

A Precious Child:

Paths to Self-Sufficiency and Costs Saved

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1. Executive Summary

- While the general population of people in poverty in Denver grows by 2% every two years, A Precious Child clients have a one-in-two chance (47.8%) of moving into economic stability in two years.
- A Precious Child clients have a greater chance of moving out of economic instability in two years (47.8%) than most people in the bottom 20% of income earners in the United States do in 10 years (45.4%).
- Depending on the calculation, the annual income needed to support an average A Precious Child family (one to two adults and three children) ranges between \$73,979 and \$90,966 according to MIT’s Living Wage Calculator. The Colorado Center on Law and Policy’s more comprehensive self-sustainability wage requires an annual wage between \$100,045 and \$123,613 to support a family without assistance.
- It costs approximately \$20,282 a year to support a single child. A Precious Child helps families cover these costs in part through providing goods (clothing, household goods, etc.) at a value of \$677.80 per individual (\$3,117.90 for the average family) and by connecting them with other organizations and government assistance. Combined, assistance to a family with three children can offset the cost of one month’s housing costs or it can offset the annual cost of food, medicine, or transportation.

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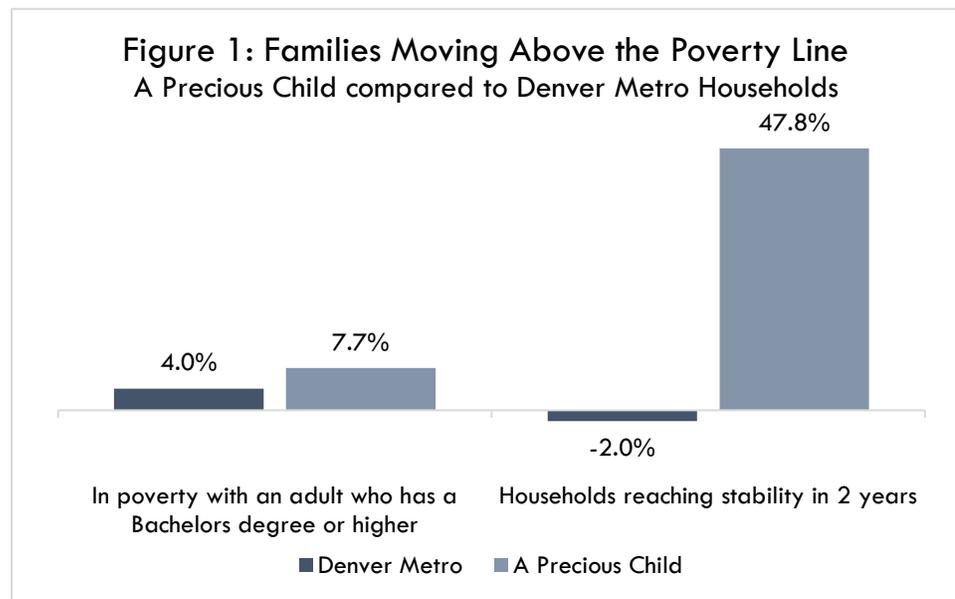


2. Path to Self-Sufficiency

2.1 Chance of Reaching Self-Sufficiency and Increased Economic Security

By working with A Precious Child, clients have a 47.8% chance of moving from their current position to a place of self-sufficiency. It takes an average of 9 months with three or more interactions to achieve this outcome. While there is no direct comparison group – mostly because the academic literature looks at economic mobility in terms of decade intervals – calculations developed by Katharine Bradbury (2016) and QREM researchers created an approximate comparison. Figure 1 shows the comparison between A Precious Child clients and the Denver Metro area population. The columns on the left show the portion of each population that is both experiencing poverty and has a Bachelor’s degree. This population is likely to be able to escape poverty with minimal assistance (see Richey and Rosburg, 2017). The columns on the right show the portion of each population that moves out of poverty and into economic stability in a two-year period. In the Denver Metro area, there are more people moving into poverty than moving out of it: the size of the population in poverty grows by 2% every two years. In contrast, A Precious Child clients have a one-in-two chance of achieving stability.

Long-term studies of economic mobility underscore how difficult it is for individuals to move out of economic instability and poverty. Data from Horowitz, Igielnik, and Kochhar (2020) for the Pew Charitable Trusts are shown in Figure 2 (next page). These data show the likelihood of moving



from one income quartile (1/5th of the income distribution in society) to another over the course of a generation (parents to children). As a reference point, a truly equal society that enables people to move between economic strata would see each segment of each column equal 20%. Looking specifically at the first column, we see that 43% of children born in the bottom 20% stay in the bottom 20%.

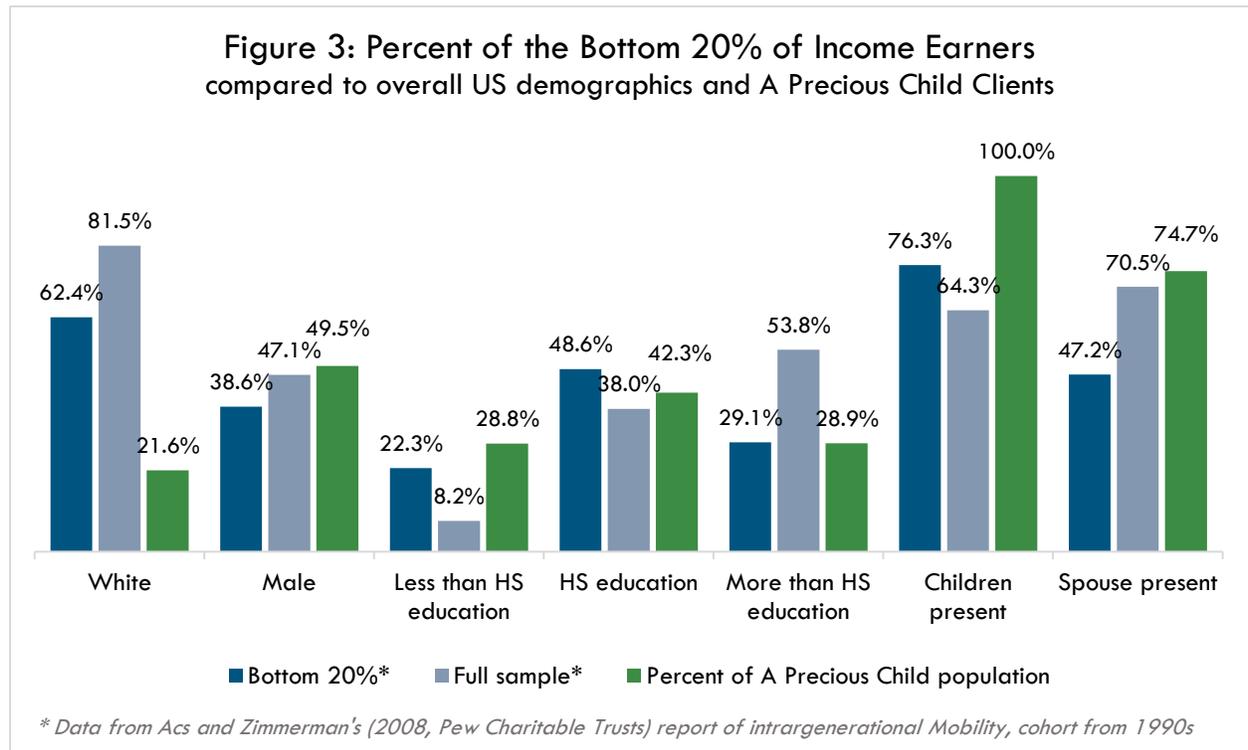
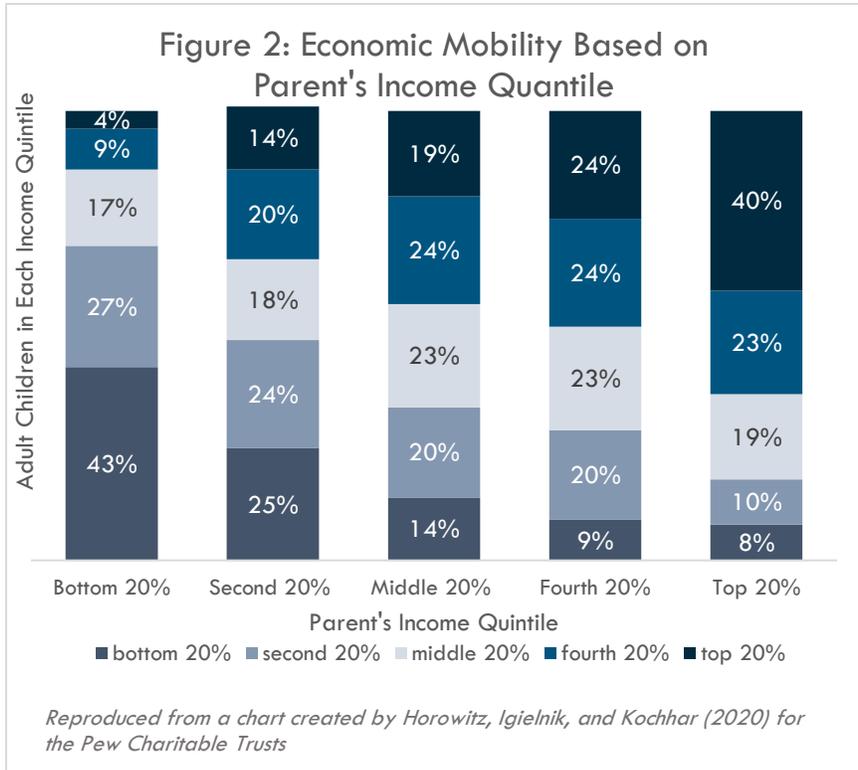
Data from Acs and Zimmerman’s report on intragenerational¹ mobility paint a similar picture (2008). They find that in a 10-year period, only 45.4% of people in the bottom 20% of income earners move out of that quintile. Of those that move, most end up in the second 20% (56.2%), about a fifth move to the

¹ Intragenerational mobility describes the likelihood of an individual to move between economic strata during their own lifetime.



middle 20% (19.4%), fewer reach the fourth 20% (16.7%), and only a handful make it to the top 20% (7.71%). A Precious Child clients have a greater chance of moving out of economic instability in two years than most people in the bottom 20% of income earners in the United States do in a decade².

Figure 3 shows the demographic comparisons between A Precious Child’s population (green) and individuals in the bottom 20% of income earners (dark blue)



² ACS and Zimmerman’s report captured data from 1984 to 2004 before both the Great Recession of 2008 and the COVID-19 pandemic and recession. Both of these economic downturns have made it more difficult for people to move out of the lowest economic strata.



from Acs and Zimmerman’s study. (The light blue bars represent the full sample as a reference point.)

As shown, A Precious Child’s population face more challenges in terms of structural racism (smaller proportion identify as white) and undereducation than their peers in the bottom 20% of income earners. Additionally, all of A Precious Child’s client families support children which increases the costs of living (discussed in more detail below). However, fewer A Precious Child families are all-female families (i.e. single mothers) or single parents in general (see data on Spouse present, furthest right cluster of bars). These demographic areas ease the burden – only slightly – of trying to escape the lowest income quartile.

While relative place in the income distribution gives us an idea of relative disadvantage, understanding absolute disadvantage requires two additional pieces of information: (1) the average income of individuals in each quantile, and (2) the cost of living, especially the cost of supporting children. Data from the US Census, MIT’s Living Wage Calculator, and the Colorado Center on Law and Policy’s Self-Sufficiency calculations help show these two pieces of data, since 1980.

Figure 4 shows the mean incomes for each of the five quintiles every decade since 1980 (2019 is used, data are not yet released for 2020). It includes the top 5 percent as well, demonstrating the concentration of wealth. The value

Figure 4: Mean Income by Income Quintile

Year	Lowest quintile	Second quintile	Middle quintile	Fourth quintile	Highest quintile	Top 5 percent
2019	\$22,840	\$53,823 (2.36)	\$86,261 (3.78)	\$131,610 (5.76)	\$289,141 (12.66)	\$511,287 (22.39)
2010	\$17,536	\$43,374 (2.47)	\$70,695 (4.03)	\$107,857 (6.15)	\$219,884 (12.54)	\$367,659 (20.97)
2000	\$21,024	\$48,070 (2.29)	\$75,549 (3.59)	\$111,344 (5.30)	\$233,610 (11.11)	\$413,961 (19.69)
1990	\$18,707	\$43,633 (2.33)	\$67,199 (3.59)	\$96,640 (5.17)	\$179,601 (9.60)	\$281,802 (15.06)
1980	\$18,991	\$41,341 (2.18)	\$62,453 (3.29)	\$86,645 (4.56)	\$145,884 (7.68)	\$207,386 (10.92)

Note: Values in parentheses represents relative wealth compared to the lowest quintile for each year.

in parentheses below the dollar value represents relative wealth compared to the lowest quintile in that year. In other words, how many times wealthier is someone in the second quintile compared to someone in the first quintile?

Second, calculating the cost of living is challenging because official measures like the poverty level are out-of-date in capturing modern costs like childcare and technology. Additionally, cost of living is highly influenced by geography, family structure and size. We present two measures of the living wage. The first is developed by MIT (Figure 5). Comparing the mean incomes (Figure 4) to the living wage, we see that parents need to be solidly in the middle quintile to achieve a living wage for their families.

Figure 5: MIT Living Wage in the Denver Metro Area

One adult, three children	\$90,966
Two adults, three children	\$94,229 \$47,115 per parent
Two adults (only one working), three children	\$73,979



The self-sustainability annual wage was calculated by Diana Pearce for the Colorado Center on Law and Policy. This calculation takes into account differences in cost of living by county and by family composition. Pearce developed an extensive table of results, only a snapshot is shown here. For each family of three children³, the children were assumed to be one infant, one preschooler, and one child in grade school. Figure 6 shows the self-sustainability annual wage required to live in each of the seven counties of the Denver Metro area. To achieve this annual wage, A Precious Child families would need to be in the fourth quintile. (Families with fewer children might only need to be in the third quintile.) A family of two adults and no children is included in the table for reference, showing that the cost of raising children is a huge expense.

Figure 6: Self-Sustainability Annual Wage

	1 Adult, 3 children	2 adults, 3 children	2 adults, no children
Adams	\$100,044.81	\$103,561.75	\$38,286.65
Arapahoe	\$105,205.90	\$109,003.30	\$39,881.03
Boulder	\$119,519.54	\$123,612.53	\$41,829.33
Broomfield	\$109,608.35	\$113,750.89	\$41,123.34
Denver	\$105,296.11	\$107,578.46	\$36,046.76
Douglas	\$118,319.11	\$122,260.74	\$44,340.57
Jefferson	\$106,117.37	\$109,930.49	\$39,411.93

Note: Data were calculated in 2018. Columns reflect the average family size served by A Precious Child. Costs drop for families with fewer children and raise for families with more. For reference, the wage required for a childless 2-adult couple is included.

2.2 Costs of Supporting a Family in the Denver Metro Area

Figures 7 and 8 show the high annual cost of supporting a child. Taking into account the costs of food, child care, medicine, housing, transportation, and other miscellaneous costs, the total cost of supporting a child is \$20,282 (calculations from the MIT Living Wage Calculator). While some of these costs can be offset through donations from friends (goods and labor), government assistance (see discussion below), or assistance from nonprofit organizations, costs that lower income families cannot cover often mean vital items are not affordable – like safe housing, sufficient medical care, or child care.

Figure 8 (next page) breaks down the cost of supporting a child as a percentage of the income of A Precious Child clients. The middle column shows the percentage of clients in each income bracket and the

Figure 7: Costs of Supporting a Child

Supporting a Child Cost	Est. Child Costs
Food	\$1,622
Child care	\$9,283
Medical	\$1,311
Housing	\$5,748
Transportation	\$2,144
Other	\$174
Total (before tax)	\$20,282

³ A Precious Child families have an average of three children. The mathematical average number of adults is 1.6. Cost of living calculations, therefore, reflect both one adult and two adults.



furthest right column shows the percent of the families' entire income required to afford the cost of supporting a single child. As A Precious Child families have an average of three children, it becomes clear these families do not have sufficient funds to cover the costs of supporting a child and need help.

Figure 8: Cost of Supporting a Child as Percentage of Income

Family income	Percent of A Precious Child Clients (2018 and 2019 combined)	Cost of supporting a child as percentage of income ^o
\$0-\$9,999	32.4%	202.84%
\$10,000-\$19,999	24.4%	101.42%
\$20,000-\$29,999	24.1%	67.61%
\$30,000-\$39,999	10.9%	50.71%
\$40,000-\$49,999	4.5%	40.56%
\$50,000+	2.4%	40.56% or less
Unknown	1.5%	n/a

^oPercentage of costs of supporting a child is based on the highest amount for each income bracket: 50,000+ uses \$50,000 for the calculation

2.3 Value of A Precious Child Assistance

A Precious Child helps their clients defray some of these costs in part by providing goods to them free of charge through the Resource Center and Boutiques. In 2019⁴, A Precious Child served 17,654 people in the Precious Essentials Program (run through the Resource Center and Boutiques) providing a range of personal items, clothing, toys, and household goods. The combined value of all goods was \$11,965,962 or \$677.80 per person. The value of goods for the average family size (average is 4.6, 3 children and 1.6 adults), it is a total of \$3,117.90 or 5.12% of the cost of raising a child for that year. While this seems like a small percentage, it is more than the average cost of food (\$1,622) and medicine (\$1,311), or transportation (\$2,144) for a single child. It is also greater than the estimated cost of a single month's rent for a family of four in Adams County (\$1,931), Arapahoe County (\$2,040), Boulder County (\$2,056), Broomfield County (\$2,079), Denver County (\$1,928), and Jefferson County (\$1,982).

A Precious Child also provides assistance to its clients to access other vital services which help cover the costs of raising a family in the Denver Metro area. In 2019, there were 126 referrals to internal resources and 654 referrals to external sources which included food assistance, health assistance, financial aid, educational resources, transportation assistance, work assistance, and housing resources (Figure 9, next page).

⁴ All data from A Precious Child reflect 2019 in order to avoid capturing the outlier year of 2020.



Figure 9: Referrals in 2019

Type of Referral		Number	
Internal Referrals	Total Internal	126	
	Domestic Violence Cases	3	
	Educational Resources for Kids	18	
	Educational Resources for Parents	22	
	Emergency Assistance	1	
	Families with Foster Kids	1	
	Family Members with Special Needs	11	
	Financial Aid	79	
	Food Resources	94	
	Health Resources	15	
	External Referrals	Housing Resources	246
		Legal Aid	32
		Rental/Mortgage and/or Utility Assistance	8
		Resources for Seniors	2
		Single Mother Services	32
		Talent Reinforcement Activities for Kids	5
		Transportation Resources	26
Work Assistance		48	
Youth Services		11	
Total External		654	
Total Referrals	780		

A Precious Child makes referrals to government agencies and nonprofit agencies that help these families. By helping a family connect to assistance, A Precious Child can help these families receive the benefits they need. The CATO Institute found that the total value of welfare benefits for a single mother with two children in Colorado was \$20,075 (2013). However, the Bureau of Labor Statistics found that approximately half (49.2%) of families receiving means-tested assistance were only enrolled in one program when they might qualify for up to five (2018). (Only 0.4% participate in all five programs.) Medicaid has the highest participation

rate (84.1%), followed by Supplemental Nutritional Assistance Program (SNAP, 51.6%), housing assistance (21.8), supplemental security income (SSI, 9.9%), and public assistance (7.0%). By helping families connect with public assistance, A Precious Child can add \$3,072⁵ on average to a family’s income. The average dollar value of SNAP benefits is \$3,928 and SSI is \$6,719.

2.4 Savings from Increased Stability

The increased stability families experience after engaging with A Precious Child also provides a monetary benefit. Families move less often and parents change jobs less often. A Precious Child families spend one more year in their current residence than their previous residence (before working with A Precious Child). For the 3,355 families served in 2019 through the Resource Center, the cost of a single move per family is estimated at \$1,000 to cover labor, boxes, a truck rental, etc. (Callahan, 2020). Families spent

⁵ All amounts in 2014 dollars.



an average of 1.6 years at their previous residence, increased to 2.6 years after working with A Precious Child. Had the old pattern held, families would have spent a collective \$5,451,845 in moving expenses (including the value of unpaid labor: e.g., friends helping load the moving truck). By staying longer at their residences, there is a collective savings of \$2,096,875 or approximately \$625 per family.

A Precious Child parents change jobs slightly less often after working with the organization, moving from spending 1.6 years per job to 1.7 years per job. While the cost of changing positions for each individual is hard to estimate (for instance, moving from one position to the same position with a different employer has low costs; whereas changing positions entirely may require additional education or training which carries significantly higher costs). However, we can estimate the cost of retraining employees (even if they had the position before). The cost of training an employee changing positions ranges from a low cost of \$1,252.00 to a high cost of \$9,444.47. These costs to the employer come in the form of lost productivity, training (hiring an educator), orientations, etc. (Schnotz, no date; Association for Talent Development, 2016). Incorporating into the calculation both the rate of employment among A Precious Child clients and the likelihood of an individual moving from employer to employer in a given year, the total savings to area employers range from \$10,401.40 to \$78,463.05.

3. Education as the Magic Bullet

The assistance A Precious Child provides to families with children in the Denver area can help families get on their feet in the short term through direct assistance, connecting families with A Precious Child’s network of partner organizations, and helping them achieve stability. However, in order to truly achieve long-term economic improvements, research has found that the most effective way, was to increase educational achievement. As Richey and Rosburg found (2017), educational attainment explains more intergenerational mobility than ability (natural talent) does. Therefore, the greatest benefits A Precious Child can provide is helping families provide the best start for their children, possibly setting them up for access to high-quality early childhood education (Athreya and Romero, 2015; Restuccia and Urritia, 2004) and supporting them as they move through the education system (Hendricks and Leukhina, 2012).

Data from the U.S. Census Annual Social and Economic Supplement (2020) confirm this research, showing a relationship between higher earnings and higher educational attainment (Figure 10). The

Figure 10: Median Earnings based on Educational Attainment for Denver Metro Area

	Annual	Est. Hourly
Less than a high school diploma	\$32,236.00	\$16.12
High school diploma	\$35,953.00	\$17.98
Some college or Associates	\$43,703.00	\$21.85
Bachelors	\$63,807.00	\$31.90
Graduate or Professional	\$75,343.00	\$37.67

annual wage is the estimated hourly wage over a 40-hour work week for 50 weeks. Comparing the annual wages in Figure 10 to the self-sufficiency data (see Figures 5 and 6), only those households with two incomes and at least one earner with a Bachelors and Graduate or Professional degree make a living wage for a family with three children.

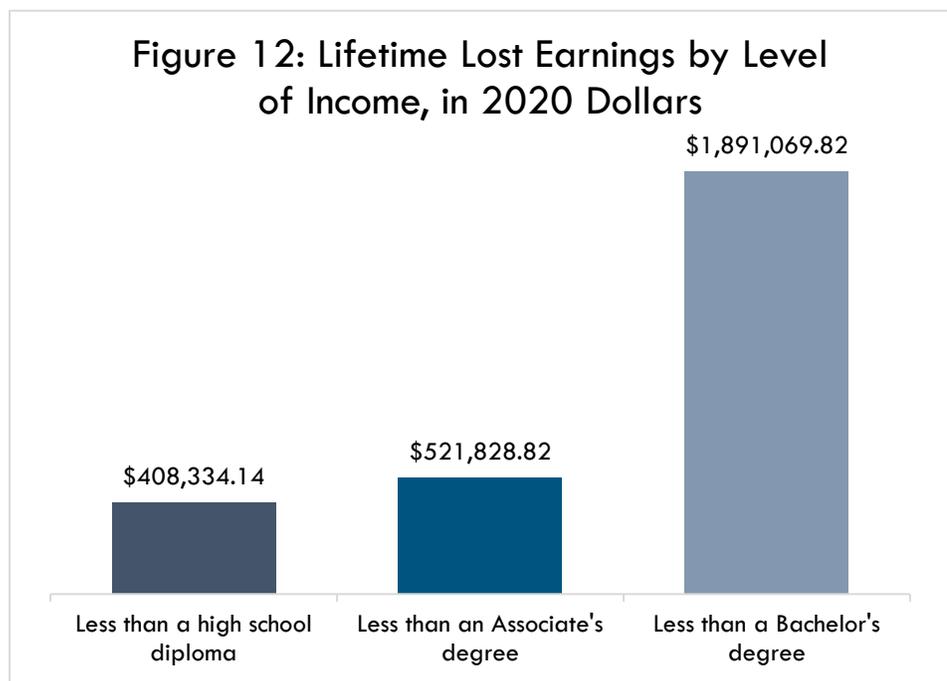
Figure 11 shows the educational attainment of A Precious Child clients compared to people in the bottom 20% of earners in the Denver Metro area.



Figure 11: Educational Attainment

	A Precious Child Clients	Denver Metro Bottom 20%
Less than a high school diploma	28.80%	13.6%
High school diploma	42.30%	23.4%
Some college	21.20%	22.6%
Bachelors	5.80%	24.9%
Graduate degree	1.90%	15.5%

Lower levels of educational attainment are associated with lower lifetime earnings. Figure 12 shows the differences in lifetime earnings. The first column shows lost earnings comparing those with a high school diploma to those without. The second column compares those with an Associates degree (or some college-level education) to those without. The final column compares those with a Bachelor’s degree or higher to those without.



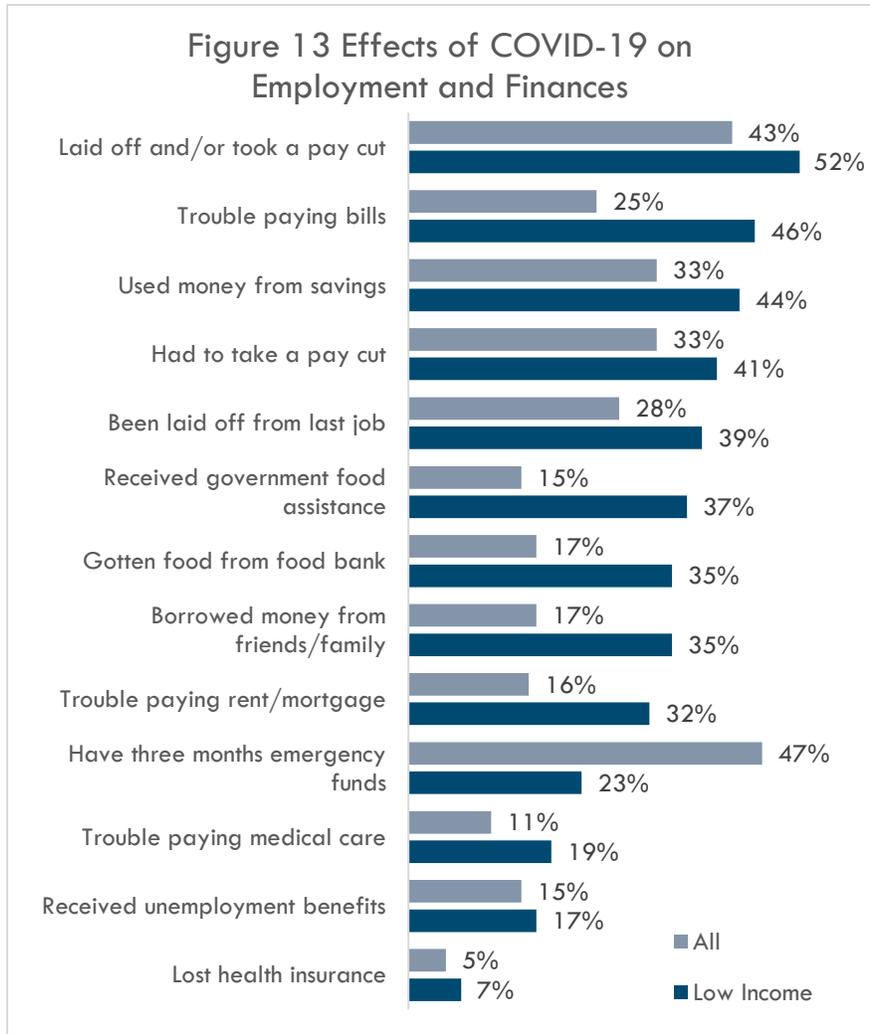
4. Opportunities After COVID-19

Opportunities for A Precious Child to help the lowest income Denver Metro residents are likely to change (and grow) in the wake of the COVID-19 pandemic and related economic downturn. While the long-term impacts of COVID-19 are unknown, data from the Opportunity Insights Project (TracktheRecovery.org) confirm that the economic impacts of the pandemic are worst for those with the lowest incomes. In Colorado, Chetty et al., show that as of December 20, 2020, high wage earners (greater than \$60,000) had mostly recovered from the economic downturn (2020). They reached their lowest level of unemployment in April 2020 (down 10.4%) and by June unemployment did not differ from pre-pandemic levels. Middle wage earners (between \$27,000 and \$60,000) also experienced the



low-point of unemployment in April 2020 (down 21.3%) and stabilized between 5% and 10% more unemployment compared to pre-pandemic levels. Low wage earners (less than \$27,000) reached their lowest unemployment levels in late April 2020 at 34.7% more unemployment. This level has rebounded only slightly to 21.4% additional unemployment than pre-pandemic levels.

Data from Pew Social Trends show that COVID-19 has changed how all Americans, but especially those with the lowest incomes, have seen their personal financial situations change for the worse. Figure 13 outlines 13 areas where low income people in the U.S. have experienced more negative outcomes than the average American.



Additional research and analysis of A Precious Child’s 2020 activities is needed to understand how much the organization has done to buffer against the worst of these outcomes for their clients.



Works Cited and Consulted

- Acs, G., and Zimmerman, S. (2008). U.S. Intragenerational Economic Mobility from 1984 to 2004: Trends and Implications. *The Economic Mobility Project, an Initiative of the Pew Charitable Trusts*. Retrieved January 27, 2021 from <https://www.urban.org/sites/default/files/publication/31316/1001226-u-s-intragenerational-economic-mobility-from-to-.pdf>
- Association for Talent Development (2016). ATD Releases 2016 State of the Industry Report. *ATD*, retrieved January 27, 2021 from <https://www.td.org/insights/atd-releases-2016-state-of-the-industry-report>
- Athreya, K., and Romero, J. (2015). Land of Opportunity: Economic Mobility in the United States. *Economic Quarterly*, 101(2), 169-191.
- Callahan, T. (2020). Average Cost of Moving a One-Bedroom Apartment (+Price Table). Retrieved January 27, 2021 from <https://moversville.com/blog/moving-cost-one-bedroom-apartment>
- Foster, A.C., and Rojas, A. (2018) Program participation and spending patterns of families receiving government means-tested assistance. *Monthly Labor Review, U.S. Bureau of Labor Statistics*. Retrieved January 27, 2021 from, <https://doi.org/10.21916/mlr.2018.3>.
- Glasmeier and the Massachusetts Institute of Technology. (2021). Living Wage Calculator. Retrieved January 27, 2021 from <https://livingwage.mit.edu/>
- Hendricks, L., and Leukhina, O. (2012). The Return to College: Selection Bias and Dropout Risk. Manuscript, University of North Carolina, Chapel Hill, and University of Washington.
- Horowitz, J.M., Igielnik, R., and Kochhar, R. (2020). Most Americans Say There Is Too Much Economic Inequality in the U.S., but Fewer Than Half Call it a Top Priority. *Pew Research Center: Social and Demographic Trends*. Retrieved January 27, 2021 from <https://www.pewsocialtrends.org/2020/01/09/most-americans-say-there-is-too-much-economic-inequality-in-the-u-s-but-fewer-than-half-call-it-a-top-priority/>
- Pearce, D.M. (2018). Overlooked and Undercounted 2019: Struggling to Make Ends Meet in Colorado. *Colorado Center on Law and Policy*, Retrieved from https://cclponline.org/wp-content/uploads/2018/12/CO18_Demo.pdf
- Restuccia, D., and Urrutia, C. (2004). Intergenerational Persistence of Earnings: The Role of Early and College Education. *American Economic Review*, 94(5), 1354-1378.
- Richey, J., and Rosburg, A. (2017). Changing Roles of Ability and Education in U.S. Intergenerational Mobility. *Economic Inquiry*, 55(1), 187-201.
- Schnotz, W. (no date). The Average Cost to Train a New Employee. *Chron*, Retrieved January 27, 2021 from <https://smallbusiness.chron.com/average-cost-train-new-employee-44072.html>
- Tanner, M. and Hughes, C. (2013). The Work Versus Welfare Trade-Off: 2013. An Analysis of the Total Level of Welfare Benefits by State. CATO Institute. Retrieved January 27, 2021 from https://www.cato.org/sites/cato.org/files/pubs/pdf/the_work_versus_welfare_trade-off_2013_wp.pdf
- U.S. Census. (2020). Historical Income Tables: Families. Table F-3. Mean Income Received by Each Fifth and Top 5 Percent of All Families: 1966 to 2019. Retrieved January 27, 2021 from <https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-income-families.html>
- U.S. Census. (2020). Annual Social and Economic Supplements. Retrieved January 27, 2021 from <https://www.census.gov/data/datasets/time-series/demo/cps/cps-asec.html>



A graphic element consisting of a grid of squares in shades of blue, green, and yellow, arranged in a pattern that resembles a QR code or a data visualization. The squares are arranged in a roughly rectangular shape, with some missing or faded, creating a pixelated effect.

QREM

STRONG DATA = SOUND DECISIONS

