healthcare Costs

The Economics Center estimated avoided healthcare hospitalization costs associated with avoiding homelessness, for young adults discharged to permanent housing from the Sheakley Center. As stated in Salit et al. (1998), the additional cost per hospital admission and treatment of a homeless individual compared to a non-homeless individual was \$2,414 (1997\$).⁴³⁸ The Economics Center regionally adjusted this number to the State of Ohio as well as adjusted for inflation, to calculate the costs in FY2018 dollars, which was \$3,789 (FY2018\$). The total cost of treating a homeless individual (\$3,789) was applied to the number of young adults discharged to permanent housing from the Sheakley Center, for each fiscal year. In total, across the FY2012 to FY2019, youth and society avoided \$4.5 million in healthcare costs due to hospitalizations, shown in Table 79.

Table 78: Sheakley Center Avoided Healthcare Costs, FY2012-FY2019 (FY2018\$)

Sheakley Center	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Healthcare Costs	\$125,037	\$530,460	\$526,671	\$621,396	\$757,800	\$704,754	\$772,956	\$428,157	\$4,467,231

Source: Economics Center calculations using data provided by Salit et al. (1998) and Lighthouse Youth & Family Services.

Total Costs Avoided

Table 80 details the total avoided costs accruing to society as a result of the Sheakley Center for Youth. Across the FY2012 to FY2019, a total of \$4.5 million in hospital costs were avoided.

⁴³⁸ (Salit, Kuhn, Hartz, Vu, & Mosso, 1998)

Table 79: Sheakley Center Avoided Total Costs, FY2012-FY2019 (FY2018\$)

Sheakley Center	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total (\$M)
Healthcare Costs	\$125,037	\$530,460	\$526,671	\$621,396	\$757,800	\$704,754	\$772,956	\$428,157	\$4.47
Total	\$125,037	\$530,460	\$526,671	\$621,396	\$757,800	\$704,754	\$772,956	\$428,157	\$4.47

Source: Economics Center calculations using data provided by Salit et al. (1998), and Lighthouse Youth & Family Services.

Street Outreach

Lighthouse Youth & Family Services’ Street Outreach team is comprised of employees and volunteers aimed at getting homeless youth into stable housing and off the streets. Established in 2013, the Street Outreach team searches for youth living on the streets without stable and safe housing.⁴³⁹ The team offers “on-the-spot” assistance such as food and water and team members are also trained in working with LGBTQ+ youth.⁴⁴⁰ Once a relationship is established with a homeless youth, the Street Outreach team works to provide the youth with shelter and stable housing.⁴⁴¹ The Street Outreach program provides services to youth between the ages of 12 and 24 years old.

Demographic Data

The Street Outreach team assisted a total of 1,784 young adults during Fiscal Years 2012 to 2019. In FY2012, 107 young adults were assisted. For FY2013 and FY2014, number increased to 258 and 336 respectively, the majority in each fiscal year also being between 18 and 24 years old. The Street Outreach team aided 309 young adults in FY2015, 253 in FY2016, and 193 in FY2017. In FY2018, 147 young adults were reached, while the team assisted 181 young adults in FY2019. It is likely, however, that Lighthouse Youth & Family Services’ Street Outreach program assisted many more youth than those captured as intakes in the Organization’s database. As such, many more youth likely received benefits from the Street Outreach program than what is able to be monetized in this analysis.

In each fiscal year, nearly all young adults assisted by the Street Outreach program were between the ages of 18 and 24. The majority in each fiscal year were black or African American. Overall, across FY2012 to FY2019, 7.4 percent of young adults experienced chronic homelessness, more than a third (37.6%) struggled with mental health issues, and 16.8 percent had alcohol and /or substance abuse issues. As these youth were reached by the Street Outreach team and thereby did not have safe and stable housing, nearly half overall (46.0%) had prior living situations not meant for human habitation, such as an abandoned building, a vehicle, or another public area such as a bus station. The majority in each fiscal year did not have any source of income at program entry.

⁴³⁹ (History, 2019)

⁴⁴⁰ (Street Outreach Team, 2019)

⁴⁴¹ (Street Outreach Team, 2019)

Table 81 shows the percentages of young adults in each demographic category, per fiscal year.

Table 80: Street Outreach Program Demographics, FY2012-FY2019

Percent	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
% Age 18-24	100.00%	98.84%	100.00%	99.35%	99.21%	99.48%	100.00%	98.90%	99.44%
% Male	51.40%	54.65%	55.36%	60.19%	58.89%	59.59%	64.63%	51.38%	57.17%
% Female	42.99%	42.64%	43.15%	36.57%	39.92%	37.82%	32.65%	46.41%	40.36%
% Gender Non-Conforming	0.00%	0.00%	0.00%	0.32%	0.00%	0.00%	0.68%	0.55%	0.17%
% Transgender	5.61%	2.71%	1.49%	2.27%	1.19%	2.59%	2.04%	1.66%	2.19%
% Other/ Unknown	0.00%	0.00%	0.00%	0.65%	0.00%	0.00%	0.00%	0.00%	0.11%
% Black/African American	63.55%	72.09%	71.73%	70.87%	64.03%	56.48%	65.31%	64.09%	67.10%
% White/ Caucasian	24.30%	19.77%	22.02%	22.98%	31.62%	37.30%	27.89%	24.31%	25.73%
% Other/ Unknown	0.94%	0.78%	0.60%	1.94%	0.79%	0.00%	0.00%	2.21%	0.95%
% Multi or Bi-Racial	11.21%	7.36%	5.65%	4.21%	3.56%	6.22%	6.80%	9.39%	6.22%
% Chronic Health Condition	13.08%	5.43%	7.74%	9.39%	12.25%	15.03%	17.69%	19.34%	11.43%
% Mental Health Issue	37.38%	23.64%	26.79%	32.04%	38.34%	64.25%	57.14%	41.99%	37.61%
% Alcohol and/or Substance Abuse	10.28%	10.08%	16.67%	12.94%	21.34%	27.46%	26.53%	11.05%	16.76%
% Chronic Homelessness	0.00%	0.00%	0.63%	5.24%	13.49%	17.10%	17.93%	8.29%	7.38%
% Prior Living Situation: Place not meant for habitation (vehicle, abandoned building, bus/train/ subway station/ airport or anywhere outside)	35.51%	22.57%	20.83%	36.48%	51.38%	87.05%	82.99%	66.85%	45.99%
% Individual Income \$0 at Program Entry	68.22%	77.43%	81.85%	78.18%	69.17%	69.95%	70.07%	67.96%	74.28%
Total Number of Youth	107	258	336	309	253	193	147	181	1,784

Source: Economics Center calculations using data provided by Lighthouse Youth & Family Services.

Outcome Data

Outcomes were available for 153 youth supported by Street Outreach in FY2019. Of these youth, 104 individuals were successfully discharged to permanent housing or to an emergency shelter (68.0%). The greatest number of individuals in FY2019 were discharged to an emergency shelter, followed by permanently staying with family (16 individuals).

Discharge outcomes for the remaining fiscal years varied across placement settings. The most common discharge placement overall and for each fiscal year, however, was emergency shelters. Table 82 details the number of youth discharged, the number of youth discharged to permanent housing, and their housing placements for FY2012 to FY2019.

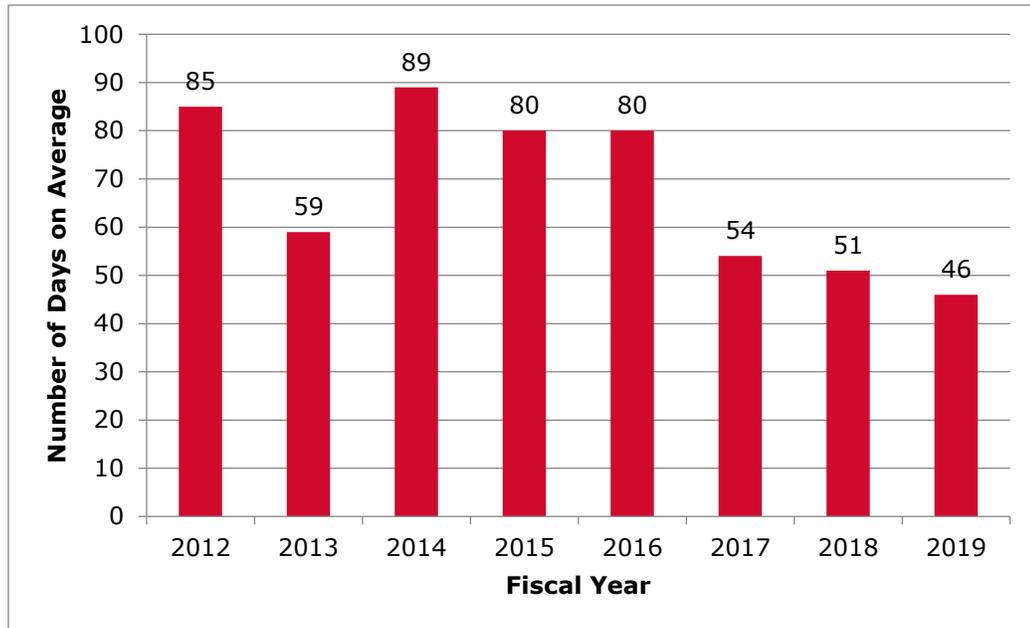
Table 81: Street Outreach Discharge Outcomes, FY2012-FY2019

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Total Youth Discharged	71	180	285	259	235	162	123	153	1,468
Emergency Shelter	26	107	157	113	94	63	60	63	683
Staying or living with family, permanent	7	20	25	10	30	15	15	16	138
Staying or living with friends, permanent	0	10	9	3	27	4	6	6	65
Rental by client, with GPD TIP housing subsidy	0	0	0	0	1	0	0	0	1
Permanent housing (other than RRH) for formerly homeless persons	2	2	2	1	8	20	7	2	44
Rental by client, with RRH or equivalent subsidy	0	0	0	0	0	0	2	0	2
Rental by client, no ongoing housing subsidy	3	8	11	4	12	4	4	7	53
Rental by client, with other ongoing housing subsidy	2	4	8	5	18	12	7	10	66
Owned by client, with ongoing housing subsidy	1	2	0	0	0	1	0	0	4
Owned by client, no ongoing housing subsidy	0	0	1	1	0	0	0	0	2
Total Discharged to Permanent Housing	41	153	213	137	190	119	101	104	1,058
Percent of Total Youth Discharged to Permanent Housing	57.75%	85.00%	74.74%	52.90%	80.85%	73.46%	82.11%	67.97%	72.07%

Source: Data provided by Lighthouse Youth & Family Services.

The length of time to resolve an individual's homelessness varied by fiscal year, as shown in Figure 6. In general, the length of time for these young adults to resolve their housing instability was greater than the other housing programs/shelters provided by Lighthouse Youth & Family Services. This was due to the nature of the Street Outreach program. As the program is focused on youth currently living on the street, it takes time to gain trust, and have the opportunity to speak with them about different housing options. Across FY2012 to FY2019, the average number of days that young adults were in the Street Outreach program/working to resolve their homelessness was 46 to 89 days, or approximately 1.5 to 3 months.

Figure 6: Street Outreach Length of Program Participation, FY2012-FY2019



Source: Data provided by Lighthouse Youth & Family Services.

Lighthouse Youth & Family Services provided data on individuals' income at entry and exit from the Street Outreach program. Across Fiscal Years 2012 to 2019, a total of 476 individuals had some form of income at entry into the program, which could have been earnings from employment or public assistance aid. Of these with some form of income at entry, 69.3 percent had earned income from employment (330 individuals). At exit, across FY2012 to FY2019, a total of 575 individuals had some form of earned income. Of these, 433 had earnings from employment (75.3%) at exit. Overall, after discharge from the Street Outreach program, an additional 99 individuals were able to obtain some form of income at exit (476 at entry compared to 575 at exit).

Benefits and Costs of the Street Outreach Program

Costs of the Street Outreach Program

Expenditures for Fiscal Years 2012 to 2019 for the Street Outreach Program were provided by Lighthouse Youth & Family Services. Total expenditures over this time period were approximately \$1.6 million, averaging \$200,000 per fiscal year. Table 83 displays the costs of providing the Street Outreach program to youth over this time period.

Table 82: Street Outreach Program Costs, FY2012-FY2019 (FY2018\$)

Program Costs (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Street Outreach	\$0.11	\$0.15	\$0.21	\$0.24	\$0.18	\$0.23	\$0.25	\$0.24	\$1.61

Source: Data provided by Lighthouse Youth & Family Services.

Benefits of the Street Outreach Program

The Economics Center was not able to monetize benefits of the Lighthouse Youth & Family Services’ Street Outreach program due to literature and data availability. While benefits do exist for youth receiving services from the Street Outreach program, such benefits were not monetized for this analysis.

Independent Living

Independent Living programs serve youth referred from and in the custody of the child welfare system. Independent Living programs, in other words, are considered a placement for youth in the welfare system. Due to lack of literature establishing a monetization of the impacts of Independent Living programs on youth, the program’s benefits were not able to be quantified in this analysis. Nonetheless, literature has stated some key differences or benefits for youth living independently versus if they had remained in foster care.

Scannapieco et al. (1995) compared youth in the Maryland Independent Living Program (ILP) with youth remaining in foster care. Statistical analysis results found that youth in the ILP program were more likely to graduate from high school compared to youth remaining in foster care (50.0% ILP versus 13.0% foster care). Youth in the program were also more likely, of course, to be living independently on their own (36.4% versus 4.3%) and be employed at case closing (52.3% versus 26.1%).⁴⁴²

Lindsey and Ahmed (1999) conducted a study in North Carolina, surveying former foster care youth who had and had not participated in an Independent Living program. Survey results indicated that a higher percentage of youth who had participated in the ILP completed high school/GED (37.0% versus 18.0%).⁴⁴³ Program participants were also more likely to be enrolled in college, be employed full-time (41.0% versus 22.0%), and living independently (68.0% versus 41.0%).⁴⁴⁴

Lemon et al. (2005) utilized 2000 to 2002 data from the Pathways to College study, in order to analyze the benefits of ILPs for former foster youth. Results found that ILP participants were more likely than non-participants to find employment (75.0% versus

⁴⁴² (Scannapieco, Schagrín, & Scannapieco, Independent living programs: Do they make a difference?, 1995)

⁴⁴³ (Lindsey & Ahmed, 1999)

⁴⁴⁴ (Lindsey & Ahmed, 1999)

61.8%), as well as find a place to live, budget and balance a checkbook, and open a bank account.⁴⁴⁵

Lighthouse Youth & Family Services' Independent Living Program

Established in 1981, Lighthouse Youth & Family Services' Independent Living program provides basic services such as housing, food, clothing, transportation, as well as clinical case management and treatment, life skills, and outside resource and service referrals.⁴⁴⁶ While the specific benefits of the Independent Living program were not able to be monetized, Lighthouse Youth & Family Services provided demographic data on youth in the program as well as their expenditures for the program, which were included in the overall Benefit-Cost calculations.

Demographic Data

Demographic data for the Independent Living housing program was provided by Lighthouse Youth & Family Services for fiscal years 2012 to 2019. A total of 1,362 youth across this time period were assisted. Table 84 details the race and gender of youth, as well as the average age for youth assisted each fiscal year. The majority of young adults for most fiscal years were female, with FY2013 as the exception. Most young adults assisted in Independent Living were black or African American, each fiscal year, while the average age of youth overall across FY2012 to FY2019 was 19 years old.

Table 84: Independent Living Demographic Information, FY2012-FY2019

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Number of Youth	154	141	113	162	171	228	171	222	1,362
% Male	45.45%	51.77%	48.67%	40.12%	43.27%	42.54%	50.29%	47.30%	45.89%
% Female	54.55%	48.23%	51.33%	59.88%	56.73%	54.39%	47.38%	51.35%	53.08%
% Gender Non-Conforming	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
% Transgender	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.58%	0.45%	0.15%
% Other	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
% Unknown	0.00%	0.00%	0.00%	0.00%	0.00%	3.07%	1.75%	0.90%	0.88%
% Black/ African American	74.02%	67.38%	66.37%	75.93%	74.27%	77.63%	69.01%	71.17%	72.47%
% White/ Caucasian	22.08%	29.79%	27.43%	19.75%	19.30%	14.47%	18.12%	19.82%	20.56%
% Other/ Unknown	1.30%	1.41%	3.54%	3.09%	3.51%	2.19%	4.68%	3.60%	2.93%
% Multi or Bi-Racial	2.60%	1.42%	2.66%	1.23%	2.92%	5.71%	8.19%	5.41%	4.04%
Average Age	18	18	17	18	19	19	21	21	19

Source: Economics Center calculations using data provided by Lighthouse Youth & Family Services.

⁴⁴⁵ (Lemon, Hines, & Merdinger, 2005)

⁴⁴⁶ (Kroner & Mares, 2011)

Costs of the Independent Living Program

Lighthouse Youth & Family Services provided expenditure information for FY2012 to FY2019 for the Independent Living Program. Total spending across this time period was approximately \$12.5 million, averaging \$1.6 million per fiscal year. Table 85 details the breakdown per fiscal year of the cost to provide the program.

Table 85: Independent Living Program Costs, FY2012-FY2019 (FY2018\$)

Program Costs (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Independent Living	\$1.67	\$1.48	\$1.45	\$1.51	\$1.40	\$1.66	\$1.66	\$1.71	\$12.54

Source: Data provided by Lighthouse Youth & Family Services.

Transitional Living, Rapid Re-Housing, and Permanent Supportive Housing

Lighthouse Youth & Family Services provided data on the number of young adults assisted by their transitional living and rapid re-housing program as well as their permanent supportive housing program. Services are provided primarily for young adults between the ages of 18 and 24 years old.

Demographic Data

Across the fiscal years of 2012 to 2019, Lighthouse Youth & Family Services supported 1,102 youth with transitional and rapid re-housing services. In each fiscal year, the majority of assisted youth/young adults were black or African American. Most youth assisted in this program in each fiscal year were female. For all fiscal years, the majority of individuals were between the ages of 18 and 24 years old, as this was the program's targeted age group. Overall, 6.9 percent of young adults assisted over these eight fiscal years experienced chronic homelessness, while 16.4 percent struggled with a mental health issue, and 5.6 percent had chronic health conditions. Table 86 details the demographic information of the youth assisted from FY2012 to FY2019 in transitional and rapid re-housing services.

Table 86: Transitional Living and Rapid Re-Housing Demographic Information, FY2012-FY2019

Percent	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
% Age 18-24	77.89%	71.33%	60.77%	58.33%	58.73%	72.50%	69.68%	73.15%	67.70%
% Male	30.53%	32.87%	32.31%	36.11%	41.27%	41.25%	42.58%	42.96%	37.93%
% Female	67.37%	65.03%	66.15%	63.89%	58.73%	57.50%	56.13%	55.70%	60.89%
% Gender Non-Conforming	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
% Transgender	2.10%	2.10%	1.54%	0.00%	0.00%	1.25%	1.29%	1.34%	1.18%
% Other/ Unknown	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
% Black/African American	69.47%	84.62%	86.93%	89.58%	83.33%	85.00%	85.81%	81.21%	83.85%
% White/ Caucasian	18.95%	8.39%	6.15%	5.56%	11.11%	10.00%	9.03%	13.42%	9.98%
% Other/ Unknown	0.00%	0.00%	0.00%	0.00%	0.80%	1.25%	0.64%	0.00%	0.36%
% Multi or Bi-Racial	11.58%	6.99%	6.92%	4.86%	4.76%	3.75%	4.52%	5.37%	5.81%
% Chronic Health Condition	4.21%	4.90%	3.85%	6.25%	7.14%	6.88%	5.81%	5.37%	5.63%
% Mental Health Issue	7.37%	6.99%	6.15%	7.64%	16.67%	30.00%	27.10%	22.82%	16.42%
% Alcohol and/or Substance Abuse	1.05%	2.10%	3.08%	4.17%	6.35%	12.50%	10.97%	6.71%	6.26%
% Chronic Homelessness	0.00%	0.00%	0.00%	7.35%	13.56%	14.29%	12.28%	4.17%	6.88%
Total Number of Youth	95	143	130	144	126	160	155	149	1,102

Source: Economics Center calculations using data provided by Lighthouse Youth & Family Services.

Across FY2012 to FY2019, Lighthouse Youth & Family Services supported 479 youth with permanent supportive housing. In each fiscal year, the majority of assisted youth/young adults were black or African American. In each fiscal year, most youth were female. In all fiscal years except FY2012, the majority were between the ages of 18 and 24 years old. Most youth assisted in the permanent supportive housing program, except for FY2012, struggled with mental health issues. Table 87 details the demographic information for youth assisted across FY2012 to FY2019 in Lighthouse Youth & Family Services' permanent supportive housing program.

**Table 87: Permanent Supportive Housing Demographic Information, FY2012-
FY2019**

Percent	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
% Age 18-24	36.62%	62.50%	68.42%	60.78%	50.00%	39.53%	63.53%	70.87%	57.41%
% Male	30.99%	18.75%	28.95%	33.33%	32.14%	34.88%	41.18%	42.72%	35.07%
% Female	69.01%	81.25%	71.05%	66.67%	67.86%	65.12%	56.47%	53.40%	63.68%
% Gender Non-Conforming	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.97%	0.21%
% Transgender	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.35%	2.91%	1.04%
% Other/ Unknown	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
% Black/African American	63.38%	75.00%	86.84%	84.31%	83.93%	88.37%	85.88%	77.67%	79.95%
% White/ Caucasian	22.54%	12.50%	7.90%	13.73%	16.07%	11.63%	10.59%	14.56%	14.20%
% Other/ Unknown	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.18%	1.94%	0.63%
% Multi or Bi-Racial	14.08%	12.50%	5.26%	1.96%	0.00%	0.00%	2.35%	5.83%	5.22%
% Chronic Health Condition	5.63%	9.38%	15.79%	17.65%	16.07%	9.30%	11.76%	10.68%	11.69%
% Mental Health Issue	47.89%	65.63%	60.53%	60.78%	55.36%	53.49%	58.82%	63.11%	58.04%
% Alcohol/Substance Abuse	9.86%	6.25%	5.26%	9.80%	16.07%	18.60%	27.06%	24.27%	16.91%
% Chronic Homelessness	0.00%	0.00%	0.00%	33.33%	48.15%	40.00%	37.50%	40.91%	24.74%
Total Number of Youth	71	32	38	51	56	43	85	103	479

Source: Economics Center calculations using data provided by Lighthouse Youth & Family Services.

Outcome Data

Transitional Living and Rapid Re-Housing Program

Outcomes were available for 78 youth supported by the Transitional Living and Rapid Re-Housing Program in FY2019. Of these youth, 62 were successfully discharged to permanent housing (79.5%) in FY2019. The greatest numbers of youth in FY2019 were discharged to a rental unit with no ongoing housing subsidy.

The most common youth placement over all fiscal years, after being discharged from the Transitional and Rapid Re-Housing program, was a rental unit with no ongoing housing subsidy. Table 88 details the number of youth each fiscal year discharged from the program, the number discharged to permanent housing, and the permanent housing placements.

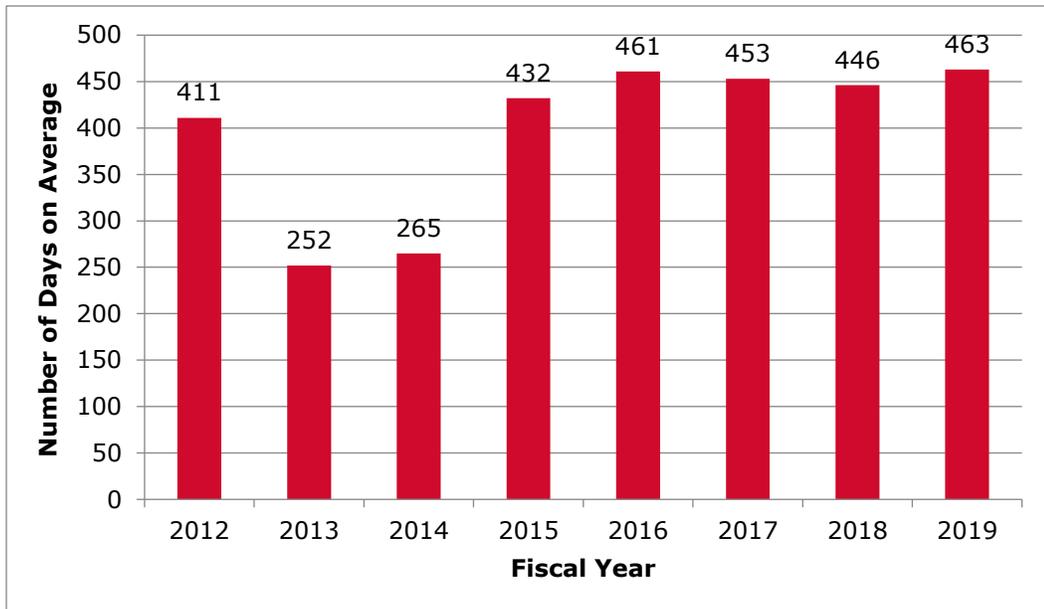
Table 88: Transitional Living and Rapid Re-Housing Discharge Outcomes, FY2012-FY2019

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Total Youth Discharged	32	64	58	58	65	45	82	78	482
Staying or living with family, permanent	10	14	7	8	3	7	2	3	54
Staying or living with friends, permanent	3	1	6	3	2	3	1	2	21
Rental by client, with VASH housing subsidy	0	0	0	0	0	0	0	2	2
Permanent housing (other than RRH) for formerly homeless persons	3	9	1	0	5	0	5	2	25
Rental by client, with RRH/equivalent subsidy	0	0	0	0	0	0	1	0	1
Rental by client, no ongoing housing subsidy	10	26	28	23	24	12	30	27	180
Rental by client, with other ongoing housing subsidy	3	9	4	14	12	3	29	23	97
Owned by client, with ongoing housing subsidy	0	0	0	0	0	0	0	2	2
Owned by client, no ongoing housing subsidy	0	1	1	1	5	0	0	1	9
Total Discharged to Permanent Housing	29	60	47	49	51	25	68	62	391
Percent of Total Youth Discharged to Permanent Housing	90.63%	93.75%	81.03%	84.48%	78.46%	55.55%	82.93%	79.49%	81.12%

Source: Data provided by Lighthouse Youth & Family Services.

For nearly all fiscal years, youth remained in the Transitional and Rapid Re-Housing program for more than one year, on average. The exceptions were FY2013 and FY2014, where the average length of program participation was less than one year. Figure 7 shows the average number of days youth were in the Transitional and Rapid Re-Housing program before going to their next permanent housing destination.

Figure 7: Transitional and Rapid Re-Housing Program Length of Program Participation, FY2012-FY2019



Source: Data provided by Lighthouse Youth & Family Services.

Lighthouse Youth & Family Services provided income information for individuals at entry and exit from the Transitional and Rapid Re-Housing program across FY2012 to FY2019. Over this time period, a total of 392 individuals had some form of income at entry, which could have been public assistance income or earnings from employment. Most of these 392 individuals at entry had income (73.5%) from employment. At exit, across the eight fiscal years, a total of 246 individuals had some form of income. Overall, at exit, there were fewer individuals receiving employment earnings, as well as fewer individuals receiving public assistance dollars, most commonly Temporary Assistance for Needy Families (TANF). At entry, from FY2012 to FY2019, 66 individuals were receiving TANF dollars. At exit however, this number decreased to a total of 38 individuals.

Permanent Supportive Housing Program

For youth in the Permanent Supportive Housing program, outcomes were available for 27 youth in FY2019. Of these youth, 12 were successfully discharged to permanent housing (44.4%). The most common placement in FY2019 was tied between a rental unit with ongoing housing subsidy and staying permanently with friends.

Most common youth placements overall, (permanent or not) after being discharged from the program were staying in a rental unit with other ongoing housing subsidy, followed by a rental with no ongoing housing subsidy. Table 89 shows the number of youth each fiscal year discharged, the number of youth discharged to permanent housing, and the type of permanent housing placement.

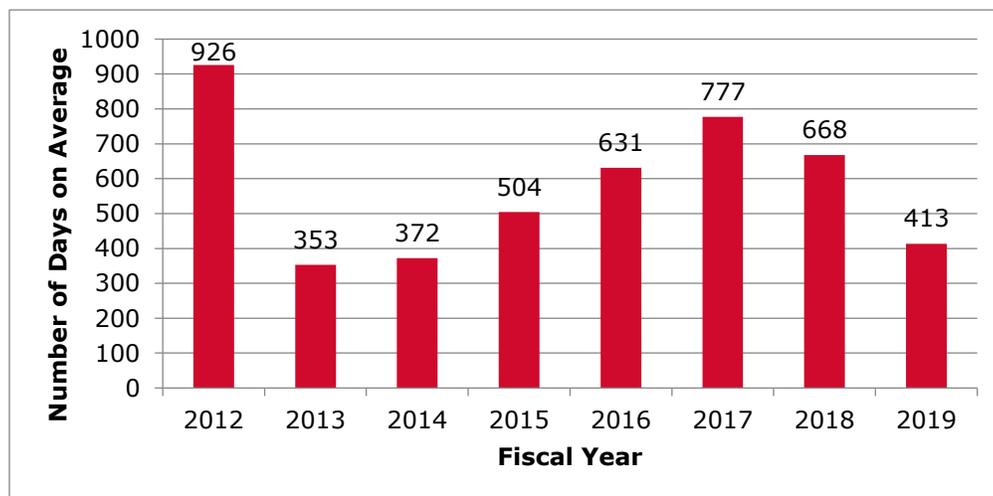
Table 89: Permanent Supportive Housing Discharge Outcomes, FY2012-FY2019

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Total Youth Discharged	62	9	5	11	19	10	13	27	156
Staying or living with family, permanent	0	4	0	0	0	1	1	3	9
Staying or living with friends, permanent	0	4	1	1	0	1	0	4	11
Permanent housing (other than RRH) for formerly homeless persons	26	0	0	0	0	0	0	0	26
Rental by client, no ongoing housing subsidy	24	1	0	2	2	0	2	1	32
Rental by client, with other ongoing housing subsidy	5	0	2	4	13	5	10	4	43
Total Discharged to Permanent Housing	55	9	3	7	15	7	13	12	121
Percent of Total Youth Discharged to Permanent Housing	88.71%	100.00%	60.00%	63.64%	78.95%	70.00%	100.00%	44.44%	77.56%

Source: Data provided by Lighthouse Youth & Family Services.

Shown in Figure 8, the length of time in the Permanent Supportive Housing program for most fiscal years was more than one year (with the exception of FY2013). In FY2012, the average number of days in the program was 926 days or approximately 2.5 years. The remaining fiscal years ranged from an average of 353 days (approximately one year) to 777 days (approximately two years). Most recently, in FY2019, the average number of days in the program was 413 days.

Figure 8: Permanent Supportive Housing Program Length of Program Participation, FY2012-FY2019



Source: Data provided by Lighthouse Youth & Family Services.

Lighthouse Youth & Family Services provided income information for individuals at entry and exit from the Permanent Supportive Housing program. Across FY2012 to FY2019, a total of 171 individuals at entry into the program had some form of income, which could have been from employment or various public assistance programs. For those discharged from the program, at exit, 89 individuals had some form of income. Importantly, there were fewer individuals receiving public assistance aid at exit from the program, specifically Supplemental Security Income (SSI) and Temporary Assistance for Needy Families (TANF). At entry, across the eight fiscal years, 57 individuals were receiving SSI, while 19 individuals received TANF. At exit, these numbers declined to 23 individuals and 9 individuals for SSI and TANF, respectively.

Both Transitional Living and Rapid Re-Housing and PSH Programs

The total number of individuals discharged to permanent housing across the Transitional Living and Rapid Re-Housing program and Permanent Supportive Housing program was calculated by summing the numbers described in the Tables 88 and 89. Overall, 512 individuals were discharged from these programs to permanent housing during FY2012 to FY2019, as shown in Table 90.

Table 90: Transitional Living, Rapid Re-Housing, Permanent Supportive Housing Discharge Outcomes, FY2012-FY2019

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Total Youth Discharged	94	73	63	69	84	55	95	105	638
Staying or living with family, permanent tenure	10	18	7	8	3	8	3	6	63
Staying or living with friends, permanent tenure	3	5	7	4	2	4	1	6	32
Permanent housing (other than RRH) for formerly homeless persons	29	9	1	0	5	0	5	2	51
Rental by client, no ongoing housing subsidy	34	27	28	25	26	12	32	28	212
Rental by client, with other ongoing housing subsidy	8	9	6	18	25	8	39	27	140
Rental by client, with VASH housing subsidy	0	0	0	0	0	0	0	2	2
Rental by client, with RRH or equivalent subsidy	0	0	0	0	0	0	1	0	1
Owned by client, with ongoing housing subsidy	0	0	0	0	0	0	0	2	2
Owned by client, no ongoing housing subsidy	0	1	1	1	5	0	0	1	9
Total Discharged to Permanent Housing	84	69	50	56	66	32	81	74	512
Percent of Total Youth Discharged to Permanent Housing	89.36%	94.52%	79.37%	81.16%	78.57%	58.18%	85.26%	70.48%	80.25%

Source: Data provided by Lighthouse Youth & Family Services.

Benefits and Costs of Transitional Living, Rapid Re-Housing, and Permanent Supportive Housing

Costs of the Transitional Living, Rapid Re-Housing, and Permanent Supportive Housing

Costs of providing the Transitional Living, Rapid Re-Housing, and Permanent Supportive Housing programs for FY2012 to FY2019 were provided by Lighthouse Youth & Family Services. Total spending was approximately \$7.9 million, averaging nearly \$1.0 million each fiscal year. Table 91 details the Organization's expenditures per fiscal year to provide the Transitional Living Program.

Table 91: Transitional Living, Rapid Re-Housing, and Permanent Supportive Housing Program Costs, FY2012-FY2019 (FY2018\$)

Program Costs (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Transitional Living, Rapid Re-Housing, and PSH	\$0.65	\$0.86	\$1.02	\$1.15	\$1.00	\$1.07	\$1.11	\$1.07	\$7.93

Source: Data provided by Lighthouse Youth & Family Services.

Benefits of Transitional Living, Rapid Re-Housing, and Permanent Supportive Housing

Healthcare Costs

The Economics Center estimated avoided healthcare hospitalization costs associated with avoiding homelessness, for youth discharged to permanent housing. As stated in Salit et al. (1998), the cost per hospital admission and treatment of a homeless individual compared to a non-homeless individual was \$2,414 (1997\$).⁴⁴⁷ The Economics Center regionally adjusted this amount to the State of Ohio as well as adjusted for inflation, to calculate the cost in FY2018 dollars, or \$3,789. This total cost of one hospitalization (\$3,789) was then applied to the number of youth discharged to permanent housing from the Lighthouse Youth & Family Services' programs, each fiscal year. As the youth discharged to permanent housing thereby avoided homelessness, these hospitalization costs can be viewed as avoided costs. In total, Table 92 shows that across FY2012 to FY2019, \$1.9 million in healthcare costs due to hospitalizations were avoided.

Table 92: Transitional Living, Rapid Re-Housing, and Permanent Supportive Housing Avoided Healthcare Costs, FY2012-FY2019 (FY2018\$)

Transitional Living, Rapid Re-Housing, and PSH	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Healthcare Costs	\$318,276	\$261,441	\$189,450	\$212,184	\$250,074	\$121,248	\$306,909	\$280,386	\$1,939,968

Source: Economics Center calculations using data provided by Salit et al. (1998) and Lighthouse Youth & Family Services.

⁴⁴⁷ (Salit, Kuhn, Hartz, Vu, & Mosso, 1998)

Total Costs Avoided

Table 93 details hospitalization costs avoided for youth assisted by Lighthouse Youth & Family Services’ Transitional Living, Rapid Re-housing, and Permanent Supportive Housing programs. Across FY2012 to FY2019, approximately \$1.9 million in costs were avoided due to these programs.

Table 93: Transitional Living, Rapid Re-Housing, and Permanent Supportive Housing Program Emergency Shelter and Avoided Healthcare Costs, FY2012-FY2019 (FY2018\$)

Transitional Living, Rapid Re-Housing, and PSH	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Healthcare Costs	\$318,276	\$261,441	\$189,450	\$212,184	\$250,074	\$121,248	\$306,909	\$280,386	\$1,939,968
Total	\$318,276	\$261,441	\$189,450	\$212,184	\$250,074	\$121,248	\$306,909	\$280,386	\$1,939,968

Source: Economics Center calculations using data provided by Salit et al. (1998) and Lighthouse Youth & Family Services.

Education: Lighthouse Community School

Benefits of High School Education

The economic benefits of education are widespread, benefitting not only the individual, but also society. According to a study completed by Mitra (2011), education not only prepared students and gave them the skills necessary to find employment, but also had broader social and economic impacts for individuals, families, and society.⁴⁴⁸ The study found that individuals with access to education were more likely to find employment, and become active and productive community members.⁴⁴⁹ Furthermore, Mitra (2011) noted that a highly-educated population had lower rates of unemployment, reduced dependence on public assistance, and generated a greater amount of tax revenue for local jurisdictions.⁴⁵⁰ Educational attainment was also found to impact an individual’s physical health and housing stability, according to Levin et al. (2007).⁴⁵¹ Higher annual and lifetime earnings have also been proven to be directly correlated with higher levels of educational attainment.⁴⁵² Messacar and Oreopoulos (2013) reported that higher high school graduation rates could lead to reductions in teen pregnancy, health improvements, and reductions in the need for public assistance, reduced crime rates, and increased

⁴⁴⁸ (Mitra, 2011)

⁴⁴⁹ (Mitra, 2011)

⁴⁵⁰ (Mitra, 2011)

⁴⁵¹ (Levin, Belfield, Muennig, & Rouse, 2007)

⁴⁵² (Mitra, 2011)

voting.⁴⁵³ Belfield (2014) found that individuals with higher levels of education utilized government assistance less than those with lower levels of educational attainment.⁴⁵⁴

Education and Crime

Literature supports that individuals with higher levels of education tend to have lower crime and incarceration rates. According to Lochner (2007), education provided individuals with the skills needed to enter the labor market which increased the opportunity cost of crime.⁴⁵⁵ In other words, as educational attainment increased, subsequent earning levels also increased. Due to this phenomenon, individuals were less likely to commit crimes and be incarcerated.⁴⁵⁶ DeBaun and Roc (2013) made the connection that the likelihood of individuals with higher levels of education to commit crimes was lower, as an investment was made in their educations.⁴⁵⁷ DeBaun and Roc (2013) found that a higher level of educational attainment increased the number of options for life outside of criminal activity.⁴⁵⁸

Mitra (2011) stated that in communities where educational attainment was higher, the levels of criminal activity were generally lower.⁴⁵⁹ Therefore, the education system is an important buffer between a child and the likelihood of crime, incarceration, and unemployment in the future. Criminal behavior beginning during childhood can continue into adulthood. DeBaun and Roc (2013) noted that "by keeping adolescents in the classroom and off the streets, later criminal activity may be avoided. More time spent in the classroom may play a role in instilling values and developing skills that can prevent engagement in criminal actions."⁴⁶⁰ Hjalmarsson and Lochner (2012) examined the impact of educational attainment on crime and found that a one-year increase in the average educational attainment in a state would reduce the state-level arrest rate by 11.0 percent.⁴⁶¹

According to a study by DeBaun and Roc (2013), when compared to high school graduates, high school dropouts were three and half times more likely to be arrested and more than eight times as likely to be incarcerated.⁴⁶² Further, among incarcerated individuals in state prisons, those without a high school diploma and those with a GED

⁴⁵³ (Messacar & Oreopoulos, 2013)

⁴⁵⁴ (Belfield, 2014)

⁴⁵⁵ (Lochner, 2007)

⁴⁵⁶ (Lochner, 2007)

⁴⁵⁷ (DeBaun & Roc, Saving Futures, Saving Dollars: The Impact of Education on Crime Reduction and Earnings, 2013)

⁴⁵⁸ (DeBaun & Roc, Saving Futures, Saving Dollars: The Impact of Education on Crime Reduction and Earnings, 2013)

⁴⁵⁹ (Mitra, 2011)

⁴⁶⁰ (DeBaun & Roc, Saving Futures, Saving Dollars: The Impact of Education on Crime Reduction and Earnings, 2013)

⁴⁶¹ (Hjalmarsson & Lochner, 2012)

⁴⁶² (DeBaun & Roc, Saving Futures, Saving Dollars: The Impact of Education on Crime Reduction and Earnings, 2013)

had an increased likelihood of recidivism, compared to those with a high school diploma.⁴⁶³

Education and Health

Educational attainment plays a role in health outcomes of individuals. Increased educational attainment was related to better health outcomes and healthier behaviors for children, according to Wong (2002).⁴⁶⁴ Mortality and morbidity from common acute and chronic diseases decreased, as education increased.⁴⁶⁵ Lifetime expectancy rates also varied by educational attainment. According to Wong (2002), individuals who did not complete high school were more likely to die prematurely from various conditions such as cardiovascular disease, cancer, and diabetes, to name a few.⁴⁶⁶ DeBaun et al. (2003) reported that, on average, "a high school graduate lives six to nine years longer than a high school dropout."⁴⁶⁷ Increased educational attainment has also been found to be associated with healthier behaviors such as diet, exercise, and preventative care.^{468,469} The relationship between educational attainment and reduced risk factors such as smoking and alcohol consumption have also been observed.^{470,471} Furthermore, more highly educated individuals were more likely to drive safely and to live in a safe house, according to Cutler and Lleras-Muney (2006).⁴⁷²

Cutler and Lleras-Muney (2006) found that an additional year of education reduced five-year mortality rates by 0.5 percentage points.⁴⁷³ The study also found an additional year of education reduced the risk of heart disease by 0.5 percentage points, and reduced the number of missed days of work due to sickness by 0.6 days in a year.⁴⁷⁴ Furthermore, the likelihood of smoking decreased by 2.2 percentage points and the probability of being obese decreased by 1.3 percentage points, for each additional year of education.⁴⁷⁵

Literature has also reported that individuals with higher levels of education tend to rely less on healthcare-related public assistance programs. Both Mitra (2011) and Levin et al. (2007) reported that individuals with lower levels of educational attainment were more likely to enroll in Medicaid than those with higher levels.^{476,477} With improved health outcomes, those with higher educational attainment thereby save the government and

⁴⁶³ (DeBaun & Roc, *Saving Futures, Saving Dollars: The Impact of Education on Crime Reduction and Earnings*, 2013)

⁴⁶⁴ (Wong, Shapiro, Boscardin, & Ettner, 2002)

⁴⁶⁵ (Wong, Shapiro, Boscardin, & Ettner, 2002)

⁴⁶⁶ (Wong, Shapiro, Boscardin, & Ettner, 2002)

⁴⁶⁷ (DeBaun, Roc, & Muennig, *Well and well-off: decreasing Medicaid and health-care costs by increasing educational attainment*, 2013)

⁴⁶⁸ (Wong, Shapiro, Boscardin, & Ettner, 2002)

⁴⁶⁹ (Cutler & Lleras-Muney, 2006)

⁴⁷⁰ (Wong, Shapiro, Boscardin, & Ettner, 2002)

⁴⁷¹ (Cutler & Lleras-Muney, 2006)

⁴⁷² (Cutler & Lleras-Muney, 2006)

⁴⁷³ (Cutler & Lleras-Muney, 2006)

⁴⁷⁴ (Cutler & Lleras-Muney, 2006)

⁴⁷⁵ Results based on the 1990, 1991, and 2000 waves of the National Health Interview Survey.

⁴⁷⁶ (Mitra, 2011)

⁴⁷⁷ (Levin, Belfield, Muennig, & Rouse, 2007)

taxpayers healthcare related expenses. Specifically, DeBaun et al.,(2003) found that high school graduates, when compared to high school dropouts, saved states an average of \$16,113 per high school graduate (2012\$) in Medicaid expenses and expenditures for uninsured care over an individual's lifetime.⁴⁷⁸ Those with lower educational attainment were more likely to be uninsured, without any form of healthcare coverage, according to DeBaun et al. (2003).⁴⁷⁹ Literature has well documented that individuals with no healthcare insurance have negative (and more expensive) health outcomes than those with healthcare coverage. According to DeBaun et al(2003), this is a vicious cycle, impacting the uninsured with poor health outcomes. DeBaun et al. (2003) noted that it was difficult for those in poor health to obtain employment in higher-paying jobs or in jobs providing healthcare coverage, and therefore these individuals experienced increased difficulties in obtaining and affording healthcare insurance.⁴⁸⁰

Education and Poverty

Education was found to be one of society's most important tools to improve standards of living of those in poverty, according to BenDavid-Hadar (2014) and Baydu et al. (2013).^{481,482} Findings from BenDavid-Hadar (2014) suggested there were higher rates of return when investing in education at the secondary and post-secondary levels.⁴⁸³ This further indicated that funding higher-level education for lower-income children was an investment with high return rates.⁴⁸⁴ In fact, BenDavid-Hadar (2014) found that resources allocated to students in need produced larger economic returns to individuals and the community, than investments in other students.⁴⁸⁵ Other literature reported additional findings on education's impact on poverty. According to UNESCO (2014), education was imperative in escaping chronic poverty as it helped put an end to poverty's "inter-generational transmission".⁴⁸⁶

Lighthouse Community School

Lighthouse Community School, located in Hamilton County, opened more than two decades ago, in 1999.⁴⁸⁷ The charter school serves students in Grades 7 through 12, providing accredited academic services.⁴⁸⁸ Youth and young adults between the ages of 12 and 22 may attend Lighthouse Community School (LCS).⁴⁸⁹

⁴⁷⁸ (DeBaun, Roc, & Muennig, Well and well-off: decreasing Medicaid and health-care costs by increasing educational attainment, 2013)

⁴⁷⁹ (DeBaun, Roc, & Muennig, Well and well-off: decreasing Medicaid and health-care costs by increasing educational attainment, 2013)

⁴⁸⁰ (DeBaun, Roc, & Muennig, Well and well-off: decreasing Medicaid and health-care costs by increasing educational attainment, 2013)

⁴⁸¹ (BenDavid-Hadar, 2014)

⁴⁸² (Baydu, Kaplan, & Bayar, 2013)

⁴⁸³ (BenDavid-Hadar, 2014)

⁴⁸⁴ (BenDavid-Hadar, 2014)

⁴⁸⁵ (BenDavid-Hadar, 2014)

⁴⁸⁶ (UNESCO, 2014)

⁴⁸⁷ (Lighthouse Community School, 2019)

⁴⁸⁸ (Lighthouse Community School, 2019)

⁴⁸⁹ (Lighthouse Community School, 2019)

Demographic Data

Lighthouse Community School enrollment data for FY2012 to FY2019 were provided by Lighthouse Youth & Family Services. Enrollment numbers across the eight fiscal years totaled more than 730 students. A total of 58 children graduated from the 12th grade of LCS over this time period, as shown in Table 94.

It is important to note the reasons behind the differences in the number of enrolled students and the number successfully graduating each fiscal year. According to Lighthouse Youth & Family Services, some youth may attend LCS for a short amount of time, thereby graduating from another school in the community. Additionally, many students attending LCS were living in out-of-home care, and therefore, there were high turnover rates in the student body year to year due to the instability of the students' housing arrangements.

Table 94: Lighthouse Community School Number of Students, FY2012-FY2019

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Enrolled Students	86	95	102	99	105	90	76	86	739
Students in Grade 12	22	17	15	8	9	17	15	12	115
Students Graduating with a Diploma	14	10	6	3	6	6	6	7	58

Source: Data provided by Lighthouse Youth & Family Services.

Benefits and Costs of Lighthouse Community School

Costs of Lighthouse Community School

Expenditures to operate LCS for FY2012 to FY2019 were provided by Lighthouse Youth & Family Services. Total expenditures across these eight fiscal years were approximately \$10.2 million, averaging approximately \$1.3 million per fiscal year. Table 95 shows Lighthouse Youth & Family Services expenditures across these years.

Table 95: Lighthouse Community School Costs, FY2012-FY2019 (FY2018\$)

Program Costs (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Lighthouse Community School	\$1.13	\$1.20	\$1.05	\$1.27	\$1.41	\$1.38	\$1.36	\$1.37	\$10.18

Source: Data provided by Lighthouse Youth & Family Services.

Benefits of Lighthouse Community School

A total of 58 students graduated from LCS across the eight fiscal years (FY2012 to FY2019). As such, these students, by obtaining their high school diplomas, effectively and positively impacted their future in terms of lifetime earnings.

To monetize the impact of lifetime earnings for these LCS graduates, the Economics Center utilized data from IPUMS⁴⁹⁰ for individuals in Hamilton County with a high school diploma and those with 12th grade but no diploma. Data for individuals aged 17 to 65 years old were collected, including average annual earnings by educational attainment, labor force participation rate, and unemployment rate. As IPUMS data is provided in calendar years, the data were averaged in order to calculate annual earnings, labor force participation, and unemployment rates in fiscal years.⁴⁹¹ Data were calculated for FY2012 to FY2019 across age increments from age 17 to 65 years old.⁴⁹²

For the first age increment, the FY2019 average annual earnings for individuals with a high school diploma was \$10,564 compared to \$5,242 for individuals with 12th grade but no diploma, which was a difference of \$5,322 (FY2018\$). In other words, for youth age 17 to 22 in FY2019, those with a high school diploma earned \$5,322 more annually, than their peers with the educational attainment of 12th grade but no high school diploma. This amount or difference is viewed as earnings preserved/an avoided cost, per youth by obtaining a high school diploma. The difference in annual earnings was then multiplied by the appropriate number of years, based on the age increment (i.e. multiplied by 5 for a five-year increment). The difference in earnings in FY2019 (\$5,322) was therefore multiplied by 5, for the five-year age increment, to equal a total of \$26,610 per youth.

The Economics Center calculated the number of LCS graduates in FY2019 likely to active and employed in the labor force for the first age increment. In FY2019, the labor force participation rate for Hamilton County youth ages 17 to 22 was 73.9 percent, while the unemployment rate was 9.5 percent. A total of 5 LCS graduates therefore were estimated as both participating in the labor force and employed at this age bracket.⁴⁹³ The difference in earnings, as stated previously was \$5,322 per individual, and \$26,610 across the five-year age increment. Multiplying this amount by the 5 youth equated to \$133,050 (FY2018\$). This same methodology was used for the remaining fiscal years and age increments, up to age 65. Earnings across all age increments were then added to derive the total amount of lifetime earnings saved from age 17 to 65 for youth graduating with a high school diploma instead of 12th grade and no diploma, per fiscal year.

Total lifetime earnings across the fiscal years varied from \$562,000 to \$2.9 million depending on the number of youth graduating from LCS per fiscal year, as well as labor force participation and unemployment rates across the age increments. Table 96 details the total amount of lifetime earnings per fiscal year preserved for LCS graduates. The

⁴⁹⁰ (Ruggles, et al.)

⁴⁹¹ As in previous sections of this report, the years 2011 and 2012 were averaged to determine FY2012 earnings/rates and so on. For FY2018 and FY2019, earnings and rates were assumed to be the same as FY2017 calculations, as this was the most recent year available from IPUMS.

⁴⁹² Age increments were age 17-22; age 23-28; age 29-34; age 35-40; age 41-46; age 47-52; age 53-58; and age 59-65.

⁴⁹³ This calculation was 73.9 percent labor force participation rate in FY2019 multiplied by 7 youth graduating from LCS, to equal 5 youth participating in the labor force. However, the number of unemployed youth was accounted for. In FY2019, there were an estimated 0 youth likely to be unemployed (9.5% unemployment rate * 5 youth graduating from LCS). Controlling for unemployed youth yielded a total of 5 youth participating in the labor force and employed.

amount of annual earnings is considered avoided costs for LCS students, as these earnings are experienced as a result of attending and graduating from LCS. In total, across the eight fiscal years, approximately \$14.0 million in lifetime earnings, or productivity, was saved.

Table 96: Lighthouse Community School Lifetime Productivity Costs Avoided, FY2012-FY2019 (FY2018\$)

Lighthouse Community School	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Lifetime Productivity (\$M)	\$2.11	\$2.88	\$1.48	\$0.56	\$1.43	\$1.73	\$1.73	\$2.10	\$14.02

Source: Economics Center calculations using data provided by Lighthouse Youth & Family Services and IPUMS data.

Other Community Benefits

Lighthouse Youth & Family Services supplied details on historical community benefits the Organization provided, through volunteers and in partnering with Kroger Community Rewards. Also included in this section are donations to Lighthouse Youth & Family Services, other community support, and special events.

Volunteers

Volunteers for Lighthouse Youth & Family Services perform a variety of tasks including cooking meals, teaching, administrative services, gathering items for homeless youth, and working with youth at Lighthouse Community School. Across FY2012 to FY2019, Lighthouse Youth & Family Services had help from 5,862 volunteers, averaging 733 per fiscal year. Over this time period, these 5,862 volunteers worked a total of 113,256 hours. Table 97 details the number of volunteers, hours volunteered, and the average number of hours per volunteer, for the Fiscal Years of 2012 to 2019.

Table 97: Lighthouse Youth & Family Services Volunteers and Hours, FY2012-FY2019

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Number of Volunteers	474	654	747	795	1,108	753	605	726	5,862
Number of Volunteer Hours	13,218	13,434	19,356	19,268	18,154	15,736	7,810	6,280	113,256
Average Hours, per Volunteer	28	21	26	24	16	21	13	9	19

Source: Data provided by Lighthouse Youth & Family Services.

These volunteers provided additional impacts to the community through the hours spent conducting various roles and tasks with Lighthouse Youth & Family Services. The financial impact of volunteers can be calculated using data provided by the Independent Sector. In

2018, the value was volunteer time in the State of Ohio was \$24.05 per hour (2018\$).⁴⁹⁴ Adjusted to FY2018 dollars, the value was calculated as \$24.29 per hour (FY2018\$). With 5,862 individuals volunteering a total of 113,256 hours, at the estimated value of \$24.29 per hour, the financial impact was calculated to be approximately \$2.8 million (FY2018\$), as shown in Table 98.

The total number of hours volunteered were equivalent to approximately 54 annual full-time jobs.⁴⁹⁵ The \$2.8 million in community benefits were comparable, therefore, to 54 full-time individuals contributing a total of approximately 14,156 total days of work.⁴⁹⁶ Table 98 details the financial impact, number of FTE jobs, and estimated equivalent days worked per fiscal year due to Lighthouse Youth & Family Services volunteers.

Table 98: Financial Impact of Volunteers (FY2018\$), FTE jobs, and Total Days Worked, FY2012-FY2019

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Financial Impact	\$321,065	\$326,312	\$470,157	\$468,019	\$440,961	\$382,227	\$189,705	\$152,541	\$2,750,987
FTE Jobs	6	6	9	9	9	8	4	3	54
Total Days of Work	1,652	1,679	2,419	2,409	2,269	1,967	976	785	14,156

Source: Data provided by Lighthouse Youth & Family Services.

Kroger Community Rewards

Kroger Community Rewards is a fundraising program in which rewards for an organization are awarded every time an individual shops and uses their Kroger Loyalty Card.^{497,498} Lighthouse Youth & Family Services provided data on the financial contributions to the Organization made by participating households for FY2013 to FY2019. Data for FY2012 were not available. In total, across FY2013 to FY2019, proceeds from Kroger Community Rewards totaled approximately \$12,000 (FY2018\$). Table 99 details the number of household participants for FY2018 to FY2019, as well as the monetary contributions to Lighthouse Youth & Family Services from the program across FY2013 to FY2019.

Table 99: Monetary Amounts from Kroger Community Rewards and Participating Households (FY2018\$) FY2012-FY2019

	FY2012	FY2013	FY2014	FY2015	FY2015- FY2016	FY2016	FY2016- FY2017	FY2017	FY2017- FY2018	FY2018	FY2018- FY2019	FY2019	Total
Monetary Amount	N/A	\$1,546	\$1,658	\$1,578	\$605	\$1,833	\$253	\$1,102	\$402	\$1,088	\$409	\$1,223	\$11,697
Households	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	180	94	302	576

Source: Data provided by Lighthouse Youth & Family Services.

⁴⁹⁵ Assuming full-time employees are working 40 hours per week and 52 weeks per year; this calculation was 113,256/40 hours/52 weeks to equal 54 FTE jobs.

⁴⁹⁵ Assuming full-time employees are working 40 hours per week and 52 weeks per year; this calculation was 113,256/40 hours/52 weeks to equal 54 FTE jobs.

⁴⁹⁶ This calculation was the total 113,256 hours divided by 8 hours in a workday.

⁴⁹⁷ (Kroger Community Rewards, 2019)

⁴⁹⁸ (Kroger Community Rewards, 2019)

Donations and Community Support

In-Kind Donations, Gifts of Stock, and Leave a Legacy

According to Lighthouse Youth & Family Services, donations help support families and youth receiving services in a myriad of ways.⁴⁹⁹ Lighthouse Youth & Family Services accepts donations from the community in the forms of food, personal care items, holiday gifts, clothing, and event tickets to name a few. Across FY2012 to FY2019, the Organization received 4,329 donations with a monetary value of \$2.1 million (FY2018\$), according to data provided by Lighthouse Youth & Family Services.

Individuals who wish to do so may donate their appreciated securities to the Lighthouse Beacon for Youth Foundation, which supports Lighthouse Youth & Family Services' programs.⁵⁰⁰ According to data provided by Lighthouse Youth & Family Services, across the FY2012 to FY2019, 64 individuals participated in Gifts of Stock with a total monetary value of approximately \$451,000 (FY2018\$).

Lighthouse Youth & Family Services' Leave a Legacy allows participants to join the Bob Mecum Society, named after the Organization's former CEO, and make a planned gift donation, according to their website.⁵⁰¹ Possible donations include a bequest in a will or trust, naming Lighthouse Youth & Family Services as a beneficiary in a retirement or life insurance plan, as well as life income gifts and charitable lead trusts.⁵⁰² Across the FY2012 to FY2019, 6 individuals left a bequest for Lighthouse Youth & Family Services from a will or trust, and 2 individuals named Lighthouse Youth & Family Services as a beneficiary in their life insurance plans.

Special Events

Lighthouse Youth & Family Services provided data on the springtime Annual Beacon of Light Gala, as well as the fall event for Fiscal Years 2012 to 2019. The Annual Beacon of Light Gala is a celebration of the accomplishments of humanitarians in the community and honors these individuals with the Beacon of Light Award.⁵⁰³ Lighthouse Youth & Family Services' website states that "honorees are recognized for leadership and service, community impact, and involvement with children, youth, and families."⁵⁰⁴ Across fiscal years 2012 to 2019, a total of 3,561 individuals attended the Annual Beacon of Light Gala. Over this time period, the net amount raised for Lighthouse Youth & Family Services, by attendees of the Gala was \$1.3 million (FY2018\$). Table 100 shows the number of attendees by fiscal year for the annual event, as well as the gross and net amounts raised to support the Organization's programs and services.

⁴⁹⁹ (In-Kind Donations, 2019)

⁵⁰⁰ (Gifts of Stock, 2019)

⁵⁰¹ (Leave A Legacy, 2019)

⁵⁰² (Leave A Legacy, 2019)

⁵⁰³ (Special Events, 2019)

⁵⁰⁴ (Special Events, 2019)

Table 100: Annual Springtime Beacon of Light Gala: Number of Attendees and Amount Raised, FY2012-FY2019 (FY2018\$)

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Number of Attendees	415	460	375	460	491	512	401	447	3,561
Gross Amount Raised	\$304,796	\$346,156	\$224,915	\$318,071	\$275,154	\$291,847	\$269,812	\$311,001	\$2,341,752
Net Amount Raised	\$191,632	\$213,466	\$107,024	\$185,418	\$151,065	\$176,160	\$171,825	\$119,767	\$1,316,357

Source: Data provided by Lighthouse Youth & family Services.

Lighthouse Youth & Family Services' fall event includes boutiques, a raffle, and lunch donated by local restaurants and caterers.⁵⁰⁵ Participating boutiques gift 20.0 percent of the event's sales to Lighthouse Youth & Family Services, which are used to support the Organization's programs and services.⁵⁰⁶ Across FY2012 to FY2019, the fall event attracted a total of 1,853 individuals, averaging 232 attendees per fiscal year. In total, the net amount of dollars raised across this time period was approximately \$316,000 (FY2018\$). Table 101 details the number of attendees by fiscal year for the fall event, as well as the gross and net amounts raised to support Lighthouse Youth & Family Services' programs and services.

Table 101: Fall Event: Number of Attendees and Amount Raised, FY2012-FY2019 (FY2018\$)

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Number of Attendees	220	235	195	215	240	281	263	204	1,853
Net Amount Raised	\$49,540	\$35,206	\$27,101	\$29,774	\$54,035	\$55,868	\$40,338	\$23,870	\$315,732

Source: Data provided by Lighthouse Youth & family Services.

Young Professionals

Lighthouse Youth & Family Services' Young Professionals (YPs) include individuals between the ages of 22 and 40 years old. Members work as volunteers in the community, to promote and support Lighthouse Youth & Family Services' mission, according to the Organization's website.⁵⁰⁷ Young Professionals are involved in fundraising activities and advocacy for Lighthouse Youth & Family Services, thereby making a positive impact on their communities.⁵⁰⁸ Lighthouse Youth & Family Services provided data for FY2018 and FY2019 on the YP program. In FY2018, 21 individuals participated and were involved in numerous activities including hosting the annual NautiCrawl fundraiser, assisting with

⁵⁰⁵ (Special Events, 2019)

⁵⁰⁶ (Special Events, 2019)

⁵⁰⁷ (Lighthouse Young Professionals, 2019)

⁵⁰⁸ (Lighthouse Young Professionals, 2019)

meals, and through YP networking and connections. In FY2019, 26 individuals were involved in the YP program.

Stakeholder Interviews

The Economics Center additionally conducted stakeholder interviews in order to provide qualitative data on the impacts of Lighthouse Youth & Family Services' services to youth and their communities. As a qualitative assessment of the Organization's programs and services, the Economics Center conducted four stakeholder interviews with community members and Lighthouse Youth & Family Services staff. Interviews were conducted over the two weeks of April 20 and April 27, 2020.

In the interviews, stakeholders were asked their opinions of how Lighthouse Youth & Family Services as an organization impacts both the youth they serve, as well as the community as a whole. Questions were also asked about specific Lighthouse Youth & Family Services' programs. Key quotes from stakeholders are included as callouts throughout this analysis, in the sections detailing the impacts of Paint Creek Academy, Early Intervention services, and Homeless Youth Services. Stakeholders employed with the Hamilton County Developmental Disability Services (DDS) expressed the importance of partnering with Lighthouse Youth & Family Services in service coordination for Early Intervention services. Lighthouse Youth & Family Services staff from Paint Creek Academy and Homeless Youth Services additionally provided their opinions on how these programs impact youth served, as well as impacts to the community and larger economy.

Net Benefits and Return on Investment (ROI)

In this section, the monetary benefits and/or avoided costs for the monetized categories detailed in this report are compared to the actual costs of Lighthouse Youth & Family Services' programs and services. This comparison thereby determined the net benefits of Lighthouse Youth & Family Services' services and programs accruing to Hamilton, Montgomery, and Ross Counties as well as to the State of Ohio. The first column in Table 104 shows the categories of services as monetized and described in this report. The remaining columns show the calculated net benefits for each program, which include the various impacts on the youth themselves, as well as to society. Net benefits are calculated as the benefits and/or avoided costs due to Lighthouse Youth & Family Services' programs minus the costs of providing the programs.⁵⁰⁹

Overall, the net benefits of services provided by Lighthouse Youth & Family Services were positive in each fiscal year, as shown in Table 102. In other words, the monetized benefits outweighed the costs, when aggregated across the services provided by Lighthouse Youth & Family Services. While each program specifically did not have positive net benefits for each fiscal year, when aggregating across all programs and services, Lighthouse Youth & Family Services as an organization provided positive net benefits

⁵⁰⁹ Numbers in parentheses signify negative net benefits, or the costs of the program being larger than the calculated program benefits.

overall. One explanation for each program not having positive net benefits is due to the lack of data and/or literature available necessary to quantify benefits of the programs. In other words, Lighthouse Youth & Family Services program benefits may be understated due to the lack of literature and/or data availability. Therefore, it is likely the benefits, and thereby net benefits, are higher than what was described in this analysis for some programs.⁵¹⁰

As stated, Lighthouse Youth & Family Services' programs and services were found to have positive net benefits overall. The total amount of net benefits across all areas of programs and services was estimated to be approximately \$367.3 million, across FY2012 to FY2019. This indicates that the services offered by Lighthouse Youth & Family Services provided \$367.3 million in net benefits to youth and families, as well as to their surrounding communities in the State of Ohio.

Overall, Lighthouse Youth & Family Services had many programs which provided positive net benefits across FY2012 to FY2019. In the Juvenile Justice category, the Youth Center at Paint Creek and Paint Creek Academy provided a total a \$83.8 million in net benefits to youth and to the local economy over this time period. In the Homeless Youth Services housing programs and services, the Mecum House program also had overall positive net benefits. Lighthouse Community School generated \$3.5 million in net benefits across the eight fiscal years, while Lighthouse Youth & Family Services operations expenditures provided approximately \$243.1 million in total net benefits across this time period. Also included, as shown in Table 102, are the economic impacts of Lighthouse Youth & Family Services operations and capital expenditures, the fiscal impacts of operations spending, as well as expenditures on other historical programs and services.

⁵¹⁰ It is important to note, the net benefits for a particular program may be negative due to lack of literature and/or data availability, or negative due to the assumptions made in the analysis. For example, percentages of youth avoiding costs as derived through literature were applied to the number of youth receiving services in a program or completing/being discharged from a Lighthouse program. Costs avoided/benefits numbers may have been applied to a relatively small percentage of Lighthouse youth. Cost avoided numbers are compared to the cost of providing the program, which was the cost to provide the program for the total number of youth receiving services. As a specific example, in the juvenile justice sections, there are numerous youth being discharged from JJS programs. However, a relatively small percentage recidivate compared to a control group, as stated in literature. Costs of incarceration are only avoided for this small number of youth likely to recidivate. These costs avoided are compared to the cost of the entire juvenile program for all youth assisted – while the benefits/avoided costs only occur in a portion of the assisted youth, as not all youth are going to recidivate.

Table 102: Net Benefits Per Category of Lighthouse Youth & Family Services' Services, FY2012-FY2019 (FY2018\$)

Net Benefits per Program (\$M)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Hamilton County JJS	(\$1.65)	(\$1.81)	(\$1.76)	(\$1.52)	(\$1.63)	(\$1.31)	(\$1.14)	(\$1.15)	(\$11.97)
Youth Center at Paint Creek and Paint Creek Academy	\$3.76	\$3.76	\$13.33	\$14.40	\$17.40	\$8.68	\$13.43	\$9.00	\$83.76
Montgomery County JJS	(\$0.49)	(\$0.57)	(\$0.55)	(\$0.63)	(\$0.75)	\$0.41	\$0.02	(\$0.41)	(\$2.97)
Ross County JJS*	\$-	\$-	\$-	\$-	(\$0.20)	(\$0.23)	(\$0.26)	(\$0.29)	(\$0.98)
Residential Treatment*	(\$1.86)	(\$1.89)	(\$1.88)	(\$1.77)	(\$1.77)	(\$1.80)	(\$1.68)	(\$1.75)	(\$14.40)
Outpatient Mental Health Services	(\$1.20)	(\$1.38)	(\$0.77)	\$0.33	(\$1.14)	(\$1.95)	(\$4.41)	(\$3.46)	(\$13.98)
Early Intervention Services*	(\$1.04)	(\$1.47)	(\$1.66)	(\$1.45)	(\$1.54)	(\$1.46)	(\$1.12)	(\$1.05)	(\$10.79)
Foster Care and Adoption	(\$4.48)	(\$4.80)	(\$4.85)	(\$3.49)	(\$3.51)	(\$4.68)	(\$3.37)	(\$0.10)	(\$29.28)
Safe and Supported Host Homes	\$-	\$-	\$-	\$-	(\$0.09)	(\$0.23)	(\$0.23)	(\$0.31)	(\$0.86)
Mecum House	\$10.13	\$21.06	\$22.85	\$18.30	\$16.24	\$14.51	\$15.18	\$18.57	\$136.84
Sheakley Center for Youth	(\$0.43)	(\$0.30)	(\$0.63)	(\$0.43)	(\$0.60)	(\$0.71)	(\$0.67)	(\$1.27)	(\$5.04)
Street Outreach*	(\$0.11)	(\$0.15)	(\$0.21)	(\$0.24)	(\$0.18)	(\$0.23)	(\$0.25)	(\$0.24)	(\$1.61)
Independent Living*	(\$1.67)	(\$1.48)	(\$1.46)	(\$1.51)	(\$1.40)	(\$1.66)	(\$1.66)	(\$1.71)	(\$12.55)
Transitional Living, Rapid Re-Housing, and PSH	(\$0.34)	(\$0.60)	(\$0.83)	(\$0.93)	(\$0.75)	(\$0.95)	(\$0.81)	(\$0.79)	(\$6.00)
Lighthouse Community School	\$0.88	\$1.59	\$0.37	(\$0.77)	(\$0.04)	\$0.32	\$0.37	\$0.76	\$3.48
<i>Economic Impact of Operations</i>	\$25.77	\$27.88	\$29.45	\$30.05	\$32.08	\$34.35	\$32.23	\$31.32	\$243.13
<i>Economic Impact of Capital Expenditures</i>	\$0.28	\$0.50	\$1.63	\$0.33	\$0.33	\$1.06	\$22.83	\$0.52	\$27.48
<i>Fiscal Impact of Operations</i>	\$0.21	\$0.21	\$0.24	\$0.26	\$0.26	\$0.28	\$0.27	\$0.25	\$1.98
<i>Other Lighthouse Youth & Family Services Expenditures</i>	(\$1.59)	(\$2.32)	(\$1.85)	(\$2.17)	(\$2.25)	(\$2.89)	(\$2.61)	(\$3.31)	(\$18.99)
Total	\$26.17	\$38.23	\$51.42	\$48.76	\$50.46	\$41.51	\$66.12	\$44.58	\$367.25

An "*" indicates that benefits of these Lighthouse Youth & Family Services programs were not monetized due to literature and/or data availability.

Source: Economics Center calculations based on relevant literature, data provided by Lighthouse Youth & Family Services, and the U.S. Census Bureau, the Bureau of Labor Statistics.

The return on investment (ROI) was calculated for each fiscal year to measure the gain or loss generated on an investment relative to the money invested. In this case, the ROI percentages measure the impact or financial return of services provided by Lighthouse Youth & Family Services versus the cost of operating and maintaining the services, per fiscal year. The overall ROI was calculated to be 161.7 percent across all eight fiscal years, indicating there was a positive return on investment for programs and services provided by Lighthouse Youth & Family Services. This translates to every \$1.00 spent on or invested in the Organization's programs/services generated a total of \$2.62 in economic activity or benefits to youth and families assisted, as well as to the State of Ohio's economy.

Table 103 shows the calculated ROIs and dollars for every \$1.00 spent on Lighthouse Youth & Family Services' programs and services for each fiscal year. Importantly, every fiscal year had positive returns on investments, ranging from 107.3 percent in FY2012 to

222.5 percent in FY2018. This indicates that programs and services provided by Lighthouse Youth & Family Services from FY2012 to FY2019 were positive investments with positive ROIs and net benefits to society.

Table 103: Lighthouse Youth & Family Services ROI, FY2012-FY2019

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
ROI (%)	107.3%	140.5%	186.7%	174.8%	170.1%	131.4%	222.5%	153.0%	161.7%
For every \$1.00 spent	\$1.07	\$1.41	\$1.87	\$1.75	\$1.70	\$1.31	\$2.23	\$1.53	\$1.62

Source: Economics Center calculations using data provided by Lighthouse Youth & Family Services.

Conclusion

Lighthouse Youth & Family Services has been providing a multitude of services and programs for the past fifty years, assisting in the issues of youth homelessness, access to mental health services, as well as aiding in adoption and foster parent proceedings, providing educational services, and juvenile justice programs. In this analysis, the Economics Center quantified Lighthouse Youth & Family Services' economic impact in terms of output, jobs, and earnings for the FY2012 to FY2019, as well as conducted a complete Benefit-Cost Analysis of Lighthouse Youth & Family Services' programs and services offered over this same time period.

Economic Impact of Lighthouse Youth & Family Services Operations

The total economic impact of Lighthouse Youth & Family Services operations was calculated across three Ohio counties from FY2012 to FY2019. The Organization's total economic impact is expressed in terms of output, jobs, and earnings. Across all fiscal years, Lighthouse Youth & Family Services' direct operations expenditures totaled approximately \$227.2 million. These expenditures, in turn, generated a total output of \$243.1 million, through indirectly supporting \$90.0 million of economic activity, after economic leakage was applied. Over FY2012 to FY2019, Lighthouse Youth & Family Services operations supported a total of 4,659 jobs with earnings of \$159.0 million.

Economic Impact of Lighthouse Youth & Family Services Capital Expenditures

The total economic impact of Lighthouse Youth & Family Services capital expenditures across the three Ohio counties was calculated. Across all eight Fiscal Years of 2012 to 2019, Lighthouse Youth & Family Services capital expenditures totaled \$19.8 million, which in turn, generated a total output of \$27.5 million. These expenditures supported a total of 69 jobs with earnings of approximately \$4.0 million.

Fiscal Impact of Lighthouse Youth & Family Services Operations

Fiscal impacts which accrued to state and local governments were calculated based on Lighthouse Youth & Family Services operations expenditures. These impacts were in the form of earnings/income tax revenue generated from the Organization's direct employees in the cities of Dayton and Cincinnati. Across FY2012 to FY2019, Lighthouse Youth &

Family Services employees, through wages earned, generated a total of approximately \$2.0 million in earnings tax revenue for the cities of Cincinnati and Dayton.⁵¹¹

Benefit-Cost Analysis

This analysis included a Benefit-Cost Analysis of programs and services provided by Lighthouse Youth & Family Services over the FY2012 to FY2019 time period. The categories of Juvenile Justice, Clinical Services, Homeless Youth Services were analyzed, in addition to the Lighthouse Community School. Where possible, the Economics Center monetized the benefits of each specific Lighthouse Youth & Family Services' program, for the youth receiving the services as well as their surrounding communities, using data sourced from academic literature. These monetized benefits were then compared to the cost of providing the program or service (i.e. Lighthouse Youth & Family Services expenditures) for each fiscal year, and in total.

As presented in this analysis, Lighthouse Youth & Family Services' programs overall had positive net benefits. While programs' net benefits varied in being positive or negative, the overall net benefits across all programs and services were positive for each fiscal year. It is also important to note that the benefits, and thereby net benefits, of Lighthouse Youth & Family Services' programs may be understated due to lack of data and/or literature available to quantify all benefits associated with the programs. Most significantly, however, as a whole, Lighthouse Youth & Family Services was found to have positive net benefits in each of the eight fiscal years analyzed in this analysis.

Lighthouse Youth & Family Services' programs provided a total of approximately \$367.3 million in net benefits to youth, families, and society and had an overall eight-fiscal-year ROI of 161.7 percent. This indicates that for every \$1.00 invested by Lighthouse Youth & Family Services, \$2.62 of total economic activity occurred, for a ROI of 161.7 percent for this time period. The results of this analysis show that the economic benefits of Lighthouse Youth & Family Services' programs and services over the FY2012 to FY2019 time period outweigh the Organization's expenditures in providing these services and programs. In other words, the results of this analysis confirm that the programs and services provided by Lighthouse Youth & Family Services had positive ROIs and positive net benefits for youth and their local economies as a whole.

⁵¹¹ Lighthouse Youth & Family Services' locations in Ross County were not included in the fiscal impact calculations, as the village of Bainbridge, OH does not collect municipal income tax revenue.

Appendix

Table A1: Benefits, Costs, and Net Benefits of Lighthouse Youth & Family Services' Programs and Services, FY2012-FY2019 (FY2018\$)

Program	FY2012			FY2013			FY2014			FY2015			FY2016			FY2017			FY2018			FY2019			TOTAL		
	B	C	NB	B	C	NB																					
Hamilton County JJS	\$0.00	\$1.65	(\$1.65)	\$0.00	\$1.81	(\$1.81)	\$0.00	\$1.76	(\$1.76)	\$0.00	\$1.52	(\$1.52)	\$0.10	\$1.73	(\$1.63)	\$0.42	\$1.73	(\$1.31)	\$0.44	\$1.58	(\$1.14)	\$0.43	\$1.58	(\$1.15)	\$1.39	\$13.36	(\$11.97)
YC at Paint Creek/Paint Creek Academy	\$9.05	\$5.29	\$3.76	\$9.14	\$5.38	\$3.76	\$18.55	\$5.22	\$13.33	\$19.45	\$5.05	\$14.40	\$22.44	\$5.04	\$17.40	\$13.50	\$4.82	\$8.68	\$18.22	\$4.79	\$13.43	\$14.02	\$5.02	\$9.00	\$124.37	\$40.61	\$83.76
Montgomery County JJs	\$0.00	\$0.49	(\$0.49)	\$0.00	\$0.57	(\$0.57)	\$0.00	\$0.55	(\$0.55)	\$0.00	\$0.63	(\$0.63)	\$0.00	\$0.75	(\$0.75)	\$1.13	\$0.72	\$0.41	\$0.66	\$0.64	\$0.02	\$0.22	\$0.63	(\$0.41)	\$2.01	\$4.98	(\$2.97)
Ross County JJS**	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.20	(\$0.20)	\$0.00	\$0.23	(\$0.23)	\$0.00	\$0.26	(\$0.26)	\$0.00	\$0.29	(\$0.29)	\$0.00	\$0.98	(\$0.98)
Residential Treatment**	\$0.00	\$1.86	(\$1.86)	\$0.00	\$1.89	(\$1.89)	\$0.00	\$1.88	(\$1.88)	\$0.00	\$1.77	(\$1.77)	\$0.00	\$1.77	(\$1.77)	\$0.00	\$1.80	(\$1.80)	\$0.00	\$1.68	(\$1.68)	\$0.00	\$1.75	(\$1.75)	\$0.00	\$14.40	(\$14.40)
Outpatient Mental Health	\$1.63	\$2.83	(\$1.20)	\$2.04	\$3.42	(\$1.38)	\$2.89	\$3.66	(\$0.77)	\$4.41	\$4.08	\$0.33	\$2.93	\$4.07	(\$1.14)	\$2.22	\$4.17	(\$1.95)	\$0.00	\$4.41	(\$4.41)	\$0.11	\$3.57	(\$3.46)	\$16.23	\$30.21	(\$13.98)
Early Intervention**	\$0.00	\$1.04	(\$1.04)	\$0.00	\$1.47	(\$1.47)	\$0.00	\$1.66	(\$1.66)	\$0.00	\$1.45	(\$1.45)	\$0.00	\$1.54	(\$1.54)	\$0.00	\$1.46	(\$1.46)	\$0.00	\$1.12	(\$1.12)	\$0.00	\$1.05	(\$1.05)	\$0.00	\$10.79	(\$10.79)
Foster Care/Adoption	\$0.00	\$4.48	(\$4.48)	\$0.00	\$4.80	(\$4.80)	\$0.21	\$5.06	(\$4.85)	\$1.57	\$5.06	(\$3.49)	\$2.39	\$5.90	(\$3.51)	\$1.97	\$6.65	(\$4.68)	\$2.05	\$5.42	(\$3.37)	\$4.35	\$4.45	(\$0.10)	\$12.54	\$41.82	(\$29.28)
Safe and Supported	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.09	(\$0.09)	\$0.02	\$0.25	(\$0.23)	\$0.01	\$0.24	(\$0.23)	\$0.01	\$0.32	(\$0.31)	\$0.04	\$0.90	(\$0.86)
Mecum House	\$11.10	\$0.97	\$10.13	\$22.00	\$0.94	\$21.06	\$23.80	\$0.95	\$22.85	\$19.18	\$0.88	\$18.30	\$17.15	\$0.91	\$16.24	\$15.57	\$1.06	\$14.51	\$16.34	\$1.16	\$15.18	\$19.67	\$1.10	\$18.57	\$144.81	\$7.97	\$136.84
Sheakley Center	\$0.13	\$0.56	(\$0.43)	\$0.53	\$0.83	(\$0.30)	\$0.53	\$1.16	(\$0.63)	\$0.62	\$1.05	(\$0.43)	\$0.76	\$1.36	(\$0.60)	\$0.70	\$1.41	(\$0.71)	\$0.77	\$1.44	(\$0.67)	\$0.43	\$1.70	(\$1.27)	\$4.47	\$9.51	(\$5.04)
Street Outreach**	\$0.00	\$0.11	(\$0.11)	\$0.00	\$0.15	(\$0.15)	\$0.00	\$0.21	(\$0.21)	\$0.00	\$0.24	(\$0.24)	\$0.00	\$0.18	(\$0.18)	\$0.00	\$0.23	(\$0.23)	\$0.00	\$0.25	(\$0.25)	\$0.00	\$0.24	(\$0.24)	\$0.00	\$1.61	(\$1.61)
Independent Living**	\$0.00	\$1.67	(\$1.67)	\$0.00	\$1.48	(\$1.48)	\$0.00	\$1.46	(\$1.46)	\$0.00	\$1.51	(\$1.51)	\$0.00	\$1.40	(\$1.40)	\$0.00	\$1.66	(\$1.66)	\$0.00	\$1.66	(\$1.66)	\$0.00	\$1.71	(\$1.71)	\$0.00	\$12.55	(\$12.55)
Transitional Living, Rapid Re-Housing, & PSH	\$0.32	\$0.66	(\$0.34)	\$0.26	\$0.86	(\$0.60)	\$0.19	\$1.02	(\$0.83)	\$0.21	\$1.14	(\$0.93)	\$0.25	\$1.00	(\$0.75)	\$0.12	\$1.07	(\$0.95)	\$0.30	\$1.11	(\$0.81)	\$0.28	\$1.07	(\$0.79)	\$1.93	\$7.93	(\$6.00)
LCS	\$2.11	\$1.23	\$0.88	\$2.88	\$1.29	\$1.59	\$1.48	\$1.11	\$0.37	\$0.56	\$1.33	(\$0.77)	\$1.43	\$1.47	(\$0.04)	\$1.73	\$1.41	\$0.32	\$1.73	\$1.36	\$0.37	\$2.10	\$1.34	\$0.76	\$14.02	\$10.54	\$3.48
Economic Impact of Operations	\$25.77	\$0.00	\$25.77	\$27.88	\$0.00	\$27.88	\$29.45	\$0.00	\$29.45	\$30.05	\$0.00	\$30.05	\$32.08	\$0.00	\$32.08	\$34.35	\$0.00	\$34.35	\$32.23	\$0.00	\$32.23	\$31.32	\$0.00	\$31.32	\$243.13	\$0.00	\$243.13
Economic Impact of Capital Expenditures	\$0.28	\$0.00	\$0.28	\$0.50	\$0.00	\$0.50	\$1.63	\$0.00	\$1.63	\$0.33	\$0.00	\$0.33	\$0.33	\$0.00	\$0.33	\$1.06	\$0.00	\$1.06	\$22.83	\$0.00	\$22.83	\$0.52	\$0.00	\$0.52	\$27.48	\$0.00	\$27.48
Fiscal Impact of Operations	\$0.21	\$0.00	\$0.21	\$0.21	\$0.00	\$0.21	\$0.24	\$0.00	\$0.24	\$0.26	\$0.00	\$0.26	\$0.26	\$0.00	\$0.26	\$0.28	\$0.00	\$0.28	\$0.27	\$0.00	\$0.27	\$0.25	\$0.00	\$0.25	\$1.98	\$0.00	\$1.98
Other Expenditures	\$0.00	\$1.59	(\$1.59)	\$0.00	\$2.32	(\$2.32)	\$0.00	\$1.85	(\$1.85)	\$0.00	\$2.17	(\$2.17)	\$0.00	\$2.25	(\$2.25)	\$0.00	\$2.89	(\$2.89)	\$0.00	\$2.61	(\$2.61)	\$0.00	\$3.31	(\$3.31)	\$0.00	\$18.99	(\$18.99)
Total	\$50.60	\$24.43	\$26.17	\$65.44	\$27.21	\$38.23	\$65.78	\$27.55	\$51.42	\$76.64	\$27.88	\$48.76	\$80.12	\$29.66	\$50.46	\$73.07	\$31.56	\$41.51	\$95.84	\$29.72	\$66.12	\$73.71	\$29.13	\$44.58	\$594.39	\$227.14	\$367.25

Source: Economics Center calculations using data provided by Lighthouse Youth & Family Services and various literature sources.

**Indicates Lighthouse Youth & Family Services programs/services that were not monetized.

In the Table headers, "B" stands for benefits and/or avoided costs monetized in this analysis, while "C" stands for costs or Lighthouse Youth & Family Services' expenditures on the program, and "NB" stands for net benefits, which is calculated as the benefits minus the costs (or "B" minus "C").

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