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The American Guaranteed Income Studies: Saint Paul, Minnesota

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Front Cover Image: View of the Minnesota State Capitol Building (Source: Shutterstock).

Inside Cover Image: Early morning cityscape of downtown Saint Paul, highlighted by the Mississippi River and a railroad bridge (Source: Shutterstock).

The American Guaranteed Income Studies: Saint Paul, Minnesota

Executive Summary

In the fall of 2020, and in the midst of the devastating COVID-19 pandemic, Mayor Melvin Carter and the City of Saint Paul launched the People's Prosperity Guaranteed Income Pilot (PPP), which was the first-ever Mayors for a Guaranteed Income (MGI) pilot and the first since the Seattle-Denver Income Maintenance Experiment (SIME/DIME) to use public funding for a guaranteed income program in the United States. Using a braided funding approach that combined federal, state, and philanthropic dollars, the city implemented PPP within the broader context of the Mayor's priorities of promoting Economic Justice; Community-First Public Safety (CFPS); and Lifelong Learning: Equity, Innovation, and Resilience. These mayoral commitments center the people of Saint Paul as the prime recipients of public investment by seeking to address structural inequities and disadvantage through progressive public policy and programming that promotes belonging, mobility, and agency for all residents, regardless of identity or country of origin. Consistent with these values, PPP was implemented alongside CollegeBound Saint Paul, the city's universal college savings program designed to give all of Saint Paul's young children a $50 seed deposit in a college savings account at the time of birth. In sum, PPP functioned as a recurring, unconditional income strategy designed to reduce present financial precarity while also supplementing an asset-building pathway through inclusive educational opportunities.

The commitment to inclusive programming and accessible public benefits is particularly important in the City of Saint Paul, as it is home to a large and diverse group of foreign-born residents and boasts the largest Hmong and Somali populations in the United States. And yet—the poverty rate of Saint Paul is nearly double that of the rest of the state, indicating the need for economic justice opportunities that are equitable for all. As such, the city randomly selected 150 participants from its universal CollegeBound Saint Paul program and invited them to participate in PPP if they self-attested to being impacted by COVID (consistent with funding requirements) and had income at or below 300% of the federal poverty level. Additionally, all PPP participants had a child born in 2020. PPP participants received an unconditional cash payment of $500 on a U.S. Bank pre-paid debit card from October 2020 through April 2022. The University of Pennsylvania's Center for Guaranteed Income Research (CGIR) led a mixed-methods research study to assess the relationship between guaranteed income (GI) and participants' quality of life, sense of self, capacity for and mechanisms of economic mobility, and narrative change. CGIR invited all PPP participants to engage in voluntary, compensated research activities consisting of regularly-administered surveys and one-time interviews. CGIR analyzed both survey and interview data to better understand the experiences and change over time among PPP participants.

In sum, findings suggest that on average, the GI cash transfers served protectively for recipients during the PPP intervention. Specifically, across many of the financial and savings indicators, PPP participants either remained stable or improved throughout the course of the pilot but then declined six months after the cash stopped, suggesting that GI may have the ability to alleviate present financial hardship but its continuing impact once cash transfers end may be limited. However, the relationship between GI and participants' sense of self functioned differently than financial well-being. In addition to an upward trend throughout the PPP intervention, participants still held improved attitudes towards life and its purpose as well as some aspects of hope and mattering six months after cash disbursements had stopped, suggesting an enduring power of GI on participants' sense of self. Similarly, unemployment declined throughout the cash pilot and remained lower than baseline six months after the PPP ended. All the while, household stability remained relatively steady, even in the midst of unprecedented pandemic-related stressors during the PPP. Together, these findings challenge dominant narratives of poverty and add to a growing body of literature re-imagining the social contract.

Quality of Life: Participants shared their desire for financial security and for the ability to pay off debt and save for larger goals during the pilot. For some, this proved difficult, given their burdensome debt in the form of high-interest credit cards, student loans, or medical bills. Many participants responded to these financial stressors by employing strategies of thriftiness, such as stretching food resources, taking on more hours at work, or working multiple jobs. Other participants used humor as a way to cope with and normalize their financial burdens, though minimizing their challenges often led to participants experiencing social isolation and loneliness. For PPP participants, the GI often served to protect them, decreasing financial burden and providing an alternate pathway towards achieving financial goals. Indeed, survey findings corroborated these themes, supporting the notion that participants experienced relatively stable financial well-being throughout the pilot but faced a dip once the guaranteed income stopped. Similarly, the percentage of participants who reported the ability to cover a $400 expense held steady during the pilot but then fell after the cash transfers ended; six months after the PPP ended, fewer participants reported savings that exceeded $500. Income volatility also declined from baseline to the end of the PPP but then increased six months after the disbursements ended. In

KEY FINDINGS - AT A GLANCE

- During the PPP intervention, between 40–47% of participants could cover a $400 expense, but six months after the PPP stopped, only 33% could cover this.
- Between 39–41% of PPP participants had more than $500 in savings during the intervention, but this fell to only 27% six months after the PPP ended.
- Income volatility varied between 3–6% during the PPP but increased to 10% post-intervention.
- Participants reported more time with family and experienced relative household stability throughout the PPP.
- The percentage of participants reporting feelings of high hope progressively increased throughout the study from 15% at baseline to 21% at the end of PPP and 22% six months after PPP ended.
- The proportion of individuals employed showed a positive trend throughout the duration of the PPP, and this trend not only held steady but continued to strengthen six months after PPP ended. At baseline, 49% of PPP participants were employed compared to 63% six months after the program ended.

addition, participants experienced more pronounced housing-cost burden and food insecurity six months after the cash payments had stopped. Concurrently, there was a post-intervention increase in the overall symptoms of psychological distress that participants experienced without the PPP. Such findings suggest that recurring unconditional cash transfers may improve financial well-being but that well-being may be hard to sustain when the GI ends without other forms of structural intervention.

Sense of Self: Many participants experienced isolation as parents and reported that it was compounded by pandemic-related social isolation measures and pressures related to financial burden. Specifically, participants reported that as their debt and financial burden grew, they distanced themselves from their social networks in an effort to not burden those they love. Thus, the guaranteed income relieved some of their financial burden and played a role in facilitating improved social support and decreased isolation. Participants were able to give back to their communities and spend more time with their loved ones. The strong sense of self and ability to strengthen social connections seemed to have an enduring quality, extending beyond the receipt of the cash payments. Additionally, participants' sense of self improved across multiple survey measures throughout the GI intervention and continued to trend positively at six months after the PPP had ended. Specifically, there were significant positive trends in affirmation of meaning and value, or a person's feeling that there is inherent purpose in life despite current circumstances, acceptance of their situation despite difficult odds, and faith in a higher power even if things feel stacked against them. Higher scores were also observed throughout the duration of the PPP across measures of a person's intent to meet goals, actions to achieve those goals, and a sum score of both measuring total hope. Conversely, participants reported negative impacts in terms of their ability to overcome situational or personal constraints to make a difference in the world. Scores from the Adult Mattering Scale were mixed. Participants' views of how individuals believe others perceive them decreased throughout the PPP intervention, while participants' perceived emotional investment from others tended to fluctuate, peaking at the end of the PPP and showing a decline six months after cash transfers ended, suggesting that during the study period, participants experienced a heightened sense of being valued by others. Finally, the measure of reliance remained relatively stable throughout the study period.

Capacity for Economic Mobility and Narrative Change: PPP participants expressed a strong commitment to productivity as caregivers and workers. Although the percentage of participants who performed full-time caregiving roles fluctuated across the pilot, those who were employed either seasonally, part-time, or full-time increased, even after the PPP ended. Such findings likely reflect the improved job market throughout the pandemic era as well as the potential role of GI in supporting employment-seeking activities. Participants discussed the challenges that some of them faced when entering the paid labor market. For many parents, the cost of childcare was prohibitive, though participants described strategies they employed to creatively secure childcare, including swapping day and night shifts with their partners or reducing work hours to minimize the use of childcare. The GI created a path for parents to reclaim their time and spend more time with their families, but the power of GI was undercut by lack of paid maternal and family leave. Indeed, household stability remained relatively steady throughout the PPP, even amid myriad stressors related to the global pandemic. Together, the overall experience of receiving GI led to shifts in perceptions of trust and deservedness: participants noted the flexibility and predictability of unconditional cash as well as the ways GI counters common myths about poverty and the struggle to make ends meet.

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MAYORS FOR A GUARANTEED INCOME

Founded by Michael D. Tubbs, MGI is a coalition of mayors advocating for a guaranteed income to lift all of our communities and build a more resilient, just America. Since launching in 2020, MGI has grown its ranks from 11 to over 125 mayors, supported the launch of 50-plus guaranteed income pilots across the country, and delivered more than $250 million in direct, unconditional relief to everyday Americans. MGI has also launched two affiliates, Counties for a Guaranteed Income and United for a Guaranteed Income Action Fund. MGI's work has ensured that guaranteed income spreads from a single moment in Stockton, Calif. to a national movement—pushing the conversation forward in cities, state capitals, and Congress.

MGI was a founding donor of CGIR, as well as a donor, adviser, and technical assistance provider to Saint Paul's PPP. Saint Paul's Mayor Carter is a national co-chair of MGI.

"I think that guaranteed income is probably preventing a lot of people from being homeless, or on the verge of it, or having to make tough decisions about food and basic necessities."

Briauna
Guaranteed Income Pilot for Artists – Saint Paul, MN (Springboard)

Impact of GI on Artists and Creative Workers in Rondo and Frogtown Neighborhoods

In 2021, Springboard for the Arts launched a complementary pilot to the PPP, the Guaranteed Minimum Income Pilot. Targeting 25 artists in the Rondo and Frogtown neighborhoods of Saint Paul, the goal of this pilot was to explore the impact of GI on artists and creative workers at the neighborhood level while also working to provide a model for inclusion of artists in economic policy. Springboard worked with the City of Saint Paul on a narrative change project titled Artists Respond: People, Place, and Prosperity, through which a cohort of five artists created pieces related to the PPP across various media. Katy DeCelle developed a podcast featuring families in the PPP; this podcast was made available on postcards outfitted with a linked QR code that residents could quickly send to their elected officials. Kashimana wrote, produced, performed, and recorded three original songs about guaranteed income. DejaJoelle choreographed, performed, and recorded an original dance and movement piece inspired by the space to breathe and be that GI afforded participants. The Milligan Studios created a glass sculpture entitled "Altitude" that is installed at the YWCA. Briauna Williams created a mindfulness coloring book that has been used by CollegeBound, libraries, and recreation centers throughout Saint Paul.

Briauna Williams created a mindfulness coloring book (shown: partial page from coloring book upper left) that has been used by CollegeBound, libraries, and recreation centers throughout Saint Paul.

The Milligan Studios created a glass sculpture (image below) titled "Altitude" that is installed at the YWCA.

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Image: Landmark Center in Rice Park Saint Paul, Minnesota (Source: Shutterstock).

Image: PPP participants (l-r) Mya, Anders, Abby, and Lucille pose for the camera with Mayor Melvin Carter at the 2023 premiere and 50-city kick-off tour of the "It's Basic" documentary.

Background

Two main thoroughfares lead to the white dome and golden accents of the Minnesota State Capitol building: Summit Avenue and University Avenue, each carrying varied histories of development and stratification. Summit Avenue begins at the Mississippi River, with ample tree coverage and manicured greens gracing the roadway to the capitol. Beautifully maintained Victorian houses dot Summit, along with the campuses of Macalester College and the University of St. Thomas. Predominantly White, middle- to upper-class households fill the neighborhoods calling Summit Avenue home, and each year Twin Cities marathon runners find their way along the avenue to the capitol building.

University Avenue stands in contrast, spanning from Minneapolis to Saint Paul, with the light rail connecting their downtowns. Fast-food restaurants stand alongside sparse tree coverage and limited green space. Immigrant enclaves call these neighborhoods home, resulting in a spectacular array of Somali, Vietnamese, Hmong, and Thai businesses. The avenue cuts through the neighborhoods of Frogtown and Rondo, with vestiges of the racial uprisings of 2020 still present on park benches, storefronts, and boarded up windows. University Avenue will lead you to the back of the state capitol building—absent greenery and, from this angle, looming large and uninviting.

These two main roadways to the capitol each tell different stories of power, place, and prosperity in a city heavily influenced by Midwest culture. Three traits anchor Midwest culture: belief in hard work and perseverance, "Midwest nice," and reservedness, especially about personal difficulties or perceived negative emotions. These traits reflect the Scandinavian populations who settled here in the early 1850s and were heavily influenced by farming and religious cultures whose adherents were forced to rely on neighbors and mutuality to survive harsh Minnesota winters (Anderson & Blanck, 2001). Hardiness complements these traits—doing what it takes to survive, focusing on need versus want, eschewing extravagance, and, importantly, never framing hardiness through the lens of struggle. In essence, if one can save enough, thrift enough, and stick to the bare essentials, one can control the impact of a risky economy. Taken together, these cultural traits form the Midwestern survival script.

Within this script is a conviction that while structural forces may create financial hardship, an inability to rise above them represents individual failure. By this logic, one need not fear a lagging economy, job loss, or one unexpected financial shock after another—if you cling to the script, it will save you. The underlying assumption is that everyone has access to the same set of resources, the same ability to save, and/or the same capacity for addressing the financial risks so part and parcel of life in America. But this fails to account for the deep structural racism and inequity of opportunity and resources that Indigenous, Black, and immigrant communities face while navigating the intricate web of social services, benefits, and life in the Twin Cities. It also does not account for the ways that niceness reinforces Whiteness by recasting the complexities of racism into an oversimplified narrative that does not threaten the status quo. In her seminal piece on niceness, Angelina Castagno (2019, p. 2) describes this dynamic by saying, "niceness compels us to reframe potentially disruptive or uncomfortable things in ways that are more soothing, pleasant, and comfortable. This avoidance and reframing are generally done with the best intentions, and having good intentions is a critical component of Niceness." This alluring veneer of "silence, passivity, denial, and avoidance" (Castagno, 2019, p. 13) provides an avenue for avoiding conversations on race, upholding Whiteness, and masking economic vulnerability. This cultural milieu has stark ramifications for people of color living in places characterized by wildly disparate experiences: Midwestern cities are consistently featured on lists of the best places to live and simultaneously ranked as some of the worst places for Black Americans (Williamson, 2020). As Williamson (2020) argues in *Black in the Middle*, the marginalization of Black communities is not unique to the Midwest—rather, it is the ways Black lives are obscured from view by institutions, culture, and the national conversation that sets it apart.

The murder of George Floyd and the subsequent racial uprisings throughout the Twin Cities exposed this rift, along with the ways that communities of color in Saint Paul have always thrived through joy, mutual aid, and resistance. Floyd's death and the disparities of the pandemic brought the years of inequity, invisibility, and violence felt by Black, Indigenous, and immigrant communities in the Twin Cities to the forefront. It also marked a shift and a choice for leadership. Faced with racial uprisings, an unjust death, decades of inequality, and the socioeconomic threats imposed by the pandemic, Mayor Melvin Carter's administration led interventions designed to directly combat the lack of economic mobility and justice. From increasing the minimum wage to experiments with unconditional cash and CollegeBound Saint Paul savings accounts, Mayor Carter addressed these structural inequities through legislative approaches that created space for belonging, mobility, and agency, rather than stripping it away.

The People's Prosperity Pilot (PPP) was the first guaranteed income pilot launched by Mayors for a Guaranteed Income and the first in the country to use public dollars for GI cash transfers since the Seattle-Denver Income Maintenance Experiment of the '70s and '80s. Guaranteed income is a form of unconditional cash—no strings attached—that recipients are free to spend as they see fit. Rather than tying means-testing to performing behaviors deemed deserving by policymakers and the public, unconditional cash is tied to one's existence as a human being. The PPP was launched in October 2020 and gave 150 participants $500 a month for 18 months, with the final disbursement in April 2022. Interviews were conducted midway through the intervention in November of 2021, and surveys were administered at baseline, every six months thereafter, and six months after the last disbursement to better understand the participants' experiences and the impact of GI.

Program Implementation, Benefits Interaction & Participant Selection

The City of Saint Paul utilized a braided funding strategy to implement the PPP, combining funds from the federal Coronavirus Aid, Relief, and Economic Security (CARES) Act; repurposing state-level dollars from a Minnesota Department of Human Services grant; and securing private funding from individual donors and philanthropic organizations, including the Kresge Foundation, McKnight Foundation, and the Saint Paul and Minnesota Foundation. The PPP was developed with and grounded in the city's broader commitment to a human-centered economic approach (Hart et al., 2010), whereby social well-being is elevated over profit and people are centered through worker power and choice.

The City of Saint Paul piloted the PPP as a subgroup of their universal college savings program, CollegeBound Saint Paul, which also launched in 2020. By doing so, the city innovatively combined an income-stabilizing strategy aimed at addressing present income volatility with an asset-building strategy designed to increase future savings over time (Elliott et al., 2023). The mission of CollegeBound Saint Paul is to improve access to higher education and college attainment for all of Saint Paul's youth, regardless of parental citizenship status (CollegeBound Saint Paul, n.d.). Children are eligible for CollegeBound Saint Paul if they are born on or after January 1, 2020 and either are residents of Saint Paul at birth or move to Saint Paul by age six. Children enrolled in CollegeBound Saint Paul receive a $50 seed deposit in a college savings account, and children with public birth records are automatically enrolled. However, because of a Minnesota law, only babies born to legally married parents have public birth records and are therefore eligible for auto-enrollment into CollegeBound Saint Paul (Minnesota Statutes, 2020). The city estimates that roughly 40% of birth data for Saint Paul children is private and therefore inaccessible to the CollegeBound Saint Paul program for auto-enrollment. Babies whose parent(s) must opt into CollegeBound Saint Paul include those whose mothers were not legally married, those born outside of Saint Paul but later moved into city limits by age six, and those born in the foster care system. To increase manual enrollment, the City of Saint Paul conducts targeted outreach through volunteer community ambassadors, social service organizations, and Women, Infants, and Children (WIC) offices. According to the City of Saint Paul, 3,091 children were enrolled in CollegeBound Saint Paul in 2020, representing 72% of all children born to Saint Paul parents in 2020. Of those enrolled, 88% were auto-enrolled and 12% opted into the program. Of families who manually enrolled, 68% were referred to CollegeBound Saint Paul from a WIC office.

Families were randomly selected to participate in the PPP from the full population of CollegeBound Saint Paul participants and were eligible if they self-attested to being impacted by COVID, which was a requirement of the CARES funding, and if their household income was at or under 300% of the poverty line.[1] The city chose this threshold because all recipients of any public benefit would meet these criteria. Benefits counseling[2] was not required for participation in the PPP, as the GI was deemed

1 The city elected to use self-attestation to confirm eligibility for the PPP, though in subsequent GI pilots, the city has had to request minimal written documentation.

2 Benefits counseling is an informed consent strategy developed in the Stockton Economic Empowerment Demonstration to mitigate loss of benefits when introducing unconditional cash. It involves determining one's risk level for losing means-tested benefits such as Section 8, WIC, SNAP, and TANF (Castro Baker et al., 2020).

disaster relief and did not count as income considered in the receipt of public benefits, such as food stamps. However, optional benefits counseling was offered using a tool developed by the Children's Defense Fund Minnesota (www.economicstabilityindicatormn.org). The City of Saint Paul worked closely with Ramsey County to support the continuation of public benefits throughout the course of the PPP.

To generate the PPP outreach list, the city randomly selected batches of 150 households from the full population of CollegeBound families, drawing 60% from the auto-enrolled list and 40% from the opt-in list to account for the over-representation of auto-enrolled families. Although each outreach list maintained a 60:40 proportional split, the enrollment process did not. According to the city, a higher proportion of opt-in families met the income requirements for the PPP and subsequently enrolled in the GI pilot. Thus, the overall study sample has a sizable proportion of WIC-eligible families, as significant opt-in enrollment for CollegeBound Saint Paul occurred through WIC offices. Using the outreach list, the city engaged with eligible families using physical mail, phone calls, or literature drops at selected families' doors. Each family received three outreach attempts. Families that responded and consented to participate underwent an onboarding process, during which they were also invited to partake in the research surveys. Participation in the research was voluntary and not contingent upon receiving the GI. This selection and engagement process continued until the desired sample size was achieved. Out of the 150 participants enrolled in the GI program, 95 elected to partake in the research study.

Once families were enrolled in PPP, the City of Saint Paul activated a U.S. Bank ReliaCard for families to receive direct cash transfers from the city, setting precedent for local goverment to directly facilitate cash transfers without a third party. The city utilized U.S. Bank as their disbursement partner because their government-issued cards were free to the city, had very low fees, and were easy to use. The city was able to issue these cards directly to PPP participants and had the ability to support participants who lost their card by closing old cards and opening new cards with ease. U.S. Bank only required a name, address, and date of birth to open a card, aligning with the PPP's commitment to ensure easy access for all communities and residents of Saint Paul, regardless of identity or citizenship.

Context and Demographics

Characterized by its growing diversity, its flourishing immigrant and refugee populations, and its commitment to inclusive economic justice policies, Saint Paul is a mid-size city with an estimated population of just over 300,000 people, located in the Midwest (U.S. Census Bureau, 2022b). As a multi-national city, one in five people are foreign-born, and Saint Paul is home to the largest Hmong and Somali populations in the United States (New American Economy, 2021). Yet, the poverty rate of Saint Paul is nearly double that of the rest of Minnesota, suggesting a strong need for economic policy and programming that is both supportive of and accessible to foreign-born communities (U.S. Census Bureau, 2022a).

DEMOGRAPHIC CHARACTERISTICS

Located just above a turn in the Mississippi River, Saint Paul is the capital of Minnesota and a cultural and economic force in the state. According to the U.S. Census Bureau (2022b), the population of Saint Paul is 303,176, representing a slight decline from 2020, when its population was over 311,000. Notwithstanding this recent decline, Saint Paul's population grew by 9.3% between 2010 and 2020 (Metropolitan Council, 2021), with increased ethno-racial diversity. The most recent U.S. Census Bureau figures (2022b) report that just over half of the residents of Saint Paul identify as White (55%), 19% as Asian, 16% as Black, 9% as Hispanic or Latino, and 7% as multi-racial. Relative to 2010, the percentage of White residents has declined, while Asian, Black, and Latinx populations have grown.

IMMIGRANT COMMUNITIES

Saint Paul is a multinational city; from 2017–2021, 19.1% of its population was foreign-born, compared to 13.6% across the United States and just 8.5% in Minnesota during this same timeframe (U.S. Census Bureau, 2022b). However, the vast majority (82.9%) of Saint Paul's immigrant community has resided in the region for longer than five years. Among St. Paul's immigrant community, the most common country of origin is Laos (15%), followed by Thailand, Mexico, Myanmar, Ethiopia, and Somalia. Other than English, the most frequently spoken language is Hmong, followed closely by Spanish and Karen (New American Economy, 2021).

Saint Paul's close relationship with the Hmong people began nearly 50 years ago. Following the United States' withdrawal from the region after the Vietnam War, many Hmong people faced retaliation for being U.S. allies. Over the following decades, several waves of Hmong refugees settled in Minnesota, which has historically been a destination for immigrants, as relatives reunited with each other. Since that time, Saint Paul has remained home to the largest Hmong population in the United States (Grigoleit, 2006; Budiman, 2021).

Further, new immigrants contributed to 62.4% of the growth in Saint Paul from 2014–2019, and immigrants comprised 22.2% of Saint Paul's labor force and 33.2% of the city's business owners during this period of time (New American Economy, 2021).

Table 1. Demographic Profile of Participants in the People's Prosperity Pilot (PPP)

SAMPLE SIZE	95
AVG. AGE OF RESPONDENT (YEARS)	31
GENDER (%)	
Male	11
Female	89
CHILDREN IN HOUSEHOLDS (%)	
Yes	98
AVG. NUMBER OF CHILDREN IN HH	2
AVG. HH SIZE	4
ETHNICITY (%)	
Non-Hispanic	91
RACE (%)	
White	23
African American	27
Hmong	20
Other/Mixed	30
MARITAL STATUS (%)	
Single	40
Married	31
Partnered/in-relationship	29
PRIMARY LANGUAGE AT HOME (%)	
English	74
Spanish	3
Other	23
EDUCATION (%)	
Less than High School	50
Associates/Bachelor	34
Other	16
ANNUAL HH INCOME (IN $)	
Median	32,387
Mean	31,891

FINANCIAL LANDSCAPE

As of July 2022, the median household income in Saint Paul was $63,483, just below the national median income of $69,021. Using the federal poverty measure, Saint Paul's poverty rate was 17.6%—substantially higher than the national rate of 11.5% and nearly double the statewide rate of 9.6% across Minnesota (U.S. Census Bureau, 2022a). At 7.6%, Saint Paul also had a higher percentage of residents in deep poverty (i.e., at or below 50% of the federal poverty line) compared to Minnesota's 4.2%. Moreover, poverty is not distributed equally in Saint Paul: compared to White residents, Black residents are roughly three times as likely and Asian residents more than twice as likely to live in poverty (U.S. Census Bureau, 2022a).

PPP SAMPLE

Given this backdrop, the city has sought to institute policies that resonate with its unique demographic fabric. Recognizing the critical economic disparities, the City of Saint Paul has directed its efforts and resources towards promoting justice and equity. It is within this context that the PPP was conceived and implemented. To comprehend its reach and impact, it is helpful to undertand the characteristics of the GI recipients, and a sample of 95 study participants was analyzed. The average age of the respondents was 31 years. The sample predominantly consisted of female participants, accounting for 89% of the total, with male participants representing 11%. All of the PPP participants were parents of at least one infant or small child, and a significant majority (98%) of the participants lived with their child(ren). The average number of children in the household was two and the average household size was reported to be four individuals.

The majority of participants were non-Hispanic (91%). The racial distribution was diverse, with White (23%), African American (27%), and Other/Mixed (50%) races represented. Within the Other/Mixed category, a significant proportion, nearly 20%, were of Hmong ethnicity. Additionally, single participants represented 40% of the sample. 31% of the participants were married, while 29% of the participants were either partnered or in a relationship. English was the primary language spoken at home (74%), followed by Spanish (3%) and other languages (23%). Within this 'Other' language category, Hmong was identified as the primary language for approximately 10% of the participants. Half of the participants reported high school education or less; 34% had attained either an Associate's or a Bachelor's degree, while 16% had other levels of education. The mean annual household income was approximately $31,891. Approximately 22% of the participants had income less than $26,200 a year, which is slightly above the 2020 Federal Poverty threshold of $24,600 for a family of four (ASPE, 2017). About half of the sample reported receiving SNAP and/or WIC benefits.

POLICY SUBSYSTEM

The PPP was implemented at the height of the 2020 COVID-19 pandemic, which had exacerbated the economic challenges that the City of Saint Paul's children and families already faced. Increases in unemployment and financial precarity, particularly for immigrant and non-English speaking communities, led to the need for prompt and flexible economic solutions that were accessible and concrete. At the city, state, and national levels, efforts were made to ameliorate the devastating pandemic-related financial consequences for children and families. During this time, the state of Minnesota and the City of Saint Paul offered examples of progressive jurisdictions committed to investing in policies and programs aimed at directly reducing poverty and supporting children and families.

Nationally, the expanded Child Tax Credit was included in the American Rescue Plan Act, which was passed by Congress and signed into law by President Biden in March of 2021. The law increased the maximum credit per child and made the credit fully refundable, so that parents who did not have earned income could still claim it. The expanded tax credit led to a historic reduction in child poverty, cutting it by 43%. Of note, groups of vulnerable children and families who were historically excluded from this tax credit (e.g., children of color, single-parent homes, rural families) experienced large declines in child poverty. However, the expanded tax credit was temporary and expired in 2022, calling into question its ability to sustain this impact (Wimer et al., 2022).

At the state level, Minnesota continues to shine as an exemplar state, serving as a lead in its investment and spending in public welfare (U.S. Census Bureau, 2021). Such state-level support creates a policy context conducive to implementing progressive programming at the local level, and Minnesota's commitment to concretely supporting families has continued in the post-pandemic era. For example, in February 2023, the Minnesota Management and Budget released their economic forecast, which confirmed that the state's general fund balance had reached $17.5 billion (Minnesota Management & Budget, 2023), and this surplus was ultimately used to invest in more robust social programs, family leave support, and tax credits for children and families (League of Minnesota Cities, 2023).

Within Saint Paul, Mayor Carter and his administration have extended investments in the social and economic welfare of the city's residents. Early in his tenure, Mayor Carter signed into law a measure that would gradually increase the city's minimum wage to $15 an hour. As of July 2023, the $15 wage applies to all businesses with more than 100 employees, with smaller businesses scheduled to incrementally increase to $15 by July of 2025 (Karabarbounis et al., 2021). Mayor Carter also launched the city's universal college savings account program, CollegeBound Saint Paul on January 1, 2020. In addition to the guaranteed income, PPP participants also received a $10 CollegeBound bonus deposit in their children's accounts each month they were enrolled in the pilot. This wealth-creating asset complements the guaranteed income strategy of the PPP, which provided recurring unconditional cash payments to smooth income volatility and reduce financial precarity. Shortly after the launch of CollegeBound Saint Paul and at the start of the pandemic in March 2020, the city announced an emergency relief program called the Bridge Fund, which provided 1,265 families with $1,000 cash for direct housing assistance. The infrastructure created to launch the Bridge Fund and disburse cash payments to select residents of Saint Paul contributed to a more efficient and effective startup and implementation of PPP. In other words, the Bridge Fund was the institutional primer that readied the city for PPP.

Theoretical Framework & Research Questions

This research builds on the emerging empirical literature on unconditional cash that Widerquist (2019) has termed the “third wave” of global experimentation, which started in 2010 and accelerated during the pandemic. Given that context, the research questions are anchored in literature demonstrating that chronic material hardship generates poor financial and well-being outcomes (Mani et al., 2013; Shah et al., 2012), while psychologically miring people in the present and structurally undermining pathways out (West et al., 2023). The economic development literature likewise indicates that a capacity for hope in the face of uncertainty represents a key component to economic mobility, because hope requires the ability to set a goal, visualize a pathway, and believe one has the agency to move forward (Lybbert & Wydick, 2018; Castro et al., 2021). However, the height of the pandemic eliminated such hope and pathways because it was an all-encompassing socio-economic crisis with no discernible end point. For that reason, the PPP experiment was also guided by cruel optimism and tragic optimism theory. Cruel optimism posits that chasing something you desire, like the American Dream or success under late-stage capitalism, may conversely create obstacles to your well-being by trapping you in an unwinnable scenario that erodes your sense of self (Berlant, 2011). The tragic optimism literature demonstrates that the capacities for gratitude, self-transcendence, acceptance, and connection with others serve as a buffer and mechanism for resilience in dire circumstances where individuals are structurally trapped (Leung et al., 2021; Mead et al., 2021). Therefore, we theorized that recurring unconditional cash payments would reduce scarcity and increase well-being while either creating the conditions for hope or the conditions for resilience based on structural vulnerability, sense of self, and the timeline of the acute, early days of the pandemic.

The People’s Prosperity Pilot of Saint Paul provided a recurring unconditional cash transfer for 18 months to answer the following questions:

- How does guaranteed income impact participants’ quality of life?
- What is the relationship between GI and sense of self?
- How does GI impact the capacity for economic mobility and through what mechanisms?
- To what degree does GI shift perceptions of shame, deservedness, and trust?

Methods

All research protocols were approved by the University of Pennsylvania’s Institutional Review Board. This research employed a quasi-experimental parallel mixed-methods design (Teddlie & Tashakkori, 2009), meaning that quantitative and qualitative data collection and analysis occurred within independent research strands and were not integrated until quantitative and qualitative analyses were complete. In keeping with the politically-purposive (otherwise known as storytelling) approach developed in the Stockton Economic Empowerment Demonstration (SEED; Martin-West et al., 2019), PPP worked in consultation with Mayors for a Guaranteed Income to identify a small self-selected group of participants who consented to share their experiences publicly. However, their stories were distinct from the qualitative data presented here.

QUANTITATIVE METHODS

Approach: The quantitative research approach was longitudinal and non-experimental, focusing on a recipient group of 95 individuals. These participants, all residents of Saint Paul, were enrolled in the city's CollegeBound Saint Paul program at the time of application. Notably, a non-experimental research design does not have a randomly assigned comparison or control group. Thus, any observed changes in outcomes over the course of the study cannot be conclusively linked to the receipt of GI. However, non-experimental studies are beneficial to understanding how people receiving an intervention may change over time.

Sampling and Eligibility: The sampling strategy was designated to ensure the random selection of participants from families holding a CollegeBound Saint Paul Saint Paul savings account. The City's Office of Financial Empowerment conducted randomization of the existing CollegeBound Saint Paul participants, and contacted these families through various channels such as mail, email, or phone to inform them of their selection. To qualify, families had to self-certify that they faced adversities stemming from the pandemic and their income was under 300% of the federal poverty threshold.

Data Collection: Quantitative data were collected via online surveys from voluntary participants at six-month intervals beginning at baseline (October 2020), six months into the program (May 2021), one year into the program (November 2021), after disbursements had ended (May 2022), and six months after the program concluded (November 2022). Surveys included validated instruments (specified in the Results section) to provide a holistic measure of changes in income and savings, financial well-being, stress, mental health, physical health, parenting and family dynamics, parent and child engagement, food security, and attitudes and orientation. Participants were compensated with gift cards for their time completing surveys.

Data Analysis: Extreme outliers were identified through conventional distributional statistics, and then substituted with winsorized values. The potential impact of GI on specific outcomes over time was assessed using ANOVA, where the later observations of the outcome of interest were regressed onto the outcome of interest at the earliest observation. Due to the limited sample size, the model was simplified to include only the outcome variable at baseline, omitting additional covariates, to adjust for potential baseline variations. A repeated measure ANOVA was employed to ascertain significance. The findings were supplemented by tables and figures and woven into the qualitative analyses.

To address the challenges of missing data, the research employed Multiple Imputation by Chained Equations (MICE) (Azur et al., 2011) as the imputation technique. MICE is a versatile and iterative method that handles missing data by generating multiple imputations for each missing value, allowing for a more robust statistical analysis. The process involves a sequence of regression models, wherein each variable with missing data is modeled conditionally upon the other variables. By generating multiple datasets, each with a slightly different imputation for the missing value, it accounts for the uncertainty of the imputation process. Datasets are analyzed separately and pooled together, producing results that are statistically valid and unbiased. This methodology also ensures that the standard errors of the estimates are correctly computed, which in turn reinforces the accuracy and reliability of subsequent statistical inferences.

QUALITATIVE METHODS

Data Collection: At the midpoint of the experiment, 25 participants were recruited to participate in a semi-structured interview. Five participants canceled due to illness or schedule change, yielding a sample of 20. Interviews were conducted either in the participant's home, in the community, or on Zoom to mitigate COVID risk when necessary. Interviews lasted between 1–2.5 hours, were digitally recorded on a DVR, professionally transcribed verbatim, and compensated with a $40 gift card. The domains in the protocol were informed by the theoretical framework noted prior and included prompts on financial well-being, household dynamics, pooling behaviors, values and ideology, benefits interaction, trust, health, care work, parenting, and employment.

Data Analysis: Narrative data were uploaded to Dedoose for coding by a team of six research assistants led by the Principal Investigators. Analysis occurred on a semantic and latent level. Semantic analysis followed the first four phases of Braun & Clark's (2012) approach to thematic analysis to address pathways and barriers to economic mobility, well-being, decision-making and adaptation. Latent analysis followed Charmaz's (2014) approach to grounded theory for understanding values, ideology, meaning-making, and sense of self. A theoretically driven codebook, anchored in the framework noted prior, was utilized with process and values coding (Saldana, 2010). A thematic map of salient themes was created based on the framework after the entire corpus of data was coded. Then, "thick description" analytic memos were generated and cross-checked against the structured memo-writing that was employed throughout all stages of data collection and analysis (Ponterotto, 2006, p. 358).

Findings

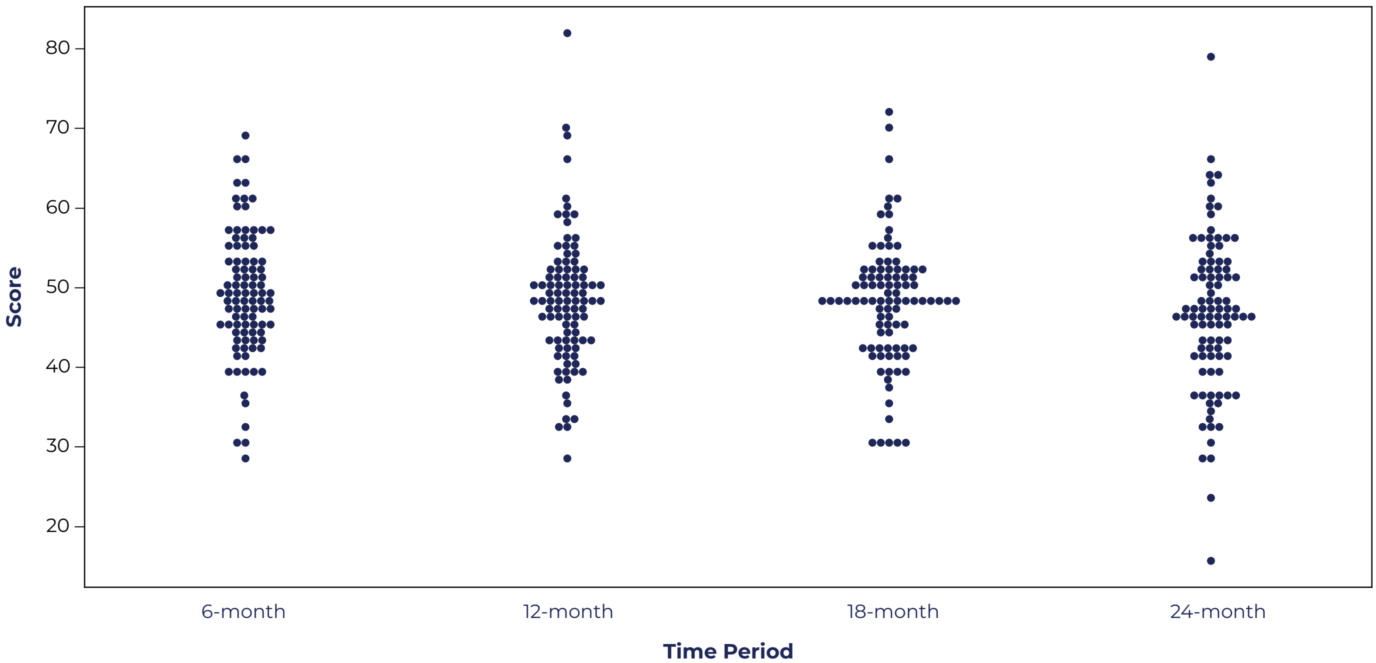
1. Financial Well-Being, Humor, & Thrift: A Midwestern Script for Survival

Summary: At the heart of Midwest culture is the concept of hardiness, an ability to survive in harsh conditions that often translates into priding oneself on individual self-sufficiency to avoid becoming a community burden. This manifests as shame and avoidance when seeking help, while counterintuitively extending empathy towards others' needs. Within this cultural milieu, a penchant for thriftiness functions as moral currency, and the strategies one uses for saving and getting by guard against outside structural forces shaping one's fate. Thus, participants directly connected the ways unconditional cash impacted their financial well-being with their overall quality of life. Pre-pandemic participants were already sustaining their families on constrained incomes marked by income volatility. However, while receiving the guaranteed income, participants on average experienced a stable sense of overall financial well-being and a reduction in income volatility, felt better prepared to withstand an unexpected financial emergency, and were able to save more money, despite the pandemic-related economic stressors. Of note, these financial advances that many participants experienced during the pilot tended to decline within the six months after the cash transfers stopped, and on average, participants reported greater housing-cost burden and food insecurity during the post-disbursement period. Together, these findings suggest a need for continued unconditional cash transfers to address financial precarity.

FINANCIAL WELL-BEING

Participants' financial well-being remained relatively stable from Wave 2 to Wave 4, with average scores around 47, situating the sample between the 25th and 50th percentiles on the Consumer Financial Protection Bureau Financial Wellbeing Scale (2019). A repeated measures ANOVA comparing the financial well-being scores from Wave 2 and Wave 4 found no significant difference. However, a slight yet significant difference emerged between Wave 4 ($M=47.08$) and Wave 5 ($M=45.39$); $F(1, 94)= 4.7077$, $p=.033$. The dip in scores from Wave 4 to Wave 5 suggests a decline in financial well-being post-intervention.

Figure 1. Financial Well-Being Scores



ABILITY TO HANDLE A $400 EMERGENCY

Though Americans' ability to cover an unforeseen financial emergency using cash or a cash equivalent has improved over the past decade, only 57% of parents could still confidently handle a $400 emergency in 2022. The inability to cover such emergencies can lead to use of risky financial products or going into debt—further jeopardizing an already financially precarious household (Federal Reserve, 2023).

Table 2. Temporal Shifts in the Ability to Cover a $400 Emergency (in %)

Time Period	No	Yes
6 months	56	44
12 months	53	47
18 months	60	40
24 months	67	33

In Wave 2, a significant 56% of participants felt no confidence in their ability to cover a $400 emergency expense using cash or cash equivalent, suggesting prevailing financial vulnerabilities, particularly in comparison to national data. Post intervention saw a further decline in the confident respondents to 33%, indicating a waning of influence of the GI over time. These fluctuations underscore the ephemeral effects of GI on perceived financial stability and emphasize the intricate dynamics of financial assurance when faced with unpredictable expenses.

SAVINGS

Concomitant with preparedness for a financial emergency is household savings. The proportion of respondents with higher savings, especially those with savings exceeding $500, improved between Waves 2 (39%) and 4 (41%), but experienced a slight decline after the GI ceased (27%). Particularly, between Waves 2 and 4, respondents either reported an increase in savings (23%) or maintained their savings levels (87%); this pattern was statistically significant across the waves ($x^2(6)=41.59$, $p=.0047$).

Table 3. Trends in Savings over Time (in %)

Time Period	Improved	Declined	Stable
Baseline to 6 months	*Data not collected at Baseline		
6 months – 12 months	23	13	64
12 months – 18 months	6	6	87
18 months – 24 months	13	17	71

Table 4. Temporal Variations in Savings (in %)

Time Period	< $200	$200–500	> $500
Baseline	*Data not collected at Baseline		
6 months	26	35	39
12 months	34	24	42
18 months	37	22	41
24 months	54	19	27

Given the moral emphasis placed on thriftiness and savings, it is unsurprising that many participants described saving some of the disbursements as their primary goal at the start of the pilot. Strategies revolved around three items: saving for their children's futures, saving for larger goals like home ownership or higher education, and leveraging the GI alongside the cash received from the expanded Child Tax Credit to enable stronger savings strategies. Most described a desire to save for their children's future while teaching them about the importance of planning ahead financially. Mary, a Hmong immigrant with six children, described focusing on each child saying, "every time we have, like, cash left over from the pilot I kind of split it evenly towards them to put in their little piggy banks. And then, um, yeah, it's, it's just money for them to save for the future." Others, like KM, linked a desire to save with her own lack of economic mobility as a first-generation college student.

> *We're going to save, and we're going to teach them to save early because we don't want them to walk our path. And both my significant other and I are first generation in the U.S. And so first-generation college students too. So because of it, we don't know*

> *anything. Like, we don't know about finance. We don't know about college. We don't know about any of those things. So learning from our experience, we're trying to prevent our kids from walking our path and be in debt like how we are. And with the cost of living going up too, we just know that we have to start now immediately. I think the baby benefits the most because I mean, he went through St. Paul.*

Meanwhile participants like Savannah employed two-pronged strategies using the GI for an immediate financial need and using the CTC for long-term savings, "the [PPP] automatically just goes into our rent. Yeah, because it's the biggest chunk of money that we get.... We haven't really spent that money [CTC] yet, because we're kind of just saving it... we're kind of just saving it for future use." Given these participants were recruited from CollegeBound Saint Paul, these strategies offer insight into the ways that households may potentially combine short-term interventions such as unconditional cash with asset-building strategies like Children's Savings Accounts.

Many expressed plans for using the GI to pay down debt and enable saving for larger goals, but this proved difficult as emergencies and other urgent needs cropped up. Mary described saving the cash as competing with life happening, like a car breaking down, repairs being needed on their home, or caring for her elderly father. Similarly, Leah talked about not being able to save: "Actually, we don't have 'saving savings.' But sometimes we keep a little thing if there are days the car may break down or something may come up, like little things we use, but not like saving, big saving." These expressed desires and goals to save run counter to the assumption that low-income households need education on financial literacy and budgeting for surviving the risks of American capitalism. Participants like Leah did not lack information about how finances and budgeting worked—both are intuitive when living on the economic margins. Rather, they lacked fungible cash to meet basic needs and were forced to engage with punitive financial instruments that further enmeshed them in poverty.

Debt created the largest barrier to savings, which shackled participants to financial stress and precarity even with the GI. In keeping with the cruel optimism Berlant (2011) describes, this debt included student loans and mortgages, which people had taken on believing that would lead to economic mobility. It included credit card debt—leveraged to patch holes created by inflation, income volatility, and the costs of raising a family. It included medical debt from unexpected healthcare costs, a fraying safety net, and inadequate medical insurance. Participants described feeling forced to rely on credit cards to cover emergencies before the PPP because they had no other option when wages were failing to keep pace with inflation. Michelle described the wear and tear of this strategy, saying,

> *That's money that we learned that we like to put away. We're like, nope, you really can't, you know? That's something that we don't [SIGH] want to go back to, because we paid off all our credit cards before the pandemic. And when it started coming up, creeping back up, like, oh no. No, no. Can't.*

Others discussed the crushingly high interest rates of credit cards as steadily adding to their debt and constraining options for pathways out. Participants like Savannah described being forced to choose between using savings for the down payment on a house or for higher education while knowing that both are often necessary for securing stability and avoiding the exorbitant costs of rent.

> *I went back to school like three years ago, um, that's when we were—we were in the process of buying a house. But then since I chose to go back to school, my partner was like, well, if you go back to school, like we can't pay the bills. And so it was either buy a house or else go to school. So I ended up choosing going back to school. So then we didn't buy the house.*

Student loan repayment, though paused for federal and some private borrowers throughout the pandemic, was a looming stress for many participants. While students are taking on less educational debt than they were 10 years ago, student loan debt has a disproportionately negative financial impact on lower-income students of color, women, and those targeted by for-profit educational institutions (National Center for Education Statistics, 2023; Miller, 2017; Addo et al., 2016). Education held the promise of a better job and higher wages for participants, though there was a palpable frustration when this led to downward mobility instead of upward. Bill described the impact of interest on student loans, and how this can feel like an insurmountable obstacle.

> *Well, the past year or two, they have allowed us to not pay them or it has not accrued interest. But in the past, I paid off a lot. And then, you know, I was strapped for money. And then I didn't pay that. So actually, that's a bill that you can delay. You know, that's fine if you don't pay them. It will just keep going into interest and it'll go back up. And so all that money that you did pay off, it will come back, and you'll be like, oh my God, how did this happen or how did I get $10,000 in interest again that I already paid off? So that sucks, you know. But you have to pay that off. So you got to constantly keep paying on it if you don't want to go back and revert. So I have a lot of—um, because I got, you know, went to school twice, you know. I owe a lot of money.*

INCOME

Analysis of annual household income revealed notable fluctuations across the study period. At baseline, the median income was $32,837—less than half of the median income for Saint Paul in 2021 (U.S. Census Bureau, 2023). By Wave 2, the median income dropped to $29,305, suggesting possible reductions in other income sources. Subsequently, a marginal recovery was evident in median income in Wave 3 ($30,046), followed by an increase in Wave 4 ($36,023), before retracting to $32,624 at endline after the discontinuation of the GI. The observed variability across Waves correlated with the pandemic-era labor market fluctuations, underscoring the multifaceted influences on earning patterns during unprecedented times.

The observed declining income trend in Wave 2 was consistent with national trends (Blanchet et al., 2023). In 2021, the bottom 50% of income earners experienced volatile and generally declining income growth, reflecting the uneven distribution of wage gains amid economic recovery post-pandemic. Concurrently, any income gains experienced by this group were neutralized by rising inflation. This aligns with perceptions reported by many who did not feel financially better off, despite overall economic growth.

Figure 2. Trends in Income Dynamics for Households: Volatility, Mean, and Median Measures

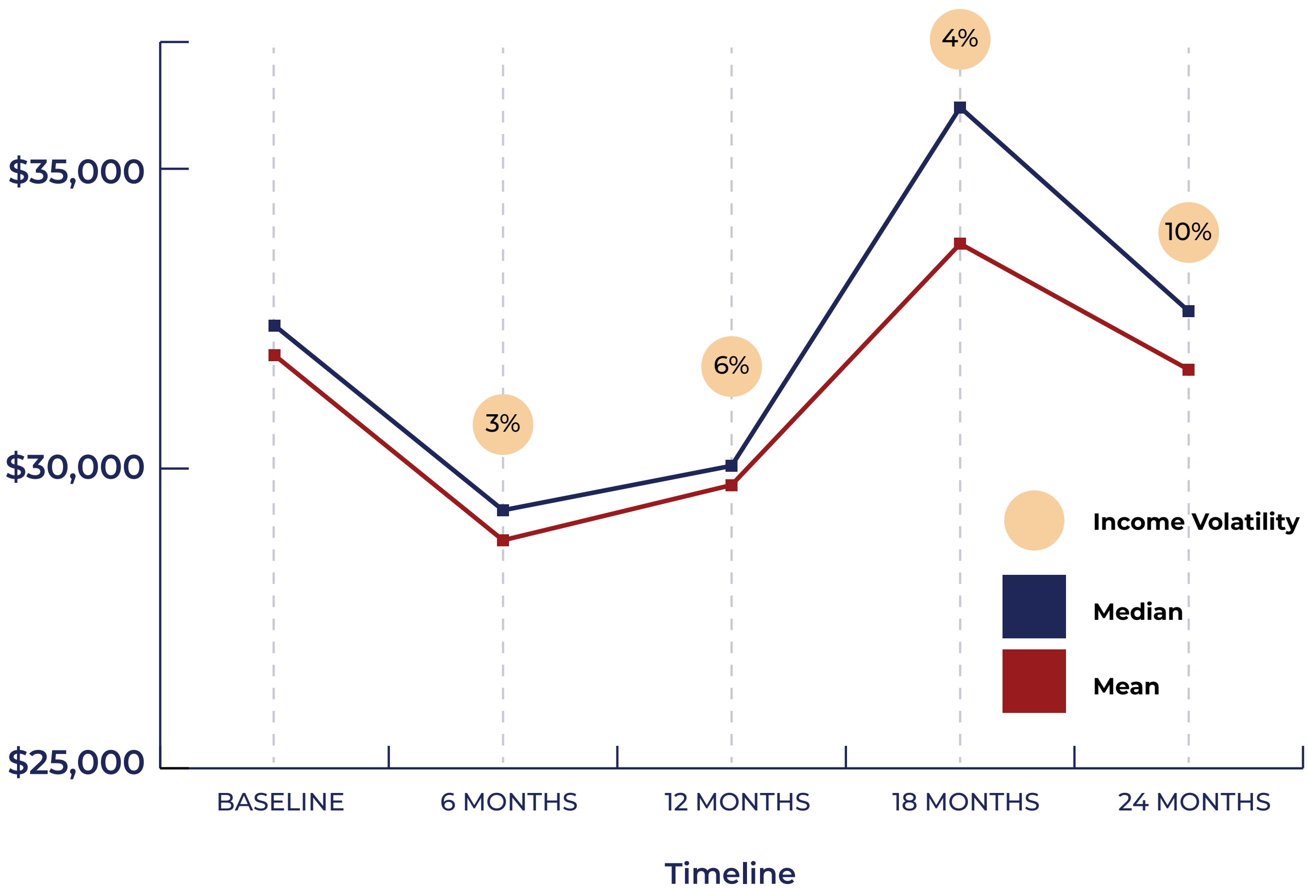


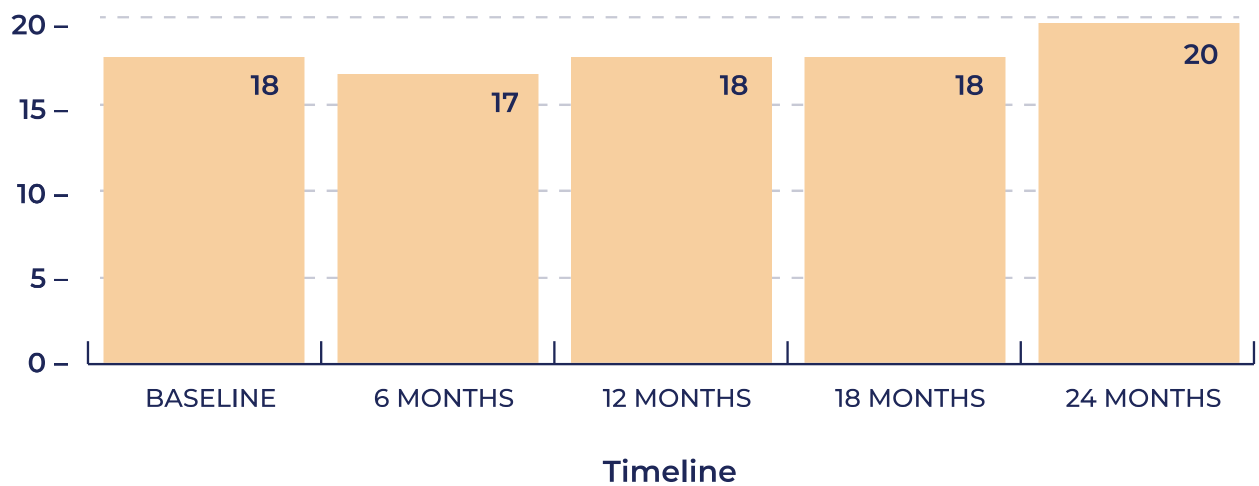
Table 5. Trends in Income Dynamics for Households: Volatility, Mean, and Median Measures

Time Period	Mean Annual Household Income ($)	Median Household Income ($)	Income Volatility (%)
Baseline	31,891	32,387	--
6 months	28,804	29,305	3
12 months	29,725	30,046	6
18 months	33,749	36,023	4
24 months	31,650	32,624	10

STRESS, ANXIETY, AND DEPRESSION

Ongoing financial stress can lead to greater overall stress and may lead to symptoms of anxiety and depression. Using the Kessler-10, a validated instrument commonly used to detect distress and symptoms of anxiety and depression (Kessler et al., 2022), baseline scores (M=18.68) indicated participants were likely to be mentally well, showing few symptoms of anxiety or depression. Throughout the program, participants maintained scores below the cut-off of 20, indicating that, on average, they were within the mentally healthy range. However, there was a discernible, yet statistically insignificant, rise in symptoms of psychological distress as the mean score (M=19.96) approached the threshold six months after the payments ceased.

Figure 3. Trends in Kessler Score over Time



PHYSICAL HEALTH

Physical health and function were tested using the Short Form Health Survey-36 (SF-36) (Hays et al., 1995). Amid the challenges of the pandemic, participants reported a decrease in their overall perception of general health. However, their self-reported physical capabilities and lack of limitations remained resilient. At the outset, participants generally reported favorable levels of well-being across the three subscales of general health, physical limits, and physical functioning. Average general health was 67.15, suggesting a moderate level of perceived general health. Physical limits were relatively high (M=79.49), indicating lower perceived limitations due to physical health. Additionally, physical functioning was also substantial, with M=71.26, reflecting good perceived physical capabilities. By Wave 4, there was a perceptible decrease in average general health (M=60.03), though the physical limits and physical functioning subscales remained positive (M=86.12 and M=81.15, respectively). Results from the repeated measures ANOVA were statistically significant for all three subscales.

Despite overall good health, participants were impacted by their own medical debt, that of their family members, and the costs of managing their family's health needs. This debt layered the stressors of financial precarity with shame and indignation, but participants also credited the GI with assisting them in caring for medical needs when few other options existed. Michelle, a mother of four, gave birth to premature twins at the start of the pandemic, necessitating NICU care and complex pediatric care for both throughout the pilot, impacting her ability to work. Like for others, the GI provided a way to absorb the unexpected medical costs while compensating for lost wages. Nonetheless, not being able to provide care for loved ones due to cost weighed heavily on other participants when the $500 was not enough to overcome more expensive medical needs and insurance gaps. This was exacerbated by insurance companies, particularly for participants who did not have employer-sponsored healthcare and were relying on state benefits or private plans. Cecilia discussed this in relation to her daughter, who has a chronic illness and thus needs medical attention often.

> *I think the biggest thing for us has been medical debt because, um, our daughter has had lots of expenses. Um, some of which are covered, some of which are not, some of which are just a gnarly mess of insurance. And, um, I actually wrote to our insurance company this week, online, with a thing that was like, I'm literally begging for help and writing because we can't sort this out and you're not helping us and we need your help. And so today I got an email that says that we're getting a case manager. So great. I would say that's probably one of the, right, the biggest ones. And it's not even … sometimes it's not even the financial piece of it. It's just not understanding it enough. Not understanding. I mean, like my husband paid a bill that we shouldn't have paid. And then it took months to try to get the money back.*

For families like Cecilia's, the constant back-and-forth with insurance companies along with having to weigh what care one can or cannot afford causes high levels of stress, and in some cases shame over feeling unable to protect loved ones.

HOUSING AND UTILITIES

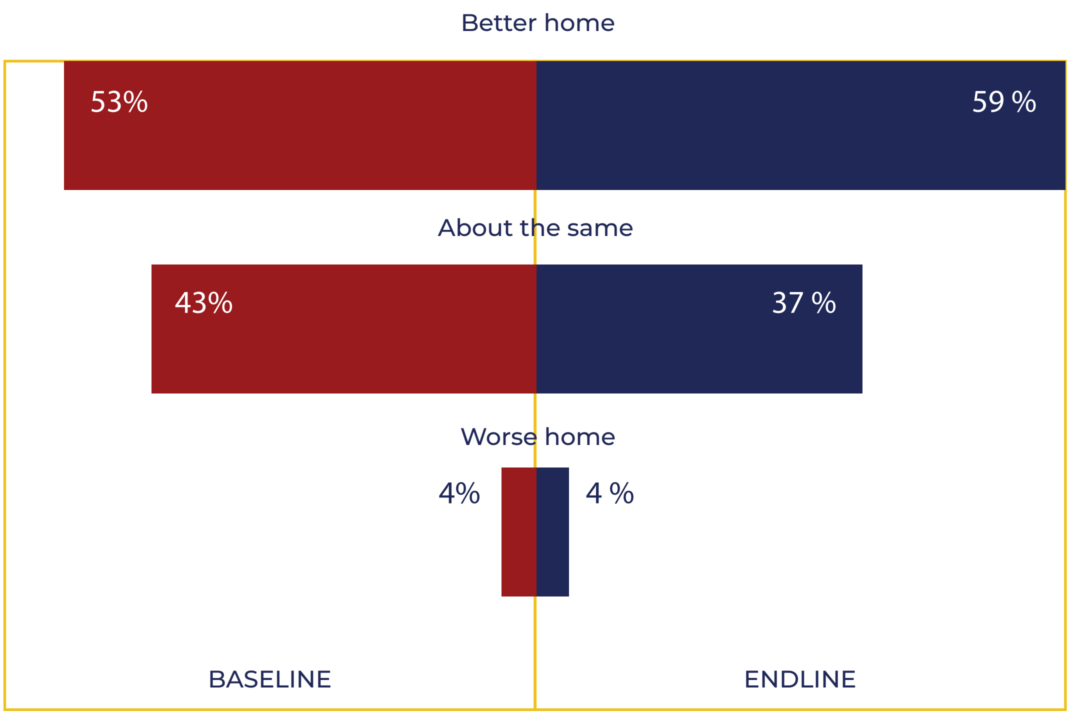
In Saint Paul, nearly 70% of renter households face housing-cost burden, where the amount paid for rent and utilities is 30% or greater of the household's monthly income (Minnesota Compass, 2023; U.S. Department of Housing, 2023). This study defines housing cost burden as the total monthly housing cost encompassing rent or mortgage, but excluding utility costs and any condominium or association fee, divided by the average monthly household income. For PPP participants, the average cost burden increased from Wave 1 (M=28.32) to Wave 5 (M=36.54), meaning participants began the program without significant housing-cost burden, but were facing this financial burden six months after the program concluded. The proportion of participants spending over $400 in monthly utilities saw a 3 percentage point increase, while the proportion whose utilities were included in their rent decreased (by 2 percent points), as did the percentage of those who had someone else covering their utility costs (by 12 percent points). Amid these challenges, a silver lining emerged: there was a 7 percentage point increase in participants transitioning to better quality homes between Wave 1 and Wave 5. Overall, the broader housing landscape presented hurdles, with escalating rents, especially as the pandemic-era subsidies were phased out. The median rent reported for the area was $1,200, not including utilities. This is a marked contrast to the gross median rent of $1,080 recorded for the area between 2017 and 2021 (U.S. Census Bureau, 2023). The observed results align with recent findings from the St. Louis Federal

Reserve (2023) and Harvard University's Joint Center for Housing Studies (2022), which underscored prevailing trends of renters grappling with financial strain. Securing affordable housing in this context remains a substantial challenge.

Table 6. Change in Housing Utility Costs: Baseline vs. Endline (in %)

Utilities category	Baseline	Endline
< $200	33	38
$200 – $400	33	37
>$400	12	15
Included in rent	8	6
Someone else pays	14	3

Figure 4. Home Quality: Baseline vs. Endline (in %)



Housing costs and mortgage debt were also common stressors across participants. Many of the homes that are more affordable tend to need renovations, and artists' lofts and condos are perceived to be driving an increase in housing costs. Some described feeling like they needed two incomes to afford a home, and increasingly even renting an apartment required a salaried position. Nonetheless, participants leveraged the GI to offset their rent and, in some cases, were able to pair the unconditional cash with other interventions to make ends meet. Lilly's family paired the $500 with the CTC and several months of rental assistance from a refugee resettlement program to keep her family housed after moving to Saint Paul from West Africa and losing her prior career track in engineering. Starlet credited the GI with offsetting her rent to the point that she was able to save in advance: “I find myself having no anxiety, like less anxiety about things like that. I feel like I got anxiety from having to worry about, you know, am I going to make the next month’s rent? Like I be having my rent ready a month in advance.”

GI Case Study 1

KM is a 32-year-old mother of three boys, ages 9, 4, and 18 months. She and her partner moved from Saint Paul to a suburb due to housing costs, including property taxes. KM is a scientist and has been working in the same industry for seven years. In 2020, she decided to pursue higher education to further her career. Her partner handles most of the childcare responsibilities to enable KM to focus on work and classes. KM’s parents are Hmong immigrants. As a first-generation student, she views education as a pathway to the American Dream and financial stability. She chose science as her undergraduate major because she was told that working in the sciences would mean having a secure job and that “it will compensate you enough to pay off student debt, to have a living, to be able to have a family.” At 21, newly pregnant and starting her first job that paid hourly, she quickly realized her wages would only allow them to survive on the bare minimum. She took on extra hours, stating that if she had no obligations besides “literally surviving and paying off student debt,” it would have been fine. But with a child, she was surviving from paycheck to paycheck and working extra hours. Now, she has a salaried position but more children. “There’s two more mouths to feed. And then with pay—trying to pay off student debt and a mortgage, um, and paying off a car, it’s just—my debt is accumulating, and my pay doesn’t compensate for it.” KM felt that she was made a false promise—that if she went to college and got a four-year degree, she would make enough money that she would be able to thrive. She was grateful for the pilot because she felt there were no programs or support for families like hers, making too much to qualify for government programs but still needing help. KM was frustrated by assumptions that needing help meant that you were lazy. “I think the misconception is that you are not working hard. And the reality is that you are working hard. You just can’t make ends meet because of internal problems that don’t—people don’t ask about.”

“I think the misconception is that you are not working hard. And the reality is that you are working hard. You just can’t make ends meet because of internal problems that don’t—people don’t ask about.”

For participants like Emmy, the GI, paired with COVID stimulus payments, presented an opportunity to pay down debt. She described life before the pilot:

> *I mean, with—with the extra money that we have gotten all this year and, like, the stimuluses, I feel like I've gotten ahead a little bit where I still have money left over after my check. But, like, before the pandemic, before I had my baby, like, it definitely was get paid on Friday, pay all the bills, and then by—by Tuesday, it's like when do we get paid again kind of thing, because just between every bill that I had and all the credit cards that I had racked up.*

Emmy was saving up for a home, using the pilot money to build her savings for a down payment while also paying down her credit card debt to better her credit score. She went from having 20 maxed-out credit cards at the beginning of the pilot to one card that she is paying down. To save for a home, she is living in a duplex owned by her mother's boyfriend. He is renting it to her at a very low rate so that she can save for her own house. Emmy also talked about renting versus owning and how she thinks it would not be a good decision for her to rent again at a higher rate. In deciding where she wants to buy, Emmy has to consider her son's school, her daughter's daycare, and the distance she will have to travel for work.

FOOD INSECURITY

Several key findings emerged from the food insecurity analysis of households. The data revealed an escalating concern about households potentially running out of food, with 19% of the respondents expressing this worry in Wave 2, which increased to 31% in Wave 5. Notably, while 11% of the respondents in Wave 2 indicated that household members had to eat less due to insufficient food, this proportion dipped to 4% in Wave 3, only to rise again, reaching 15% in Wave 5. An upward trend was also evident in both the consumption of undesired foods, as well as in the inability to consume preferred foods because of limited resources. Financial worries were not amiss, with the data revealing a steady climb in respondents' anxiety about settling utility bills, increasing from 35% in Wave 2 to 55% in Wave 5. It is crucial to note that Waves 4 and 5 coincided with one of the most severe inflationary periods in U.S. history, with inflation rates reaching 9.1% in June 2022. This economic context likely intensified the hardships experienced by households, a sentiment captured in the study's findings. Overall, the results highlight an escalating trend in food insecurity across the waves, amplified by the inflationary pressures. The marginal decline in anxiety over adequate food availability in Wave 2 underscores the transient relief provided by the GI in mitigating household food insecurity.

Participants described a variety of strategies they used for weathering food insecurity. Notably, these typically revolved around stretching food resources, including buying whole ingredients in bulk and utilizing multiple freezers. Others, like Emmy, discussed food for themselves as a secondary priority compared to bills and other essentials. "I won't starve at work, but I'll literally, like just make it through the day without buying anything to eat because I just feel like it's a waste of money. And why spend the money on it when you could put it towards one of your bills kinda thing." Sophie talked about utilizing sales and freezers to make the most of her budget:

> *Yeah. So I try to do that, where, like, if there's like a sale on or something, like, OK, I try to get, like, five of those and I just put them downstairs, OK, five soaps. Because we're going to end up using them. Like in the future. And like, if there is like, a fruit or something that's like, a pineapple, like, it's at its point, and I don't want to, like, I don't throw it away. I'm like, Imma cut it up and put it in the freezer, and we'll make some water with it later. You know, and stuff, and like, making the most with the clothes, and stuff. And like, instead of, you know, if there was a sale or something at Walmart, OK, like, two-dollar pants, or, like, look around for certain prices.*

Another approach participants used revolved around work, either taking on more hours, looking for higher pay, or cobbling together odd jobs. For Cecilia's family, finding work where they could, especially during transition periods like postpartum and during the pandemic, was their primary strategy to make ends meet.

> *We both, even when we were working full-time, we both worked part-time jobs. [LAUGHTER] Yeah. Um, to, so we both have music in our background and so we'll sing for anything someone asks us to, if we can make it work. Um, so with my job, actually today, I was here doing work and the kids were here, and he went and sang for a funeral. Um, which is great. I mean that earns, it's taxable income. [LAUGHTER] Um, and so, yeah. We, we do extra, extra whatever we can. Like I said, he'll do handyman stuff. He'll go hang a door, um, you know, in someone's house and they'll pay him for that, or um, yeah. I've looked at things like being a Shipt shopper or some of those other things, um, or holidays, kind of doing things around the holidays. I don't think I've ever done any other ones. I mean, there was a, there, there were some tougher times where I would work, like, a day shift and then a night shift, like doing temp work and things like that. Um, but I haven't been able to do that in a while just from family and stamina and stuff.*

These strategies embody the heart of Midwest hardiness: making the most of what you have, stretching resources through multiple seasons, and using your time and energy towards work and production. This often went hand-in-hand with a discussion of need versus want, something participants described almost constantly asking themselves as they assessed their budgets. Here, Michelle explains how she and her husband evaluate each budget item.

> *Um, it's if, is it an essential need? Do we need it, or is it a want? Um, that's what I find, that's what I've been doing lately, ever since I had the chance like, OK, is this what we really need? As long as we have a roof, food on the table—our bills are, you know, make sure they're paid on time. That's what's really important to us right now.*

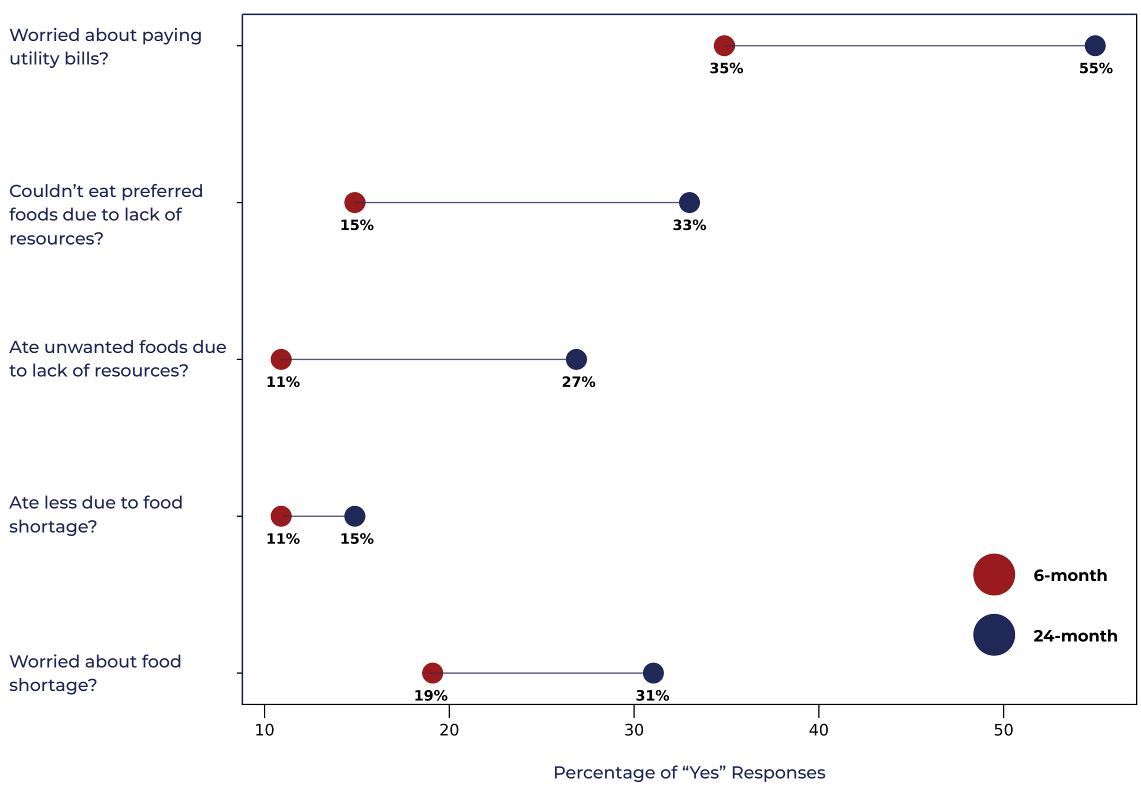
Still, there were many instances where participants could not meet their basic needs because of persistent financial strain. Overwhelmingly, this was communicated with a unique Midwestern humor, not wanting to admit the presence of struggle. For example, Cecilia described the anguish of not being able to afford medical care for her family, especially for her children:

> *I consider that a basic need, right? If someone is sick and hurting, maybe other people don't. Um, but it's, yeah. It's not a proud moment. Um, I've done it to myself plenty of times. But I don't cry over that one. I only cry over, you know, doing it when it's our kids ... They [her children] made it through. They're just stronger without having the antibiotics, right? [LAUGHTER]*

The use of humor was one way for participants to normalize and cope, but it contributed to an overall pressure to act as though chronic stress were not present and led to social isolation and loneliness. This script of "everything's fine" took a toll on participants and their families. It strengthens the narrative arc of savings and thriftiness as a moral test to individuals' ability to thrive, even when it is mathematically impossible for them to thrift their way to financial stability. Michelle described how this mentality adds to stigma around benefits overall.

> *But like with me myself, I feel like, I, I don't know, you know, it's, it's great that we have help, because I receive the help ... and it's beneficial to me. But in other people's view, they're like, why? They're driving a nice car ... They have a nice house. They ... they have, you know, an Apple Watch. How can they afford this and get all the help from the state? And I feel like some people, they just don't understand what really lies ... underneath it ... Of the struggle, of the real struggle, what someone's going through. You know, we can put on a happy face, like everything's fine. But you're really broken inside and you need help.*

Figure 5. Change in Food Insecurity



In addition to the financial precarity experienced prior to the pandemic, participants were enduring unprecedented uncertainty. School closures, food and formula shortages, unpredictable wages, and furloughed workers combined with the threat of COVID and contributed to participants feeling overwhelmed. Yet, the resilience of PPP participants in the presence of profound obstacles is clear. One mechanism through which GI works is by decreasing financial stress and increasing participants' sense of self and agency, which can have a ripple effect on their lives and their most important relationships. For Sophie, this meant an improved relationship with her spouse, "Because it's like, you're stressing less, instead of like, bickering we don't, you know? Or, or like, cause sometimes, it's like, that stress can take a hold of you, and just like, you see everything not so, black and white and stuff." Others, like Ashley B., began to create pathways for their future, finding hope in being able to set a goal like going back to school to become a nurse. Starlet, an entrepreneur, was able to focus on growing her business and spending more time with her family: "I would be more worried about bills. And so this program helped me less have to worry about that, so I can focus on the good—the more important things."

2. Countering Social Isolation & Institutional Neglect

Summary: All PPP participants were parents with at least one infant or small child, and as such, many expressed a common feeling of parental isolation, which was exacerbated by pandemic-related safety measures such as social distancing as well as financial stressors. Within the context of Midwest hardiness and self-reliance, several participants shared that they did not want their debt and financial stress to be a burden on their families and communities, and so they were less likely to reach out and connect with their social supports during times of financial precarity. However, during the hardships of the pandemic and the ensuing, mounting financial stress, guaranteed income served as a mechanism to improve financial well-being, creating a pathway for supportive social connection. Many participants experienced a sense of self-transcendence as the GI allowed them to be part of something bigger than themselves, which then led to stronger community connections as they were able to give back to their communities and spend more time with their loved ones. On average, participants reported an improved attitude towards life and their purpose as well as increased hope for the future six months into the GI program; this positive trend continued through the last point of data collection, six months after the PPP ended. Further, during the PPP intervention, many participants experienced a heightened sense of being valued by others.

The People's Prosperity Pilot was launched in 2020 and was one of the earliest cash responses to the public emergency created by COVID. From losing family members to losing jobs, the pain and grief of the pandemic left a lasting mark. In Saint Paul, PPP participants were parents with at least one infant or child, and as caregivers felt both the isolation of social distancing and the acute stress of pronounced financial precarity. Many described seeking help that never arrived prior to the pilot, or how the PPP functioned as a replacement for a key benefit they were not otherwise receiving, such as child support or paid maternity leave. At first, the stress and anxiety that the pilot money relieved still did not seem to diminish their sense of isolation, particularly in feeling like they were struggling alone. Participants expressed feeling reluctant to ask for or accept help, feeling like they would be burdening others who were dealing with their own struggles. Savannah, for example, discussed not wanting to ask for help from family members.

> *I mean, not too much, because, um, kind of don't want them to worry about, you know, our needs and stuff. Um, so I think it's only been a couple of times when we had to let my mother-in-law know. Um, and she's helped just, just a couple of times.*

Among PPP participants, financial stress often acted as a precursor to social isolation. As bills and debt mounted, financial stress and isolation intensified. Problematically, the internalization of the Midwest work ethic script led to shame and a sense of failure for not being entirely self-sufficient.

LL and her family felt this in relation to medical debt that continued building as the care required for her mother-in-law increased. LL elaborated on the compounded stress of medical debt when discussing what these bills meant for her family, particularly in relation to meeting basic needs.

> *I don't know. It's dark. It's just like, oh, I don't have enough money. Or, oh, my g—like, it's just very stressful. Um, yeah, a lot of stress. And also, like, feeling like, oh, I need to fi—I need to have a better job. Or I need to work harder for a better job or I need to get paid better. And, you know, just kind of, like, yeah.*

At the same time, participants spoke of the importance of social connections, especially in relation to childcare. Emmy, for example, used the same babysitter she had as a child, who babysat her son and then for her daughter. This relationship allowed her more flexibility than a traditional daycare setting, which then allowed her to take on extra hours or keep up with the demands of the holiday season on her job. Emmy's network also allowed her to secure reliable and affordable housing, as noted above. Emmy was also able to stay with her mother for five months after her landlord unexpectedly sold the home she'd been renting previously, pointing to the importance of having a network to fall back on for temporary assistance as well as the ability to escape the exploitative nature of most landlord-tenant relationships.

The large immigrant population that calls Saint Paul home has cemented intergenerational social connections and relationships that aid families in accessing help and building community. Sometimes this is through word of mouth, as when participants told their communities about their PPP selection in hopes that others in their network would also qualify. Participants spoke about their communities helping them navigate government processes and, in some cases, creating networks for childcare.

Tala's story illuminated the network of support that many immigrant and first-generation families rely on to get by. Tala lived in a large apartment complex that was mostly occupied by families from her home country, effectively recreating the food ways and norms from her country of origin. She spoke throughout the interview about ways that the families in her building support each other, and also noted that she shared information about the pilot with everyone in the building.

> *If they need help, to call. Because probably, for me it was like a miracle. I'm trying to take through, like, like, I was like how long would I [INAUDIBLE]? Like, I was not going to make sure, like, I was not going to think about my babysitters for the next, like, 21 months, like—That was, that was huge. So I just tell everyone.*

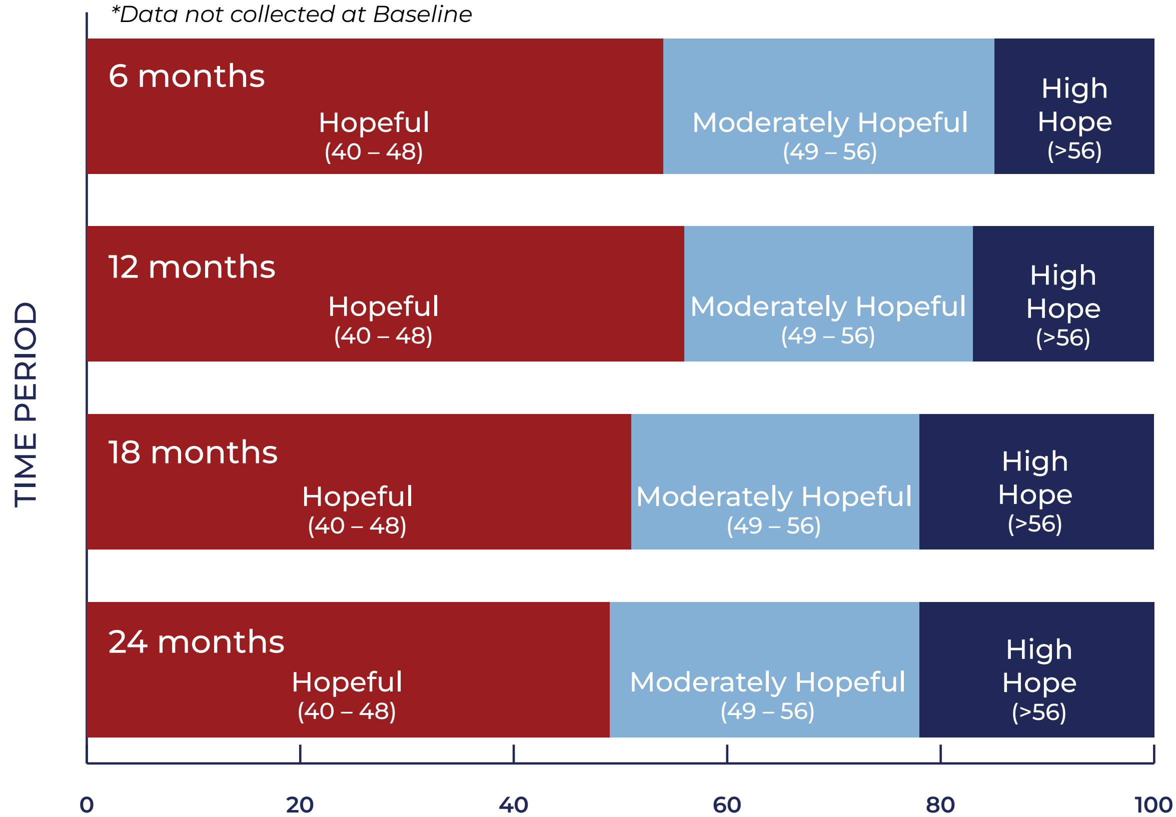
Tragic optimism posits that through social connection, self-transcendence, gratitude, and acceptance, individuals can locate wells of resilience when confined by structural forces (Leung, 2019; Leung et al., 2021). The pandemic served as a dire circumstance in which the majority of people experienced intense social isolation, financial precarity, and acute physical, mental, and emotional stress. The GI and PPP served as a way for participants to feel as though they were a part of something bigger than themselves (self-transcendence), build social connections through giving back to their communities and spending time with loved ones, created space for gratitude, and ultimately forged acceptance of their circumstances. This was captured by Michelle:

> *I feel like, I have to accept like, OK, where I'm at with my life, my kids, and my husband. I should be grateful for the help that my parents have helped us, so far. Um, be grateful so that we're healthy. So I just feel like, you know, money is a part of that sometimes, I just have to realize that. It just, it comes and goes, as long as I have a roof over my head. I feel like, you know, it doesn't matter if you have a lot of money or a little money. You know, money comes and go. And I feel like we have to accept that. Um, and it's just a temporary thing. But you really have to find happiness with yourself, and, um, and try to make, not make ends meet, but just be happy with what you have.*

These same markers of resilience were notable in three indices of quantitative data, as well. Results of the Life Attitudes Scale (Wong et al., 2022), which measures subdomains of tragic optimism, indicated that participants were significantly more likely to demonstrate positivity despite persistent financial strain. From six months after the PPP started to six months after it ended, there were significant positive trends in affirmation of meaning and value, or a person's feeling that there is inherent purpose in life despite current circumstances (Relative Impact=2.7%, p<.05); acceptance of their current situation against difficult odds (Relative Impact=6.9%, p<.05); and faith in a higher power even if things feel stacked against them (Relative Impact=2.0%, p<.05). Conversely, participants reported significantly negative impacts in terms of self-transcendence, or the ability to overcome situational or personal constraints to make a difference in the world (Relative Impact=-.6%, p<.05).

Results of the Adult Hope Scale (Snyder et al., 1991) indicated that throughout the duration of the PPP and six months after, participants were hopeful for their futures. This scale measures a person's intent to meet goals (Agency), actions to achieve those goals (Pathway), and a sum score of both (Total Hope). While higher scores were observed for all three subscales (Agency, Pathway, and Total Hope) between Wave 2 and Wave 4, the upward trend was not statistically significant.

Figure 6. Perceptions of Hope



The Adult Mattering Scale (Elliott et al., 2004) assesses how individuals perceive their value in the eyes of those around them, encompassing three dimensions: Awareness, Importance, and Reliance. The mean scores for Awareness, or how individuals believe others perceive them, decreased starting at Wave 2 (M=48.5) and reaching the lowest at Wave 5 (M=44.9). The scores for Importance, which gauges the perceived emotional investment from others, fluctuated, peaking at Wave 4 (M=38.1) and showing a decline at Wave 5 (M=36.2). The scores for Reliance, how much individuals feel others depend on them, remained relatively stable, with minimal variation observed across the waves. Linear regression results showed a positive relationship in the Importance subdomain between the six-month mark and endline (t=2.13, p<.05). However, this significance was not mirrored from endline to the six-month follow-up period or in other subdomains. This suggests that, during the study, participants experienced a heightened sense of being valued by others, but that this effect did not persist after the GI ended.

3. Caregiving on the Edge: Paid Versus Unpaid Labor

Summary: PPP participants were resolute in their commitment to productivity as parents and workers. As all participants were welcoming new children into their homes during the pandemic, tensions between employment, caregiving responsibilities, healthcare, and childcare created both obstacles to financial security and opportunities for demonstrating resilience. Unemployment declined from the beginning to the end of the study, suggesting both a recovery in the job market as the pandemic unfolded and the potential role of GI in fostering increased job opportunities. During the PPP intervention, participants also reported relatively steady household stability, which extended six months after the cash transfers ended.

Table 7. Employment Trajectories: Baseline to Endline (in %)

Category	Baseline	6 months	12 months	18 months	24 months
Caregiver	16	24	15	22	21
Employed	49	38	54	47	63
Not in Labor Force	17	12	15	14	9
Student	0	3	2	2	1
Unemployed	18	23	15	15	5

EMPLOYMENT

Building on the insights from the annual income levels reported above, employment data provides a nuanced picture of the labor market's response to the broader economic context created by the pandemic. One consistent trend was the number of those employed either full-time, part-time, or seasonally, which varied from 49% at baseline to 63% six months after the program ended. This trend suggests both a potential resurgence of job opportunities following the pandemic, as well as the potential role of GI in fostering employment-seeking actions. The unemployed category showed a decline from Wave 1 to Wave 5, suggesting both a recovery in the job market and individuals transitioning to caregiving roles or other categories. Findings from recent research imply that a rise in Minnesota's minimum wage led to a slight rise in hourly wages (by 0.5%), but a concurrent decline in job numbers (by 2.2%) and total hours worked (by 2.3%) (Karabarbounis et al., 2021). These effects were particularly pronounced in sectors like restaurants and retail, predominantly impacting low-wage earners. This also aligns with recent monopsony trends, where employers taking advantage of the labor surplus did not raise wages commensurately with the economic recovery (Congressional Budget Office, 2019). The consistently low percentage of students in the sample across Waves is indicative of the sample's educational makeup, given the preponderance of participants without a college degree. As these individuals are generally more susceptible to the ebbs and flows of a pandemic-affected labor market, especially given the variable minimum wage rates in Minnesota, the observed employment trends further underscore the intertwined nature of market dynamics, the GI intervention, and individuals' choices during the study period.

UNPAID CARE WORK

Participants who indicated their primary employment status as a caregiver[3] fluctuated between 15% and 24% across Waves, hinting at the potentially shifting roles and responsibilities individuals had to take on during these turbulent times. For caregivers, especially parents, the pandemic marked a turning point in their relationship to work. Disruptions in daycare and schooling coupled with job insecurity and mass shortages of essentials like formula created crises for families. Many described living with uncertainty about the impact on their health, and mothers talked about having to choose between paid work, caregiving, and functioning as de facto school and daycare teachers on Zoom.

In the midst of the pandemic, families were forced to find ways to balance caregiving responsibilities with working remotely. The mental, and sometimes physical, acrobatics required for simultaneously being present for a child and for work wore on parents. Bill spoke to this in his interview when asked how he and his partner, who both work full-time, handled caring for their infant, born in June 2020. His partner was able to take vacation time after her maternity leave ran out, which gave them a little buffer at the start of the pandemic.

> *So he, you know, tends to go to bed at about 7 or 8 o'clock PM. And then he wakes up at 7 or 8 o'clock AM. So from that point, I work Monday through Friday, 9:00 to 5:00. So you know, it's very difficult for me to take, you know, a good chunk of time off to deal with him. Because I—you know, you can't—I can't be on the computer and watch him at the same time. It's not possible … But we alternate in the mornings … So—and if I wake up with him at 7AM, I have him until about 9 AM. And then I pass—once that happens, you know, 9:00 AM is when I start my job. And then she gets him from 9:00 PM to about 5:00. And then I finish my work at 5:00. I take care of him from 5:00 to about 7:00 or 8:00, you know, until he goes to sleep. And then she may do some work or something after that afterwards on a day that I have him.*

3 Our categorization of unpaid caregivers as not part of the unemployed segment is a deliberate and mindful approach to labor force participation reporting. This distinction underscores the importance of caregiving, a vital yet often overlooked component of the workforce. Unemployment statistics differentiate between individuals actively seeking employment and those not actively looking for a job, such as caregivers, students, retirees, etc. This distinction prevents the conflation of unemployment figures and highlights the value of caregiving. Our methodology not only aligns with the Bureau of Labor Statistics (BLS) standards but also adheres to internationally recognized protocols. Organizations like the International Labour Organisation (ILO) and the World Bank distinguish between active labor force participants and the 'inactive population.' By doing so, we accurately represent true unemployment rates and acknowledge the significant role of caregivers, ensuring their contributions and circumstances are appropriately reflected in our study.

Bill and his partner alternate care days with his partner's mom, who is older and has her own health concerns. She could not begin watching their son until vaccines became available, and she now takes one or two days a week of childcare. Bill estimated that he spent about 20 hours a week caretaking, and that his partner likely spent at least double that—40 hours a week—because, as a mother, more was required of her. Their story highlights the invisible costs of caregiving, the time and mental energy required to make it work.

The cost of childcare and lack of policies like paid parental leave also shaped mothers' relationships to paid work. Minnesota ranks fourth in the country for childcare costs, making it one of the most expensive states in the country to have a child (The Itasca Project, 2022). Childcare costs have risen in the Twin Cities, where the average yearly cost of home daycare for an infant is $10,764; the average cost of center-based daycare for an infant is $18,356 (The Itasca Project, 2022). To contextualize, this would be equal to 14.7% of median income, when the U.S. Department of Health and Human Services (2016) defines affordable childcare as being less than 7% of one's income (The Itasca Project, 2022). For many mothers, this cost in relation to their wages made the decision for them. Other participants described strategies they developed to work around this cost. Some swapped shifts with their partners, with one working night shift and the other working daytime hours. While this strategy did patch budget holes, it came at the expense of families spending time together, creating discontinuity in the home and parenting. Others reduced their hours at work to pay less in childcare, but this increased financial stress, as there was less money coming into the household. Talia reflected on the cost of childcare while mulling a potential return to work.

> *So if we go to work somewhere else we're getting $15 or $14 or $13 per hour. And they cannot work seven days because even then who's going to watch their kids? What they going to do? And the babysitter is taking four kids it's a madness, anywhere you go. What's the point?*

Many parents spoke about the lack of protections for them in the workplace, especially paid maternity leave and paid family leave. Mary, a mother of five, was put on bedrest during her pregnancy, forcing her husband to take an extended unpaid leave from his job in a hospital pharmacy to care for their family and manage Zoom school. The $500 GI and the CTC filled the budget gap created by lack of paid family leave and the pressure of the pandemic. Although this kept their family afloat, it raises the question of what types of mobility they may have achieved if he had had access to paid family leave.

Without paid maternity leave, mothers are faced with impossible choices of either leaving the workforce all together or using other workplace benefits to create a patchwork safety net for themselves. Emmy describes utilizing this strategy after experiencing complications with her labor and not having childcare for her oldest child due to the pandemic.

> *I had probably about, I want to say, close to 200 hours of time saved as far as sick or vacation, because we have different—like we have a set amount of sick time that we get each pay period, and then we have a vacation time that is more or less, like, fronted to us in the beginning of January. And I knew I was pregnant in October, so I just didn't take any days off all that time, and I just saved it, and then we got those stimuluses. So*

> *any money was coming I just sat on it. I didn't touch it. That's pretty much it.*

The financial impacts of giving birth and staying home to care for a newborn represent only one facet. Whether participants identified as full-time caregivers or participated in the paid workforce, they described motherhood as not just a full-time job, but overtime. The invisible labor of motherhood was apparent as participants talked about the time and work they put into their families. The GI allowed participants to reclaim their time by choosing to focus more on their families instead of work. This reduced stress for participants in palpable ways. KM hoped that future generations would be able to do things differently because of programs like the PPP.

> *But just knowing that it's there, I think that will help a lot of future generations not stress out so much. Programs like the pilot, I think it's great just knowing that the money is there and that you don't have to worry about it. If you are in a position where you can opt out of it to help other people, I think that's even—that's even, you know, the best thing in the world is that you have that to help you. And now you can get out of this that other people can benefit from it. So I think overall, I am so thankful for the program.*

HOME ENVIRONMENT AND ENGAGEMENT

Michelle's experience is similar to many parents in the PPP; even with competing demands, financial precarity, and cobbling together resources to meet her family's needs, their home environments, time spent with children, and hopes for their futures were promising. Using the Confusion, Hubbub, and Order Scale (Matheny et al., 1995), which measures household peace, unpredictability, and organization—all home attributes that can impact child development— findings suggest relative stability in chaos levels across the Waves. In other words, amid the many stressors accompanying a global pandemic, household organization and stability held relatively steady between Wave 2 and Wave 4 (Mean Difference=1.67). Though statistically significant, these variations should be interpreted with caution given the scale's broad spectrum of scores that range from 15-60 as well as the pandemic's far-reaching impact on economic stability and financial uncertainty faced by the participants. The subsequent increase from Wave 4 (30.76) to Wave 5 (31.13) was minimal and not statistically significant. Over time, there were also no significant changes in the amount of time parents spent with their children reading or looking at picture books, telling stories, playing and building things, or attending out of the house activities for child development.

The data indicated fluctuations in the frequency of parental interactions across various activities, reflecting the evolving and dynamic nature of parent-child engagements. For example, a parent might interact daily through storytelling at one point, but this interaction may reduce to a few times a week or even a few times a month at subsequent points. These variations in interactions can be attributed to myriad factors including changes in the child's interests, alterations in family routines, availability of time, or the introduction of new commitments. For instance, a child's shifting preference from building toys to other forms of play or activities can result in altered interaction patterns. Despite these fluctuations in interactions and expectations, parents maintained high, stable educational aspirations for their children over time, underscoring the consistent value placed on education within this study population.

GI Case Study 2

Michelle is a 31-year-old mother of four children, a nine-year-old, four-year-old, and infant twins. She lives in an intergenerational household with her husband, children, parents, and one sister. Michelle's twins were born in February 2020, just before the pandemic led to mass shutdowns, and stayed in the neonatal intensive care unit (NICU) for about a month and a half. While they were in the NICU, Michelle had to navigate childcare coordination as well as supply and grocery shortages that developed at the start of the pandemic. As a medical assistant in a public high school, Michelle finds her work to be very rewarding, seeing her clinic as the “face of help” to support students with medical, nutritional, and social work needs. However, as pandemic era school closures took hold, she found herself out of work without pay, as she had just used her PTO with her maternity leave. She felt that “with the twins and the pandemic, everything just went downhill.” Her husband, a carpenter by trade, was able to maintain stable hours, and her parents were able to contribute to rent which, in addition to the GI and expanded tax credits, made it possible for her family to get by. All in all, Michelle framed that first year and a half of the pandemic as “the most difficult years I've been in.” Since the pandemic, Michelle has gone back to work, but her hours are now variable. Finding the cost of daycare immense and the limitations on children per age group unworkable, Michelle relies on her mother to care for her children while she works. The GI helped Michelle to cover expenses, but it also enabled her to spend more time with her children, and she felt it changed her outlook in many ways. The largest shift for her was “just being thankful that there's programs out there that really do help people.”

Michelle framed that first year and a half of the pandemic as “the most difficult years I've been in.”

HOME ENVIRONMENT AND ENGAGEMENT

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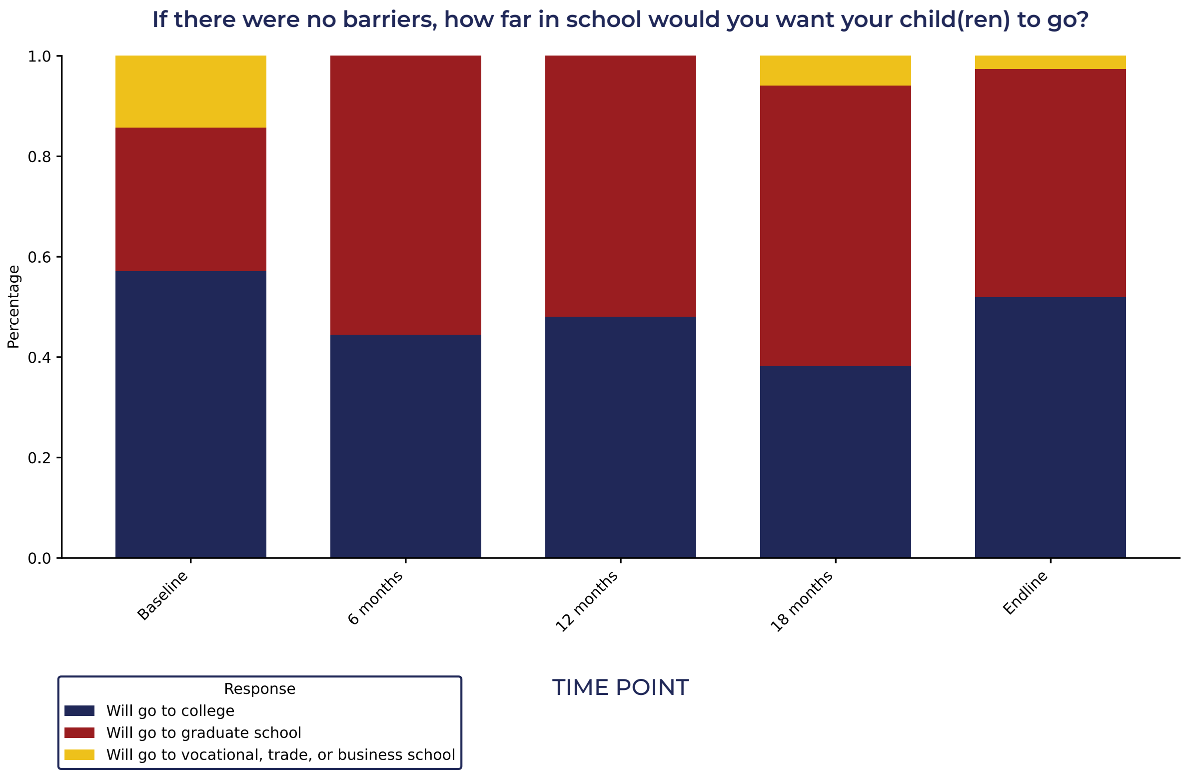
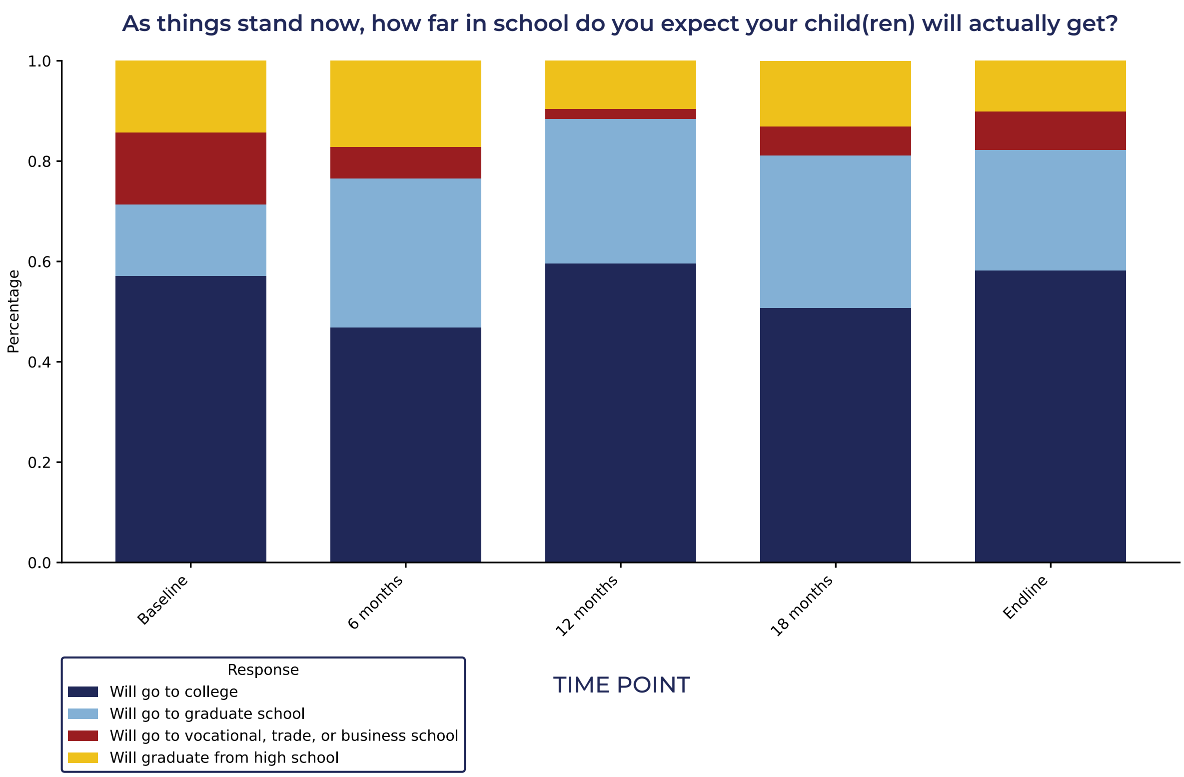
Figure 7. Parental Aspirations and Expectations for Children's Education





4. Rewriting the Script of Deservedness

Summary: The receipt of guaranteed income served as a catalyst for altering the narratives of traditional deservedness and common assumptions about poverty, creating space for re-conceptualizing the social contract. Specifically, the GI challenged several problematic features of the traditional safety net by offering both flexibility and stability, and disrupted the script of deservedness by promoting trust and countering unexpected shocks. Participants contrasted the flexibility of cash transfers with the rigidity of traditional benefit programs, and they reported a sense of safety and security associated with the predictability of monthly, unconditional payments. The core value of trusting recipients to know how best to spend cash counteracts myths surrounding poverty and deservedness.

Accessing safety net benefits in the United States requires navigating administrative hurdles and means-tested benefits governed by a benefits cliff. The benefits cliff, or cliff effect, means that any increase in household finances beyond pre-set eligibility criteria can abruptly push one off the benefit, thereby eroding financial stability unless the increased income can substantially replace the benefit's value (Dinan et. al., 2007; Ballentine et al., 2022). Practically speaking, this means that if a family earns even $10 more than the predetermined amount, they can experience a substantial loss (fall off the benefits cliff) that pushes them deeper into poverty. The enduring myth of the welfare queen (Hancock, 2004; McCormack, 2005), along with false poverty narratives of shame and blame, inform the ways these benefits are designed and employed, thereby disincentivizing participation, perpetuating stigma, and undermining trust in community and institutions. In contrast, the PPP provided GI with no strings attached and no threshold for deservedness, uncoupling assistance from waged labor and the benefits cliff. This divergence invites questions about the degree to which GI can alter negative perceptions, counter the cruel optimism obstacles Berlant (2011) notes, and potentially inform a more equitable safety net.

Narratives indicate how an infusion of GI, administratively disentangled from traditional deservedness assumptions, fractures popular assumptions about poverty and offers alternative ways to reimagine a static safety net. Participants' responses highlighted two ways GI operationally departs from the traditional safety net (flexibility and stability) and two mechanisms (trust and countering unexpected shocks) by which this process disrupts the script of deservedness. First, participants consistently compared and contrasted the flexibility of unconditional cash with the comparatively restrictive and punitive nature of safety net benefits such as WIC and SNAP or food stamps.[4] John used the needs a notoriously brutal Minnesota winter creates to highlight the difference, saying:

4 The Supplemental Nutrition Assistance Program (SNAP), also known as food stamps, provides food benefits to low-income individuals and families (U.S. Department of Agriculture, n.d.).

> *One of the issues with food stamps is it doesn't buy winter boots. And so you can have all this food, but you don't have money for winter boots ... what I do like about this [GI], is it gives people a little bit more freedom and flexibility with very low, um, administrative costs for them to use the money on what they feel is best.*

In a similar vein, Cecilia echoed data on how restrictions on benefits like WIC invite emotional distress, demand math calculations while holding babies in the grocery store, and create unnecessary travel burdens to secure what she needs by moving from store to store.

> *It is so hard to find, like, the exact item that you're allowed to buy that sometimes I would have to go to multiple stores, because you can only get one type of loaf of bread that's a certain size. And if it's, I mean there's, there's options but it's really hard to find a lot of, [LOCAL STORE] doesn't carry it at all and you can't go there. Target has some. [GROCERY CHAIN] has some ... buying cereal ... you get like 107 ounces of cereal. Well, they don't make a 107-ounce box of cereal. And if you've ever looked at cereal it's like 13.5 ounces and 22.5 ounces and there's only certain brands. And I would literally be in the aisle with my phone out and, like, boxes and be like, and a brochure ... The first time I did it I was bawling in the aisle, because I couldn't figure it out.*

Second, the recurring nature of GI engendered a sense of safety and security because it arrived predictably each month without administrative hassle or fear of the cliff effect. Participants pinpointed the constant calculations and cognitive bandwidth the benefits cliff demands as driving their decision-making and undermining feelings of security. John described this dynamic as plaguing government programs, saying, "things can get cut pretty quick, so you don't ever know if it's actually an indefinite thing ... which is kind of a scary thing." Meanwhile Savannah explained being caught between fearing the cliff and fearing the hours her boss assigned her at work:

> *It's really hard, because, um, once you make a certain amount, like you don't qualify for it [benefits]. But ... you still need the benefits, like it's, it's sad that you can't get the benefits just because you're making just a couple of over the, you know, the eligibility money. I feel like we're in—we're in that situation where like, you know, we just make a little bit over like the maximum, um, money guideline ... Because like I'm not just going to cut off a few hours just to make sure I can get it, you know.*

The flexibility and stability of GI represents an outgrowth of the core ethos of GI, which is that people are the experts on their own lives and ought to be trusted to allocate their resources as they see fit. This trust counteracts myths around poverty and deservedness by linking the provision of cash to the presence of humanity rather than economic or familial performance. Participants directly connected this extension of trust to feeling as though they mattered. In Savannah's words, the trust embedded in unconditional cash creates, "a good feeling, just you know ... that they can trust you with—you know—something as important as that." Trust also acted as a durable mechanism for countering the recurring economic shocks endemic to financial life in the U.S. In other words, receiving the cash arrives with an implicit message that recipients are trusted and that they in turn can trust the arrival of the cash each month to help them weather the financial shocks that erode mental health and well-being (West et al., 2023). In Morticia's words, the GI extends trust and humanity because, "there wasn't any unknown. It was like, OK, here you go, you're accepted. This is what you're going to get every month. This is when it's going to start. This is when it's going to end." Morticia continued by saying that being trusted by someone in a position of authority, such as administrators of a GI program, "ma[de] me feel like I'm a good human," which runs antithetical to the myth of the welfare queen and similar tropes painting those in need of assistance as lazy, irresponsible, and promiscuous (Hancock, 2004; McCormack, 2005; Seccombe et al., 1998).

Limitations

While the study offers valuable insights into the impact of unconditional guaranteed income, there are several limitations that should be considered when interpreting the findings, especially when generalizing the results to different populations, contexts, or time frames outside the conditions of the COVID-19 pandemic.

First, the study's limitations stem from the sampling frame, primarily restricted to the CollegeBound Saint Paul program enrollees. This small sample could potentially lack diversity representative of the broader population of Saint Paul and could limit the generalizability of the study findings. Due to prevailing state laws, children of married parents were more likely to be auto-enrolled, and while the city made efforts to enroll children of single mothers, this was not reflected in actual enrollments. Weighting the solicitation of PPP participants to counteract this imbalance led to a sample with an over-representation of WIC-eligible families. Additionally, engagement methods varied, introducing potential self-selection bias. Further, the use of a non-experimental research design implies the lack of a control group, which limits the ability to make causal inferences about the impact of the GI on observed outcomes. Moreover, participants were required to self-attest to being impacted by COVID-19. The absence of a stringent verification process for assessing the impact of COVID-19 on potential participants could introduce bias, as the definition of "impact" was broad and did not require written documentation. Given the initial difficulties in recruiting families, some potential participants might have missed the opportunity due to challenges with communication mediums, impacting the representativeness of the sample. While translation services were used, the potential limitations in reaching non-English speaking populations or those with limited access to translation or digital services may have impacted the diversity and inclusivity of the final participant sample.

The pandemic itself also introduced challenges in ensuring the study's broad applicability. Conducting the study during the COVID-19 pandemic meant that the findings may be inextricably tied to the socio-economic conditions prevalent during that period, affecting the external validity and generalizability of the results to other times and settings. The economic turmoil and the various relief measures during the pandemic could have swayed participants' financial behaviors and responses, which might have differed from their behaviors under normal economic conditions. In addition, the behavioral and psychological impacts of the pandemic on individuals might have influenced the results, particularly in areas like mental health, stress, and coping.

Discussion

Study findings illuminate the protective role that GI played in the lives of PPP recipients, even in the face of extreme pandemic- and structural-related adversities. Prior to the pandemic, participants described being financially constrained by debt, low incomes, housing costs, and childcare expenses. For many families, the pandemic brought job loss, decreased wages, childcare challenges, and a vast uncertainty about health, well-being, and the future. Suddenly, families were dealing with unprecedented challenges that heightened the precarity they already felt. This was especially clear as parents, particularly mothers and caregivers from populations of color, navigated the gray spaces of paid and unpaid labor. In Saint Paul, the dual crises of COVID-19 and the murder of George Floyd, along with the ensuing racial uprising, laid bare the structural oppression many families were already enduring. The invisible and visible costs of childcare, housing, food, and the anxiety of the benefits cliff were just some of the hurdles that families faced. Cruel optimism (Berlant, 2011) articulates a framework for understanding the impact these structural barriers had on caregivers as it juxtaposes the promises of the American Dream—homeownership, financial stability, a better life for the next generation—with the crippling effects of structural racism, austerity measures, the lack of protective policies for parents, and gendered oppression under late-stage capitalism. Together, these structural factors stood in the way of participants' ability to achieve their dreams, steadily eroding their sense of self. However, the GI worked to combat this effect through stabilizing and improving participants' financial health and increasing participants' agency and sense of self, thereby breaking down the scarcity mindset and shifting traditional narratives from those of deservedness to newly imagined spaces of dignity.

As the pandemic raged on, the PPP recipients reported financial stability, and even advances, in areas such as the ability to cover a $400 emergency expense, the capacity to save, and the smoothing of income volatility. Of note, participants did not demonstrate any significant changes in mental health or stress throughout the PPP intervention, even though it was occurring simultaneously with such dire pandemic-related and structural stressors. These positive findings held during the course of the PPP intervention, but after the cash transfers ended, participants' financial state declined, as did their mental health and stress levels. In addition, PPP recipients experienced greater housing-cost burden and more pronounced food insecurity after the payments stopped. These findings suggest that unconditional cash may serve as a powerful strategy to alleviate financial strain, but its power may be limited once it ends and external stressors continue.

Although the impact of GI on participants' financial health seemed to be time-limited, the 18-month cash transfers appeared to have a more enduring impact on recipients' sense of self and their ability to strengthen social connections. On average, families in this study reported improved attitudes towards life and their purpose as well as increased hope for the future at the six-month mark of the pilot, and this trend continued six months after the pilot ended. This suggests that GI may impact individuals' sense of self, hope, and mattering, which according to the economic development literature are key ingredients for escaping poverty (Lybbert & Wydick, 2018; Castro et al., 2021; Lybbert & Wydick, 2022). Paired with a burgeoning understanding of the impacts of the pandemic and structural oppression, these changes may have been pivotal in participants building stronger social ties and developing a sense of self that built on an emerging agency for navigating structural barriers.

Contrary to the belief that GI can disincentivize work, as the PPP unfolded, participants' engagement in the workforce increased. Specifically, unemployment declined from the start of the study to the end, six months after the last cash transfer, suggesting that the GI may have played a role in increasing job opportunities as the market recovered from the pandemic. Likewise, the GI also provided pathways for caregivers and parents to reclaim their time. As workers and caregivers alike experienced the support of the GI, their views of work ethic and the receipt of benefits also started to shift. The inherent predilection for thriftiness as a means of survival in Midwestern culture, paired with the coded racism of Midwestern niceness, often works to reinforce detrimental narratives around work and the benefit system. Participants spoke to the harm these narratives produced, particularly around the shame they felt seeking support, thus buttressing the cultural tendency to minimize hardship and act like everything is fine. The unconditional nature of the GI provided PPP participants agency and dignity, as they were able to use the cash as they saw fit for their households, be that savings, food, housing costs, or in treating their children. This flexibility and trust in participants' judgment worked to erode the shame and weakness typically associated with government-funded benefit programs.

The People's Prosperity Pilot stands as a striking example of Mayor Carter's commitment to economic justice and promoting policies that increase opportunities instead of stripping away agency. The findings from this study suggest that GI may be associated with improved financial health, sense of self, and economic mobility, even in the face of unprecedented hardship like a global pandemic. Indeed, this study serves as a foundation for the City of Saint Paul's continued investment in unconditional cash transfer policy and programming and points towards the role that state and local government can play in experimenting with unconditional cash.

Lessons Learned Programmatically

According to the City of Saint Paul, there were several major lessons learned about the implementation of a guaranteed income program, which include the importance of:

- Promoting accessibility for diverse groups of people
- Reducing programmatic and administrative burden
- Ensuring cross-systems collaboration
- Coordinating clear and consistent messaging and communication

First, Saint Paul expended great effort to ensure that the PPP was widely accessible for diverse groups across languages and identities. Specifically, the PPP partnered with the city's language line service to support translation, and 25% of all enrollment appointments for the PPP occurred in a language other than English. This commitment to accessibility and language support yielded a more representative sample and included a diverse group of refugees and immigrants, who typically are at higher risk of exclusion from economic and social service support across the U.S. (Perreira & Pedroza, 2019). Saint Paul also sought to reduce programmatic and administrative burden for the PPP to encourage easy enrollment and participation and to reduce overhead costs and staff time. Families responded well to the minimal requirements for PPP participation, and the simplified eligibility screening and enrollment process facilitated access to the program. The City of Saint Paul also drew from prior programming to cite approved legal frameworks and replicate logistic processes when relevant. Third, city leadership invested in critical partnerships that fostered collaboration to support the families enrolled in the PPP. Examples of these partnerships included colleagues at the county and state levels, funders, and a Circle of Advisors composed of representatives from labor groups, nonprofits, the Federal Reserve Bank, University of Minnesota researchers, advocates, and others. Saint Paul officials worked closely with their county and state partners to ensure that participants' benefits were not cut off during the course of the PPP. The Circle of Advisors provided a sounding board to engage in critical reflection throughout the PPP planning and implementation. The monumental effort it takes to build and sustain such a broad and committed coalition around a new intervention speaks to the administration's commitment to transparent leadership and open communication. Finally, the City of Saint Paul and the PPP team also improved their messaging and communication strategies over time, honing in on clear talking points that emphasized easy access for participants. The PPP also dedicated staff time to support participants who chose to publicly share their stories, recognizing the deep investment and value of these individuals. Together, these lessons have aided the City of Saint Paul in creating an important second phase of guaranteed income programming through CollegeBound Boost that includes the promising approach of pairing unconditional cash with asset building (Elliott et al., 2023).

Center for Guaranteed Income Research

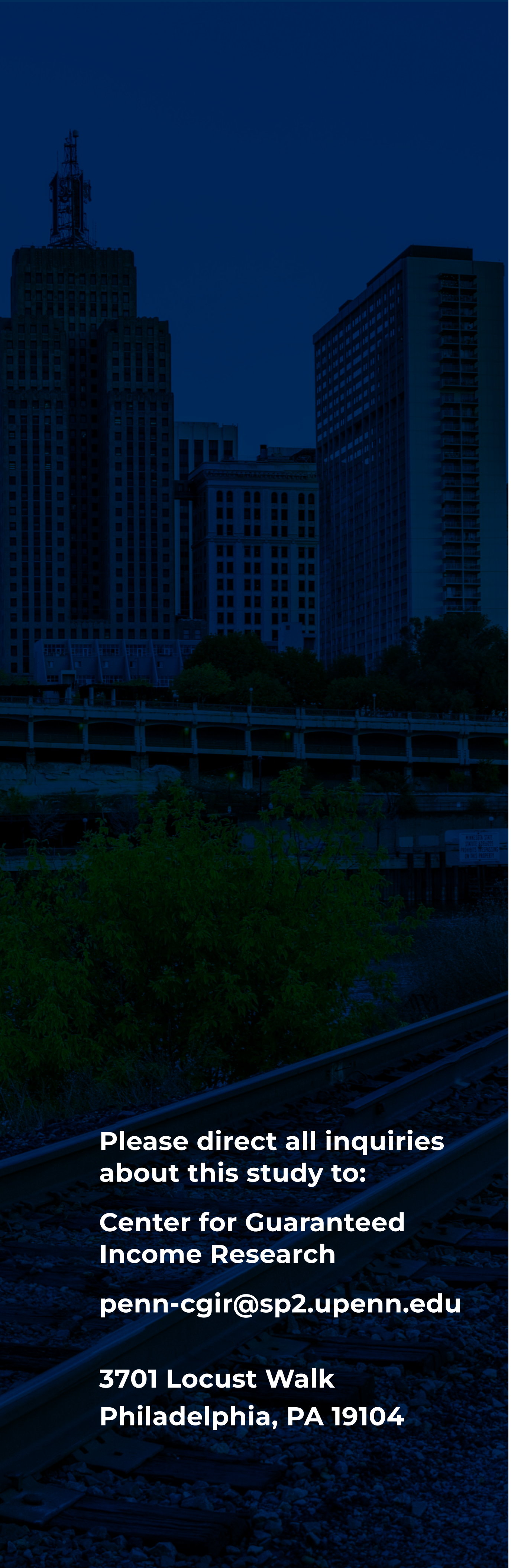
The Center for Guaranteed Income Research (CGIR) was established in 2020 at the University of Pennsylvania School of Social Policy & Practice with the aim of developing a shared body of knowledge on unconditional cash transfers.

At CGIR, distinguished academics and professionals in this field lead pilot guaranteed income programs and oversee the planning and implementation of research initiatives. CGIR is led by two Founding Directors: Dr. Amy Castro, Associate Professor of Social Policy & Practice at the University of Pennsylvania, and Dr. Stacia West, who holds a faculty fellowship at the University of Pennsylvania in addition to her primary role as an Associate Professor at the College of Social Work at the University of Tennessee-Knoxville.

CGIR conducts applied cash transfer studies and pilot designs that contribute to the empirical scholarship on cash, economic mobility, poverty, and narrative change. Our investigations build upon existing literature on cash transfers and incorporate evaluation practices and lessons learned from our previous research on guaranteed income and the gender and racial wealth gap.

All of our research is grounded in Durr's (1993) fundamental question: "What influences policy sentiment?" With this in mind, we are committed to conducting public science that challenges prevailing narratives surrounding poverty, deservingness, and economic mobility, utilizing diverse approaches such as multi-site ethnography, politically-driven sampling, and data visualization.

Our dashboards, created in partnership with Stanford Basic Income Lab, feature filters at the pilot level, allowing individuals to access and compare information while obtaining detailed insight into our investigations.



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CENTER FOR GUARANTEED INCOME RESEARCH
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Appendix A

Table 8. Interventions ($500 GI) effect on various measures

Measures	Baseline Mean	Wave 4 Mean	Wave 5 Mean	Mean Difference (W1 to W4)	Mean Difference (W4 to W5)	Relative Impact (%)	95% CI Lower Bound	95% CI Upper Bound	Standard Error	n 2
Perceived Stress (W2–W5)	6.40		6.74	0.35		5.4	-0.13	0.83	0.24	--
Data not collected in W4										
Kessler (W1–W5)	18.24	18.23	19.96	-0.01	1.73	-0.1	-1.42	1.40	0.71	--
CHAOS (W2–W5)	29.09	30.76	31.14	1.67	0.38	5.4*	-2.86	0.84	0.96	0.88
Financial Well-being (W2–W5)	47.83	47.08	45.39	-0.75	-1.69	-1.6	-0.62	2.12	0.70	--
SF-36 (W1–W5)										
Physical Limits	71.25	81.51	74.47	10.26	-7.04	14.4 *	1.22	19.30	4.61	0.03
Physical Functioning	79.50	86.37	83.84	6.87	-2.53	8.6 *	2.40	11.34	2.28	0.03
General Health	67.53	60.05	59.95	-7.47	-0.11	-11.1 *	-10.50	-4.44	1.55	0.20
Adult Hope Scale (W2–W5)										
Total Hope	44.50	45.20	44.40	0.60	-0.80	1.4	-2.00	3.30	1.40	--
Agency	22.00	22.20	21.60	0.20	-0.40	0.9	-1.30	1.70	0.80	--
Pathway	22.50	23.00	22.80	0.40	0.30	1.9	-0.90	1.70	0.70	--
Life Attitude Scale (W2–W5)										
Affirmation of meaning and value	13.2	13.6	13.2	0.40	0.0	2.7 *	-0.30	1.00	0.30	0.04
Acceptance	13.2	14.1	13.9	0.90	0.60	6.9 *	0.20	1.60	0.30	0.05

Measures	Baseline Mean	Wave 4 Mean	Wave 5 Mean	Mean Difference (W1 to W4)	Mean Difference (W4 to W5)	Relative Impact (%)	95% CI Lower Bound	95% CI Upper Bound	Standard Error	n 2
Courage	11.8	12.1	11.7	0.20	-0.10	2.1	-0.30	0.80	0.30	--
Faith	33.2	33.8	33.6	0.70	0.40	2.0 *	-1.10	2.50	0.90	0.01
Self-Transcendence	23.9	23.8	23.7	-0.10	-0.20	-0.6 *	-1.10	0.80	0.50	0.01
										--
Adult Mattering (W2–W5)										
Awareness	48.50	47.80	44.90	-0.80	-3.60	-1.6	-3.00	1.50	1.10	--
Importance	37.20	38.10	36.20	0.90	-1.00	2.4 *	-0.90	2.60	0.90	0.06
Reliance	22.10	22.40	21.70	0.30	-0.40	1.3	1.30	-0.90	0.60	--
Annual Household Income (W1–W5)										
	31891.00	33749.00	31650.00	1858.00	-2099.00	5.8 *	-6.22	-4989.00	791.00	0.04

Baseline Mean: The initial adjusted average score of the treatment group prior to any intervention (For measures not introduced at the baseline, the initial observed mean values are computed for Baseline Mean and denoted within parentheses)

Wave 4 Mean: The adjusted average score for the treatment group at the 18-month mark

Wave 5 Mean: The adjusted average score for the treatment group 24 months (or 6 months after GI discontinuation) into the study

Mean Difference: The difference in average scores between the earliest and the concluding data points available

Relative Impact (%): Represents the percentage variation in the post-intervention measure at Wave 5 when compared to its baseline

95% CI Lower/Upper Bound: These demarcate the lower and upper limits of the 95% confidence interval pertaining to the mean difference

p-value: Reflects the likelihood of witnessing the observed results, or even more pronounced results, under the assumption of no significant change over time. '*' indicates statistical significance at the p<0.05 threshold

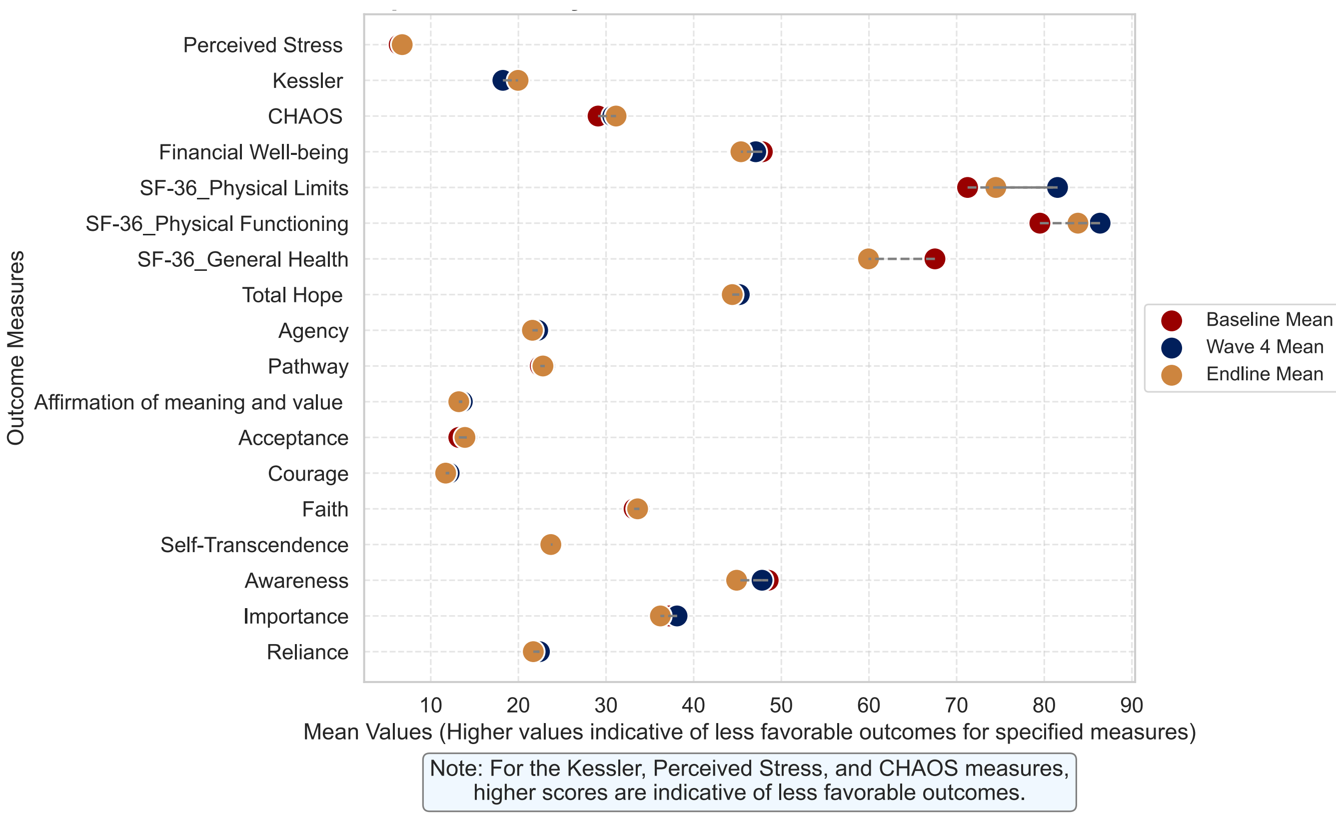
The 'p-value' results are derived from repeated measures ANOVA, accounting for baseline measurements of the corresponding measure

Standard Error: Represents the standard error associated with the mean difference

Partial n2: These values signify the effect size over time for the treatment group, adjusted in light of the baseline measurements of the given measure

Appendix B

Figure 8. Comparative Analysis of Outcome Measures



Appendix C

Table 9. Participant Attrition Over the Study Period

Attrition across waves	in %
Baseline	31
6-month	26
12-month	36
18-month	22
24-month	15