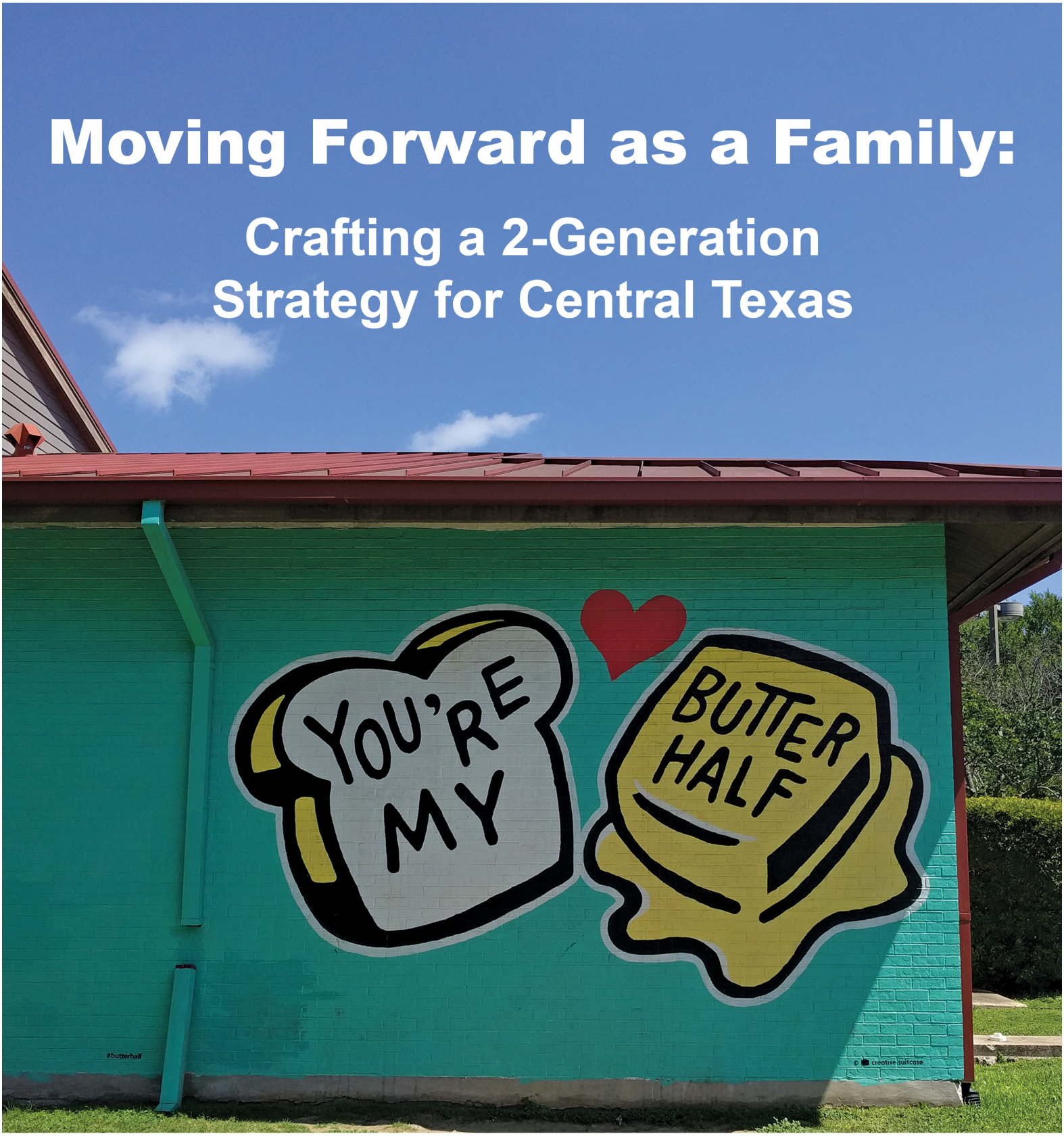
Moving Forward as a Family:

Crafting a 2-Generation Strategy for Central Texas



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Moving Forward as a Family:
Crafting a 2-Generation Strategy for Central Texas

Project directed by

Christopher T. King, PhD

Amit Motwani

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Policy Research Project Participants

Students

Ashley Barraza, B.S. (Preprofessional Studies), University of Notre Dame

Gokul Raj Boobathy, B.S. (Mechatronics Engineering), SASTRA University

Natasha Bylenok, B.A. (Political Studies), The University of Auckland

Anna Crockett, B.A. (Spanish), The University of Texas at Austin

Joshua Cuddy, B.A. (Psychology), Providence College

Charles Demakis, B.A. (Religious Studies), Stanford University

Rosalia Eveline, B.S. (International Relations), Universitas Pelita Harapan; M.A. (Corporate Communication), London School of Public Relations – Jakarta

Eunice Ko, B.A. (International Relations), Boston University

Sarah Koestler, B.A. (Comparative Human Development), University of Chicago

Jacob Kowalski, B.A. (Economics), University of Wisconsin-Madison

Stephanie Levine, B.A. (Environmental Studies), Lewis & Clark College

Danielle Liu, B.S. (Elementary and Special Education), Messiah College

Roosevelt Neely, B.S. (Kinesiology and Special Education), University of Houston

Mike O'Connor, B.A. (Philosophy), University of Chicago; M.A. (Philosophy), Boston University; Ph.D. (American Studies), University of Texas at Austin

Susan Phan, B.S. (Political Science), Texas Christian University

Renee Poisson, B.A. (English), University of New Hampshire

Megan Schneider, B.A. (Hispanic Studies and Policy Studies), Rice University

Matthew Worthington, B.A. (English), Abilene Christian University; M. Ed. (Special Education), George Mason University

Krista Ziehler, B.S. (Political Science), Florida State University

Project Directors

Christopher T. King, Ph.D., Professor, Lyndon B. Johnson School of Public Affairs, The University of Texas at Austin.

Amit Motwani, Senior Manager for Economic and Social Opportunity, United Way for Greater Austin.

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2-Gen: Two-Generation

CBO: Community-Based Organization.

CAP Tulsa: Communication Action Program Tulsa

ECE: Early Childhood Education

EHS: Early Head Start

MSA: Metropolitan Statistical Area

NAC: National Accreditation Commission for Early Care and Education Programs

NAEYC: National Association for the Education of Young Children

SNAP: Supplemental Nutritional Assistance Program

TANF: Temporary Assistance for Needy Families

TPEIR: Texas Public Education Information Resource

WIC: Women, Infants and Children Program

Foreword

The Lyndon B. Johnson School of Public Affairs has established interdisciplinary research on policy problems as the core of its educational program. A major element of this program is the nine-month policy research project, in the course of which one or more faculty members direct the research of ten to twenty graduate students of diverse disciplines and academic backgrounds on a policy issue of concern to a government or nonprofit agency. This "client orientation" brings the students face to face with administrators, legislators, and other officials active in the policy process and demonstrates that research in a policy environment demands special knowledge and skill sets. It exposes students to challenges they will face in relating academic research, and complex data, to those responsible for the development and implementation of policy and how to overcome those challenges

The curriculum of the LBJ School is intended not only to develop effective public servants, but also to produce research that will enlighten and inform those already engaged in the policy process. The project that resulted in this report has helped to accomplish the first task; it is our hope that the report itself will contribute to the second.

Finally, it should be noted that neither the LBJ School nor The University of Texas at Austin necessarily endorses the views or findings of this report.

Angela Evans
Dean

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Organizational Affiliates

Throughout the project, the policy research team benefitted from classroom visits made by various stakeholders in the Central Texas 2-Gen field. These visits informed our understanding of services and practices already in place, issues that still need to be addressed, and how different organizations relate to each other to make progress toward the goal of ending poverty through human capital development and related services and support. We would like to thank the following organizational representatives for adding to our knowledge base by taking time to meet with us and answer our questions.

Raul Alvarez, Director, Community Advancement Network (Austin)

Rudi Andrus, Executive Director, Mainspring Schools (Austin)

Tamara Atkinson, Executive Director, Workforce Solutions Capital Area

David Balch, Board Member, The Austin Project

Dr. Sarah Baray, Chief Executive Officer, Pre-K 4 SA (San Antonio)

Monica Barczak, Director of Strategic Partnerships, CAP Tulsa

Ellen M. Bettis, Manager of Corporate and Foundation Relations, Goodwill Central Texas

David Borden, Director, Career ACCelerator, Austin Community College

Mary Ellen Burns, Senior Vice President, Grant Implementation, United Way of San Antonio and Bexar County

Christina Caramanis, Doctoral Student, LBJ School of Public Affairs and Population Research Center, The University of Texas at Austin

Sue Carpenter, Vice President, Success By 6, United Way for Greater Austin

Christina Collazo, Executive Director, SSP Learning Center (Austin)

Alejandro Delgado, St. Elmo Neighborhood Project Director, Foundation Communities (Austin)

Dr. Monica Faulkner, Director, Texas Institute for Child & Family Wellbeing, The University of Texas at Austin

Jonathan Feinstein, Director of Community Engagement, Commit2Dallas

Dr. Autumn Green, Director, The National Center for Student Parent Programs (Massachusetts)

Karen Green, Family Literacy Manager, El Buen Samaritano (Austin)

Donna Hagey, Executive Director, The Austin Project

Cecilia Hogan, Program Services Coordinator, LifeWorks (Austin)

Dr. Aletha Huston, Priscilla Pond Flawn Regents Professor Emeritus in Child Development, The University of Texas at Austin

Brittany Johansen, Family Services Manager, Jeremiah Program (Austin)

Jeff King, Director of Workplace Campaigns, United Way of Greater Austin

Dr. Cynthia Lamy, Metrics Manager, Robin Hood Foundation (New York City)

Lawrence Lyman, Director, Research & Planning, Travis County

Romanita Matta-Barrera, Executive Director, SA Works (San Antonio)

Morgan Miles, Case Manager, LifeWorks (Austin)

Shannon Moody, Director, Jeremiah Program (Austin)

Dr. Henrietta Muñoz, Vice President, Grant Research & Evaluation, United Way of San Antonio and Bexar County

Lucy Ortega, Policy and Special Projects Manager, AVANCE (San Antonio)

Becky Pastner, Senior Capacity Building Officer, St. David's Foundation (Austin)

Mary Ellen Pietruszynski, Executive Director, Sooch Foundation (Austin)

Meg Poag, Executive Director, Literacy Coalition of Central Texas

Jacquie Porter, Early Childhood Director, Austin Independent School District

Barbara Pryor, Director, Single Stop (Miami Dade College)

Eva Rios-Leverino, Deputy Director, Capital IDEA (Austin)

Micah Sagebiel, U.S. Program Director, Michael & Susan Dell Foundation (Austin)

Patrick Sanders, Head Start Director, Child Inc. (Austin)

Rita Sandoval, Chief Program Officer, AVANCE (San Antonio)

Frank Santoni, Senior Director, Research + Innovation, Catholic Charities of Fort Worth

Taylor Toynes, Community Impact Associate, Commit2Dallas

Wendy Varnell, Chief Strategy Officer, LifeWorks (Austin)

Matt Williams, Vice President of Education, Goodwill Industries of Central Texas

Gilbert Zavala, Vice President, Talent Development & Acquisition, Greater Austin Chamber of Commerce

Executive Summary

First-year graduate students at the Lyndon B. Johnson School of Public Affairs participate in a year-long policy research project (PRP) aimed at identifying a relevant policy issue, collecting and analyzing data regarding this issue, and proposing solutions or strategies to improve the underlying problem. Students work with a client directly involved with or affected by the identified policy issue to determine deliverables that would add to the existing research of the issue area. The client of this PRP, United Way for Greater Austin, commissioned this project to guide their focus on helping low socioeconomic families achieve greater financial stability through the development of a Two-Generation (2-Gen) strategy for the Central Texas region.

2-Gen programs emphasize the importance of education as a means for better economic outcomes. High-quality early childhood education programs allow children to make critical neural connections during a period of substantial growth and development, ultimately better preparing them for pre-kindergarten programs and academic success in subsequent years. On the other end of the educational spectrum, adults working low-paying jobs encounter barriers to career advancement due to lacking credentials or relevant education. It is not uncommon for parents working long hours for low wages to have at least one child in need of high-quality early childhood education, yet they are unable to enroll their child in such programs due to issues such as cost, transportation, and time away from work. Further compounding this common problem is the fact that time spent between work and parenting leaves little room for these adults to pursue educational opportunities for workforce development. 2-Gen programs seek to resolve the issues complicating this problem of financial instability by providing high-quality educational and training programs for both parents and children, which are even more effective when intentionally coordinated so that the family develops as a single unit in a positive direction.

The Central Texas region, which includes the city of Austin and its surrounding suburbs, has recently experienced substantial growth due to the popular technology hub located within this region. The region's economic success, however, does not negate the problems of income inequality and generational poverty relevant to any urban center. As property values close to downtown Austin continue to rise due to high demand, lower income families are often displaced out of the city's center and into a "crescent of poverty" covering the east and southeast areas of the region. Although Austin is known for having numerous nonprofit organizations, service providers are not always accessible to those in need of their services. Further adding to this problem is Austin's transportation infrastructure, which is not necessarily conducive to quick and easy transit times.

The broad focus of this report is to identify existing research and practices regarding 2-Gen initiatives, to determine which aspects are relevant to the Central Texas region, and to develop a strategy encompassing recommendations for both this region of focus as well as policy implications at all levels of government. The research consisted of several avenues for data collection, which include: a literature review; a program scan at the local, state, and federal

levels; and site visits within Austin, Dallas, and San Antonio. Data collected specifically relevant to the Central Texas region include a labor market analysis, a needs assessment, and a mapping of current organizational assets. Obtaining and analyzing this data allowed the team to better understand 2-Gen program development, outcomes, impact measurements, and areas for improvement.

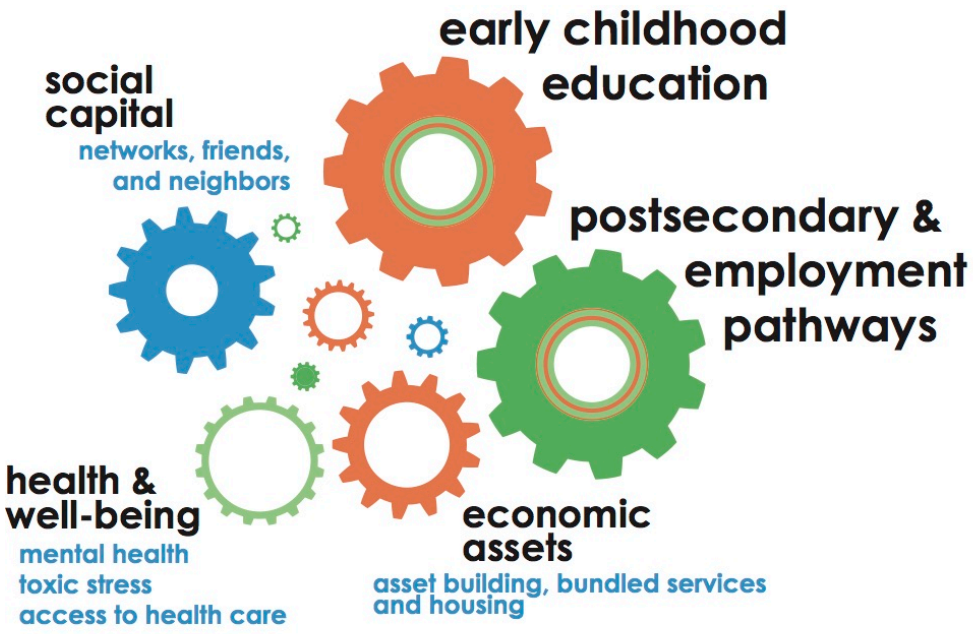
The research team then developed practical applications for the information collected, ultimately contributing to the proposed anti-poverty strategy through the intentional coordination of 2-Gen services by leveraging existing organizational assets to best address the area's most salient needs. In addition, the team proposed an evaluation strategy involving cost-benefit equations, program evaluation metrics, and a screening tool to predict the likelihood of a program achieving successful outcomes. The report then concludes with policy recommendations at the local, state, and federal levels, as well as a summary of the populations affected by financial instability and future directions for this field.

INTRODUCTION

Chapter 1: Introduction to the Two-Generation Approach

Intergenerational poverty is not an isolated problem. Poverty affects families: children, parents, caretakers, and the communities where they live. Nonprofit organizations and governments throughout the United States have sought to implement what is now commonly referred to as a "two-generation strategy." The term two-generation (hereafter simply Two-Gen or 2-Gen) encompasses intentional and simultaneous integration of complementary services for both the generation of the child and the parent. The goal is to address both generations to ameliorate social and economic challenges affecting families. The Aspen Institute's 2-Gen framework includes five 'gears' that represent the major components of a 2-Gen strategy (see Figure1). Aspen's 2-Gen gears include: social capital, early childhood education, postsecondary and employment pathways, health and well-being, and economic assets.

Figure 1: Ascend's Two-Generation Gears



Source: "The Two-Generation Approach," Ascend at the Aspen Institute, accessed May 28, 2017, http://ascend.aspeninstitute.org/pages/the-two-generation-approach

The 2-Gen strategy application within anti-poverty organizations' services and program efforts is not yet fully realized. The trend toward more comprehensive and consistent implementation of a

2-Gen strategy can be seen on the local, state, and regional level. Two-Gen efforts have benefitted from support from the federal government and a number of private foundations, as well as a growing number of states and localities. Despite the increased effort among organizations and foundations, a gap remains between the theoretical understanding of and the practical application of 2-Gen strategies in the field.

United Way for Greater Austin

United Way for Greater Austin, hereafter referred to as United Way, has stepped up to be the 'backbone' of 2-Gen in Central Texas by taking a collective impact approach after starting as a key member of the 2-Gen Advisory Committee in Austin for more than two years. United Way has also prioritized and allocated funds to support 2-Gen projects in Central Texas, including American YouthWorks (in partnership with Child, Inc., the area Head Start provider), Jeremiah Program (Austin), Saint Louise House, SSP Learning Center, and the Goodwill Excel Center. United Way chose to be the client of this policy research project to further their understanding and support of 2-Gen in Texas.

The Austin Landscape in Brief

In crafting a 2-Gen strategy for the Central Texas region, the team analyzed the 2-Gen landscape in Austin carefully. The city of Austin has a substantial issue with intergenerational poverty that affects the social and economic well-being of its citizens.[i] Austin is a majority-minority city, but increased neighborhood gentrification has pushed a large number of Austin's non-white residents, many of whom have young families, outside of the urban core. This migration pattern presents a challenge to service providers and public schools that may no longer be in the same area where the greatest need is. In addition, there will likely be a high demand for English as a Second Language (ESL) services as a significant number of Austin's low-income population speaks a native language other than English. Finally, the city of Austin expects to see an increase in the number of senior citizens who live in Austin, which may affect the kinds of services that local nonprofit and governmental entities must provide.

The implementation of 2-Gen programs in Austin needs to be shaped by an examination of various factors, including the relationship between low-income families and their need for quality, affordable childcare. In addition, impoverished families within Austin struggle to meet many of their basic needs. These familial challenges translate to educational barriers for children from low socioeconomic backgrounds. Two-Gen programs within Austin could work with both adult and children from low socioeconomic backgrounds to provide services and resources that would help combat poverty within Austin. The promise of 2-Gen programs within Austin is great given the current rate of poverty and the capacity for growth within the economy.

Organization of the Report

This report is organized into four main sections. The first section reviews the recent literature on and related to 2-Gen strategies, concluding with several observations pertinent to designing and implementing 2-Gen in Central Texas. The research team that conducted the literature review consisted of Charlie Demakis, Roosevelt Neely, Mike O'Connor, and Susan Phan. The second

major section offers a scan of the environment for 2-Gen and features an in-depth labor market analysis, an examination of 2-Gen programs locally and in several communities in Texas and beyond, and a needs assessment and asset map of the community. The labor market analysis was conducted by Anna Crockett, Stephanie Levine, and Megan Schneider. The program scan was carried out by Ashley Barraza, Natasha Bylenok, and Krista Ziehler. Field visits were conducted by Anna Crockett, Charlie Demakis, Eunice Ko, Stephanie Levine, Danielle Liu, Roosevelt Neely, and Susan Phan. The needs assessment research team included Gokul Raj Boobathy, Josh Cuddy, Rosa Eveline, Eunice Ko, Sarah Koestler, Jake Kowalski, Danielle Liu, and Matt Worthington. The asset map was prepared by Gokul Raj Boobathy, Josh Cuddy, Sarah Koestler, Jake Kowalski, Renee Poisson, and Matt Worthington. The third section drawing upon the preceding sections outlines a recommended 2-Gen strategy for Austin, both in terms of operational parameters, evaluation approaches and suggested outcome metrics, as well as a series of policy recommendations. A conclusions section completes the report. These last two sections were derived from discussions that engaged nearly every member of the PRP research team. An evaluation strategy team made up of Anna Crockett, Mike O'Connor, and Megan Schneider shaped the recommended measures and measurement recommendations. The team responsible for writing up these two sections was comprised of Natasha Bylenok, Anna Crockett, Charlie Demakis, Mike O'Connor, and Megan Schneider. Several supporting appendices follow the main body of the report.

Chapter 2: Two-Generation Anti-Poverty Programs: Recent Research and Assessment

Recent years have seen growing interest among both service providers and researchers in 2-Gen approaches to addressing inter-generational poverty. Such programs are explicitly designed to address the needs of parents and children simultaneously, on the theory that assets in education, social capital, income, and health can only be sustained over the long term if both generations benefit from them.[ii] They also hypothesize that investing in parents and their children at the same time has the potential for larger and longer-lasting impacts than investing separately in either generation. Many traditional social programs have addressed these needs and incorporated services for parents and children together, but it is only within the last two decades that social services providers and researchers have intentionally identified programs with the 2-Gen name and mission and operated them at a scale and scope that could be expected to yield the desired returns.

Because the 2-Gen approach is relatively new, research and assessment of programs based on its premises have started becoming available only recently. Several major articles and volumes have set the stage for our understanding of 2-Gen in the United States, including Chase-Lansdale & Brooks-Gunn (2014) and King, Chase-Lansdale & Small (2015), among others.

This report reviews the most recent literature, dating back no further than 2010. It addresses topical areas such as cognitive development, early childhood education and the evaluation of program outcomes. This review addresses applications of 2-Gen programs through several overarching categories that summarize the major avenues of research. The first of these is cognitive development, a field in which researchers have investigated the effect of adverse experiences on the architecture of a child's brain. Another important theme of 2-Gen research is education. Evaluators have considered the interaction of 2-Gen programs with early childhood education, workforce training, parent's educational attainment, and child care services. As one of the first and oldest educational programs for low-income children, Head Start also functions as an important locus of 2-Gen research. Head Start, which was first authorized as part of President Lyndon Baines Johnson's Great Society in 1965, is widely viewed as the first serious 2-Gen program in the nation. Researchers have examined the effects of Head Start, Early Head Start and Enhanced Early Head Start to determine the efficacy of these programs for both parents and children. Lastly, evaluation of specific programs other than Head Start offers insight into 2-Gen program approaches with a greater focus on parental outcomes.

The literature covered in this review includes articles published in scholarly journals such as the Early Childhood Research Quarterly and the Children and Youth Services Review, as well as the work of leading research and policy organizations including the Aspen Institute and the Institute for Women's Policy Research. A special issue of the journal The Future of Children is worthy of note. Published in spring 2014 and titled Helping Parents, Helping Children: Two-Generation Mechanisms, this issue specifically focused on the 2-Gen approach and included articles from researchers Chase-Lansdale and Brooks-Gunn, among others, on a series of 2-Gen topics.

Background

The Foundation for Child Development coined the phrase "dual-generation program" in the early 1990s as some of the first of these initiatives were taking shape. Unfortunately, many of these programs produced disappointing results, even if the research suggested ways in which the model might be made more effective. Soon thereafter, the "work-first" policy emphasis began to gain favor nationally among politicians and the public. Best exemplified by the 1996 Personal Responsibility and Work Opportunity Reconciliation Act, this movement overcame the nascent 2-Gen momentum. Few of those early 2-Gen programs survived. Eventually, however, the concerns about welfare dependency gave way to an awareness of several new realities: American workers are poorly prepared to perform the jobs of a 21st century globalized information economy, childhood poverty rates have remained stable for several decades, real wages are stagnant, and economic inequality is increasing.

A second wave of 2-Gen programs emerged in the early 21st century to address these issues. Chase-Lansdale and Brooks-Gunn (2014) coined the phrase "2-Gen 2.0" to refer to this new crop of program initiatives. Many researchers believe these programs are better situated to succeed than were their predecessors.[iii] At this early point, however, there is little rigorous scientific evidence to support this belief, although positive initial first-year impacts were recently published for Tulsa's CareerAdvance® program.[iv] A survey of recent research suggests that 2-Gen programs might lead to a range of positive outcomes that represent an improvement over more traditional approaches. This research, however, remains in its earliest stages and this conclusion has not yet been firmly established.

Two-Gen and the Brain

Early childhood is a time of substantial growth and development, which can be impeded by adverse incidents of verbal, physical or sexual abuse.[v] These events, especially prevalent among families living in poverty, can increase the likelihood of negative outcomes in adulthood. Furthermore, the presence of adults who can mitigate the different types of stress in a child's life can improve the child's ability to cope with the difficulties of these events. The intersection of brain science and public policy sheds light on three types of stress that 2-Gen programs can consider when addressing the needs of both children and parents. As explained by Noble et al., positive stress is moderate and short-lived in nature and thus is to be expected during a child's early developmental stages. Tolerable stress occurs over limited periods of time in response to difficult interactions, such as meeting new people or receiving immunizations, and may negatively affect the architecture of the brain if not controlled. Toxic stress occurs when the body's stress management system is activated in a severe and frequent manner and can be harmful without intervention from a caregiver. Thus, early childhood experiences, both positive and negative, contribute to the development of a child's brain.[vi]

Two-Gen service providers have incorporated these insights from cognitive science into their program designs. Duncan and Magnuson, for example, relay discoveries from the field of neuroscience that analyze the plasticity of cognitive and linguistic abilities in brain development. These insights, they maintain, demonstrate that that pre-kindergarten and 2-Gen programs offer an ideal environment for disadvantaged children to make important developmental gains.[vii]

Shonkoff and Fisher hold that parental characteristics explain more of the diversity in child outcomes than do other factors. This observation suggests the need for a new intervention model. Thus, they claim that 2-Gen programs can improve by incorporating research on the negative effects of toxic stress into their program structures. Protecting children from toxic stress requires more than just offering social services to parents. Instead, these programs need to concentrate on building capacity in the form of sound mental health and executive functioning skills for parents and other caregivers.[viii]

Since 2-Gen approaches are modeled on the presumption of parental involvement, adult depression might seem to limit the effectiveness of these programs. LaForett and Mendez found that this is indeed the case. They studied the relationship between parent involvement, parental depression and program satisfaction among low-income African-American families participating in Head Start. Their research suggests that parents with higher levels of involvement are more satisfied with their child's program, but that parents who are "sometimes depressed" are less likely to participate in the program. Like Shonkoff and Fisher, LaForett and Mendez found that increased attention to mental health variables, in this case depression, could increase the efficacy of 2-Gen programs.[ix]

Two-Gen and Education

Education is one of the more critical components of 2-Gen programs. Combining workforce training for adults with quality early education and child care, model programs focus on improving educational outcomes for children, particularly those too young for pre-kindergarten. Evidence-based early childhood education (ECE) programs are an important component of an effective 2-Gen strategy. The literature has shown that these programs improve the educational outcomes of children by preparing them for pre-kindergarten and subsequent schooling. In discussing the link between participation in ECE programs and educational outcomes, Brooks-Gunn et al. note that ECE programs tend to develop their own curricula, while formal preschool programs typically adopt mandated courses of study. These customized curricula, they argue, may help positively influence educational outcomes.[x] In a study conducted by Mendolia and Walker regarding the impact of preschool on adolescent outcomes, preschool was found to have a significant benefit on the cognitive development of female students and low socioeconomic status students.[xi] Participants experienced positive educational outcomes, higher wages and lower participation in crime than students of similar circumstances who did not participate in ECE programs.[xii]

One of the driving forces behind 2-Gen programs is the need to close the gap in school readiness and achievement between students from disadvantaged backgrounds and their wealthier counterparts.[xiii] Greenberg presents the Head Start program as a national example of how the United States child care system seeks to reduce inequality in early education.[xiv] Chase-Lansdale and Brooks-Gunn point out that early childhood policymakers have supported several state-funded pre-kindergarten programs, such as the Perry Preschool in Ypsilanti (MI), Abecedarian in Chapel Hill (NC) and Chicago's Child-Parent Center programs, which can serve as models for future programs, although it is difficult to identify which factors led to any particular program's success.[xv]

Providing education and workforce training to parents is also an important aspect of emerging 2-Gen models. One method of meeting this challenge is to provide postsecondary education for parents recruited from the child care site. Sommer et al. studied this approach by visiting a series of early childhood education centers. They observed a strong correlation between maternal education and child development, a positive link addressed in depth by Kaushal in the Future of Children journal (2014), but they were unable to establish causal links. The researchers hypothesized, however, that mothers who see their children in a learning environment might be inspired to pursue their own educations.[xvi] The researchers further explored their hypothesis through a series of interviews with mothers in early childhood education centers in three quite different American cities. They found that all the mothers believed that it was essential for their child to get a college education and that nearly all of them were pleased with the education their child was receiving at the ECE center. Most of these mothers also saw the center as both a child-rearing aid that made it easier for them to go to college and an inspiration that inspired them to want to do so. While recognizing the limitations of this study, the researchers suggested that a 2-Gen approach based in ECE centers could be a positive influence on mothers' educational success.[xvii]

Most parents, however, pursue their educational goals at traditional colleges and universities. A 2013 report from the Institute for Women's Policy Research (IWPR) points out that college students with children make up an increasingly large part of the student body—currently close to 25% nationwide—and that these students have particular needs that must be acknowledged and addressed.[xviii] Of all such needs, perhaps the most pressing is child care. Another IWPR report assessed the ability of college students to access these services in each of the fifty US states. By 2012, there were 4.8 million student parents in the United States, but 95 percent of child-care centers at two- and four-year institutions had a waitlist of at least 82 children. Despite this shortfall, the percentage of campuses with child care centers is decreasing rather than increasing. For those facilities that do exist, costs are often prohibitively high and they often prioritize child care slots for faculty and staff over students. Some centers require the parents to be working to obtain subsidies, even though employment has been shown to have adverse effects on academic performance. Noting the burdens placed upon students with children, the report recommends greater state investment in child care for students and a relaxation of student work requirements for accessing child care.[xix]

A similar report regarding the availability of child care at the City University of New York (CUNY) was issued by Letitia James, the city's Public Advocate. James argues for increased child care at New York's community colleges. In a population of over 97,000 students, nearly half earn less than $20,000 annually and about one in five support children. Yet, CUNY daycare offers only 649 seats. James reports that 82% of student parents say that daycare allows them more time to study, and 60% of them state that it has enabled them to take additional courses. Without reduced-cost, on-campus daycare, many student parents will not be able to remain in or graduate from college. James recommends increasing city funding to the CUNY daycare component in order to expand the number of slots for the children of students.[xx]

Head Start

Head Start has offered services to low-income parents and their children since it was enacted in 1965. By furnishing preschool education for children without cost, it also enables parents to enroll in education, work and redistribute their time in ways that benefit their children. It is hardly surprising, then, that this program has played a key role in the development of the 2-Gen approach. Though academic literature on Head Start goes back fifty years and spans many disciplines and policy fields, it is only recently that researchers have begun to explicitly assess Head Start as a 2-Gen program.

One finding of the research on Head Start has been that it appears to have disparate effects on boys and girls. Magnuson et al. found that boys enrolled in Head Start showed better results than girls in terms of grade retention, special education placement, and high school graduation.[xxi] Yet a study by Phillips et al. on the long-term effects of Tulsa's Community Action Program (CAP) Head Start program concludes that eighth-grade girls, particularly those who are white, Hispanic, and/or free-lunch eligible, demonstrated academic gains into middle school.[xxii]

Several new studies examine the effects of Head Start on children from high-risk subgroups. Cooper et al. found that children from these groups gained the most from Head Start programs. Those with too many risk factors, however, were less able to realize the benefits of the program.[xxiii] In another study, Lee observed that children with more family risk factors and lower academic scores on enrollment showed greater effects from longer enrollment in Head Start.[xxiv] According to Miller et al., many high-risk children in Head Start exhibit positive outcomes in cognitive skills and behavior. The researchers also found that the mothers of children with hyperactivity and aggression issues reported more behavioral issues than did those of the non-Head Start control group. At the same time, the teachers of these students described fewer such problems.[xxv]

Sabol and Chase-Lansdale recently studied the influence of Head Start for children on the education of those children's parents. They found a correlation between children entering the program at age three and an increase in the parents' level of education that continued each year until the children were six years of age. Parents of four-year-olds who entered the program, however, enjoyed no statistically significant change in their level of education. Additionally, parents of children enrolled in Head Start were no more likely to be employed than parents of children who were not in the program. Sabol and Chase-Lansdale are not certain as to the cause of the discrepancy between the parents of three-year-olds and those of four-year-olds, although they offer several hypotheses. They conclude that early childhood education programs may be one way to improve parental education, though not employment.[xxvi]

Participation in Head Start also appears to correlate positively with reduced levels of parental abuse and neglect. Parents with children in Head Start are more likely to participate in cognitively stimulating activities with their children and less likely to engage in spanking and other controlling behaviors.[xxvii] Research by Zhai et al. suggests that children from Head Start are less likely to experience spanking and other maltreatment by age five, indicating that 2-Gen programs may decrease parental abuse and neglect.[xxviii] Other studies demonstrate similar improvements in spanking behavior from participating parents, which may be due to the

programs' use of volunteering opportunities to engage parents more directly in their children's well-being.[xxix] Somewhat surprisingly, programs that offer parental involvement training to teachers and staff correlate more strongly with greater parental engagement than do those that offer support services directly to the parents. This suggests that increased staff training could yield greater parental involvement and thus increase overall program benefits for relatively low cost.

Head Start can also provide a venue for helping low-income parents who are experiencing social or psychological problems. One case study interviewed participants at a Head Start center about their weekly group parenting meetings and concluded that these meetings provide immigrant parents the opportunity to exchange resources, share parenting advice and voice frustrations.[xxx] Such informal group meetings may be an effective way for programs to connect parents at risk for depression and loneliness with both a community of peers and a trained mental health worker.

Policymakers who wish to reach infants and toddlers within a 2-Gen framework should look to Early Head Start (EHS), an offshoot of the Head Start program established in 1994 that focuses on pregnant women and children up to the age of three. A study by Harden et al. contrasted the effects of those EHS programs deemed to be "fully implemented" with those that were only "partially implemented." The researchers found more and greater gains across behavioral and functional outcomes for participants in fully-implemented programs.[xxxi] Early Head Start home-visiting programs prioritize parental outcomes over child outcomes, expecting that this will deliver the most lasting benefits to the child in the long run. One randomized experiment conducted by Raikes found that parents of two-year-old children enrolled in EHS demonstrated higher levels of positive parenting behavior, including emotional responsiveness and time spent reading to their children. These behavioral changes mediated about half of the program's positive impact on the child's cognitive skills and engagement.[xxxii]

Perhaps the most in-depth study of a recent 2-Gen program was released in 2011 by Hsueh, Jacobs and Farrell. Their research analyzed an Enhanced Early Head Start program, which fused a 2-Gen approach with a traditional EHS by incorporating an emphasis on the employment and economic self-sufficiency of the parent. Hsueh, Jacobs and Farrell randomly assigned 610 families in Kansas and Missouri to either a group that received both traditional and Enhanced EHS services or a control group whose members were not enrolled in either program. Their results cast some doubt on the efficacy of the Enhanced EHS program. While 78% of families in the Enhanced EHS group received traditional EHS services or discussed employment and education with staff, that number was 63% for the control group. Additionally, most of the families in the Enhanced EHS group did not discuss these issues regularly with program staff. Overall, the program did not succeed in providing expected levels of assistance with regard to employment, education, and self-sufficiency. Participation in EHS had no statistically significant impacts on the mother's earnings, though there were some correlations with more positive parent-child interactions. The researchers conclude that lack of interest might have played a role in the limited amount of self-sufficiency assistance that the families received. Another important factor may have been the discomfort of the staff: many were child care workers who did not feel confident dispensing information to adults about work or educational programs.[xxxiii] In addition, case workers, most of whom received limited information and training, did little more than refer

parents to existing workforce services in these communities. One year later, Hseuh and Farrell found that the moderate positive gains from Enhanced Early Head Start had largely dissipated after 42 months.[xxxiv]

Research on Specific 2-Gen Programs

Many research projects have focused on the efficacy of specific programs. Milwaukee's New Hope Project was an earlier program that was not explicitly 2-Gen in design but offered a range of services to help working parents and their children. The program ran from 1994 to 1998 and offered job-search assistance with child care subsidies and wage supplements to those who worked.

Several studies have examined how New Hope affected outcomes for children whose caregivers participated in the program. McLoyd et al. showed that boys demonstrated small but significant improvements in adolescent employment and career preparation, along with less cynicism about their employment prospects, five years after leaving the program. Such effects were not found for girls.[xxxv] Multiple studies have suggested that maternal employment can have negative effects on adolescent school performance, but Huston et al. found no negative associations between parental participation in New Hope and adolescent achievement or behavior.[xxxvi] Instead, small gains in academic motivation and engagement, as well as positive social behavior, persisted eight years after the program. Gains in academic achievement, however, had dissipated by that time. For policymakers interested in the causal pathways at work, Purtell and McLoyd found that several positive program effects from New Hope were mediated by parental perception of their children's reading performance.[xxxvii] The authors conjecture that certain perceived academic gains may increase parental engagement and motivation, which in turn create more persistent positive gains for the children.

A contemporary program that was specifically and intentionally designed and implemented as a 2-Gen model is Tulsa's CareerAdvance® program.[xxxviii] Christiansen et al. determined that program participants were more likely to succeed when recruitment included a career interest survey, a mandatory drug test and a writing sample. Responses from CareerAdvance® focus groups and post-program interviews suggest a favorable impact on parents, who were provided with employment and taught intangible skills such as goal setting, stress management and communication. Some participants, however, reported negative feedback of the program related to issues such as inconvenience of transportation, unspecified job requirements and staff turnover. A significant criticism of CareerAdvance®, at least among the later cohorts, has been that it is selective in choosing its participants.[xxxix]

Sabol et al. used CareerAdvance® to investigate whether childhood education programs might be a vehicle for increasing parental education. They suggest that one of the reasons for the success of this program, particularly in the face of low nationwide community college degree attainment, is that it orients participants around earning short-term certificates rather than pursuing a degree that might take years to complete. The primary focus of CareerAdvance® was certifying parents for positions in the medical field, and at this it was successful: 76% of participants obtained at least one of the certificates at the end of 16 months, and several obtained

more than one. The career pathway 2-Gen program concluded with 81% of all graduates securing employment.[xl]

A March 2017 report by Chase-Lansdale et al. noted that CareerAdvance®'s adult training component modeled after Project QUEST and Capital IDEA, both highly effective career-pathway sector-based programs in Central Texas, was successful at helping parents complete career certification programs and find employment in the healthcare sector.[xli] This was all achieved without negatively impacting parents' psychological well-being. For children, participating in CareerAdvance® resulted in an improvement in Head Start attendance and a decrease in chronic absenteeism. These findings demonstrate the potential 2-Gen benefits of combining high-quality Head Start programming with leading-edge workforce development training for parents.[xlii]

Conclusion

Although supporters believe the second iteration of 2-Gen programs to be promising, researchers have thus far found mixed results. Many 2-Gen programs, however, have just recently started, and several large-scale outcome evaluations will be published in the coming years. The Administration for Children and Families in the U.S. Department of Health and Human Services has commissioned Mathematica Policy Research to conduct an in-depth assessment of the evaluability of Two-Generation Approaches to Improving Family Self-Sufficiency, which will include fieldwork and a big-picture appraisal of 2-Gen program models and their evaluability.[xliii] In addition, the National Association of Workforce Boards has partnered with Innovate+Educate to develop and evaluate a pilot for a 2-Gen workforce development program at three sites: El Paso (TX), Maricopa County (AZ) and Montgomery County (MD).[xliv] With funding from the W.K. Kellogg Foundation, these pilot programs plan to offer intensive, high-quality services to both children and parents starting from an adult workforce rather than a child platform, making the evaluation findings of particular value to 2-Gen policymakers. Also, the Urban Institute with the support of the Annie E. Casey Foundation is conducting an outcome evaluation of the Family-Centered Community Change Initiative, a 2-Gen community development initiative operating in three states.[xlv] Several studies on the CAP Tulsa and CareerAdvance® programs have already been published, as noted above, and longer-term impacts will be reported out over the next few years. All in all, this wave of outcome and impact evaluations will offer a fuller picture of the benefits and shortcomings of the 2-Gen approach in the near and longer term, and provide guidance to policymakers as they develop new 2-Gen programs and improve existing ones.

There are several broader avenues of research worth exploring in the future. The persistence and determinants of program effects represent one such area. Cost-benefit analyses frequently hinge on the extent to which program gains persist, and programs that are designed to ensure that gains are sustained will be more successful ones. Additionally, researchers might look at how 2-Gen outcomes are mediated by the bundling of services and by other place-based effects. Researchers interested in 2-Gen have traditionally investigated parent-child spillover effects; broader analyses of the interplay between those dynamics and the place-specific effects might yield beneficial recommendations regarding the allocation of limited resources.

Along these lines, the bulk of 2-Gen research is currently performed within the framework of program evaluation and developmental psychology. Thus, it could prove fruitful to have more economists and sociologists investigating 2-Gen effects with the analytical tools of their respective fields. In this vein, a greater emphasis on qualitative fieldwork might aid in investigating certain outcomes that are not easily quantified or measured. Research on, for example, parental perceptions of program efficacy or the range of 2-Gen program support services might lend itself to this approach. Lastly, given the outcome of the recent presidential election and the sea change it implies for social policy and government funding, supporters will need to adopt clear strategies for ensuring the political and financial viability of the 2-Gen model. There is a great deal of promise in the 2-Gen concept. For that promise to be realized, community advocates, service providers and researchers will have to learn to adapt to the coming shift in the political climate.

ENVIRONMENTAL SCAN

The following environmental scan includes a labor market analysis, a needs analysis, an asset map of the greater Austin area, and a program scan. By completing each of these projects, the team created a more complete picture of the challenges faced by low-income families who are the expected target for such programs and the potential solutions to those challenges. All the data collected in these subsections serve as the basis for our later recommendations and conclusions.

Chapter 3: Labor Market Analysis

While exploring 2-Gen strategies to alleviate poverty in Austin, it was necessary to look at the specific conditions of the labor market in the metropolitan area. The following labor market analysis reflects the supply and demand of industry sectors in the local area, taking into account projected openings in the occupations and their compensation levels in the region in the next decade. Hopefully, this glimpse into the labor market supply and demand of the Austin-Round Rock Metropolitan Area (MSA) will serve as a roadmap for future educators, trainers, and community leaders as they strive to meet the needs of these families.

In terms of supply, our targeted population faces a particular set of needs, skills, and tradeoffs that must be taken into account in order to determine which occupations are appropriate for this study. In our analysis, we focused on occupations that would provide a livable wage based on a family comprised of a single parent and two children; more details are provided below in the Living Wage section. Since many low-income individuals do not have good access to or prospects for completing postsecondary education, this analysis identifies occupations that require less formal education than a bachelor's degree. Additionally, this analysis recognizes that a livable wage is important, but for some families--especially single parents—a flexible work schedule must also be taken into consideration.

Industry demand varies widely all over the country and even in the large state of Texas there are significant differences in occupational growth by region. With respect to the demand of the labor market, it is essential to grasp the specific industry trends and employer needs of the Austin MSA. This analysis identifies occupations that are growing today and will likely continue to grow into the next decade, especially given the time it may take a single parent to complete an associate's degree. As industry demand ebbs and flows, it is important that this report's recommendations set up participants for success.

The intent of this labor market analysis is to ultimately help local policymakers and stakeholders prepare for the future by outlining which occupations are growing, what skills these jobs require, and how those at or below the poverty line can attain those skills. As 2-Gen providers select occupations to include in their educational and training programs, this subsection can guide them towards occupations that are worth their time and effort. Once the needs of both the targeted population and the local employers are met, programs — and funders — will have a better chance at seeing a high return on their investment.

Occupational Criteria

The first step in identifying appropriate job positions was determining a target wage that would be high enough to lift a family in Austin out of poverty (see the Living Wage section below and Appendix A for a more complete description of our methodology). Assuming an employee does not receive subsidized health insurance from their employer, as of Fall 2016, a single parent with two children in Austin would need to earn approximately $27 per hour to live above the poverty line. With this target in mind, this study aims to identify jobs that provide either a median hourly wage of $27 or jobs that have a 10th percentile wage of $18. The 10th percentile wage of $18 was selected to serve as an entry-level wage in occupations where workers could feasibly work towards the $27 benchmark as they gain more experience over time. Using both of these wage criteria, this analysis attempts to capture occupations that start off paying about $27 per hour and then occupations that would set an employee on a path to earn that living wage within a reasonable amount of time.

Based on conversations with industry experts and a review of existing 2-Gen programs, this analysis is limited to occupations that require less than a four-year college degree for entry. To satisfy this education criterion, occupations considered in this analysis might require a high school degree or GED, some type of certification (industry or occupation) or extra training in addition to a high school degree (or equivalent), or at most, a two-year associate's degree and additional certification. While a bachelor's degree would likely yield better outcomes, the resources needed to achieve this level of education are largely unavailable to our target population. Because a priority of a 2-Gen program is to serve participants relatively quickly and efficiently, we determined that a four-year degree would be too costly to meet these objectives. However, since a considerable percentage of the target population does not have any post-secondary education, it is reasonable to assume that, at minimum, additional training will be necessary to attain the targeted occupational and wage outcomes.

After identifying positions that met the established wage and education requirements, we analyzed the projected growth rate of the targeted occupations to make sure that there would be a sufficient number of openings in the coming years. This is defined as twenty or more openings per year in the Austin-Round Rock MSA. Additionally, industries that may have had sufficient overall openings but have negative year-over-year growth were excluded. This excluded group contains industries such as the postal service, which may offer sufficient wages but does not offer job security in Austin's changing economy. It would be counter-productive to prepare our target population to work in professions that do not provide long-term stability.

Finally, occupations that required excessive work experience or managerial experience were omitted from the analysis in order to ensure the recommended occupations are accessible to our target population. Such occupations generally require five or more years of experience in addition to the occupation-specific training, which would not allow participants to reach the program's goals quickly or efficiently.

Using the four criteria of wages, education, occupational demand, and accessibility, we have identified 17 targeted occupations for consideration. The occupation with the highest median hourly wage is dental hygienist at $36.01. Diagnostic medical sonographers have the highest 10th percentile wage at $25.77. The highest 75th percentile wage goes to real estate sales agents at $46.01, which is also the occupation with the largest percentage wage growth (10th to 75th percentile) at 207% (from $15.00 to $46.01). The remainder of this subsection will define Austin's living wage, outline the data sources used, and explore the 17 recommended occupations in more detail.

Living Wage

A "living wage" is defined as the minimum salary a worker needs to meet their basic needs, as opposed to the minimum wage, which is a mandatory federal minimum that an employer must pay an employee working in covered sectors of the labor market. Unlike standard poverty threshold calculations that tend to understate costs, a living wage provides a comprehensive picture of the market cost of covering a worker's needs. The minimum wage in Texas is the federal standard, $7.25 per hour, which was last raised in 2009. In contrast, the living wage for a parent in the Austin metro area with two children is anywhere from $18.25 to $38.27 per hour, or $36,504 to $76,539 annually.[xlvi]

The disparity within appropriate living wage standards is due to a variety of factors: the extent to which an employer assists with health insurance premiums; the family's savings goals (if there is a savings account, an emergency fund, a retirement fund, or a college fund); single parent vs. two parent households; and number of children in the household. For purposes of this analysis, a conservative estimate of the living wage was selected that falls in the middle of the potential wage spread. Based on these assumptions, a single parent with two children, who does not receive employer support for her health insurance premiums and who has emergency savings would require a job paying $27.15 per hour, or $54,288 annually.

This living wage threshold covers the minimum amount necessary for a family to maintain a "safe and decent standard of living" (Deviney, et al. Better Texas Family Budgets: Methodology). Calculations include the cost of housing and utilities, food, medical care, child care, transportation, and other miscellaneous necessities. Housing costs are based on the U.S. Department of Housing and Urban Development's allocation for public housing subsidies in the Austin area. For further details on the living wage calculations, see the Better Texas Family Budget methodology. For the complete dataset, see Appendix A.

Data Sources

Data used in this analysis come from multiple Bureau of Labor Statistics (BLS) data sources. Data on wages come from the BLS Occupational Employment Statistics (OES) program, which is released annually. The most recent data available for the Austin-Round Rock Metro area used in this report are estimates from May 2014. The OES program at BLS analyzes more than 800 occupational categories and makes their data available by metro and non-metro areas, as well as nationally.

Occupational wage data was mapped to BLS's Employment Projections data in order to assess job openings by industry. The complete Employment Projections dataset is released every other year and includes ten-year projections. The data used in this report are from Employment Projections data for 2012-2022 and can be found in Appendix B.

Based on these data sets and the criteria outlined above, the following sectors and professions have been identified where workers with the appropriate skillet and training can obtain a living wage reasonably quickly and set out on a path for further career growth.

Healthcare Industry

The medical professions identified in this analysis have an average median wage of $32.13, which is the highest among all the industries considered here. This is due in part to a high average 10th percentile entry-level wage of $23.97. Average wage growth for the medical professions from 10th-percentile earners to 75th-percentile earners is 53%, which is the lowest among all the industries. However, compared to the other industries, the professions identified offer promising career pathways with room for growth through additional training and certification for better paying positions.

Occupational title	Annual average employment 2012	Annual average employment 2022	Percent growth 2012-2022	Total annual average job openings	Typical education needed for entry into occupation	Median hourly wage	10th percentile	75th percentile	Percentage wage growth (10th to 75th) percentile
Diagnostic Medical Sonographers	250	380	52.0%	20	Associate's degree	33.32	25.77	38.14	48%
Registered Nurses	9,180	11,810	28.6%	445	Associate's degree	31.89	24.79	36.79	48%
Dental Hygienists	710	920	29.6%	40	Associate's degree	36.01	24.27	41.35	70%
Respiratory Therapists	490	620	26.5%	20	Associate's degree	27.31	21.04	30.18	43%
Licensed Practical & Licensed Vocational Nurses	2,840	3,590	26.4%	145	Postsecondary non-degree award	21.84	17.05	24.33	43%

- *Licensed Vocational Nurses*: The opportunity for employment as a licensed vocational nurse (LVN) largely exceeds availability in other medical professions. With an experienced wage of $24.33, LVN offers minimal opportunity for growth, however it does offer a lower-barrier entry point for a nursing career path. As of Fall 2016, Austin Community College (ACC) offers a Mobility Fast Track LVN program as well as a Traditional Track. Both tracks offer online and classroom instruction, but the Mobility track can be completed in one year. Both pathways require passing the state administered nursing examination, NCLEX-PN (National Council Licensure Examination for Practical Nurses), in order to practice.

It is important to note that, largely in response to recommendations from the national Institute of Medicine, hospitals are increasingly hiring Associate Degree Nurses (ADNs) and Bachelor of Science Nurses (BSNs) over LVNs, though hiring for LVNs in clinics and long-term care facilities remains strong. However, if LVNs seek long-run career growth and stability, the expectation is that an LVN will seek certification and additional schooling to become an ADN or BSN.

Nursing is an appealing career path in part because of the educational flexibility and variety of placement opportunities. As compared to other jobs in the healthcare field, there are multiple entry points to the profession, which affords workers a variety of training options. Nursing is a good example of a field offering "stackable credentials;" credentials that are in a known sequence, one recognized by healthcare employers, and that workers can pursue over time. Once a worker is certified, there are also a large number of jobs available in a variety of geographic locations. Nursing also affords a flexible work schedule, and it is possible to arrange work hours around other commitments, although shift work can be a barrier when starting out, especially for parents with young children.

- *Dental Hygienists*: ACC offers an Associate's Degree Program in Dental Hygiene. Completion of the program is followed by the Dental Hygiene National Board Examination, as well as clinical examination administered by the Western Regional Examining Board. Employment settings for Dental Hygienists vary and can be located in private practices, hospitals, clinics, or long-term care facilities. Two potential disadvantages are that there are fewer training spots available than other health care occupations, particularly nursing, and that the occupation tends to afford minimal opportunities for upward mobility.

- *Respiratory Therapists*: Though hiring for respiratory therapists in the Austin-metro area is strong and projected to grow, opportunities for training within the Austin-metro area are limited. The nearest accredited program is located at Texas State University in San Marcos, so likely candidates would need to commute or do their training online.

- *Diagnostic Medical Sonographers*: ACC offers an Associate of Applied Science Degrees in both Diagnostic Medical Sonography and Diagnostic Cardiac Sonography. The degree is designed to be completed in 18 months at a minimum if all prerequisites are already completed. After completing the program, students must pass the American Registry of Diagnostic Medical Sonography Examination in order to receive their certification to practice. Wages for medical sonographers are strong, however, work shifts tend to fall within the standard 9:00-5:00 timeframe, offering fewer opportunities for parents to create a flexible work schedule.

Public Safety

The public safety occupations identified below have an average median hourly wage of $30.43. With an average 10th percentile hourly wage of $18.76, entry-level workers can expect to increase earnings approximately 116% by the time they reach the 75th percentile for their occupation.

Occupational title	Annual average employment 2012	Annual average employment 2022	Percent growth 2012-2022	Total annual average job openings	Typical education needed for entry into occupation	Median hourly wage	10th percentile	75th percentile	Percentage wage growth (10th to 75th) percentile
Police & Sheriff's Patrol Officers	3,260	4,000	22.7%	175	High school diploma or equivalent	$ 32.70	$ 20.85	$ 37.73	81%
Detectives & Criminal Investigators	1,190	1,440	21.0%	50	High school diploma or equivalent	$ 28.15	$ 16.67	$ 41.72	150%

- *Police and Sheriff's Patrol Officers and Detectives and Criminal Investigators*: ACC's program for Associates of Applied Science Degree in Criminal Justice leads students to both police patrol positions, as well as careers for criminal investigators. The degree includes coursework on criminal law, police systems, court systems, criminal procedure and criminal investigation. With a total of 63 courses to complete the associate's degree, the curriculum is designed to be completed in a minimum of two years.

ACC also offers a Texas Peace Officer Sequence Certification, which is the academic alternative to the Basic Peace Officer Training Course required by the Texas Commission on Law Enforcement (TCOLE). An associate's degree is required for enrollment in the program, though the degree does not have to be in criminal justice. If a student with a non-criminal justice associate's degree enrolls, they must complete an 11-course sequence designed to be completed in less than 18 months. Students without associate's degrees may complete the degree and include the 11 courses in their curriculum.

In terms of the career trajectory, a worker with an Associate's Degree cannot immediately become a detective or investigator. They can work up to that position after first working as a patrol officer.

Computer Science

The computer science occupations identified in this study have an average median hourly wage of $30.75 and an average 10th percentile wage of $18.67. By the time workers reach the 75th percentile in this industry, they can expect to be making $39.12 per hour, an increase of 109% over entry-level wages.

Occupational title	Annual average employment 2012	Annual average employment 2022	Percent growth 2012-2022	Total annual average job openings	Typical education needed for entry into occupation	Median hourly wage	10th percentile	75th percentile	Percentage wage growth (10th to 75th) percentile
Web Developers	1,130	1,470	30.1%	55	Associate's degree	33.94	19.82	43.93	122%
Computer Network Support Special	2,190	2,540	16.0%	70	Associate's degree	27.56	17.52	34.32	96%

- *Web Developers*: ACC offers a Webmaster Certificate Program as a series of continuing education courses. The program includes elements of website design, interaction design, development and programming, and contains two tracts: one in design and one in programming. There are eight required courses in the program, as well as three electives, so the program could be completed in one year if a student were taking on a full course load. The main potential disadvantage to this occupation is that it can be difficult to find a full-time position in the field, as much of the work is done freelance. This obviously leads to a potentially irregular, unstable work flow, though could be an advantage for a parent seeking a flexible work schedule.

- *Computer Network Support Specialists*: Among the ten Associate's degrees offered by ACC's Computer Science and Computer Information Technology Department is the

Associate's degree in Local Area Network Systems-Network Administration. This degree prepares students to work as computer network and user support specialists in a variety of fields. ACC also offers a Computer Support Specialist track because of the high demand and job placement rates. This certification offers an attractive entry point to the IT sector, but it would require up-skilling in order to move beyond an entry-level position.

Engineering

The two engineering occupations identified in this study have an average median hourly wage of $30.37 and an average 10th percentile wage of $22.62. By the time workers reach the 75th percentile in this industry, they can expect to increase their wages by 64% over entry-level wages. Although the percentage wage increase is lower than for the other industries, this is due in part to more competitive starting wages in this industry. Engineering Technicians are usually trained in a specific branch of engineering and work alongside engineers to solve technical problems.

Occupational title	Annual average employment 2012	Annual average employment 2022	Percent growth 2012-2022	Total annual average job openings	Typical education needed for entry into occupation	Median hourly wage	10th percentile	75th percentile	Percentage wage growth (10th to 75th) percentile
Industrial Engineering Technicians	620	710	14.5%	25	Associate's degree	28.17	24.13	32.26	34%
Electrical & Electronics Engineering	2,170	2,640	21.7%	90	Associate's degree	32.57	21.1	42.1	100%

- *Electrical and Electronics Engineering and Industrial Engineering Technicians*: The path to both of these occupations is through ACC's Associate of Science in Engineering. The associates program is designed to closely match the first two years of engineering study at a university program and to prepare students for an array of engineering technician jobs. The coursework consists of 60-63 hours, including calculus, chemistry and engineering physics and is designed to take a minimum of two years.

Trades & Utilities

The occupation from the trades and utilities industry that appears on the final list of recommended occupations is the Electrical Power-line Installer and Repairer. Workers in this job are responsible for installing and maintaining overhead and underground electrical lines. The average starting salary is $16.14 and goes up to $36.20 for an experienced worker, or a $124% increase.

Occupational title	Annual average employment 2012	Annual average employment 2022	Percent growth 2012-2022	Total annual average job openings	Typical education needed for entry into occupation	Median hourly wage	10th percentile	75th percentile	Percentage wage growth (10th to 75th) percentile
Electrical Power-Line Installers & Repairers	360	460	27.8%	25	High school diploma or equivalent	28.32	16.14	36.2	124%

- *Electrical Power-Line Installers & Repairers*: While this occupation does not require an advanced degree, ACC offers a 40-hour Utility Lineworker Certificate (or "Utility Lineworker Associate of Applied Science Degree"). The program involves studies on

electrical and electromechanical power systems, and demands real physical abilities (e.g., climbing skills).

Business, Sales and Administrative

The six business, sales, and administrative occupations listed below have an average median wage of $28.62 and an average 10th percentile wage of $18.20. Workers in these occupations make an average 75th percentile wage of $39.00, a 117% increase from the average 10th percentile wage. While the mean hourly wage and average 10th percentile wage are some of the lowest among the industries, there is also a greater opportunity for wage growth than most other industries. Each of these occupations typically requires only a high school diploma or equivalent; however, ACC provides many certifications and degrees relevant to these occupations.

Occupational title	Annual average employment 2012	Annual average employment 2022	Percent growth 2012-2022	Total annual average job openings	Typical education needed for entry into occupation	Median hourly wage	10th percentile	75th percentile	Percentage wage growth (10th to 75th) percentile
Executive Secretaries & Executive Administrative Assistants	8,820	9,390	6.5%	160	High school diploma or equivalent	26.52	19.36	31.29	62%
Business Operations Specialists, All Other	5,330	6,540	22.7%	195	High school diploma or equivalent	34.88	19.31	45.76	137%
Title Examiners, Abstractors, & Searchers	570	680	19.3%	20	High school diploma or equivalent	24.49	18.94	42.54	125%
Purchasing Agents, Ex. Wholesale, Retail, & Farm Products	1,640	1,990	21.3%	65	High school diploma or equivalent	28.12	18.42	34.85	89%
Claims Adjusters, Examiners, & Investigators	1,730	2,050	18.5%	70	High school diploma or equivalent	26.28	18.18	33.55	85%
Real Estate Sales Agents	2,850	3,400	19.3%	80	High school diploma or equivalent	31.4	15	46.01	207%

- *Executive Secretaries & Executive Administrative Assistants*: ACC's Office Administration program offers nine Academic Awards, including an Administrative Assistant Level 1 certificate (38 credit hours) and an Associate of Applied Science degree in Administrative Assistant Specialization (60 credit hours). Both programs include coursework in Business English, Business Math, and Microsoft Word, Excel, Outlook, PowerPoint, and Access.

- *Business Operations Specialists*: ACC's Associate of Science in Business Administration (60 credit hours) prepares students for various occupations, including Operations Analysts. Courses in this degree plan include Business Computer Applications, Business Calculus and Applications, and Principles of Accounting (Financial and Managerial).

- *Title Examiners, Abstractors, & Searchers*: Although ACC offers two Academic Awards in real estate, these particular occupations are not listed among those that the real estate awards target. It is possible that certification beyond a high school degree is not necessary for title examiners, abstractors, and searchers in the Austin area.

- *Purchasing Agents, Ex. Wholesale, Retail, & Farm Products*: ACC's International Business program houses both an International Business Level 1 certificate (18 credit hours) and an Associate of Applied Science degree in International Business (60-61 credit hours). The jobs targeted by these Academic Awards include Purchasing Agent. The certification program offers courses in Business Principles and Introduction to International Business and Trade while the Associate's degree plan includes courses such as Principles of Imports, Global Supply Chain Management, and International Business Law.

- *Claims Adjusters, Examiners, & Investigators*: While Insurance Agent is one of the occupations targeted in the Business Administration program, Claims Adjusters, Examiners, and Investigators are not included in that list. Again, it is possible that certification beyond a high school degree is not necessary for these occupations in the Austin area.

- *Real Estate Sales Agents*: ACC's Real Estate program offers both a Real Estate Licensing Level 1 certificate (18 credit hours) and an Associate in Applied Science in Real Estate Brokerage Licensing (60 credit hours). Among the targeted occupations in this program is Real Estate Agent. Both Academic Awards provide coursework in Law of Agency, Law of Contracts, and Real Estate Finance, while the Associate's degree plan also includes Real Estate Mathematics and Principles of Macroeconomics. It is worth noting that real estate sales agents and similar occupations are largely freelance jobs that do not offer wages and employee benefits.

Conclusion

The goal of this labor market analysis in the context of the Central Texas 2-Gen strategy is to identify occupations in key sectors that can provide families with potential pathways out of poverty. In the match-up process between worker and employer, there is a wide variety of factors to take into consideration.

The parameters of this list of occupations were selected to respond to the current situation of the workers of interest in our target population. All of the occupations included in the analysis require either a high-school or Associate's degree for entry. However, an Associate's degree can require at least two years of study and often more, which, barring outside support for the family's ongoing needs, is likely not a viable timeline.

Based on the wage growth of each position and discussions with workforce training providers and ACC senior administrators, these occupations do provide a promise for future career growth potential. Many offer a helpful starting point for a career, but would require future up-skilling in order to be a viable long-term pathway to living-wage jobs and family economic security. Future iterations of this analysis should build on Workforce Solutions Capital Area's work to identify "middle skill" occupations and corresponding career pathways in the region.[xlvii]

Although these occupations fit the given parameters, the day-to-day work in such positions might not be an appropriate fit for everyone. With that in mind, this list of occupations offers a well-balanced array of work types, both in terms of settings and schedules. From nursing to administrative work, there are a variety of positions and industries represented that would offer jobs in hospitals, offices, or field settings. The list also includes jobs that lend themselves to full-time, regular work hours as well as part-time or irregular work hours.

The analysis undertaken in this study of the local labor market is intended to provide a starting point for potential occupations that fit the needs of both workers and employers in the Austin-Round Rock MSA. It is part of the larger effort to provide opportunities out of poverty for local residents

Chapter 4: Program Scan

The program scan was designed to better understand the different types of 2-Gen programs at the local, state, and national levels to capture and address these variations. The team researched existing programs and curated a list of programs that designated themselves as being 2-Gen programs. This list informed the entire research tem on which sites to visit using a standardized interview guide that was produced by the program scan subgroup. The purpose of the site visits using the guide was to better understand the target groups addressed, the services provided by these programs, any evaluation approaches and metrics being used and to gather information not available in other ways, e.g., published reports, website information. The complete interview guide can be found in Appendix C.

The 2-Gen programs listed in Appendix D are divided into local, state, and national programs. National programs (Appendix D, Table 1) have sites in multiple states and are not tailored to a specific region or state. Many of the programs listed in the national program section are part of a nationwide grant-funded project, sponsored by various foundations, organizations, and/or government agencies. Programs listed in Appendix D were chosen from the 2-Gen literature, most of which has been produced and assembled by Ascend at the Aspen Institute.[xlviii]

Appendix D is not an exhaustive list. Many programs do not fully represent a comprehensive 2-Gen approach. Programs were chosen based on characteristics that would provide a holistic examination into current 2-Gen programs, while also including programs that offer unique services or perspectives. Many of the programs are site locations of nationwide or statewide grant-funded projects with multiple locations each pursuing the same goal with a somewhat different approach. Examples of these include the Housing Opportunities and Services Together (HOST) initiative of the Urban Institute,[xlix] the Supporting Transitions to Employment for Parents (STEPS) and Mobility and Opportunity for Valuable Employment by Upskilling Parents (MOVE UP) initiatives of the W.K. Kellogg Foundation,[l] and the Family-Centered Community Change (FCCC) initiative of the Annie E. Casey Foundation.[li]

There are numerous local programs that fit the 2-Gen model to varying degrees and incorporate at least some of the five key components or 'gears' put forth by Ascend. The local programs listed in Appendix D, Table 3 are a sample of leading providers of 2-Gen services from across the nation. Programs such as Keys to Degrees and Single Stop were chosen because of their unique approaches to incorporating parental higher education into the model. In addition, local programs in Texas were especially of interest to the scan as this report will serve to assist the United Way for Greater Austin in the implementation of 2-Gen strategies.

The 2-Gen model is more fluid than rigid. The programs listed in the scan greatly differ on the level of 2-Gen components included in their program models. Programs were not included solely based on providing services from each of the five key components, nor would programs be

excluded for failure to provide services from all five of the key components. We used each program's website and the 2-Gen literature to determine which services the program provided. Thus, programs may be listed as not offering certain services they currently provide if this information were not available online. In addition, many programs offered services that are beneficial to a comprehensive family approach, but are beyond the scope of the five key 2-Gen components. These services are omitted from the program scan rubric (Appendix D, Tables D1-3).

Site Visits

In addition to providing a better understanding of existing 2-Gen programs at all levels, the program scan helped the research team identify specific programs to visit for further data collection and a deeper understanding. We visited two major Texas cities — Dallas and San Antonio — to gain a better state perspective and context for 2-Gen initiatives.

Cities/Organizations Visited:

San Antonio, TX

- AVANCE-San Antonio
- United Way of San Antonio and Bexar County
- Pre-K for SA
- SA Works

Dallas, TX

- Commit2Dallas (Commit!)
- Oak Cliff Works
- Workforce Solutions
- City Square

Beverly, MA

- Keys to Degrees Program at Endicott College

Miami, FL

- Single Stop at Miami Dade College

Tulsa, OK

- CareerAdvance®, CAP Tulsa

Program Scan Findings

Some of the main findings from our field visits for the program scan are as follows:

- *Complexity of parental engagement efforts.* Parental engagement efforts benefit a child's education, improve parenting skills, and support the growth and development of both child and parent in other aspects of life. It is important to provide parents a space where they can interact with one another to build social and cultural capital. The differences in parental engagement strategies result from community needs, developments, and structure.

- *Benefits of community engagement*. Canvassing in communities within a target area and asking residents about their potential interest in 2-Gen programs can facilitate program improvement. The resulting feedback is then incorporated into programming efforts and leads to recruitment of individuals who would otherwise be hesitant to consider the program. Community engagements efforts are necessarily time intensive given the amount of fieldwork and human capital required to do them right.

- *Quantifying results.* Organizations had an abundance of anecdotal evidence regarding areas of improvement from such components as social capital. The difficulty emerges when organizations attempt to quantify positive changes and reflect them in their data. Survey data proves to be difficult given that changes observed when interacting with families does not necessarily translate well from a survey.

- *Importance of intentionality.* It is critical to be intentional about goal-setting and determining priorities, the language used with participants, the location of services, the partnerships created, and the alignment of services in 2-Gen strategies. Thoughtful strategic planning can mitigate some of the challenges often encountered, such as lack of program awareness and disjointed service delivery, that make it inconvenient for would-be participants.

- *Importance of partnerships.* A successful 2-Gen strategy involves multiple players, including service providers, foundations, school districts, workforce boards, community colleges, and employers. Furthermore, successful programs make sure that key players are involved in the planning and implementation of the strategy. Developing collaborative multi-sector partnerships and sustaining strong relationships with all partners over time is necessary to ensure effective coordination of services and intentional service delivery.

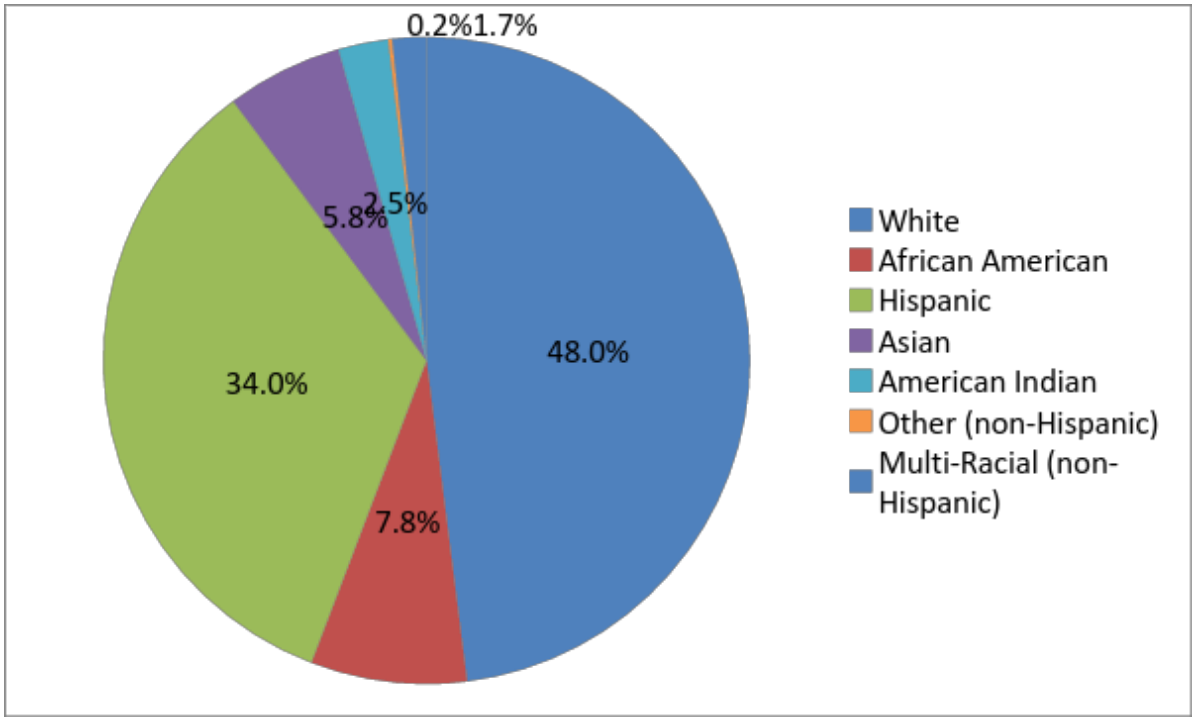
- *Deliberate use of data.* While more comprehensive data collection for parents and children is becoming more commonplace, it is crucial for different 2-Gen stakeholders to openly share data through aggregation and dissemination. Such coordinated efforts will allow all key players to understand the outcomes and impacts of their programs and to identify gaps in services.

- *Make sure key stakeholders are at the table.* As a regional convener, initiator and funder of 2-Gen initiatives, United Way can use its resources to identify key stakeholders and can leverage its position as a funder to create and foster an effective 2-Gen partnership in the Austin area. This partnership should consist of members from service providers, local funding agencies, private organizations, Austin ISD and ACC. Members should convene to establish priorities, based on the recommendations of this report, and determine the best course of action for service delivery. Sustained communication will be essential to ensuring the partnership's success over time.

Chapter 5: Needs Analysis and Assets Mapping

Travis County is the fifth most populous county in Texas, with a population of 1,176,558 comprised of various ethnic groups as shown below in Figure 2. The median age of the Travis County population is 33.4 years old.

Figure 2: Travis County Population by Race

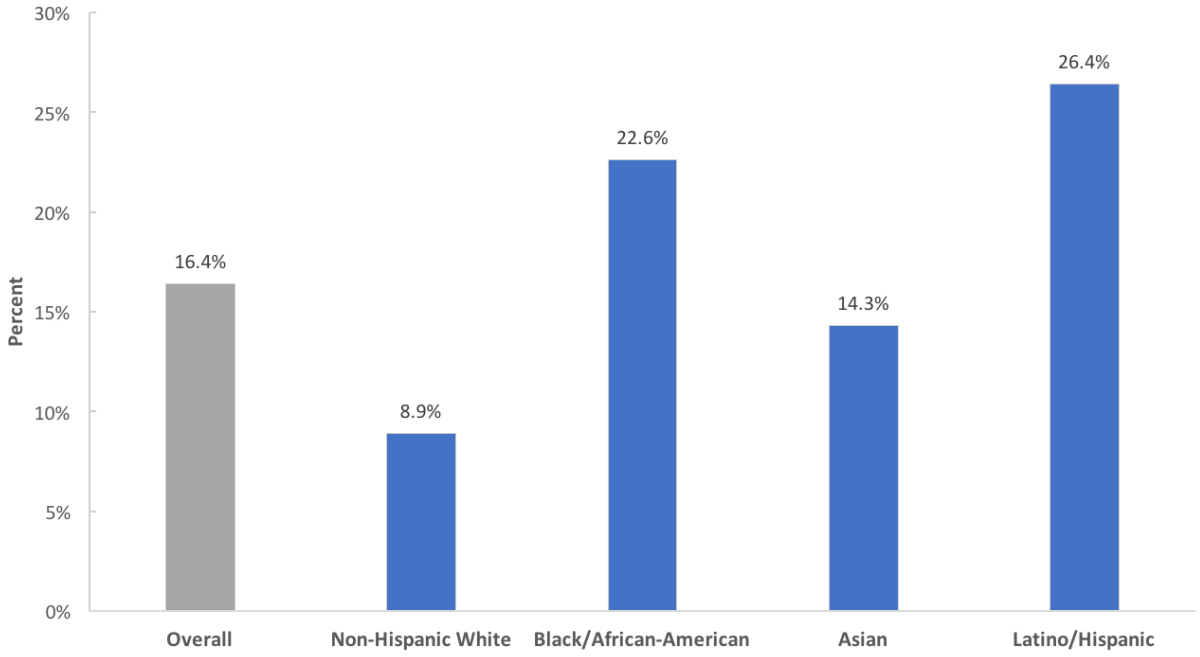


Travis County enjoys a healthy economy with 72% white-collar employees and a 3.3% unemployment rate. Travis County's per capita income is $54,145, which is below the national average of $57,220. The median household income is $61,779 and the average household size is 2.4. However, 16.4% of the population lives under the poverty line.

Figure 3: Travis County Boundaries

The following figure displays a breakdown of those living below 100% of the federal poverty line by race/ethnicity in Travis County. The largest group is Latino/Hispanic at 26.8%, followed by 21.2% Black/African American, 10.4% Asian, and 9.5% Non-Hispanic White.

Figure 4: Percent of Individuals below Poverty by Race/Ethnicity in Travis County, 2015



Source: *1-year estimate American Community Survey*, U.S. Department of Commerce, Bureau of the Census, 2015.

United Way helps Austin residents navigate the services available to them through its 2-1-1 Navigation Center. United Way employees curate the resource database and continuously update the information in it. To help inform them of new resources to supply to callers, they receive information from the IRS about new 501(c)3 organizations in the area, attend community meetings, subscribe to email lists, and build relationships with key planning groups and stakeholders in the community.

Some agencies in Austin provide services that meet the definition for 2-Gen work, providing high-quality services to both children and adults in the same family. However, many agencies provide services that offer components of 2-Gen work, serving either children or adults. United Way's 2-1-1 employees track all of this information, but the enormous volume of the resulting data makes it difficult to determine all of the providers offering either 2-Gen programs or components of 2-Gen programs and to determine the specific needs these service providers are meeting. The goal of the Travis County asset map of current service providers that we have developed as part of our research is to serve as a tool allowing for easier understanding of 2-1-1 service data, community needs, and 2-Gen services. These needs are subsequently compared to existing assets in the following section.

Methodology

Needs Assessment Methodology

The needs assessment involved examining data from a variety of sources to capture the distinct needs facing families in Travis County, with a focus on needs related to 2-Gen services. Students identified 2-1-1 call data as the most comprehensive and up-to-date dataset that would allow for an in-depth analysis of needs.

We collected raw 2-1-1 data with calls organized by zip codes, default categories for services requested, and numbers of calls in each category. We analyzed these data to determine the types of services most often requested and the zip codes with the highest volume of requests for services. We then categorized each call by need type using the five Ascend 'gears': early childhood education, postsecondary and employment pathways, economic assets, health and well-being, and social capital. The number of calls were standardized by the number of households in each zip code (using 2010 Census numbers), which then determined the highest needs in Austin and needs that aligned with the Ascend gears. To visualize areas in most need, the group identified needs by specific Travis County zip codes and specific amount of calls per need.

Asset Mapping Methodology

The asset mapping subgroup received additional data from 2-1-1 listing service provider data for Travis County. Group members extracted a comprehensive list of unique taxonomies that 2-1-1 used to categorize service providers, identifying a list of over 600 taxonomies. These classifications differed from those used to categorize 2-1-1 calls in the needs assessment, so group members developed Microsoft Excel formulas that sorted the services by matching 2-1-1 taxonomies with the Ascend 'gears', allowing for an easy comparison of services to community needs. To preserve inter-coder reliability, taxonomies were labeled by two coders simultaneously, and then finalized through reviewing the codes with the remaining team members. Service provider taxonomies were double-coded for individual taxonomies that overlapped with multiple Ascend gears. Group members assigned each service provider a latitude and longitude coordinate to identify its location on the resulting map.

We decided that a combination of maps, tables, and images would provide an easily interpretable snapshot of the most prominent unmet needs by category and by asset locations. We also wanted to give users/viewers the ability to access more detailed data, such as the number and type of services provided by an organization, the full extent of unmet needs by Ascend component, and the education and income characteristics of the residents in a given zip code. To create each component, we used a combination of the aforementioned data sources and the multitude of data visualization tools offered in Tableau, an online intelligence and analytics software platform.

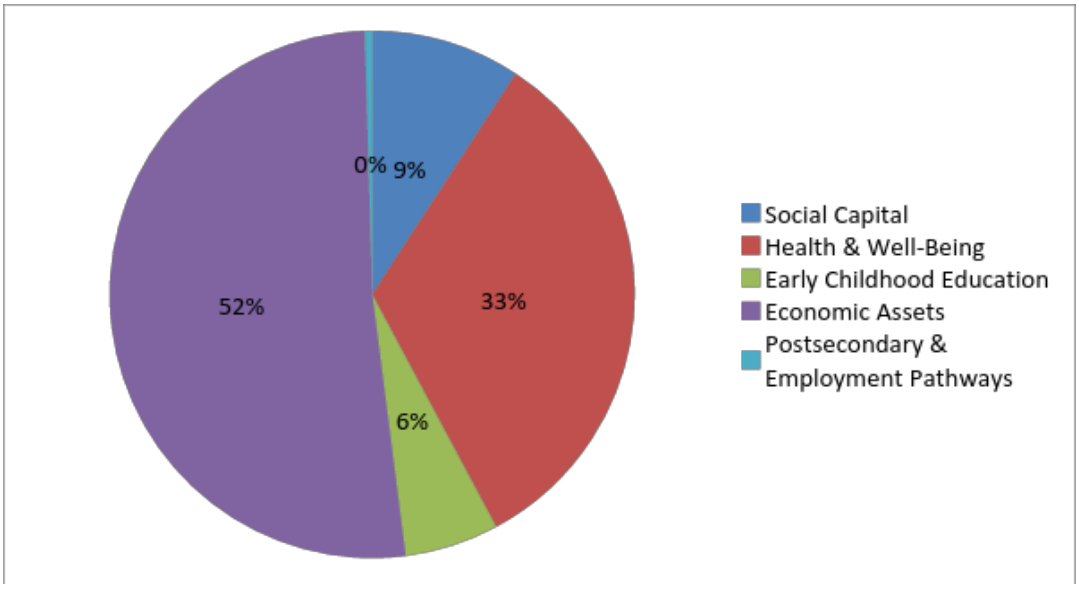
Website Methodology

To disseminate the findings of this report in a more visually appealing way, the research team created a website containing maps, data collected, recommendations, and the final report. The website will be updated continuously to reflect changing needs and services in the Central Texas region. The website, hosted by Squarespace, can be found at www.2genaustin.com and www.2genaustin.org.

Community Needs

After categorizing the 2-1-1 calls by the Ascend 'gears', the group determined that the Economic Assets category contains the largest percentage of total calls, and Postsecondary & Employment Pathways contains the lowest. In part, this may be a reflection of the temporal nature of the expression of 2-1-1 needs: a person is much more likely to call 2-1-1 to address a pressing immediate need for housing or food assistance than s/he would be to seek assistance for education, workforce training or a job.

Figure 5: Distributions of Travis County Needs by Ascend Gear Based on 2-1-1 Calls



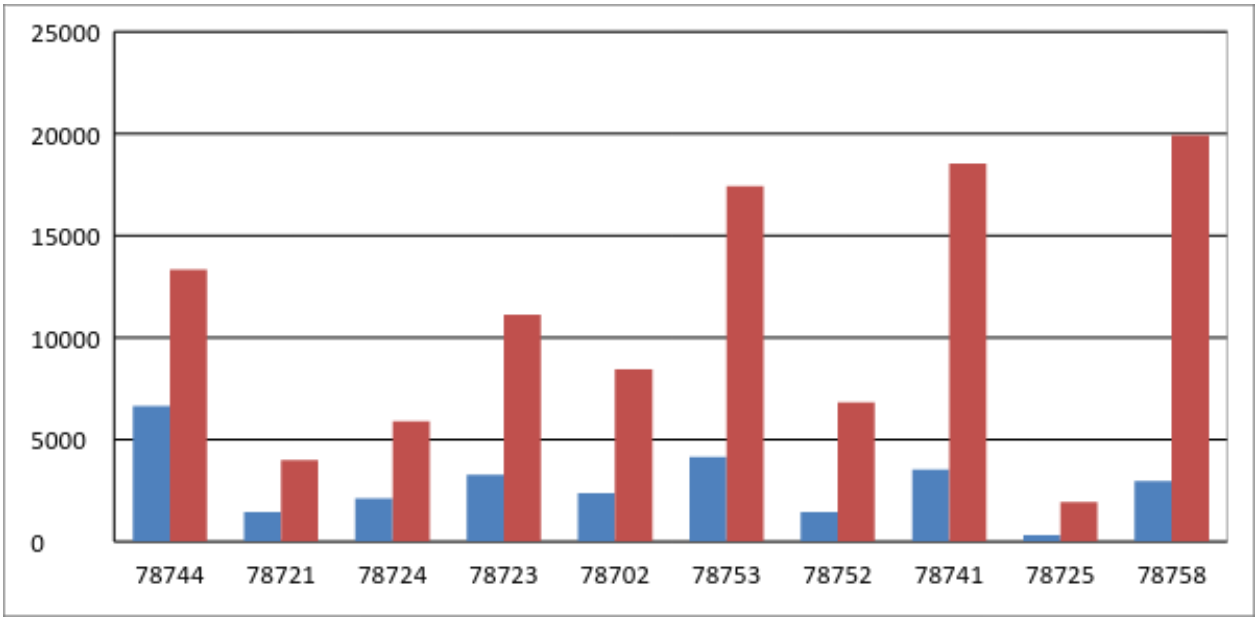
When the research team organized the data by frequency of calls by category, those pertaining to Economic Assets still topped the list while those pertaining to Postsecondary & Employment Pathways were not included within the top 20 categories.

Table 1: Top 20 Needs in Travis County

Ascend Gear	Categories	Number of Calls
Economic Assets	Electric Service Payment Assistance	6030
Economic Assets	Rent Payment Assistance	5975
Health & Well-Being	Food Pantries	4526
Economic Assets	Low Income/Subsidized Private Rental Housing	2838
Health & Well-Being	Adult State/Local Health Insurance Programs	1555
Economic Assets	Online Tax Preparation/E-Filing Sites	1024
Health & Well-Being	Community Clinics	1019
Economic Assets	Low Cost Home Rental Listings	993
Early Childhood Education	Child Care Expense Assistance	980
Health & Well-Being	Prescription Expense Assistance	963
Health & Well-Being	General Dentistry	955
Economic Assets	VITA Program Sites	928
Health & Well-Being	Medical Appointments Transportation	796
Health & Well-Being	Food Stamps/SNAP Applications	786
Economic Assets	General Legal Aid	763
Economic Assets	Directory Assistance	595
Health & Well-Being	Referral to Physicians Accepting Medicaid	551
Economic Assets	Transitional Housing/Shelter	458
Social Capital	311 Services	434
Economic Assets	Tenant Rights Information/Counseling	429

The research team examined the ten zip codes with the highest number of 2-1-1 calls, comparing the number of calls to the number of households within the zip code.

Figure 6: Ten Travis County Zip Codes with Highest Number of Calls to 2-1-1



Note: Blue indicates number of calls and Red indicates number of households in the zip code.

More than half of the residents in zip code 78744 made 2-1-1 calls, indicating that this area is in great need of assistance. Most of the incoming calls pertained to electric service payment assistance, rent payment assistance, and food pantries, again immediate needs.

The following table shows the zip codes with the highest levels of poverty (at 200% of the federal poverty level), which were areas that also made the most 2-1-1 calls.

Table 2: Top 10 Travis County Zip Codes Level of Poverty

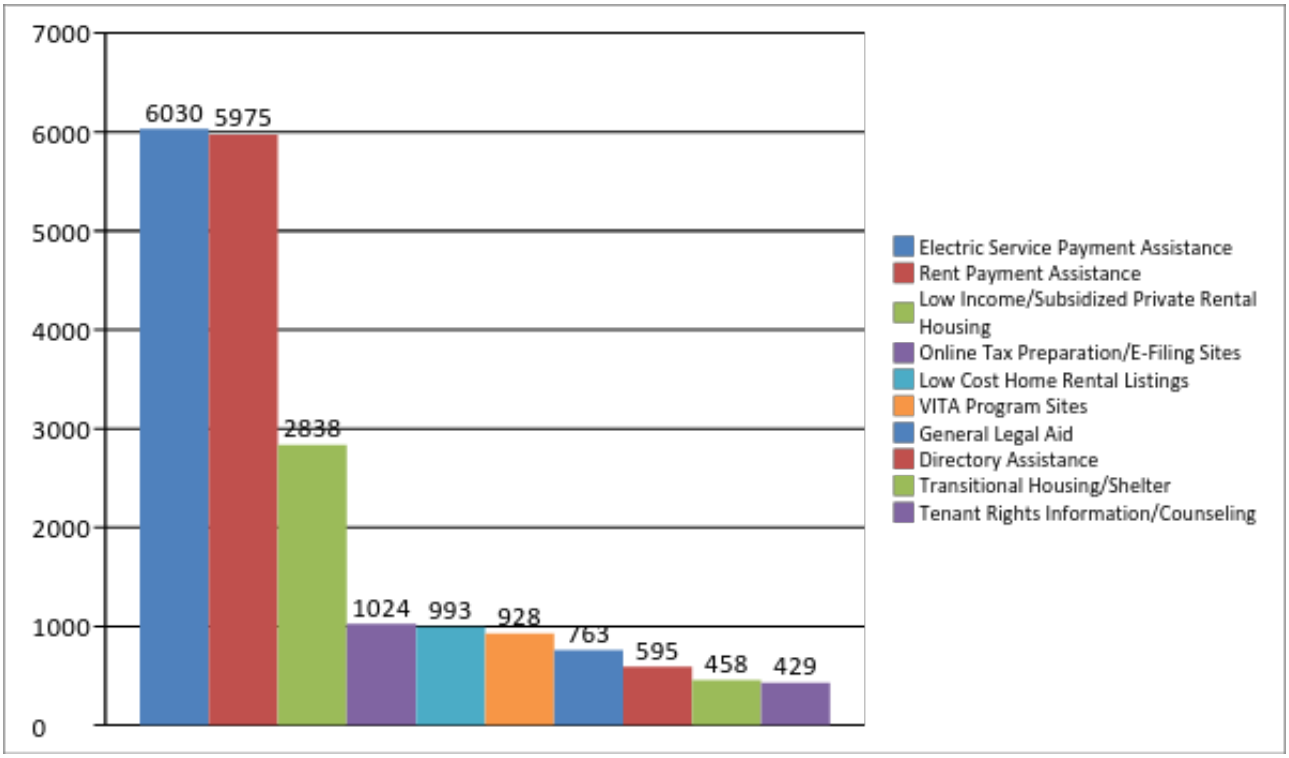
Zip Codes	% of families in poverty
78702	45.3
78721	50.4
78723	43.1
78724	59.1
78725	36.8
78741	61.3
78744	53.5
78752	53.2

78753	54.5
78758	44.2

Economic Assets

This assessment uses Ascend's definition of Economic Assets to include housing, transportation, financial education and asset building, tax credits, childcare subsidies, student financial aid, health insurance, and food assistance. Ascend asserts that services providing access to Economic Assets can provide an important foundation for parents as they pursue skill-building and education that lead to better jobs and long-term financial stability. As shown previously in Figure 5, the majority of 2-1-1 calls are related to Economic Assets. The graph below shows that within the category of economic needs, electric service payment assistance is the category with highest number of calls, followed closely by rent payment assistance.

Figure 7: Top Ten Economic Asset Needs in Travis

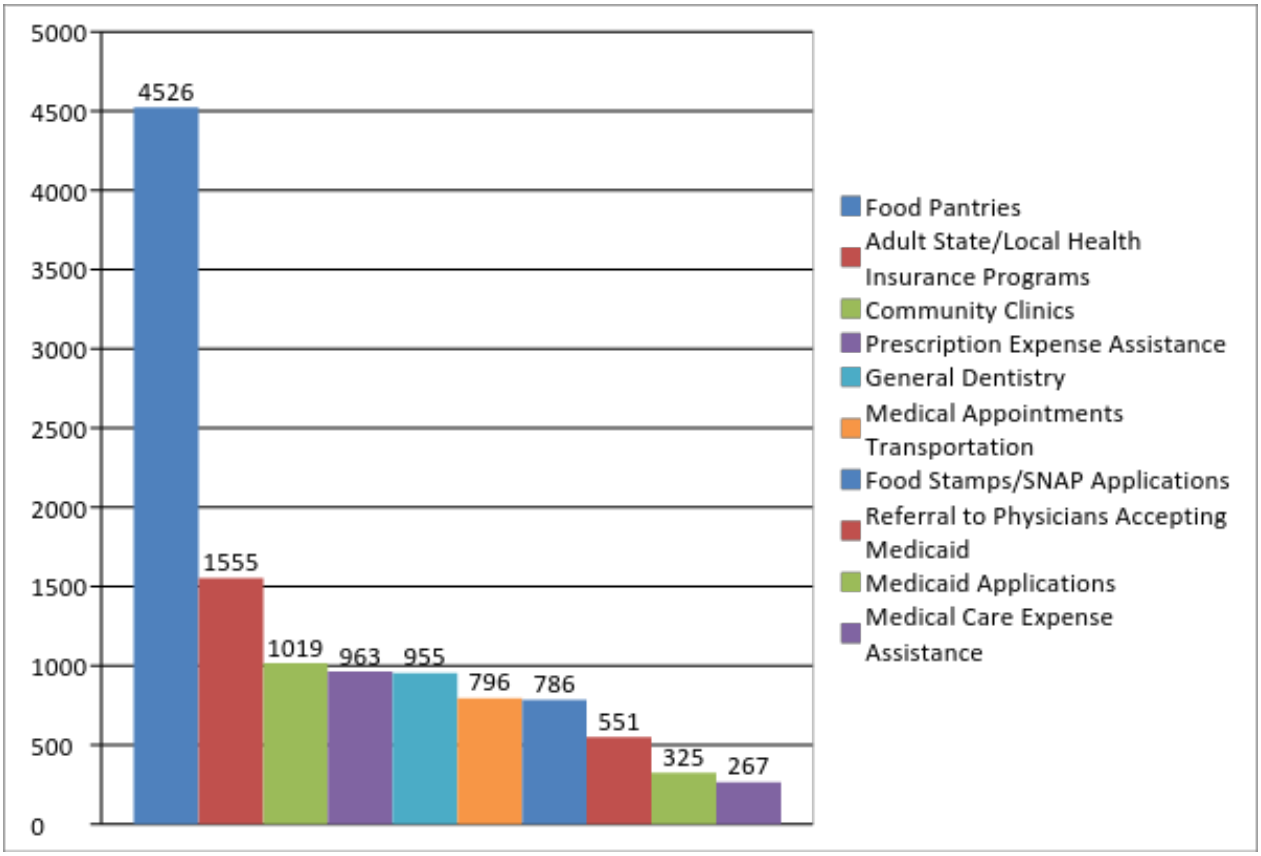


Health & Well-Being

Physical and mental health are key components of a comprehensive 2-Gen approach. The Ascend Program defines connections to one's neighborhood and community as important social

determinants of health. For this assessment, the research team identified Health & Well-being needs as access to health care and services, food, and subsidized medical support. Figure 8 outlines the top ten Health & Well-Being needs by category, according to the number of calls to 2-1-1. Food pantries received the third highest number of overall calls.

Figure 8: Top Ten Health & Well-Being Needs in Travis County

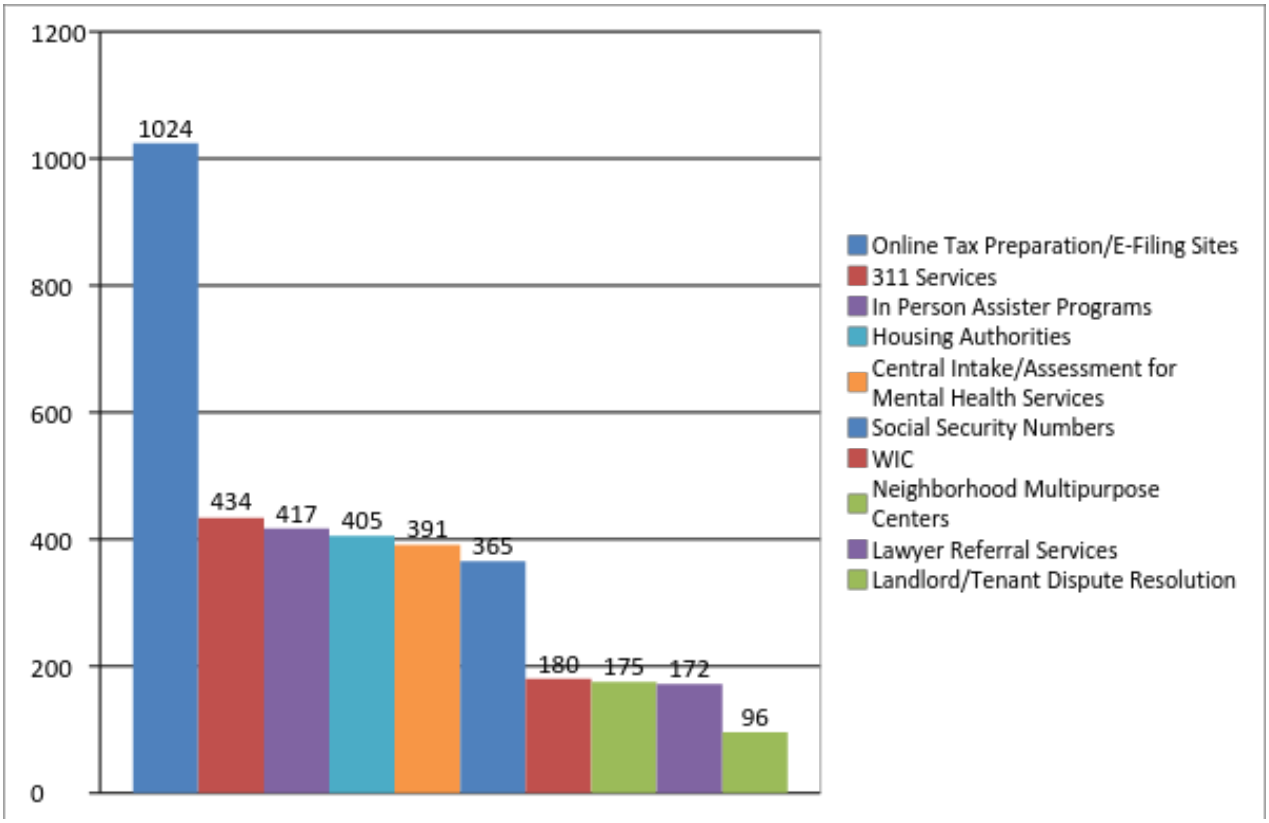


Social Capital

Ascend has determined that forms of Social Capital also are critical to a comprehensive 2-Gen approach. These include peer support, contact with family, friends and neighbors, participation in community and faith-based organizations, school and workplace contacts, leadership and empowerment programs, use of case managers or career coaches, social networks, such as cohort models and learning communities, and mental health services. We organized calls related to Social Capital based on this definition. Figure 9 below shows the top ten Social Capital

categories with the highest number 2-1-1 calls. Online tax preparation/e-filing sites question is the category with 6th highest number of overall calls.

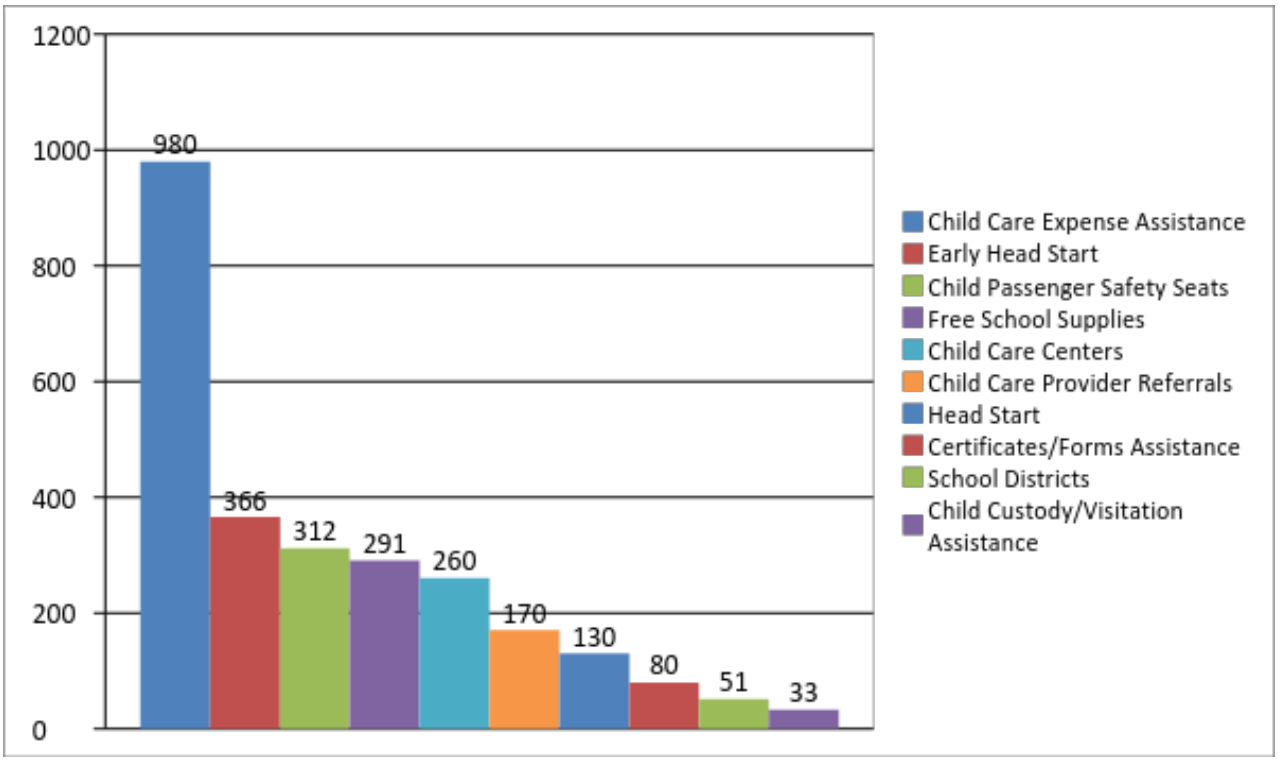
Figure 9: Top Ten Social Capital Needs in Travis County



Early Childhood Education

The Ascend Program established the types of early childhood development programs as home visiting, early intervention, child care, Head Start/Early Head Start, and Pre-kindergarten through third grade. Figure 10 below shows the ten categories with the highest number of 2-1-1 calls related to Early Childhood Education, with child care expense assistance receiving the ninth highest number of overall calls.

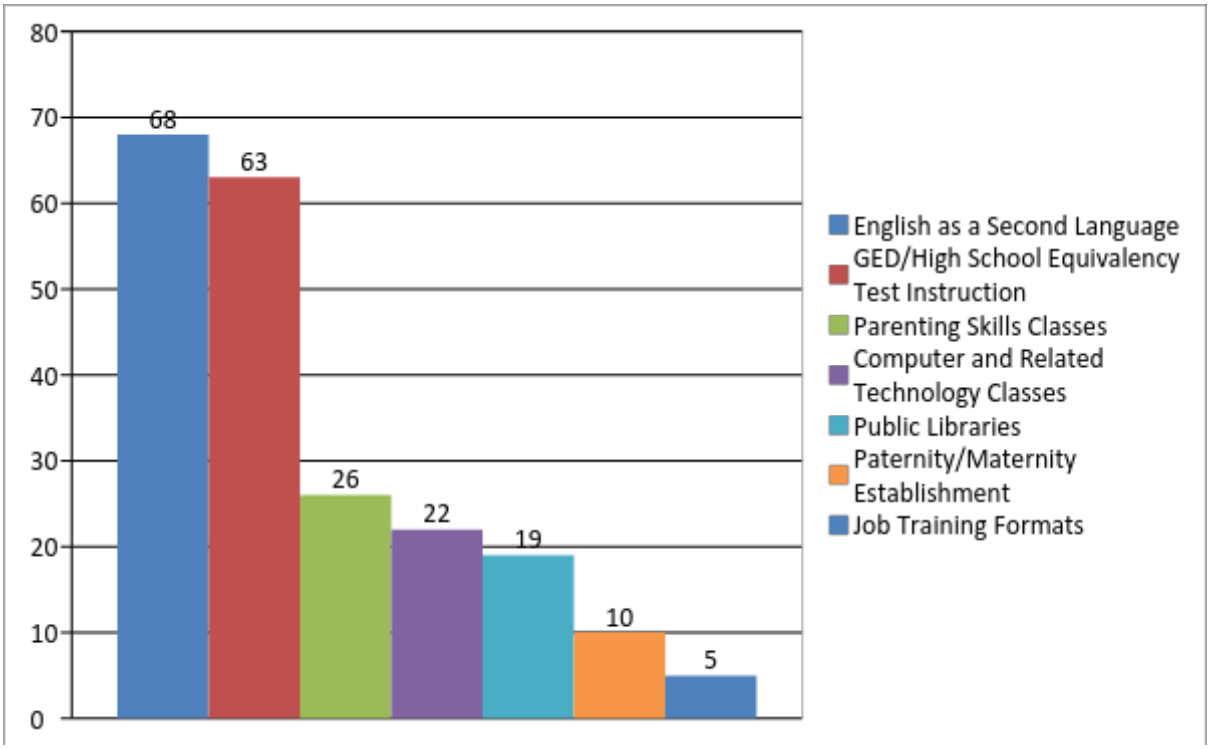
Figure 10: Top Ten Early Childhood Education Needs in Travis County



Postsecondary and Employment Pathways

According to Ascend, Postsecondary and Employment Pathways are key components of a 2-Gen strategy. These components include such related areas as educational attainment, job training, educational resources and ESL classes. Figure 11 below shows the top ten Postsecondary & Employment Pathways categories in which people expressed the need for assistance. This category received the fewest calls, but ESL and Test Instruction were the top two needs requested by residents within the category. The research team believes that the 2-1-1 call data underrepresents the need for postsecondary and employment services. Calls to 2-1-1 are often for assistance in meeting immediate needs, which means that call data may not be the best vehicle for capturing longer-term deficits like education and careers.

Figure 11: Top Postsecondary & Employment Pathways Needs in Travis County



Needs and Asset Mapping Tool

The team created a visualization tool to allow service providers to see where the unmet needs and 2-Gen related assets are located by zip code, ultimately allowing for more effective coordination of needs and assets.

The mapping tool includes the following:

- Locations of 2-Gen providers in Travis County
- Agencies that provide services that are 2-Gen program components
- Where wrap-around service providers (2-Gen or not) are located in Travis County (by zip codes)

- Which needs are and are not being met for families in different areas broken down by both Ascend gear and 2-1-1 category

- Opportunities for collaboration among service providers

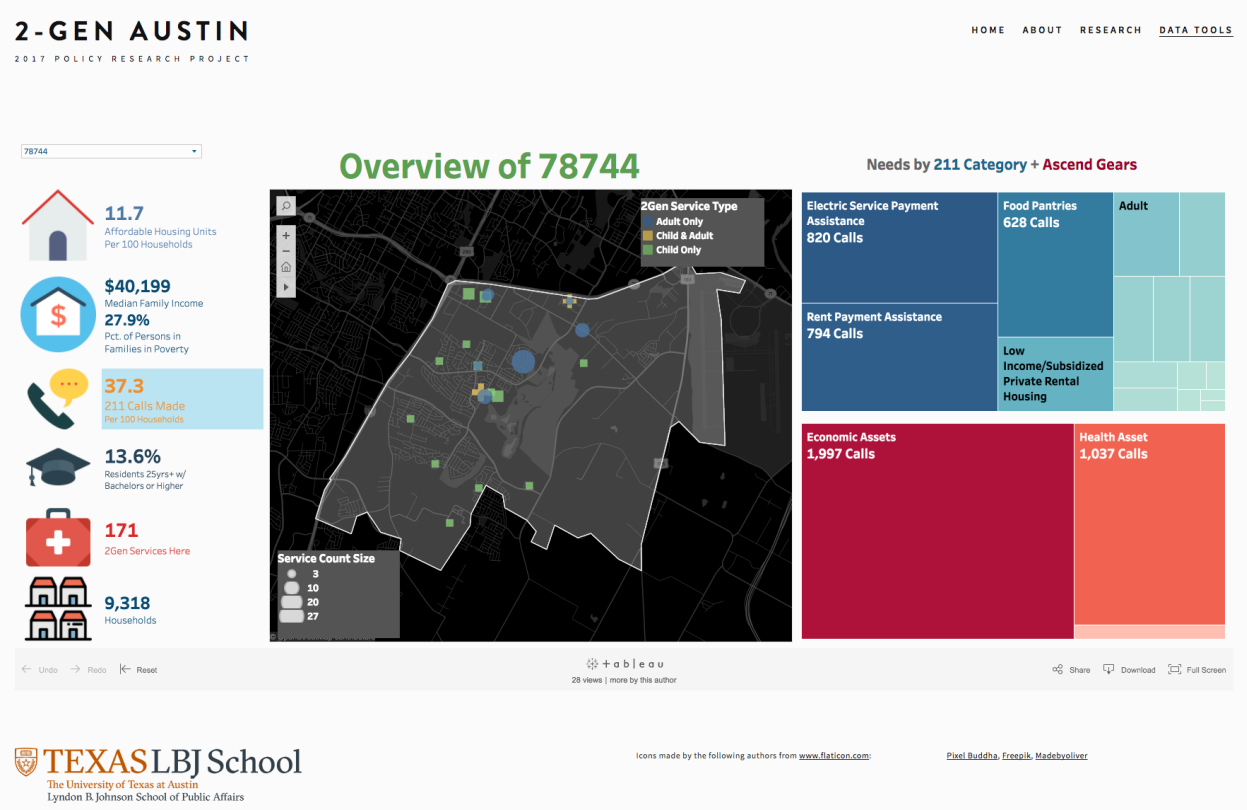
- Demographic and economic characteristics of zip codes, indicating conditions, needs, means, and opportunities

This map uses 2-1-1 service provider data from 2015 and 2-1-1 needs data from 2015-2016, which were the most current data points at the time of this project. We also included data from the 2013 American Community Survey and various City of Austin databases to provide context to stakeholders examining the socioeconomic conditions of each zip code. Examples of these data include median income, total housing, total affordable units, rented housing, percentage of the population that does not speak English well, number of individuals in a family that are in poverty, breakdown of those who have been in poverty during the last 12 months, families that are rent burdened, percent with a Bachelor's degree and the number of families earning below $25,000 per year. The 2013 ACS data contains the most recent breakdown of zip code data available for analysis. Though there have been population shifts in Austin throughout the last four years, the research team believes this data still offers strong insight into the characteristics of the specific populations within each zip code.

By displaying the information using Tableau software, users can visualize data in a variety of different forms by choosing exactly how it is displayed. For each of the following maps, the data was filtered to only include zip codes in Travis County for which 2-1-1 needs data was available. Other filters were then created to allow users to select and view specific zip codes as well as different types of 2-Gen services.

The main component of our tool is the zip code map, with which users can select any of the 34 unique zip codes in Travis County containing 2-1-1 needs data. Once a zip code is selected, the assets within that area are shown as shapes divided into three different categories based on the types of services they provide. Blue circles represent adult-only services; green squares indicate child-only services; and yellow crosses depict child and adult services. The relative size of the shapes indicates the number of services provided, i.e., larger shapes indicate an asset or provider offers more services. By hovering a cursor over an asset, the user can view the name of the agency, number of services provided, 2-Gen services type, program source ID, and zip code. Hovering just over the zip code, not an asset, will display the zip code and the number of unique services provided within it.

Figure 12: Screenshot of Needs and Assets Tool website



The four icons on the left side of the dashboard show the number of affordable housing units, the total number of unmet needs (number of 2-1-1 calls), 2-Gen services, and total number of households in the zip code.

The 2-1-1 needs data were disaggregated by Ascend gear and by the category which it was assigned by 2-1-1 (e.g., rent payment assistance, electric service payment assistance, food pantries). The size of the boxes indicates the relative magnitude of the need, with larger boxes representing greater needs.

Conclusion

We seek to inform both funders and local provider agencies on areas for potential investment and programmatic expansion within Travis County through the use of this mapping tool. United Way, our client, can use the tool to identify specific community needs in Travis County where a financial investment in 2-Gen programs and services can have a significant impact. They can

fund local service providers to do that work, supporting either existing providers in the area to add new programs or incentivizing agencies to start new programs in underserved areas.

As stated above, the tool is also for local provider agencies to identify areas for geographical and programmatic growth, as well as outreach for existing programs. Service providers can also identify partnerships with other agencies that would allow single-generation services to be paired with others, leading to a "true" 2-Gen program. As Austin's demographics change and populations move to different areas in Austin and the surrounding communities, the tool can be used to determine if service locations match where the services are needed and the accessibility of these services.

This tool has limitations, which were first identified when group members presented a draft of the tool to a group of community service providers in February 2017. In their experience, residents typically call 2-1-1 when they are in crisis and in need of immediate basic needs assistance, not when they are looking for resources to help with continuing education, workforce training and similar needs. This results in 2-1-1 serving as more of a crisis line rather than a resource line, suggesting that the use of 2-1-1 data to assess community need may not be the best approach because the data does not go in-depth regarding 2-Gen needs in Austin simply by virtue of how it is collected. In response to this feedback, we added data from the American Community Service and the City of Austin to help highlight actual need, but this data limitation remains. Another limitation of the tool is the integrity of the data itself. Despite extensive data cleaning, it is likely that errors remain. In addition, the 2-1-1 data is from 2015 (the most current data available at this time) and will need to be updated annually to reflect current service and community need trends. The group acknowledges that the tool reflects the data at a certain point in time and thus will never show a perfect representation of reality.

However, after conducting a regression analysis comparing American Community Survey data to 2-1-1 data for Travis County, the team discovered a strong positive relationship between residents in certain zip codes who have less than a high school education (among the population 25 years and older) and the number of 2-1-1 calls made in that zip code. The team found a similar relationship between having less than a high school education (among the same population) and both lacking health insurance and having a family income below the poverty line (measured at 100 percent of the federal poverty level). While the small sample size of Travis County cannot determine if these relationships are conclusive and causal, the results of the analysis are strong enough to warrant further investigation.

Recommendations to United Way include updating to the 2-1-1 data used in the needs and assets tool annually and responding to the feedback highlighting the importance of further examining community needs by engaging directly with service providers and families.

Chapter 6: Service Provider Perspectives on Unmet Community Needs

To recommend the most tailored strategies for implementing a 2-Gen strategy in Austin, the research team conducted a needs assessment based on an analysis of 2-1-1 call data. In order to supplement this quantitative data, the team then went onsite and interviewed local 2-Gen providers to better understand the unmet needs in Travis County that might not be accurately represented in the 2-1-1 data. The team met with six providers whose services include workforce development, affordable housing, healthcare and early childhood education. This supplemental qualitative data helps to reinforce our assessment of unmet needs in the community and strengthen our 2-Gen programmatic recommendations based on the on-the-ground experiences of services providers in the region. While this section presents a summary of the responses collected, a matrix classifying the data by each provider can be found in Appendix E.

Providers described the *primary* unmet needs for their clients as: affordable housing, mental health and crisis management, childcare and early childhood education, transportation, English as a Second Language (ESL) education, and low-cost healthcare and health literacy services. Following these top-tier needs, the providers also mentioned secondary unmet needs for their clients as: emergency food assistance, career development, adult education, and financial literacy. These *secondary* needs came up with less frequency during unmet needs interviews. It is important to note that providers who work primarily with immigrant populations have been experiencing a higher demand for services related to their clients' immigration status, such as legal services and citizenship classes.

The providers determined the unmet needs of their clients through a combination of methods. All providers interviewed for this analysis collect and track data internally through one or more of the following ways: intake surveys; entry and exit assessments; integrated case management; and community, family, and staff feedback. El Buen Samaritano (El Buen), one of the providers we interviewed, actually has a full-time, on-site internal data analyst who tracks needs and outcomes. Goodwill Industries of Central Texas uses an aggregate employment data tool and reviews the labor market to determine viable career paths for their clients. In addition, a number of service providers employ external resources to assess unmet client needs. El Buen, for example, assesses their need for ESL using data made available from the Literacy Coalition of Central Texas, Literacy Texas, and Teaching English to Speakers of Other Languages (TESOL), a professional association dedicated to English language teaching.

When providers are unable to meet a certain unmet need, they often refer a client to another local organization that offers the needed service. Top services to which providers referred clients were: ESL, mental health, childcare subsidies, healthcare insurance and assistance, and adult education. Providers commonly guide clients to organizations with which providers have

established relationships. El Buen and Foundation Communities have developed a relationship in which Foundation Communities offers open enrollment for their ESL classes and takes on clients who cannot be served by El Buen due to their capacity limitations. All the providers we interviewed assist clients by connecting them to additional services they need, although some are more involved in that process than others.

Collecting and Analyzing Data

All the participating service providers collect data in different ways, but each administers surveys upon entry during the intake process. The main difference among providers is whether the intake process is done on an individual level (mostly adult parent) or on a family level to include the parents, children, and whole family's goals. Some organizations survey clients regularly, such as quarterly, upon exit, or post-exit from the program. Surveys collect a range of information, including demographic data and the types of service a client is seeking. Some providers use this information to guide their own service delivery for individual clients. For example, LifeWorks, the Excel Center at Goodwill, and the Jeremiah Program have life coaches and/or case managers who provide surveys to clients to identify barriers to success and help create a development plan with tangible goals for each individual or family.

Qualitative data from the local site visits illustrate certain demographic trends in common among the underserved populations in Austin. All providers, to a certain extent, serve populations of homeless or transient families, or families with housing insecurities. Per the demographic data, these populations in Austin include: people experiencing homelessness and transience, the re-entry population, and young student parents. There are some English-learning populations, but many clients are bilingual, first generation citizens. Several providers mentioned three-generational families and housing units. All participating providers indicated that their clients often have a background with some trauma, including mental illness, domestic violence and abuse, and/or poverty.

Participating providers utilize client and informal feedback channels to inform their program planning and decision-making. Evaluation for adult-centered programs range from informal feedback surveys, like those conducted at Mainspring Schools, to integrated outcomes and goals tracking at El Buen, to the twenty-member staff data team at Goodwill.

All providers use the identified needs and program feedback from clients to help inform program decisions. This is apparent in their postsecondary education and career training program plans. Goodwill has an in-house staffer to analyze labor market demands and to identify high-demand, high-paying careers, and hosts a business advisory council to better connect with local employers. Many providers emphasize offering training in careers with stackable credentials.

Challenges for data collection and evaluation include moving towards a family-centered in-take process and tailoring data requests based on a family-centered approach. Providers may have grants from several different agencies, which may measure success and outcomes in different ways. Furthermore, funding sources and grant requirements can potentially hinder providers

from pursuing the best data, evaluation, and outcomes measurements for each program. Case managers who have adequate technology and an appropriate caseload are able to track continual progress and tend to collect more thorough data for use in evaluation measures. However, the intensity of a provider's data collection and evaluation process largely depends on the organization's size and available resources.

Thorough evaluation and outcome measurement processes can help guide future program decisions, but many local providers rely largely on client feedback as a way to inform their planning. Adapting programs to the immediate needs of their clients and to the current economic, housing and health climate is crucial. Providing entrepreneurial classes to help undocumented clients start their own businesses or expanding the hours of on-site childcare are two examples of program decisions providers have made recently based on anecdotes and client feedback. Unfortunately, limitations of funding and resources, as well as inefficient and sometimes burdensome grant requirements, can prevent providers from making the most informed program decisions to address the unique needs of their clients.

Barriers to Service Delivery

The six local service providers who participated in this qualitative analysis on unmet needs represent a wide range of 2-Gen breadth in their programming. Although the services provided by these organizations differ greatly, there are threads of common barriers that all organizations expressed facing, including: high demand for services, client access to services located in Central Austin, inconsistent funding, and onerous reporting requirements at the federal, state, and local levels.

To a certain degree, each participating organization faces more demand at their service location than they can provide. Excess demand is seen across the gamut of services being provided, from transitional bed-space at LifeWorks, to case management among multiple providers, and especially availability at quality early childhood education centers. The childhood education center at Goodwill's Excel Center was at capacity at the time of interviewing, serving 52 families. The wait list included more than 30 families. The center will be expanding next year in order to double the current capacity.

As outlined above, affordable housing continues to be a struggle for clientele across the participating organizations, as they are all located within Austin city limits. As clients move further out of the urban core, many interviewees stressed transportation as a key barrier for their clientele to access their services. The issue has been acute for Mainspring School, which has a partnership with the Meadowbrook Apartments, a community across the street owned by the Housing Authority of the City of Austin that accepts Housing Choice Vouchers. As families move further away from South Austin, they must remove their child from the school since traffic congestion and unreliable personal transportation make commuting from outlying regions nearly impossible for working parents. Centrally-located SSP Learning Center sees similar transportation barriers for many of their participants. They report that some families are traveling from as far away as Cedar Park, Bastrop, Buda, and Kyle in order to access their services.

Funding sources for the participating organizations vary greatly, though all interviewees expressed a relative unease with the unpredictable nature of their revenue sources. Some, like Jeremiah Program, receive the majority of their funding from foundations and private donations, while others have more unique models, like the Goodwill of Central Texas is able to generate considerable flexible revenue through sales from their network of retail stores. All of the participating agencies apply for grants, though some have more discretion than others in which opportunities they pursue based on the reporting that may be required. Staff at Jeremiah Program explained that they are fortunate to be able to seek funding based on how associated requirements might fit into existing metrics the organization already collects. The organization has made the strategic decision to no longer apply to grants whose reporting requirements would be burdensome to the operation of the organization, though many providers do not have this flexibility.

A 2-GEN STRATEGY FOR AUSTIN

Chapter 7: Guiding Principles

Goals of 2-Gen in Austin

Over the past two years, a small group of stakeholders and thought leaders from the Austin community, who represent adult workforce, adult education, and early childhood education programs, have met to discuss how local service providers might collaborate in implementing such a strategy for Austin. To take the next steps toward making these programs a reality in Austin, the Austin 2-Generation Advisory Committee built relationships with service providers to tailor an intentional plan targeting intergenerational poverty in the greater Austin area. Their work included the creation of a vision statement for 2-Gen in Austin in February 2015:[1]

> Intergenerational poverty threatens the well-being of Austin's citizens and its economy. While many good programs address this issue, most focus solely on low-income adults or solely on their children, ignoring the fact that economic and social challenges affect whole families. Two-generation programs are one new and promising strategy. By intentionally focusing on both generations, families are more likely to break the cycle of poverty. Both the federal government and prominent foundations are working to promote two-generation approaches across the nation, and we hope to build on this momentum.

Two-Gen programs help parents to improve basic educational skills and become economically stable, strengthen parents' ability to be positive influences on their children's development, and help children achieve their maximum potential by simultaneously addressing the needs of parents and children. Meeting the needs of both generations will produce larger and more enduring effects than can be achieved by serving parents and children separately. The 2-Gen vision for Austin involves the alignment of policies, programs, and funding to achieve these outcomes.

By offering services to parents, providers teach parents immediate, short-term skills and strategies, which allow them to support their children both financially and developmentally. By offering services to children, providers equip children with long-term skills intended to fill educational and developmental gaps created by poverty. The combination of both parental and childhood services addresses the impact of cyclical poverty on whole families.

Precise 2-Gen models must be tailored to the needs identified by each individual community. Gentrification, urban renewal, and rapidly rising housing prices create differing needs within each neighborhood or zip code. Communities with higher immigrant populations may require

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[1] For the full Austin 2-Gen Vision Statement, see: http://ascend.aspeninstitute.org/resources/2Gen-toolbox/a-two-generation-vision-for-austin. The Austin Two-Generation Advisory Committee is made up of representatives from Austin Community College, Austin Independent School District, the City of Austin, United Way for Greater Austin, Workforce Solutions-Capital Area, Travis County, the Greater Austin Chamber of Commerce, and the Sooch Foundation. Drs. Christopher King and Aletha Huston with the University of Texas at Austin are current Advisory Committee co-chairs.

more English-as-Second-Language (ESL) services and bilingual childcare services, while a community with severe poverty levels may require more remedial education, workforce development resources, transportation access, and supplementary child education services. Our research team used data from the United Way 2-1-1 Call Center as well as other sources (e.g., the American Community Survey) to identify pressing community needs in Austin.

Advocates for 2-Gen must intentionally leverage funding—there is no guarantee that additional funding will be made available for developing new or expanding existing 2-Gen programs in the greater Austin area in the near future.

Who Can 2-Gen Help?

Travis County is home to over 41,000 low-income families with school-aged children. For the purpose of our analysis, we defined low-income to mean 200% of the federal poverty level, which includes families likely to be cycling in and out of poverty over time. To distribute resources equitably, we identified a number of characteristics of high-need families in low-income communities:

- Families not making a living wage;
- Families living below the poverty line;
- Single-parent families;
- Families with children aged 0-5;
- Non-English speaking families;
- Parents lacking a high school diploma or advanced degree;
- Under-educated, under-employed parents;
- Families with childcare needs; and
- Families experiencing homelessness.

Our community needs assessment, based in part on United Way 2-1-1 call center data, shows both the volume of calls in each Austin area zip code and the areas with specific needs. The physical location of a community determines the availability of jobs, access to reliable transportation, number of childcare slots, and other services. This analysis allowed us to identify communities in Austin with families who would likely benefit from 2-Gen services. The zip codes with the greatest need according to our analysis are 78744 in southeast Austin, as well as 78724 and 78721 in far east Austin.

How: Addressing Service Delivery

All 2-Gen programs benefit the whole family by intentionally providing services to children and parents simultaneously, but no 2-Gen strategies are exactly the same and often vary greatly according to the particular communities they serve. For example, while there is a successful 2-Gen program in Tulsa— CareerAdvance®, run by the Community Action Project of Tulsa County (CAP Tulsa)—that program may or may not translate directly to Austin simply because of the different challenges of each city and varying level of resources available. The different types of 2-Gen programs provide Austin stakeholders and service providers an array of options for creating a strategy for service delivery. Some service providers choose to partner effective parent and child providers in a collaborative service strategy, such as American YouthWorks and Child, Inc., the local Head Start provider. Others choose to include child and parent services mainly under one roof, like the place-based Jeremiah Program. Still other 2-Gen models choose a blended strategy based on these two options. For example, many community colleges and Capital IDEA, a local nonprofit, community-based organization, originally provided services aimed mainly at parents and later began to consider adding services for children. Another example includes early childhood education centers expanding to include workforce development programs, an approach fostered and supported by the National Head Start Office within the U.S. Department of Health and Human Services. While the ultimate goal is to provide services for the whole family, 2-Gen programs can begin at any point along the continuum.

We created a list of components that can be combined effectively to create a successful mix of 2-Gen-focused services. While this list is not comprehensive or exhaustive, it illustrates the array of services that can be leveraged to serve families and communities holistically rather than on a symptom-by-symptom basis for parents and children separately:

- Access to affordable housing
- Transportation
- Quality, affordable childcare
- Mental health services
- Workforce training after comprehensive labor market analysis
- Early childhood education centers
- Affordable community college classes
- Financial literacy education
- ESL classes and support services (adult or child)

- Parenting education support
- Connected family case management
- Health and well-being education
- Strategic geographic placement such as a one-stop center or co-location
- Social capital and community development
- Conditional cash payments to incentivize behavior toward achieving key milestones

These factors, as identified by the needs assessment, address the greatest barriers to rising out of poverty for low-income families living in underserved communities. The first four factors—access to affordable housing; transportation; quality, affordable childcare; and mental health services—are identified as priority factors both for creating development within a low-income community and by community members themselves. While any identified factor may be chosen as a starting point to provide programming intended to help families, the 2-Gen strategy strongly encourages service providers to start with a community's self-identified needs. This echoes a phrase that often came up in site visits and discussions with 2-Gen thought leaders: meet the families where they are.

What: Key Measures and Outcomes of Interest

Several key measures and outcomes guided the team as we determined which standardized metrics to include for an evaluation strategy. The measures pointed to relevant data points to be collected for evaluation, while the outcomes of interest specified the intended results of the 2-Gen program. Two-Gen strategy entails ongoing communication between service providers and community stakeholders in order to combine and integrate child, parent, and family-oriented services. Our goal was to create a comprehensive, data-driven strategy that offers children and families a long-term solution to break the intergenerational cycle of poverty.

The key identified outcomes of interest can be measured in three stages: initial participation, short-term goals, and long-term goals. Service providers would report progress in these areas to funders and community stakeholders more broadly. (The full list of key outcomes is provided below.) For children, the short-term goal of pre-kindergarten and kindergarten readiness is strongly tied to the overarching long-term goal of a 2-Gen program, which is to increase the likelihood of successful completion of secondary and postsecondary educational opportunities. Taking advantage of these opportunities ultimately results in improved earnings potential for children born into low-income families, another long-term goal of 2-Gen programs. For parents, 2-Gen program goals include obtaining the education and/or training necessary to earn higher incomes, creating stable home environments, and increasing the parent's involvement in his or her child's development. We further defined these goals by identifying key components relevant

to children, parents, and the family as a whole. These goals served as the basis for the more comprehensive evaluation strategy, which is discussed in the following section.

Child-centered goals

- Early childhood education: increase in cognitive ability of children in kindergarten and pre-kindergarten;
- Social capital: increase in pro-social behavior;
- Health and wellness education: lower risk of obesity rates and decrease Body Mass Index (BMI); and
- K-12 education: increase in attendance rates, standardized test scores, grades and other student performance measures.

Parent-centered goals

- Workforce training: increase in parent earnings, savings, and economic stability by introducing and training adults for a career pathway that allows for upward mobility and stackable credentials;
- Education: increase workforce participation with GED and high school graduation support and/or increase in enrollment in postsecondary education;
- Social capital: increase access to emergency childcare resources;
- Healthcare: increase insurance coverage and access to both physical and mental health services; and
- Parent-child interaction: increase in number of days per week parent reads to children and emphasizes child educational supports.

Family-centered goals

- Healthcare access: increase family insurance coverage;
- Mental health services: decrease psychological distress;
- Increased earnings: provide economic security and stability for family; and
- Parent involvement: increase parent-child time spent engaged in child's educational and socio-emotional development.

When: Proposed Timelines of Services

Time-related considerations for 2-Gen strategy implementation in Austin include measured program participation and progress, immediate needs, near-term and longer-term goals, and program completion. Markers of program success include a parent's sustained employment with pathways to career advancement, a child's educational outcomes and potential earning capacity, and a family's household income consistently above 200% of the federal poverty line.

Two-Gen strategy implementation begins with strengthening the relationship between community stakeholders and service providers. In Austin, local and state support, along with funding from private sources, will be necessary to enable the execution of a 2-Gen strategy. The sooner adequate funding can be identified and secured, the sooner families will begin to benefit from services aiming to break the multigenerational cycle of poverty.

Chapter 8: Operational Strategy: Conclusions from Data Analysis

Each of the preceding guiding principles informs our operational strategy for establishing a network of 2-Gen programs in Travis County. Based on the team's findings, recommendations for this strategy are detailed below.

Labor Market Analysis

As previously stated, our labor market analysis identified $27.15 per hour (or $54,288 annually) as a living wage for a single parent with two children, who does not receive employer support for her health insurance premiums and who has emergency savings. We acknowledge that this is an aspirational wage to be worked towards over time but which may not be possible in the immediate future. We advocate for slow and steady increases to eventually achieve this aspirational living wage. Increasing the minimum wage, even slightly, should help working families by decreasing the gap between expenditures for needs and the resources available to make those expenditures.

Our labor market analysis also identified the jobs in the greater Austin area that can provide families with pathways out of poverty. In the match-up process between worker and employer, there is a wide variety of factors to take into consideration. Based on the data collected, we identified key growth sectors and professions within those sectors that have capacity to provide for both a living wage and future career growth on a path to economic security and stability.

The identified list of key industry sectors and occupations is as follows:

- *Healthcare*: Licensed Vocational Nurses; Dental Hygienists; Respiratory Therapists; and Diagnostic Medical Sonographers
- *Public Safety*: Police & Sheriff's Patrol Officers and Detectives & Criminal Investigators
- *Computer Science*: Web Developers and Computer Network Support Specialists
- *Engineering*: Electrical & Electronics Engineering Technicians and Industrial Engineering Technicians
- *Trade & Utilities*: Electrical Power-Line Installers & Repairers
- *Business, Sales & Administrative*: Executive Secretaries & Executive Administrative Assistants; Business Operations Specialists; Title Examiners, Abstractors & Searchers; Purchasing Agents (ex. Wholesale, Retail, & Farm Products); Claims Adjusters, Examiners & Investigators; and Real Estate Sales Agents

The parameters for this list of occupations attempt to control for the expected background of the target population. All the occupations included in the analysis require either a high-school or a two-year Associate's degree. However, an Associate's degree can actually require more than two years to accomplish, which, barring outside support for the family's ongoing needs, is likely not a viable timeline.

Based on the wage growth of each position and discussions with experts in the field (e.g. senior ACC administrators, the deputy director of Capital IDEA), these occupations do provide a promise for future career growth. Many offer a helpful starting point for a career, but would require future up-skilling in order to be a viable long-term pathway. Future iterations of this analysis should build on the Workforce Solutions Capital Area's identification of "middle skill" occupations and corresponding career pathways in the region.

Although these occupations fit the parameters, the day-to-day work might not be an appropriate fit for everyone. With that in mind, this list of occupations offers a well-balanced array of work types, both in terms of setting and schedule. From nursing to administrative work, there are a variety of industry sectors represented that would offer jobs in hospitals, offices, or field settings. It also includes jobs that lend themselves to full-time, regular work hours as well as those that may be part-time or require nonstandard work hours.

Our labor market analysis is intended to provide a starting point for selecting potential occupations that fit the needs of both workers and employers in the Austin-Round Rock MSA. It is part of the larger effort to provide opportunities out of poverty for residents of the MSA.

Program Scan

The rubric found in Appendix D serves as a starting point for identification of 2-Gen programming at peer institutions and at various levels. Programs identified at the local level can, and should, inform best practices for 2-Gen providers in Travis County. Further conclusions regarding how this should take place are detailed in the Needs and Asset Mapping Tool subsection of this strategy. Although this strategy primarily aims at developing the 2-Gen infrastructure necessary for successful program collaboration and implementation in Travis County, the state programs listed can serve as models for a greater 2-Gen network spanning Texas. Upon execution of this proposed strategy, Austin can serve as the anchor metropolitan area for a statewide network by identifying other communities to join the network and to provide guidance and possibly resources for areas looking to develop their own 2-Gen strategies and eventually join the network. Should this Texas network be successful, it could then be part of a national network of like communities implementing 2-Gen strategies.

Site Visits

The findings from the site visits to San Antonio and Dallas, as well as other communities (e.g., Boston, Miami) led to many ideas about how Travis County could take the identified key components from peer cities and tailor them to best serve Central Texas families.

- *Build on multi-sector partnerships*. The process of building and maintaining multi-sector partnerships requires effort and interest from an organization. By learning more about this process, lessons learned from the team's site visits could inform 2-Gen work in Travis County.

- *Encourage community engagement efforts*. In acknowledging the success of community engagement efforts in San Antonio, as seen in organizations such as the United Way of San Antonio, it would be beneficial if these efforts could be applied to this strategy. This would require United Way of Greater Austin and the research team's resources and capacity to conduct effective community engagement initiatives and to canvas target communities. However, due to populations within Travis County being less centralized and having diffuse target communities, replicating community engagement efforts from San Antonio might be more difficult.

- *Quantify results and share data*. Organizations had an abundance of anecdotal evidence regarding areas of improvement such as social capital. The difficulty emerges when organizations attempt to quantify positive changes and reflect them in their data. Survey data proves to be difficult given that changes observed when interacting with families does not necessarily translate on a survey or other data collection methods. The partnership could also set aside time and resources to implement best practices around open data, including data collection, aggregation, sharing, and analysis. The resulting database would allow users (mainly members of the partnership) to identify areas of success and opportunities for improvement.

- *Make sure all the key stakeholders are at the table*. As a regional convener and initiator of 2-Gen initiatives, United Way can use its resources to identify key stakeholders and can leverage its position as a funding organization to create a 2-Gen partnership in the Austin area. This partnership should consist of members from service providers (identified from the Asset Map), local funding agencies, private organizations, AISD, and ACC. Members should convene to establish priorities, based on the recommendations of this report, and determine the best course of action for service delivery. Sustained communication is essential to ensure the partnership's success.

- *Identify opportunities for intentionality and alignment*. Members of the partnership should engage in conversation regarding what is currently in place and how these efforts can be better coordinated and designed with the end-user in mind. This should foster collaborative initiatives between organizations and can even result in operational changes within existing agencies. Ultimately, all initiatives should ensure that services provided for children and adults uphold the basic ideas of a 2-Gen approach.

Needs Analysis and Asset Mapping

We seek to inform both funders and local provider agencies on areas for potential investment and programmatic expansion within Travis County through the use of the new mapping tool. United Way can use the tool to identify specific community needs in Austin where a financial investment in 2-Gen programs will make a significant impact. They can fund local service providers to do that work by targeting either providers already in the area to add new programs or by incentivizing agencies to start new programs in underserved areas.

As stated above, the tool can also be utilized by local provider agencies to identify areas for geographical and programmatic growth, as well as to conduct outreach for existing programs. Service providers can also identify partnerships that would allow single generation services to be paired with others, leading to a true 2-Gen program. As Austin's demographics change and populations move to different areas in Austin and the surrounding communities, the tool can be used to determine if service locations match where the services are currently needed and to assess the accessibility of these services.

This tool has limitations, which were first identified when we presented a draft of the tool to a group of community service providers in February 2017. In their experience, clients typically call 2-1-1 when they are in crisis and in need of immediate basic needs assistance, not when they are looking for resources to help with continuing education, workforce training, etc. This results in 2-1-1 serving as more of a crisis line rather than a resource line, suggesting that the use of 2-1-1 data to assess community need may not be the best approach because the data does not go in-depth regarding 2-Gen needs in Austin simply by virtue of how it is collected. In response to this feedback, we added data from the American Community Service and the City of Austin to help highlight actual need, but this data limitation remains. Another limitation of the tool is the integrity of the data itself. Despite extensive data cleaning, it is likely that errors remain. In addition, the 2-1-1 data is from 2015 (the most current data available at this time) and will need to be updated annually to reflect current service and community need trends. The tool reflects the data at a certain point in time and thus will never show a perfect representation of reality.

The needs assessment shows the top five needs identified in Austin based on 2-1-1 calls: electric service payment assistance, rent payment assistance, food pantries, low-income/subsidized private rental housing, and adult state/local health insurance programs. All of these needs fall into the Ascend 'gear' categories of Economic Assets and Health and Well-Being. The five zip codes with the greatest need, as determined by 2-1-1 calls per household, are 78744, 78724, 78721, 78702, and 78723.

Given what we learned from the needs assessment, we recommend that service providers and funders focus on addressing economic and healthcare needs based on a 2-Gen framework within these specific underserved communities. Meeting these economic and healthcare needs will reduce barriers that parents and children face when enrolling in and completing 2-Gen programs, such as early childhood education and job skill training. Families will not be successful in 2-Gen programs unless basic needs are met first.

We also recommend that United Way update the 2-1-1 data used in the needs and assets tool annually and respond to the feedback highlighting the importance of further examining community needs by engaging directly with service providers and families.

Chapter 9: Operational Strategy: Recommendations for United Way

In addition to the conclusions we have made based on our analysis of our data analysis, we recommend four key steps United Way can take to establish a strong 2-Gen network for Central Texas. These recommendations are also informed by our guiding principles, as well as the information gathered from our analysis of peer network systems.

First, we recommend identifying opportunities for partnership among service providers with different 2-Gen components to achieve comprehensive programming that serves children, parents, and families. If an organization offers a program addressing the needs outlined in one of the 2-Gen gear categories, it does not make sense to ask them to develop additional programming to address the needs in the other gear categories. Rather than making several singular organizations with comprehensive 2-Gen programming, it makes more sense to connect organizations offering different programs with each other so they can develop one comprehensive program addressing all gear categories. Ideally, the partnering organizations will co-locate their services contributing to this comprehensive program within an area of high-need, thus making services easily accessible to clients. This will reduce the stress low-income families often encounter when attempting to address multiple needs in different areas of the city.

We recommend engaging with the local Head Start provider, Child, Inc., first, as they already have high quality programming and can rely on a strong national infrastructure. United Way should begin working closely with Head Start to identify additional opportunities for partnership with existing adult education and economic stability programming, like the new one with American YouthWorks. Once these partnerships have been established, they can then focus their attention towards recruiting other service providers to join to address health and well-being, social capital, and economics supports, allowing for a truly comprehensive 2-Gen program.

Second, we recommend that United Way continue to fund and support exemplary center-based programs. Not all program providers have been successful in offering high quality programming for both children and their parents, so United Way should continue recognizing and encouraging the established "one-stop shop" organizations who have been successful in offering these services. These organizations can, and should, serve as anchor institutions within the Central Texas 2-Gen network, providing a model from which other organizations can learn key elements and management practices for administering a comprehensive 2-Gen program. Furthermore, because these programs already have a solid foundation in assisting those at both ends of the 2-Gen spectrum, they can then focus on strengthening the necessary components of programming that will be crucial for successfully achieving 2-Gen outcomes. Such components include enhancing elements which target family development (rather than just children or parents exclusively) and bolstering data collection and analysis.

Third, we recommend that United Way support programs that offer conditional cash assistance to parents while they are receiving schooling or training. Tulsa's CareerAdvance® program has shown the positive effects of supplying parents with some income to support their families while they are participating in the program. Although this component can be controversial, it makes sense to offer such incentives with the intention of recruiting parents to join a program, maintaining a constant level of participation, and supporting parents since they most likely will not be able to work while receiving the education and/or training necessary to advance their careers. Furthermore, developing a financial assistance element in conjunction with the incentive would allow parents to learn how to budget, save, and spend appropriately, ultimately increasing the chances of obtaining true financial stability upon obtaining and maintaining a higher-paying job after completing the program. If administered and monitored correctly, conditional cash assistance can positively impact the success of 2-Gen programming.

Fourth, we recommend that United Way identify a funding organization to champion this strategy and the larger Central Texas 2-Gen network. We believe one factor driving the success of CareerAdvance® and the greater Oklahoma 2-Gen network is the enduring support provided by the George Kaiser Family Foundation. For any area trying to establish such a network, it is enormously helpful to have a funding organization that is willing to publicly and relentlessly support 2-Gen initiatives because of their strong belief in the positive impacts resulting from achieving 2-Gen outcomes. Such support makes a statement to the immediate community, signaling its commitment to a strategic and intentional approach to assist low-income families out of poverty, all backed by strong academic research. This makes it easier to galvanize support from all stakeholders within the network: service providers, local government, local funders, businesses, and, most importantly, the families impacted by the network. Furthermore, having a funding champion connects other funders within the community to the 2-Gen mission, increasing opportunities for aligned funding priorities. Finally, such an organization may be able to capture the attention of larger funding entities (e.g., state legislatures, national foundations, and the federal government), creating opportunities for matched funding.

These steps support the goals of this project and align with the Austin Vision for 2-Gen. The recommendations build upon the existing framework at United Way and the momentum established by the larger 2-Gen movement. To reduce duplication of efforts and mismatched priorities, our recommendations emphasize capitalizing upon existing assets to address the most critical needs in the highest-need areas. Ultimately, they provide a blueprint for United Way to follow in order to achieve their vision of breaking the multigenerational cycle of poverty.

Chapter 10: Evaluation Strategy

The operational strategy will not be effective unless it is continuously evaluated, measuring program outputs and analyzing them against intended outcomes. Such evaluation enables organizations to improve their own efficacy, allocate funding to where it would have the most benefit, and communicate important information to stakeholders. The research team has put together an evaluation strategy with two approaches for measuring the outcomes of 2-Gen programs: 1) cost-benefit equations from the Robin Hood Foundation adapted to the greater Austin area, and 2) a more comprehensive framework for program evaluation. This section outlines and briefly describes both approaches, offering a starting point for estimating the value that 2-Gen programs create through participation in their services. Additionally, it proposes a screening tool with the intended use of assisting funders in identifying programs that contain either foundational 2-Gen components or auxiliary components necessary for the foundational components to work.

Using Benefit-Cost Equations: A Practical Measurement Approach

The Robin Hood Foundation, a charitable organization based in New York City, seeks to alleviate poverty by directing funds to the most effective programs and schools that serve those in need.[lii] In order to identify and select the organizations with the best results, the Robin Hood Foundation has created 163 equations that monetize the benefits of a wide range of social services, ranging from education, legal aid, and health treatment to housing assistance. By putting a dollar amount on these various outcomes, the Robin Hood Foundation aims to create a common basis for comparing and evaluating disparate programs and determining which give the "biggest bang for their buck." These metrics provide rough estimates which should be used to support, not replace, human judgment. They are a useful tool for weighing the benefits and costs of different programs and services.

Of these 163 Robin Hood metrics, we have chosen 17 applicable to the core services which 2-Gen programs are likely to offer, including early childhood education, adult job training and placement, and healthcare. We have taken these equations, reviewed the research and literature that the Robin Hood Foundation used to create them, and revised them to better fit the purposes of 2-Gen programs in Austin. Specifically, we use local wage and education rates so that the equations more accurately capture the value of the benefit provided in the Austin context. We have also modified several figures in the original equations with updated estimates from recent studies. For each of the metrics below, we have included the original Robin Hood equation and an explanation of our own revised equations in Appendix F.

Revised Robin Hood Benefit-Cost Equations

1. High-quality preschool

2. A.A. degree with no further education

3. B.A. degree with no further education
4. English as a Second Language (E.S.L.), English literacy skills improvement
5. High school equivalency attainment with no further education
6. Low literacy gains
7. Job training and placement, general jobless population with a high school diploma
8. Job training and placement, general jobless population with no high school diploma
9. Job training and placement, immigrants with high school diplomas
10. Job training and placement, immigrants with no high school diploma
11. Mood disorder treatment, impact on earnings, female children
12. Parents more likely to work due to childcare
13. Early intervention
14. Pervasive developmental delay (P.D.D.), early intervention (E.I.0.)
15. Health benefit from earning a high school equivalency diploma plus attending college for at least one year
16. Health benefit due to graduation from high school
17. Primary care

The Robin Hood benefit-cost equations are a relatively quick and simple way to estimate 2-Gen program benefits, but they are not intended as a substitute for a more rigorous evaluation of program outcomes and impacts. We have created a basic framework for local programs interested in using the Robin Hood equations to conduct their own benefit-cost analysis. We have also compiled a list of additional key metrics, corresponding data sources, and instructions for how to adapt and use them. Since the necessary data are not always readily available, we explain how to obtain them. Together, these metrics will allow 2-Gen service providers to better track, assess, and compare their programs, and to communicate the value of these benefits to donors, grantees, and other interested parties.

Program Evaluation Measures and Measurement

To complement the Robin Hood benefit-cost equations, we offer an overview of best practices in 2-Gen program evaluation, as well as a recommended starting point for 2-Gen evaluation in

Austin. Two-Gen strategies are still emerging, and there is ongoing discussion among service providers, funders, and researchers about how best to measure their outcomes.[2] Ascend at the Aspen Institute has taken a leading role in defining best practices for 2-Gen program outcomes and evaluation. Ascend's Two-Generation Outcomes Workgroup published a recent report, Making Tomorrow Better Together, which outlines guiding principles, relevant audiences, and the implementation process of program evaluation.[liii] A brief summary follows.

Principles of Two-Generation Evaluation:

- Measure outcomes for both children and parents
- Incorporate learning and evaluation in program design and strategy
- Use multiple approaches
- Use data
- Build internal capacity

Relevant Audiences:

Efforts to evaluate 2-Gen programs should balance the diverse viewpoints of various stakeholders.

- Service providers, who seek to deliver results for the clients and communities they serve
- Policymakers, who seek to deliver results at the population level for their constituents
- Researchers and evaluators, who seek to establish a strong foundation of evidence that will inform sound policy and program design
- Parents and other family members, who seek to improve their lives and the lives of their children
- Partnerships and collaborations can consist of any combination of these stakeholders

Evaluation Process:

Ideally, a 2-Gen program should undertake a three-part process to program evaluation:

1. Identify appropriate outcomes

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[2] It is worth noting that the current push to define 2-Gen outcomes grows out of past programming in the early to mid-1990s, deemed "2-Gen 1.0". By the late 1990s, many such programs showed only modest outcomes for their relatively high costs.

2. Design the right conceptual framework

3. Test and modify

Ascend's 2-Gen Outcomes Workgroup draws a distinction between a 2-Gen program and a 2-Gen strategy. A 2-Gen program is designed to reach both parents and children and tracks the outcomes of both. A 2-Gen strategy attempts to coordinate services among organizations to meet the needs of families across two generations. The 2-Gen effort in the Austin area straddles both approaches. United Way's mission naturally lends itself to introducing and integrating organizations that provide services across the child- to adult-focused spectrum, and so it is well-suited to promoting a 2-Gen strategy. United Way for Greater Austin is also a service provider and funder of partner organizations, so it can encourage the provision of comprehensive family-focused 2-Gen services in-house.

Recommended Program Evaluation Metrics for Austin

To guide the selection of appropriate metrics for Austin, we select metrics from the five Ascend gears of a 2-Gen program: education, health, workforce development, economic assets, and social capital of parents and children. In order to create a simple starting point for program evaluation, we focus on metrics that are relatively accessible. When possible, we choose metrics that rely on free testing mechanisms or data available through public agencies. In issuing recommendations of evaluation metrics for service providers to use in assessing their own performance, we seek to minimize the burden on these organizations themselves. Many important and useful metrics are available, but here we recommend only a small number in each category: specifically those that we believe can a) serve as an effective proxy for the widest range of desirable outcomes, and b) be gathered and assessed efficiently and inexpensively.

Child

- Early Childhood Education (ECE)
    - Pre-Reading/Reading: Woodcock-Johnson IV Letter-Word Identification (ECAD 8)
        - This is a standard exam given to young or developmentally delayed children in order to assess their academic achievement in reading.
    - Letter naming
        - The ability to recognize letters and the sounds they make is central to a child's ability to learn to read and to develop other skills in the language arts.
    - Counting bears (math)
        - Counting plays a similar role in mathematics as naming letters does in reading. It is a central skill upon which the development of other abilities depends.

- Education (K-12)

    - Improved STAAR test scores
        - The STAAR test is required in the state of Texas and provides an accessible and standardized metric to gauge a child's academic progress.
    - Attendance (number of days tardy or absent)
        - Attendance is a necessary condition for any learning at school as well as a proxy for other situations associated with a stable and healthy home environment.
        - At the time of initial intake, there is no reliable way to gauge the influence of the program on the child's attendance, so one can only compare that attendance to that of the typical student at the school. Students who are benefitting from a social service program, however, might be expected to improve in their attendance rate. Thus, a more long-term metric should consist of improvements in the student's own attendance, regardless of the norms in a particular school.
    - Graduation rate
        - Research suggests that lifelong benefits accrue to those who finish high school. A successful program will guide older children toward completing their high school education.

- Social Capital
    - Decline in problem behavior: Adapted Child Behavior Checklist (as a metric for improved social adjustment)
        - Children show markedly different abilities, at young ages, to take advantage of social opportunities. For better or worse, the clearest manifestation of these differences is often negative, in the form of problem behavior, rather than positive. For a young child, a decline in problem behavior can be the best evidence of increased social integration. The Adapted Child Behavior Checklist, a survey administered to a child's parent, is a simple tool to assess this metric.

- Health & Wellbeing
    - Insurance coverage
        - Insurance coverage serves as a proxy for access to medical care.
    - Improved BMI/obesity rate
        - Although BMI is often criticized for its lack of precision, many children who are overweight or obese will go on to develop lifelong health problems. An improvement in this measure can signify improvements in a number of other categories, such as exercise and even self-esteem.

Parent

- Adult Education
    - Completion of GED attainment program

        - Parents who lack a high school diploma will have a difficult time achieving economic self-sufficiency and providing a stable household for their children. Completing a GED program correlates with improvements in those categories in a way that merely taking courses in such a program does not.
    - Completion of postsecondary program
        - Today's economy rewards college graduates much more than it does those who complete high school or a GED program. Additionally, a college degree also serves as a proxy for the demonstration of soft skills that the parent may not have had upon entering the program.

- Child Education
    - Increase in number of days per week that parent reads to child
        - Reading is critical to the child's educational development. This metric also serves as a proxy for parent-child interactions.
    - Higher expectations for child's educational attainment
        - Children are more likely to achieve academically if success is expected of them. The parent's increasing educational ambitions for their child are also a proxy for interactions between the parent and the child and for the parent's own educational achievement.

- Social Capital
    - Access to emergency childcare
        - Babysitting is a necessary amenity that enables other activities (such as work) and ensures proper care of the child. It also serves as a proxy for a parent's social network. Knowing trustworthy and responsible people that one can call on to watch one's children implies a relatively large network of friends and relatives.
    - How many people would you be able to ask for $100?
        - This question functions as a proxy for the number of people in a person's social network who can spare that amount and who that person trusts and is trusted by.

- Health & Wellbeing
    - Insurance coverage
        - Insurance coverage is a proxy for access to medical care.
    - Decreased psychological distress
        - Psychological distress is not only a cause of health problems in its own right, but it can also lead to unhealthy behavior and the production of an unstable home environment for children.

- Workforce Development
    - Increased participation in training

        - Many parents will not find formal education to be necessary or desirable given their own needs and goals. Training can provide a way for them to improve their skills without going back to school.

- Economic Assets
    - Improved earnings
        - The most effective tool in combating poverty is the provision of skills and opportunities that allow parents to earn more money for their families.
    - Reduced reliance on public aid
        - Like improved earnings, reduced reliance on public aid is one of the central goals of all poverty programs. This metric demonstrates increased self-sufficiency.
    - Increased dollar amount in savings account
        - This is a proxy both for increased income and for patterns of consumption and decision-making that are more likely to bring about safe and secure home environments and long-term financial stability.
    - Attainment of stable, affordable housing
        - Inadequate housing is a source of stress for families. Stable and affordable housing expands economic possibilities while also creating a more positive environment for the child.

A comprehensive overview of available metrics to capture potential child and parent outcomes can be found in Appendix G. A successful 2-Gen effort will rely in large part on shared goal-setting and tracking of outcomes within United Way and across its many partner organizations. As United Way designs the path forward around a two-generation strategy for the Austin area, it should tap into efforts already underway to set common goals and track outcomes across the region, including the CAN Community Dashboard[liv] and Austin Area Sustainability Indicators.[lv] Efforts by both organizations issue regular reports on key indicators for family well-being in the Austin area.

Assessment of Programs for 2-Gen Features: Utility Value Tables

The team also created a screening tool to provide a preliminary assessment of a program's 2-Gen features, which can be used to gauge a program's likelihood of helping its participants achieve the preferred outcomes of a 2-Gen approach, namely improved economic security and stability for families living in poverty. Not only is this useful when considering programs individually, but it also allows programs to be compared to one another by the same measures. This tool uses the principles of utility theory, defined as providing a "means of expressing subjective assessments of worth" and often used in decision making practices.[lvi] The screening tool includes "utility value tables" in which the utility values assigned essentially act as probabilities for achieving a certain objective. Traditional utility functions consider multiple objectives by determining relative utilities, or the values assigned to objectives based on their importance to achieving the preferred outcome. This screening tool uses several objectives, which are divided into categories based on the different general components that comprise 2-Gen programs.

Relative utilities were assigned to these categories rather than each of the objectives to simplify calculations. The screening tool produces an overall numerical score for each program, which can then be compared to other programs either in its raw score format or when plotted on a graph. The tool and a proposed format of this graph can be found in Appendix H.

The following are key points of context for using these utility value tables:

- Each of the 2-Gen gears serves as a category with its own utility value table.
- Each category is composed of different objectives that define the category. These objectives are key features that contribute to an overall preferred outcome.
- Each objective is provided with criteria to consider, further defining how to interpret each objective.
- Utility values are assigned to each objective and are treated as the probabilities of each objective contributing to achieving the overall preferred outcome.
- Each category is assigned a relative utility based on its importance when compared to the other categories.

How to Use the Screening Tool

18. Assess a program using each of the tables by selecting the utility value for each objective that best corresponds with the services the program offers.

19. Add up the utility values for each category.

20. Multiply these sums by their relative utilities.

21. Add all the values to get an overall "2-Gen score."

Note: While the tool provides separate utility value tables for Sector-Based Workforce Development and Career Pathways, most programs do not offer both. Thus, when using the tool, please use the table that correctly corresponds with the features offered by the program in question. If a program offers both, then both utility value tables can be used.

Next Steps

This is a first iteration of the screening tool and needs to be tested with a variety of 2-Gen programs and programs with 2-Gen components to find appropriate adjustments for the utility value weights and, ultimately, to produce more accurate results. First, a number of programs which are noticeably different from one another (i.e. not selecting programs that offer the exact same services) should be selected for testing. Second, “expected scores” for each of the selected programs should be developed, serving as predictions for the scores based on prior knowledge of

the selected programs. Next, the screening tool should be applied to the selected programs and results ("actual scores") should be recorded. These results will then be compared to the expected scores to see if they are relatively close, or if the tool needs further adjustments to produce scores that better reflect the prior expectations. The tool should then undergo an iterative process of adjusting the weights of the utility values and retesting the adjusted version with different sets of programs until the tool produces scores that accurately reflect the prior expectations of the programs screened by the tool.

Chapter 11: Policy Recommendations

In addition to offering concrete 2-Gen program and strategy recommendations, we also have a series of policy recommendations to better support 2-Gen strategies in Austin. In an ideal world, the federal and state governments would continue funding existing social programs that serve low-income families in underserved neighborhoods. In addition, they would provide increased funding for affordable, low-income housing, affordable and comprehensive healthcare, adult education incentives, and universal preK-3 and preK-4. They would also include funding to support collaborative relationships encouraging municipalities to work directly with service providers dedicated to improving the lives of whole families using strategies shaped by 2-Gen research. On a smaller scale, our policy recommendations are intended to maximize reliance on available providers and existing resources in the greater Austin area. We have tailored our recommendations to various audiences, namely policymakers, individual service providers, community stakeholders, and private funders.

Recommendations for Policymakers

Federal

The U. S. Congress should:

- fund universal PreK-3 and PreK-4 on a continuing basis;
- fund and increase access to affordable healthcare;
- increase funding for publicK-12 education;
- expand subsidies for childcare by increasing Child Care Development Block Grant (CCDBG) funding;
- allow education to fulfill work participation requirements for TANF programs;
- increase funding for federal social programs that support families and children like Women, Infants and Children (WIC) and TANF;
- expand federal tax credits, building on the Earned Income Tax Credit; and
- incentivize the creation of affordable housing.

The federal government sets the tone for service provision at all levels. For example, federal dollars make up about 75 percent of the public money spent on early childhood education.[lvii] Strong 2-Gen programming relies on a web of federally funded services that help families meet

their basic needs, including health care, nutrition and housing. Coupled with basic needs is an investment in families for the future, through education--public, adult and postsecondary--and workforce development.

State

- The Texas Workforce Commission (TWC) should expand child care subsidies for working parents, parents enrolled in adult education;
- TWC should modify TANF work participation rules to support parents obtaining education and training while their children are young so they can secure better-paying jobs and careers to support their families--current rules are overly restrictive.
- TWC should regularly publish the percentage of eligible families receiving child care subsidies by workforce board area;
- The Texas Department of Housing and Community Affairs should address the lack of affordable housing in urban areas with increased housing subsidies for low-income families and increased services for families experiencing homelessness;
- The Texas Legislature should approve tax incentives for employers offering high-quality early childhood education programs;
- The Texas Legislature should provide incentives and financial support to support cross-agency collaboration through revised legislation;
- The Texas Legislature should continue and increase funding for state social programs like SNAP, Healthy Texas Women, and similar programs supporting families;
- The Texas Legislature should match private funding for 2-Gen programs with state dollars;
- The Texas Legislature, with the support of the Governor, should develop 2-Gen funding or grant programs to which partnerships throughout the state may apply;

One key program in 2-Gen efforts that falls within state purview is child care subsidies, which are controlled by the Texas Workforce Commission through disbursement of federal Child Care Development Block Grant (CCDBG) funds. The state of Texas does not supplement CCDBG funds, and federal money only covers 16-17 percent of needy families. By expanding support for child care subsidies, the state could provide access to quality early childcare, thereby making an investment in young children, while also allowing parents to more easily pursue education or employment. Among the breadth of services and programs offered by the state, policymakers can also promote inter- and cross-agency collaboration, which encourages service provision at the family level.

Local

- The City of and Travis County should expand their investments in wraparound childcare services, including for student-parents at local community colleges like ACC;
- The City and Travis County should increase access to accessible, affordable, quality childcare services by creating subsidies for consumers and childcare centers;
- The City of Austin should invest in and create real-time analysis of Austin's needs; and
- The City and Travis County should incentivize one-stop service models like those of Foundation Communities:
    - Designate, subsidize land and unused spaces for one-stop service model;
    - Affordable housing protection for areas undergoing gentrification; and
    - Increase service provider funding and incentives for underserved areas, especially for individuals getting priced out of Austin city limits.

Recommendations for Service Providers

- Providers should invest in large-scale, cross-agency relationship building and collaboration by identifying and communicating with complementary organizations;
- Providers in the 2-Gen network should work with United Way for Greater Austin to standardize data measurements used for proposals, grants, and funding applications;
- Providers should compile and share de-identified data across multiple agencies to assess progress on 2-Gen goals;
- Providers should work with one another to create standard 2-Gen evaluations to uniformly assess family improvement; and
- Providers should track growth and shifting geographic location among their clients and relocate their services to wherever the targeted population moves. Mobile service delivery models should be considered to address this issue as well.

The central role of a convening agency throughout the 2-Gen process is to provide "backbone" support for data-sharing and goal-setting across disparate organizations. Two-Gen programming relies on the ability to combine data collection efforts across child and parent outcomes to examine family outcomes.

Recommendations for Community Stakeholders and Funders

- Community stakeholders should encourage a philanthropy model that engages local philanthropic leaders who are willing to leverage their own funds and solicit state support for 2-Gen programs;

- Funders should be willing to pay for "overhead" efforts, including data collection and analysis, staff training, and experimental or quasi-experimental research studies;

Funders can broaden their impact by leveraging their donations to elicit funding from other private funders as well as government. Furthermore, with an expanding research base in best practices around 2-Gen strategies, the field will continue to strengthen and grow, better serving families and ultimately breaking the cycle of multi-generational poverty.

While there are other challenges affecting the cycle of poverty in our community, the recommendations outlined here represent some initial answers to the most pressing needs in our country, state, and local communities. Concentrating services that respond to needs identified by communities is the first step toward increasing the impact 2-Gen programs in Austin. Combining adult and early childhood services is a second step that would address the problem of whole-family support and development. Services can be combined either by expanding 2-Gen programs, wherein all services are provided in-house, or by incentivizing programs to work together, tracking shared goals and sharing data along the way. Built-in support for 2-Gen strategy from the local, state, and federal governments offers opportunities for sustained efforts intended to meet the ever-changing community needs. High-need communities within Austin depend on all levels of policymaking, political support, and service provider/stakeholder collaboration to support families looking for permanent solutions to intergenerational poverty. Two-Gen programming offers a data-driven, whole-family approach that relies on community buy-in and engagement and provides a framework for the roles of all stakeholders.

Chapter 12: Concluding Observations

The research efforts of the PRP have focused on dissecting the 2-Gen strategy through policy evaluation and program implementation within Travis County specifically and throughout the United States broadly. Accordingly, the team has observed a general trend of 2-Gen anti-poverty initiatives gaining traction within the Central Texas region given the overwhelming presence of intergenerational poverty. Even so, the extent to which the 2-Gen strategy is implemented depends on the nonprofit organization's goals and objectives. It is worth noting that full implementation of the 2-Gen strategy within an individual program has not yet been fully realized because of the recent development of 2-Gen as a programmatic approach to combating intergenerational poverty.

As 2-Gen programs evolve into their second iteration, practitioners of the 2-Gen strategy have hopes that a move toward a more holistic implementation of the 2-Gen strategy will occur. The literature regarding the second iteration of 2-Gen programs contains reservations regarding whether such improvements will lead to a fuller implementation of the 2-Gen strategy. Regardless of such reservations, the outcome evaluations of programs such as CareerAdvance® run by CAP Tulsa reveal positive outcomes for both parents in terms of workforce development and children in terms of high-quality early childhood education received. Admittedly, 2-Gen programs such as CareerAdvance® by CAP Tulsa are hard to replicate given the large scale of the program and substantial financial investment required. In this regard, 2-Gen programs are improving from their initial iteration and continue to show promise in their efforts to help low socioeconomic families move out of poverty. Essentially, 2-Gen programs and the associated 2-Gen strategy have allowed service providers to better serve impoverished families through improvements in the initial framework. To sustain and continue improvement of the 2-Gen strategy, the issue of replication of exemplar programs and the feasibility of full and/or widespread implementation of a full 2-Gen strategy are of interest.

An analysis of the data collection methods for Travis County service providers illuminates the presence or absence of a 2-Gen strategy within programming efforts. Service providers may opt to administer an intake survey or process on the individual level or on a familial level, depending on the needs of each individual organization. Such data collected from Austin service providers reveal that populations that would benefit from 2-Gen programs include the homeless, the re-entry population, student parents, and bilingual, first-generation citizens. The populations served by 2-Gen programs in Central Texas and the United States are similar. The blending of workforce development and educational programming provide low socioeconomic programs with a way earn stackable credentials and access to high-growth career fields.

The nature of 2-Gen programming and the population served leads to issues with service delivery. The Austin landscape lends itself to service delivery barriers between 2-Gen programs and individuals who demonstrate great need for services within the 2-Gen realm. As a result, the City of Austin experiences a high demand for 2-gen services by clients that may lack access to

services due to financial and transportation issues. It is worth noting that in a growing urban city like Austin, nonprofit organizations may not have the capacity to adequately serve a substantial number of impoverished families given that the funding landscape coupled with reporting requirements result in an inflexible predicament. The preceding issue is significant given that the growth in the number of low socioeconomic families outpaces increases in programmatic capacity and persists along within flexibility in funding streams.

In moving forward, it is important to acknowledge that 2-Gen programs have experienced significant growth from their first iteration to their current iteration. Likewise, it is important to acknowledge that 2-Gen programs and the 2-Gen strategy have continued improvement to make. As large-scale outcome evaluations become available, 2-Gen programs can be analyzed in terms of program outputs, outcomes and impacts. The results from such evaluations will allow a deeper analysis of program effects and how an extensive service delivery model may or may not benefit an organization. Such an outlook results in a focus on program evaluation that may lend itself to quantitative studies or qualitative fieldwork of 2-Gen program and services.

The 2-Gen model holds great promise for the Austin and the Central Texas region. As the PRP ends, the team has crafted a 2-Gen strategy for the Central Texas region that focuses on data collection, service delivery and outcome evaluation measures. The goal of the PRP team is to provide a 2-Gen strategy for the Central Texas region that can mitigate the unmet needs of the population organizations intend to serve while also accounting for organizational constraints and funding landscapes. With the future in mind, the PRP is grateful that the team's 2-Gen work will continue through the efforts of United Way for Greater Austin and have reverberating effects for the Central Texas region. Thus, the continued development of the 2-Gen strategy will persist as the 2-Gen network grows and intergenerational poverty is tackled one family at a time.

APPENDICES

Appendix A: Living Wage Calculations

Family Budgets - Austin / Round Rock / San Marcos - CPI Adjusted (2016)

Single parent household

	Single parent, 1 kid		Single parent, 2 kids		Single parent, 3 kids	
No employer support for health insurance premium	Hourly wage	Annual Income	Hourly wage	Annual Income	Hourly wage	Annual Income
No savings	$ 23.20	$ 46,404	$ 26.59	$ 53,183	$ 34.80	$ 69,593
Rainy day / emergency fund	$ 23.65	$ 47,290	$ 27.15	$ 54,288	$ 35.50	$ 71,005
Retirement	$ 25.15	$ 50,294	$ 28.87	$ 57,741	$ 37.77	$ 75,538
College	$ 25.31	$ 50,616	$ 29.22	$ 58,448	$ 38.27	$ 76,539
Employer pays all of one adult's premium and half for rest of family						
No savings	$ 18.25	$ 36,504	$ 22.22	$ 44,439	$ 29.79	$ 59,578
Rainy day / emergency fund	$ 18.63	$ 37,262	$ 22.69	$ 45,389	$ 30.41	$ 60,810
Retirement	$ 19.83	$ 39,663	$ 24.13	$ 48,266	$ 32.35	$ 64,688
College	$ 20.00	$ 39,997	$ 24.47	$ 48,946	$ 32.83	$ 65,664

Two parent household

	2 parents, 1 kid		2 parents, 2 kids		2 parents, 3 kids	
No employer support for health insurance premium	Hourly wage	Annual Income	Hourly wage	Annual Income	Hourly wage	Annual Income
No savings	$ 30.29	$ 60,592	$ 33.72	$ 67,423	$ 41.43	$ 82,857
Rainy day / emergency fund	$ 30.58	$ 61,170	$ 34.06	$ 68,116	$ 41.84	$ 83,678
Retirement	$ 32.56	$ 65,112	$ 36.25	$ 72,495	$ 44.53	$ 89,071
College	$ 32.71	$ 65,420	$ 36.60	$ 73,201	$ 45.05	$ 90,085
Employer pays all of one adult's premium and half for rest of family						
No savings	$ 24.03	$ 48,060	$ 26.76	$ 53,517	$ 34.89	$ 69,785
Rainy day / emergency fund	$ 24.26	$ 48,522	$ 27.04	$ 54,069	$ 35.25	$ 70,492
Retirement	$ 25.82	$ 51,642	$ 28.77	$ 57,549	$ 37.51	$ 75,037
College	$ 25.98	$ 51,951	$ 29.11	$ 58,229	$ 38.01	$ 76,013

Appendix B: Extended Industry and Occupation Data

All jobs in the Austin-Round Rock metropolitan area that meet the following criteria: a median wage of at least $18 an hour; maximum education doesn't exceed an associate's and/or professional certification; and less than 5 years of experience required.

Occupational Title	Annual Average Employment 2012	Annual Average Employment 2022	Percent Growth 2012-2022	Total Annual Average Job Openings	Typical Education needed for Entry into Occupation	Work Experience in a related Occupation	Median Hourly Wage	10th percentile	75th Percentile
Advertising, Marketing, Promotions, PR, & Sales Managers	*2,600*	*3,190*	*22.7%*	*115*			49.33	22.84	73.27
Food Service Managers	1,550	1,800	16.1%	55	High school diploma or equivalent	Less than 5 years	24.18	15.49	30.24
Lodging Managers	300	340	13.3%	15	High school diploma or equivalent	Less than 5 years	28.62	13.27	40.1
Property, Real Estate, & Community Association Managers	2,190	2,620	19.6%	95	High school diploma or equivalent	Less than 5 years	30.83	14.54	52.27
Managers, All Other	1,850	2,190	18.4%	75	High school diploma or equivalent	Less than 5 years	53.63	33.23	64.99
Business & Financial Operations Occupations	41,460	51,310	23.8%	1,855			30.79	18.49	42.81
Wholesale & Retail Buyers, Ex. Farm Products	450	540	20.0%	20	High school diploma or equivalent	None	28.2	14.24	42.75
Purchasing Agents, Ex. Wholesale, Retail, & Farm Products	1,640	1,990	21.3%	65	High school diploma or equivalent	None	28.12	18.42	34.85
Claims Adjusters, Examiners, & Investigators	1,730	2,050	18.5%	70	High school diploma or equivalent	None	26.28	18.18	33.55
Insurance Appraisers, Auto Damage	100	100	0.0%	0	Postsecondary non-degree award	None	34.58	23.6	45.08
Business Operations Specialists, All Other	5,330	6,540	22.7%	195	High school diploma or equivalent	None	34.88	19.31	45.76
Tax Preparers	310	380	22.6%	10	High school diploma or equivalent	None	23.89	15.89	28.47
Computer & Mathematical Occupations	35,490	45,560	28.4%	1,580			38.45	20.12	52.8
Web Developers	1,130	1,470	30.1%	55	Associate's degree	None	33.94	19.82	43.93
Computer User Support Specialists	4,760	6,370	33.8%	235	Some college, no degree	None	22.65	13.01	29.73
Computer Network Support Specialists	2,190	2,540	16.0%	70	Associate's degree	None	27.56	17.52	34.32
Architecture & Engineering Occupations	19,050	23,390	22.8%	855			37.9	20.02	50.85
Architectural & Civil Drafters	820	850	3.7%	15	Associate's degree	None	23.17	16.27	28.65
Electrical & Electronics Drafters	400	500	25.0%	15	Associate's degree	None	38.48	20.39	47.96
Mechanical Drafters	190	210	10.5%	0	Associate's degree	None	24.15	17.95	29.55
Drafters, All Other	80	100	25.0%	0	Associate's degree	None	27.6	16.42	40.36
Civil Engineering Technicians	940	1,030	9.6%	30	Associate's degree	None	23.81	17.98	28.01
Electrical & Electronics Engineering Technicians	2,170	2,640	21.7%	90	Associate's degree	None	32.57	21.1	42.1
Electro-Mechanical Technicians	50	60	20.0%	0	Associate's degree	None	26.56	18.31	30.37
Environmental Engineering Technicians	50	60	20.0%	0	Associate's degree	None	25.15	15.78	28.76
Industrial Engineering Technicians	620	710	14.5%	25	Associate's degree	None	28.17	24.13	32.26
Mechanical Engineering Technicians	280	340	21.4%	10	Associate's degree	None	21.48	15.3	27.88
Engineering Technicians, Ex. Drafters, All Other	560	680	21.4%	20	Associate's degree	None	26.6	16.15	33.56
Surveying & Mapping Technicians	630	790	25.4%	25	High school diploma or equivalent	None	18.59	13.12	23.92
Life, Physical, & Social Science Occupations	6,790	8,290	22.1%	350			25.25	13.65	33.95
Geological & Petroleum Technicians	200	260	30.0%	10	Associate's degree	None	21.61	9.24	34.55
Social Science Research Assistants	100	130	30.0%	10	Associate's degree	None	19.11	13.09	24.21
Environmental Science & Protection Technicians, Inc. Health	230	290	26.1%	15	Associate's degree	None	18.83	12.8	21.98
Community & Social Service Occupations	9,600	11,900	24.0%	450			20.91	14.61	26.88
Legal Occupations	8,660	10,540	21.7%	330			35.07	17.68	57.47
Paralegals & Legal Assistants	1,850	2,370	28.1%	80	Associate's degree	None	22.71	15.3	30.14
Court Reporters	80	100	25.0%	0	Postsecondary non-degree award	None	38.9	22.26	44.24
Title Examiners, Abstractors, & Searchers	570	680	19.3%	20	High school diploma or equivalent	None	24.49	18.94	42.54
Legal Support Workers, All Other	60	80	33.3%	0	High school diploma or equivalent	None	33.56	12.6	55.75
Education, Training, & Library Occupations	35,390	45,180	27.7%	1,670			21.77	10.08	27.92
Self-Enrichment Education Teachers	1,230	1,520	23.6%	50	High school diploma or equivalent	Less than 5 years	18.59	10.17	25.48
Arts, Design, Entertainment, Sports, & Media Occupations	13,370	16,220	21.3%	590			22.95	10.99	32.62
Fine Artists, Inc. Painters, Sculptors, & Illustrators	120	160	33.3%	10	High school diploma or equivalent	None	24.44	19.4	27.6
Musicians & Singers	850	1,000	17.6%	40	High school diploma or equivalent	None	20.92	12.51	45.8
Media & Communication Workers, All Other	80	100	25.0%	0	High school diploma or equivalent	None	27.45	19.3	50.8
Audio & Video Equipment Technicians	320	420	31.3%	15	Postsecondary non-degree award	None	21.24	11.73	27.68
Sound Engineering Technicians	70	90	28.6%	0	Postsecondary non-degree award	None	22.09	11.18	28.95
Media & Communication Equipment Workers, All Other	40	50	25.0%	0	High school diploma or equivalent	None	38.16	23.95	49.3

Occupational Title	Annual Average Employment 2012	Annual Average Employment 2022	Percent Growth 2012-2022	Total Annual Average Job Openings	Typical Education needed for Entry into Occupation	Work Experience in a related Occupation	Median Hourly Wage	10th percentile	75th Percentile
Healthcare Practitioners & Technical Occupations	29,010	37,020	27.6%	1,395			29.2	14.81	38.93
Respiratory Therapists	490	620	26.5%	20	Associate's degree	None	27.31	21.04	30.18
Registered Nurses	9,180	11,810	28.6%	445	Associate's degree	None	31.89	24.79	36.79
Medical & Clinical Laboratory Technicians	680	920	35.3%	45	Associate's degree	None	19.49	12.78	23.48
Dental Hygienists	710	920	29.6%	40	Associate's degree	None	36.01	24.27	41.35
Cardiovascular Technologists & Technicians	210	300	42.9%	15	Associate's degree	None	22.33	12.49	28.9
Diagnostic Medical Sonographers	250	380	52.0%	20	Associate's degree	None	33.32	25.77	38.14
Nuclear Medicine Technologists	60	80	33.3%	0	Associate's degree	None	35.1	25.31	41.32
Radiologic Technologists (X-Ray Techs)	730	930	27.4%	30	Associate's degree	None	26	16.59	29.89
Magnetic Resonance Imaging Technologists	150	190	26.7%	5	Associate's degree	Less than 5 years	32.29	25.5	36.64
Emergency Medical Technicians & Paramedics	740	940	27.0%	40	Postsecondary non-degree award	None	19.15	12.6	25.9
Surgical Technologists	480	650	35.4%	20	Postsecondary non-degree award	None	21.37	15.95	25.16
Licensed Practical & Licensed Vocational Nurses	2,840	3,590	26.4%	145	Postsecondary non-degree award	None	21.84	17.05	24.33
Hearing Aid Specialists	40	50	25.0%	0	High school diploma or equivalent	None	26.28	16.3	33.62
Occupational Health & Safety Technicians	140	180	28.6%	10	High school diploma or equivalent	None	25.32	17.98	28.82
Occupational Therapy Assistants	120	170	41.7%	10	Associate's degree	None	30.6	19.75	34.9
Physical Therapist Assistants	220	300	36.4%	15	Associate's degree	None	32.16	15.76	36.77
Massage Therapists	740	940	27.0%	30	Postsecondary non-degree award	None	18.31	9.34	27.8
Dental Assistants	1,330	1,620	21.8%	60	Postsecondary non-degree award	None	19.12	13.52	22.43
Medical Transcriptionists	260	300	15.4%	10	Postsecondary non-degree award	None	18.85	12.02	21.85
Healthcare Support Workers, All Other	190	250	31.6%	10	High school diploma or equivalent	None	18.91	9.04	21.98
Protective Service Occupations	14,770	17,990	21.8%	695			18.65	10.04	29.58
First-Line Supervisors of Correctional Officers	90	110	22.2%	5	High school diploma or equivalent	Less than 5 years	22.71	17.23	38.24
First-Line Supervisors of Police & Detectives	530	640	20.8%	25	High school diploma or equivalent	Less than 5 years	46.19	37.82	50.77
First-Line Supervisors of Fire Fighting & Prevention Workers	150	190	26.7%	10	Postsecondary non-degree award	Less than 5 years	38.04	21.06	47.83
First-Line Supervisors of Protective Service Workers, All Other	230	280	21.7%	10	High school diploma or equivalent	Less than 5 years	22.94	14.19	28.45
Firefighters	1,300	1,620	24.6%	65	Postsecondary non-degree award	None	24.58	15.01	31.19
Detectives & Criminal Investigators	1,190	1,440	21.0%	50	High school diploma or equivalent	Less than 5 years	28.15	16.67	41.72
Fish & Game Wardens	10	10	0.0%	0	High school diploma or equivalent	None	30.68	22.5	34.32
Police & Sheriff's Patrol Officers	3,260	4,000	22.7%	175	High school diploma or equivalent	None	32.7	20.85	37.73
Private Detectives & Investigators	160	210	31.3%	10	High school diploma or equivalent	Less than 5 years	28.17	15.69	38.26
First-Line Supervisors of Housekeeping & Janitorial Workers	1,080	1,310	21.3%	50	High school diploma or equivalent	Less than 5 years	19.24	11.42	22.98
First-Line Supervisors of Landscaping, Lawn Service, & Groundskeeping Workers	950	1,130	18.9%	30	High school diploma or equivalent	Less than 5 years	20.89	13.75	26.36

Occupational Title	Annual Average Employment 2012	Annual Average Employment 2022	Percent Growth 2012-2022	Total Annual Average Job Openings	Typical Education needed for Entry into Occupation	Work Experience in a related Occupation	Median Hourly Wage	10th percentile	75th Percentile
Pesticide Handlers, Sprayers, & Applicators, Vegetation	100	120	20.0%	0	High school diploma or equivalent	None	18.56	15.18	21.26
First-Line Supervisors of Personal Service Workers	1,230	1,470	19.5%	50	High school diploma or equivalent	Less than 5 years	20.14	10.89	24.57
Morticians, Undertakers, & Funeral Directors	50	60	20.0%	0	Associate's degree	None	19.84	15.76	29.61
Fitness Trainers & Aerobics Instructors	1,100	1,300	18.2%	35	High school diploma or equivalent	None	21.07	9.47	26.6
First-Line Supervisors of Retail Sales Workers	6,150	7,230	17.6%	245	High school diploma or equivalent	Less than 5 years	19.3	12.84	25.21
First-Line Supervisors of Non-Retail Sales Workers	2,340	2,770	18.4%	75	High school diploma or equivalent	Less than 5 years	35.99	20.49	55.71
Advertising Sales Agents	870	990	13.8%	35	High school diploma or equivalent	None	24.09	10.65	33.51
Insurance Sales Agents	3,330	3,870	16.2%	135	High school diploma or equivalent	None	22.18	14.39	40.84
Sales Representatives, Services, All Other	6,040	7,550	25.0%	315	High school diploma or equivalent	None	24.16	12.72	35.43
Sales Representatives, Wholesale & Manufacturing, Ex. Technical & Scientific Products	5,970	7,170	20.1%	235	High school diploma or equivalent	None	25.65	11.96	41.05
Real Estate Brokers	430	510	18.6%	15	High school diploma or equivalent	Less than 5 years	36.75	25.54	69.22
Real Estate Sales Agents	2,850	3,400	19.3%	80	High school diploma or equivalent	None	31.4	15	46.01
First-Line Supervisors of Office & Administrative Support Workers	8,310	10,120	21.8%	375	High school diploma or equivalent	Less than 5 years	28.91	16.8	37.57
Bookkeeping, Accounting, & Auditing Clerks	8,510	10,360	21.7%	265	High school diploma or equivalent	None	19.3	12.63	23.73
Payroll & Timekeeping Clerks	770	970	26.0%	35	High school diploma or equivalent	None	20.88	15.24	24.48
Procurement Clerks	240	300	25.0%	15	High school diploma or equivalent	None	21.32	16.27	23.34
Financial Clerks, All Other	200	240	20.0%	10	High school diploma or equivalent	None	21.35	13.04	27.19
Brokerage Clerks	240	270	12.5%	10	High school diploma or equivalent	None	25.1	14.66	32.24
Loan Interviewers & Clerks	1,160	1,410	21.6%	35	High school diploma or equivalent	None	21.19	14.2	25.99
Cargo & Freight Agents	150	200	33.3%	10	High school diploma or equivalent	None	18.35	14.62	25.74
Police, Fire, & Ambulance Dispatchers	330	410	24.2%	20	High school diploma or equivalent	None	18.34	14.18	21.87
Dispatchers, Ex. Police, Fire, & Ambulance	670	820	22.4%	35	High school diploma or equivalent	None	18.01	11.31	22.26
Postal Service Clerks	200	170	-15.0%	5	High school diploma or equivalent	None	27.3	15.64	27.31
Postal Service Mail Carriers	990	920	-7.1%	35	High school diploma or equivalent	None	28.5	15.69	28.51
Postal Service Mail Sorters, Processors, & Processing Machine Operators	360	320	-11.1%	5	High school diploma or equivalent	None	27.29	15.64	27.31
Production, Planning, & Expediting Clerks	1,440	1,750	21.5%	65	High school diploma or equivalent	None	21.73	11.95	28.3
Executive Secretaries & Executive Administrative Assistants	8,820	9,390	6.5%	160	High school diploma or equivalent	Less than 5 years	26.52	19.36	31.29
Legal Secretaries	1,420	1,530	7.7%	25	High school diploma or equivalent	None	20.84	15.82	24.22
Insurance Claims & Policy Processing Clerks	1,510	1,790	18.5%	70	High school diploma or equivalent	None	19.94	13.87	24.47
First-Line Supervisors of Farming, Fishing, & Forestry Workers	40	50	25.0%	0	High school diploma or equivalent	Less than 5 years	22.58	17	28.19
Brickmasons & Blockmasons	280	380	35.7%	15	High school diploma or equivalent	None	21.53	19.08	23.06
Electricians	2,760	3,470	25.7%	120	High school diploma or equivalent	None	22.06	14.83	26.94
Plumbers, Pipefitters, & Steamfitters	1,640	2,070	26.2%	65	High school diploma or equivalent	None	21.51	12.81	26.81
Sheet Metal Workers	530	640	20.8%	20	High school diploma or equivalent	None	18.35	11.73	25.51
Elevator Installers & Repairers	130	170	30.8%	5	High school diploma or equivalent	None	34.63	20.09	40.58
Septic Tank Servicers & Sewer Pipe Cleaners	30	40	33.3%	0	Less than high school	None	19.56	10.79	23.91
Service Unit Operators, Oil, Gas, & Mining	180	240	33.3%	10	Less than high school	None	19.83	11.39	26.45
Earth Drillers, Except Oil & Gas	40	50	25.0%	0	High school diploma or equivalent	None	25.08	14.51	29.44

Occupational Title	Annual Average Employment 2012	Annual Average Employment 2022	Percent Growth 2012-2022	Total Annual Average Job Openings	Typical Education needed for Entry into Occupation	Work Experience in a related Occupation	Median Hourly Wage	10th percentile	75th Percentile
Installation, Maintenance, & Repair Occupations	22,670	27,860	22.9%	1,035			18.41	10.97	24.2
First-Line Supervisors of Mechanics, Installers, & Repairers	1,680	2,040	21.4%	80	High school diploma or equivalent	Less than 5 years	28.49	18.44	36.11
Telecommunications Equipment Installers & Repairers, Ex. Line Installers	1,310	1,670	27.5%	55	Postsecondary non-degree award	None	21.36	14.71	26.44
Electrical & Electronics Installers & Repairers, Transportation Equipment	40	50	25.0%	0	Postsecondary non-degree award	None	21.98	17.61	23.87
Electrical & Electronics Repairers, Commercial & Industrial Equipment	390	490	25.6%	20	Postsecondary non-degree award	None	18.53	12.76	24.88
Electrical & Electronics Repairers, Powerhouse, Substation, & Relay	90	120	33.3%	5	Postsecondary non-degree award	None	30.62	18.13	39.67
Security & Fire Alarm Systems Installers	320	380	18.8%	10	High school diploma or equivalent	None	20.95	14.29	25.27
Aircraft Mechanics & Service Technicians	230	290	26.1%	10	Postsecondary non-degree award	None	27.95	20.26	33.6
Auto Body & Related Repairers	530	640	20.8%	20	High school diploma or equivalent	None	20.3	13.99	24.13
Auto Glass Installers & Repairers	30	40	33.3%	0	High school diploma or equivalent	None	20.5	11.62	22.81
Auto Service Technicians & Mechanics	2,360	2,820	19.5%	105	High school diploma or equivalent	None	18.84	10.81	23.57
Bus & Truck Mechanics & Diesel Engine Specialists	710	840	18.3%	30	High school diploma or equivalent	None	20.92	13.43	25.88
Mobile Heavy Equipment Mechanics, Ex. Engines	270	340	25.9%	15	High school diploma or equivalent	None	19.46	14.02	23.66
Control & Valve Installers & Repairers, Ex. Mechanical Door	240	290	20.8%	15	High school diploma or equivalent	None	20.29	13.32	25.92
Heating, Air Conditioning, & Refrigeration Mechanics & Installers	1,420	1,790	26.1%	70	Postsecondary non-degree award	None	18.64	12.12	22.69
Industrial Machinery Mechanics	670	940	40.3%	45	High school diploma or equivalent	None	26.19	15.39	32.46
Maintenance Workers, Machinery	240	320	33.3%	15	High school diploma or equivalent	None	22.68	13.19	29.79
Electrical Power-Line Installers & Repairers	360	460	27.8%	25	High school diploma or equivalent	None	28.32	16.14	36.2
Telecommunications Line Installers & Repairers	780	950	21.8%	35	High school diploma or equivalent	None	21.61	12.36	30.15
Medical Equipment Repairers	220	320	45.5%	15	Associate's degree	None	22.63	14.42	28.46
Precision Instrument & Equipment Repairers, All Other	50	60	20.0%	0	High school diploma or equivalent	None	25.61	11.7	38.2
First-Line Supervisors of Production & Operating Workers	1,560	1,810	16.0%	45	Postsecondary non-degree award	Less than 5 years	27.66	16.06	36.14
Electromechanical Equipment Assemblers	270	280	3.7%	5	High school diploma or equivalent	None	18.5	13.41	23.33
Computer Numerically Controlled Machine Tool Programmers, Metal/Plastic	50	80	60.0%	5	High school diploma or equivalent	None	26.66	17.39	32.23
Lathe & Turning Machine Tool Setters, Operators, & Tenders, Metal/Plastic	60	70	16.7%	0	High school diploma or equivalent	None	18.68	12.97	22.33
Milling & Planing Machine Setters, Operators, & Tenders, Metal/Plastic	30	30	0.0%	0	High school diploma or equivalent	None	20.69	15.26	25.8
Machinists	870	1,070	23.0%	40	High school diploma or equivalent	None	18.51	12.78	22.29
Tool & Die Makers	50	70	40.0%	0	High school diploma or equivalent	None	19.06	11.48	27.45
Power Plant Operators	130	150	15.4%	5	High school diploma or equivalent	None	27.07	17.35	39.88
Stationary Engineers & Boiler Operators	70	80	14.3%	0	High school diploma or equivalent	None	20.32	13.85	23.96
Water & Wastewater Treatment Plant & System Operators	350	440	25.7%	20	High school diploma or equivalent	None	19.91	13.6	23.11
Chemical Equipment Operators & Tenders	80	90	12.5%	5	High school diploma or equivalent	None	22.8	13.98	30.1
Aircraft Cargo Handling Supervisors	10	10	0.0%	0	High school diploma or equivalent	Less than 5 years	26.05	15.16	28.38
First-Line Supervisors of Helpers, Laborers, & Material Movers, Hand	530	650	22.6%	25	High school diploma or equivalent	Less than 5 years	21.97	10.63	28.36
First-Line Supervisors of Transportation & Material-Moving Machine & Vehicle Operators	550	660	20.0%	25	High school diploma or equivalent	Less than 5 years	27.06	16.24	34.02
Bus Drivers, Transit & Intercity	620	610	-1.6%	10	High school diploma or equivalent	None	20.64	9.66	22.78
Motor Vehicle Operators, All Other	340	420	23.5%	20	High school diploma or equivalent	None	19.36	14.86	23.06
Crane & Tower Operators	130	160	23.1%	10	High school diploma or equivalent	Less than 5 years	21.09	14.18	26.93

Appendix C: Interview Guide Assessing Unmet Needs for Austin 2-Gen Local Providers

1. What are the top 5 needs of the population you serve?
    - Are these needs result of data/tracking or are these estimates from experience/anecdotes?

2. How do you assess your own needs, and how does that inform your programming decisions?

3. We collected 211 data to inform our own needs assessment, do you have recommendations on other quantitative sources we should supplement this with?

4. Can you provide any data that you collect that might address community needs?

5. How many people do you serve annually (i.e. number of families, number of parents, and number of children)?
    - Is your intake by family?

6. What are the demographics of the families you serve?
    -Countries of origin
    -Primary languages spoken
    -Average parent and child age
    -Family make-up

7. How would you describe the level of intensity of your organization (i.e. duration and exposure)?

8. What is the unmet need that you're seeing? Why do you suspect it's not met (i.e. what are the challenges people face in addressing this need)?

9. What are the challenges that you, as a provider, face in attempting to address these needs?

10. What services do you provide currently, and which are in highest demand?

11. What do you provide the most referrals for? Which organizations do you most often refer clients to, and how do you describe your referral relationships?

12. Do you have recommendations of individuals or organizations who have a good grasp on these issues?

Appendix D: Program Scan Acronyms

Acronym	Program
MCC	Metropolitan Career Center
FCCI	Family-Centered Community Change Initiative
JP	Jeremiah Program
EBASE	East Bay Alliance for a Sustainable Economy (EBASE)
Rural IMPACT	Rural Integration Models for Parents and Children to Thrive
CAP	Career Advance Program
MOMS Partnership	Mental Health Outreach for Mothers Partnership
IDEA	
Project QUEST	
Acronym	**Grant**
MOVE UP	Mobility and Opportunity for Valuable Employment by Upskilling Parents)
STEP UP	Supporting Transitions to Employment for Parents
HOST	Housing Opportunities and Services Together
Acronym	**Miscellaneous**
ESL	English as a Second Language
SAS	Substance Abuse Services
NYSAA	New York State Alternate Assessment
NAEYC	National Association for the Education of Young Children
OCLQS - SUTQ	Ohio Child Licensing and Quality System - Step Up to Quality
NYSOCFS	New York State Office of Children and Family Services
MDC	Miami Dade College
USDOL	U.S. Department of Labor
DCHA	District of Columbia Housing Athlete
HABC	Housing Authority of Baltimore City
NAC	National Accreditation Commission
DFPS	Texas Department of
ECE	Early Childhood Education
TANF	Temporary Assistance for Needy Families
SNAP	Supplemental Nutrition Assistance Program
WIC	Women, Infants, and Children
CBO	Community-based organizations
CHIP	Children's Health Insurance Program
GED	General Education Development tests
UWATX	United Way of Greater Austin

Table D1: National 2-Gen Programs and Initiatives

Target	NATIONAL 2-GEN PROGRAMS	FCCCI - Buffalo	FCCCI - Columbus	FCCCI - San Antonio	JP - Twin Cities	JP - Austin	HOST - Chicago	HOST - Baltimore	HOST - D.C.	HOST - Portland	Rural IMPACT	Avance San Antonio	Avance Austin	STRIVE	Strengthening Working Families Initiative
Target	**Evaluation**														
	Internal	X	X	X	X	X					X				
	External				X										
	Early Care & Education														
C	Early Childhood Education	X	X	X	X	X					X	X	X	X	
C	ECE Accreditation (Y/N)	X	X		X	X					X	X	X		
C	Afterschool Programs	X		X		X									
C	Enrichment Programs	X	X	X		X	X	X	X	X	X	X			
A & C	Wraparound Services	X	X	X	X	X					X	X	X		
	Postsecondary & Employment Pathways														
A	Adult Literacy			X			X	X	X	X		X	X		
A	ESL Classes	X											X		
A	GED/College Prep/Remdiation	X		X									X		
A	Postsecondary Education			X	X	X									
A	Sector-specific job training	X		X		X								X	
A	Alignment with Career Pathways					X									
A	Industry Employer Involvement			X											
A	Applied Learning Experiences	X		X	X	X									
A	Work Credentialing			X											
A	Job-Readiness Counceling/Workshops	X		X	X	X	X	X	X	X			X	X	
A	Career Coaching	X			X	X									
	Economic Asset Building														
A & C	Affordable Housing	X	X	X	X	X	X	X	X	X	X				
A	Income Supplements			X	X	X	X	X	X	X	X				
A & C	Childcare Subsidies		X								X	X			
A	Student Financial Aid			X	X	X									
A	Financial Education	X		X	X	X	X	X	X	X		X	X		
A	Asset Building Services	X	X	X	X	X	X	X	X	X	X	X			
A & C	Wraparound Services	X		X	X	X	X	X	X	X	X	X	X		
A & C	Transportation										X		X		
A & C	Basic Needs	X	X	X							X		X		
	Health & Well-Being														
A & C	Capacity Building	X	X	X	X	X	X	X	X	X	X	X	X		
A & C	Home Visiting Programs	X	X	X							X	X	X		
A	Mental Health/SAS	X					X	X	X	X	X	X		X	
A & C	Physical Well-Being	X	X	X							X		X		
A	Case Managers			X	X	X	X	X	X	X	X	X	X	X	
A & C	Access to Health Insurance	X	X		X	X					X	X			
A & C	Family Planning	X									X				
	Social Capital														
A	Cohort Model (Peer-Based Groups)	X	X		X	X									
A	Community/Faith Groups	X													
A	Leadership & Empowerment				X	X						X	X		
A & C	Family Development/Bonding	X	X	X	X	X	X	X	X	X	X	X	X		
	Other														
C	**ECE Accreditation Type**	**NYSAA**	**OCLQS - SUTQ**	**Texas Rising Star**		**Headstart**					**Headstart**	**NAEYC**	**Headstart**		

A = ADULTS
C= CHILDREN

Table D2: State 2-Gen Programs and Initiatives

	STATE 2-GEN PROGRAMS	Colorado	Connecticut	Utah	Washington
Target	**Evaluation**				
	Internal		X	X	X
	External				X
	Early Care & Education				
C	Early Childhood Education	X	X	X	X
C	ECE Accreditation (Y/N)		X	X	X
C	Afterschool Programs			X	
C	Enrichment Programs				
A & C	Wraparound Services		X	X	X
	Postsecondary & Employment Pathways				
A	Adult Literacy	X	X	X	X
A	ESL Classes	X	X	X	
A	GED/College Prep/Remdiation	X	X	X	
A	Postsecondary Education		X	X	
A	Sector-specific job training		X		X
A	Alignment with Career Pathways				
A	Industry Employer Involvement		X		
A	Applied Learning Experiences				X
A	Work Credentialing				
A	Job-Readiness Counceling/Workshops		X		X
A	Career Coaching		X		
	Economic Asset Building				
A & C	Affordable Housing				
A	Income Supplements			X	X
A & C	Childcare Subsidies		X	X	X
A	Student Financial Aid			X	X
A	Financial Education		X	X	
A	Asset Building Services			X	
A & C	Wraparound Services		X	X	X
A & C	Transportation		X	X	X
A & C	Basic Needs			X	X
	Health & Well-Being				
A & C	Capacity Building	X	X	X	
A & C	Home Visiting Programs			X	X
A	Mental Health/SAS	X			
A & C	Physical Well-Being			X	
A	Case Managers	X		X	X
A & C	Access to Health Insurance			X	X
A & C	Family Planning				
	Social Capital				
A	Cohort Model (Peer-Based Groups)				
A	Community/Faith Groups				
A	Leadership & Empowerment	X	X		
A & C	Family Development/Bonding		X	X	
	Other				
C	**ECE Accreditation Type**	**SUTQ - OCLQS**	**Texas Rising Star**		

A = ADULTS
C= CHILDREN

Table D3: Local 2-Gen Programs and Initiatives

	LOCAL 2-GEN PROGRAMS	Single-Stop at MDC	Education Alliance of NYC	Atlanta Civic Partnership	CAP - Tulsa	Keys to Degrees at Endicott College	Project Quest	Jeffco Propserity Project	College & Community Fellowship	Towards Employment	College Access and Success Program	Garrett Co. Community Action Committee
Target	**Evaluation**				X		X					
	Internal											
	External											
	Early Care & Education											
C	Early Childhood Education	X	X	X	X	X		X			X	X
C	ECE Accreditation (Y/N)	X	X	X	X	X		X			X	
C	Afterschool Programs				X							X
C	Enrichment Programs		X			X					X	X
A & C	Wraparound Services	X	X	X	X	X		X			X	X
	Postsecondary & Employment Pathways											
A	Adult Literacy											X
A	ESL Classes											
A	GED/College Prep/Remdiation				X		X			X		X
A	Postsecondary Education	X	X			X			X			
A	Sector-specific job training	X			X		X			X		
A	Alignment with Career Pathways	X			X							
A	Industry Employer Involvement	X			X							
A	Applied Learning Experiences	X				X						
A	Work Credentialing	X			X							
A	Job-Readiness Counceling/Workshops	X	X	X	X	X	X	X	X	X	X	X
A	Career Coaching	X				X	X					
	Economic Asset Building											
A & C	Affordable Housing					X						
A	Income Supplements											
A & C	Childcare Subsidies	X			X	X	X	X				
A	Student Financial Aid	X			X	X			X			
A	Financial Education	X	X	X		X			X		X	X
A	Asset Building Services	X		X		X		X				X
A & C	Wraparound Services				X	X						
A & C	Transportation				X		X		X			
A & C	Basic Needs	X			X	X						
	Health & Well-Being											
A & C	Capacity Building		X	X	X	X		X			X	
A & C	Home Visiting Programs				X							
A	Mental Health/SAS	X	X	X				X	X			
A & C	Physical Well-Being	X				X						
A	Case Managers			X	X	X	X	X	X	X		
A & C	Access to Health Insurance	X				X						
A & C	Family Planning											
	Social Capital											
A	Cohort Model (Peer-Based Groups)		X		X	X		X	X			X
A	Community/Faith Groups			X	X	X		X	X			
A	Leadership & Empowerment					X			X			X
A & C	Family Development/Bonding		X	X	X	X					X	
	Other											
C	**ECE Accreditation Type**	**NAEYC**	**NAEYC**	**NAEYC**	**NAEYC**	**Headstart**		**Headstart**			**NAEYC**	

A = ADULTS
C= CHILDREN

MOMS Partnership	Albany Community Action Partnership	Goodwill Industries of Central Michigan	Brighton Center Inc.	Jane Addams Resource Corp.	United Way of Greater Cincinnati	Family & Workforce Centers of America	Goodwill of the Olympics Region	Metropolitan Career Center	Carreras en Salud	Sunshine Cottage	Commit2Dallas	Austin Capital IDEA	Houston Capital IDEA
	X		X	X	X				X		X		
			X										
	X		X		X	X			X	X	X	X	X
	X		X			X					X		
	X	X	X				X		X				
	X	X	X							X	X		
	X	X	X		X	X			X	X	X	X	X
		X	X	X	X		X		X	X		X	X
							X		X			X	X
	X	X	X	X	X	X			X		X	X	X
	X	X	X	X	X	X		X	X		X	X	X
	X	X	X	X	X	X	X	X	X	X	X	X	X
		X	X	X	X	X	X	X	X		X	X	X
	X	X	X	X	X	X	X	X	X	X	X	X	X
		X	X		X	X		X	X		X	X	X
X	X	X	X	X	X	X	X	X	X		X	X	X
	X		X		X			X	X	X	X		X
			X							X			
			X					X		X	X		
	X		X		X					X	X	X	X
		X	X	X	X	X			X	X	X	X	X
	X	X	X		X	X				X	X	X	X
	X		X		X	X		X	X	X	X	X	X
	X				X	X			X	X	X		X
	X		X							X			
X		X	X		X	X				X	X		
			X		X						X		
X		X	X		X	X				X			
			X							X			
	X	X	X	X	X	X		X	X	X	X	X	X
			X								X		
X			X				X		X	X	X	X	X
	X	X	X				X				X		
	X	X	X				X	X	X	X	X	X	X
			X		X	X				X	X		

NYSOCFS	Early Learning Leaders	NAEYC	Headstart

Table D4: 2-Gen Program Funding Sources

LEVEL	PROGRAM	LOCATION	FOUNDATION	GRANT
Local	Atlanta Civic Partnership	Atlanta, GA	Annie E. Casey	
Local	Career Advance Program	Tulsa, OK	Annie E. Casey / Ray Marshall Center	Kaiser Foundation
Local	Albany Community Action Partnership	Albany, NY	WK Kellogg	STEPS (Supporting Transitions to Employment for Parents)
Local	Goodwill Industries of Central Michigan's Heartland	Battle Creek, MI	WK Kellogg	STEPS (Supporting Transitions to Employment for Parents)
Local	Brighton Center Inc.	Newport, KY	WK Kellogg	STEPS (Supporting Transitions to Employment for Parents)
Local	Jane Addams Resource Corporation	Chicago, IL	WK Kellogg	STEPS (Supporting Transitions to Employment for Parents)
Local	United Way of Greater Cincinnati	Cincinnati, OH	WK Kellogg	STEPS (Supporting Transitions to Employment for Parents)
Local	Family and Workforce centers of America	St. Louis, MO	WK Kellogg	STEPS (Supporting Transitions to Employment for Parents)
Local	Goodwill of the Olympics and Rainier Region	Tacoma, WA	WK Kellogg	STEPS (Supporting Transitions to Employment for Parents)
Local	The Educational Alliance's College Access and Success Program	New York City		
Local	MOMS Partnership	New Haven, CT	Yale University	Connecticut State 2-Gen Strategy
Local	East Bay Alliance for a Sustainable Economy (EBASE)	Oakland, CA	WK Kellogg	MOVE UP (Mobility and Opportunity for Valuable Employment by Upskilling Parents)
Local	STRIVE International	New York	WK Kellogg	MOVE UP (Mobility and Opportunity for Valuable Employment by Upskilling Parents)
Local	Metropolitan Career Center (MCC)	Philadelphia	WK Kellogg	MOVE UP (Mobility and Opportunity for Valuable Employment by Upskilling Parents)
Local	Project QUEST	San Antonio, TX	WK Kellogg	MOVE UP (Mobility and Opportunity for Valuable Employment by Upskilling Parents)
Local	Towards Employment	Cleveland, OH	WK Kellogg	MOVE UP (Mobility and Opportunity for Valuable Employment by Upskilling Parents)
Local	Southwest Organizations Unifying Resources for Community and Employees (The SOURCE)	Grand Rapids, MI	WK Kellogg	MOVE UP (Mobility and Opportunity for Valuable Employment by Upskilling Parents)
Local	Jeffco Prosperity Project	Dever, CO (suburbs	Jeffco Schools Foundation	MOVE UP (Mobility and Opportunity for Valuable Employment by Upskilling Parents)
Local	Carreras en Salud	Chicago, IL		
Local	Sunshine Cottage	Amarillo, TX		
Local	Houston Capital IDEA	Houston, TX		
Local	Austin Capital IDEA	Austin, TX		
Local	Commit2Dallas	Dallas, TX		
Local	Garrett County Community Action Committee	Garrett Co. MD	Annie E. Casey	
Local / College	Keys to Degrees at Endicott College	Beverly, MA		
Local / College	Single-Stop at Miami-Dade College	Dade County, FL		
Local / College	College and Community Fellowship	New York City		
National	Buffalo Promise Neighborhood	Buffallo, NY	Annie E. Casey	Family-Centered Community Change Initiative
National	Weinland Park Collaborative	Columbus, OH	Annie E. Casey	Family-Centered Community Change Initiative
National	Eastside Promise Neighborhood	San Antonio, TX	Annie E. Casey	Family-Centered Community Change Initiative
National	Jeremiah Program	Twin Cities Area, MN		
National	Jeremiah Program	Fargo, ND		
National	Jeremiah Program	Boston, MA		
National	Jeremiah Program	Austin, TX		
National	UCAN - Project Match	Chicago, IL	Urban Institute	HOST (Housing Opportunities and Services Together), TCA
National	Housing Authority of Baltimore City (HABC) - Gilmore Homes	Baltimore, MD	Urban Institute	HOST (Housing Opportunities and Services Together)
National	East River Family Strengthening Collaborative	Washington, D.C.	Urban Institute, WK Health DCHA, BT REAC	HOST (Housing Opportunities and Services Together and PASS (Promoting Adolescent Sexual Health and Safety)
National	Home Forward	Portland, OR	Urban Institute	HOST (Housing Opportunities and Services Together)
National	Rural IMPACT Demonstration Sites		White House Initiative	USDOL
National	Strengthening Working Families Initiative		USDOL	USDOL
National	Avance			
State	Colorado's Department of Human Services	Colorado		
State	Connecticut's State 2G Strategy	Connecticut	WK Kellogg	
State	Voices for Utah Children	Utah		

Appendix E: Austin Local Providers – Unmet Needs Matrix

	Top Five Needs	Method of Needs Assessments	Most Common Referrals	Challenges to Meeting Needs
LifeWorks	1) Affordable Housing 2) Childcare 3) Mental Health 4) Transportation 5) Family Relationships	• Self-Sufficiency Matrix • Administer survey to all incoming clients • Every 3 months, exit, and one year post-exit	• Workforce Solutions for Child Care Subsidies • Workforce • Post-secondary education	• Demand exceeds capacity • Lack of support
SSP Learning Center	1) English Fluency 2) Childcare 3) Legal services 4) Immigration 5) Social Capital	• Pre-program and post-program surveys • Use two intake forms: • Language, and demographic/qualitative	• ESL classes • Early childhood education • Parenting skills	• Space and growth • Funding • Scaling
Mainspring Schools	1) Finances 2) Affordable Housing 3) Mental Health 4) Crisis Management 5) Transportation	• Client input • Family feedback • Other anecdotal and qualitative information	• Mental Health and behavioral therapy • Healthcare • Government assistance	• Lack of services in surrounding area • Transportation
El Buen Samaritano	1) English Fluency 2) Low-cost Healthcare 3) Health Literacy 4) Emergency Food 5) Early Childhood Education	• Tracking health service outcomes • Community survey • Client/patient intake interviews • Internal data analyst • Integrated case management • Outcomes/goal tracking	• ESL Classes • Immigration services • GED programs • Specialty healthcare	• Demand exceeds capacity • Affordability of health services
Jeremiah Program	1) Affordable Housing 2) Early Childhood Education 3) Adult Education 4) Transportation 5) Mental Health	• Self-Sufficiency Matrix • CDC tracks children's' progress • Adult education coach • Development assessment survey • Family feedback	• Mental health	• Implementing a clear "2-Gen" approach in all services • Positive male role models
Goodwill Excel	1) Healthcare 2) Adult Education	• Client intake surveys and screening process.	• Affordable housing	• Private funding • Buy-in from the community

	3) Childcare 4) Affordable Housing 5) Mental Health	• Employment barriers questionnaire • Data aggregate tool • Internal labor market analyst - decide career training programs • Local Business advisory council	• Food and clothes • ESL Classes • Services for people with disabilities if they have more intensive needs.	• Institutional barriers for re-entry and disabled populations

Appendix F: Modified Robin Hood Cost-Benefit Equations

1	***High Quality Preschool***	ORIGINAL ROBIN HOOD METRIC EQUATION: *(XX children enrolled in a high-quality preschool) * (XX percent of children attend a high-quality preschool solely because of this program) * ($50,650 value of preschool)*[lviii]
	Above is the original Robin Hood Metric Equation 3. An in-depth explanation with references can be found on pages 10-14 in the Robin Hood Metric Equations BETA. In place of New York data for continuing education rates, we use Texas PK-16 Public Education Information Resource data. TPIER reports that 55.4% of students who complete high school do not go on to college, and 44.6% of students who complete high school do continue on to college.[lix] Of those Texas students who enroll in an institution of higher education, 52.9% enter college but do not earn a degree, 20.7% earn an associate's degree and 47.1% earn a bachelor's degree.[lx] We use US Census data to update the wage premiums for each level of education. The increase in earnings for high school graduation increases from $6,500 to $8,833.[lxi] The increase in earnings for some college, as compared to a high school dropout, falls from $11,500 to $9,357.[lxii] We update the wage differential for an A.A. degree holder, again compared to a high school dropout, from $19,000 to $17,230.[lxiii] Our wage increase for a B.A. degree holder over a high school dropout was also lower than Robin Hood's estimation; it dropped slightly from $39,000 to $38,700.[lxiv] We use the same formula as Robin Hood to sum the wage differentials, multiplied by the counterfactual rates. With an assumed growth rate of 3% and a discount rate of 5%, the present value of future earnings totals $12,492. We use the same health impact as Robin Hood which is valued at $13,500. When calculating the value of reduced juvenile delinquency, we update the estimated future earnings to $53,845. We do not recommend including the value of decreased child abuse and the value of improved parenting, as most preschool programs do not include a parent-focused intervention. We do not recommend any changes to the future health impact ($13,500). This leaves us with $67,345 as the monetary value of high-quality preschool. Following Robin Hood's methodology, we subtract 10% from this value to account for potentially double counting benefits, bringing us to $66,483.	
	High Quality Preschool	REVISED ROBIN HOOD METRIC EQUATION: *(XX children enrolled in a high-quality preschool) * (XX percent of children attend a high-quality preschool solely because of this program) * ($66,483 value of preschool)*

2	***A.A. degree with no further education***	ORIGINAL ROBIN HOOD METRIC EQUATION: *Present discounted value of the following calculation: [(XX high school equivalency holders enrolled in college) * [(XX percent of*

		*participating high school equivalency holders enrolled in college who obtain an A.A. degree) – (10 percent counterfactual success rate)] * [($35,000 average earnings with an A.A. degree and no further education) – ($17,600 average earnings with a high school equivalency diploma and no further education)]]*[lxv]
	Above is the original Robin Hood Metric Equation 4. An in-depth explanation with references can be found on pages 14-15 in the Robin Hood Metric Equations BETA. According to the National Student Clearinghouse, the counterfactual success rate for obtaining an A.A. in Texas is 20.7%. We use US Census data to update the earnings for an A.A. degree holder from $35,000 to $44,012 and the earnings for high school equivalency holders from $17,600 to $35,615.[lxvi]	
	A.A. degree with no further education	REVISED ROBIN HOOD METRIC EQUATION: *Present discounted value of the following calculation: [(XX high school equivalency holders enrolled in college) * [(XX percent of participating high school equivalency holders enrolled in college who obtain an A.A. degree) – (20.7 percent counterfactual success rate)] * [($44,012 average earnings with an A.A. degree and no further education) – ($35,615 average earnings with a high school equivalency diploma and no further education)]]*

3	***B.A. degree with no further education***	ORIGINAL ROBIN HOOD METRIC EQUATION: *Present discounted value of the following equation: [(XX additional high school graduates as a result of the early childhood program) * (50 percent of high school graduates will continue to college) * (10 percent of college enrollees will attain a B.A. degree) * [($55,000 average earnings with a B.A. degree and no further education) – ($22,500 average earnings with a high school diploma and no further education)]]*[lxvii]
	Above is the original Robin Hood Metric Equation 9. An in-depth explanation with references can be found on pages 18-19 in the Robin Hood Metric Equations BETA. The percentage of students who continue from high school to college is slightly lower in Texas than the counterfactual Robin Hood provides. We update this number from 50% to 44.64% based on Texas Education Agency data from the class of 2015. According to data from the National Student Clearinghouse, B.A. attainment is high in Texas. We use that data to increase the percentage of college enrollees who will attain a B.A. from 10% to 47.1%. We also update the earnings for a B.A. degree holder from $55,000 to $65,482	

	and the earnings for high school diploma holder from $22,500 to $35,615 based on U.S. Census data.[lxviii]	
	B.A. degree with no further education	REVISED ROBIN HOOD METRIC EQUATION: *Present discounted value of the following equation: [(XX additional high school graduates as a result of the early childhood program) * (44.64 percent of high school graduates will continue to college) * (47.1 percent of college enrollees will attain a B.A. degree) * [($65,482 average earnings with a B.A. degree and no further education) – ($35,615 average earnings with a high school diploma and no further education)]]*

4	***English as a Second Language (E.S.L.), English literacy skills improvement***	ORIGINAL ROBIN HOOD METRIC EQUATION: Present discounted value of the following calculation: *[(XX participants complete a year of E.S.L.) * (XX percent of participants receive assistance solely because of this program) * ($13,000 average earnings for a recent immigrant with low skills) * (2 percent increase in earnings due to improved English literacy)]*[lxix]
	Above is the original Robin Hood Metric Equation 10. An in-depth explanation with references can be found on pages 19-20 in the Robin Hood Metric Equations BETA. While there is data about the earnings of immigrants working and living in Texas, it is for all immigrants, not specifically for the low-skilled recent immigrants who are likely to enroll in E.S.L. classes offered by local service providers. We keep the Robin Hood Foundation's original value of $13,000 average earnings for a recent immigrant with low skills, which is a rough average of three separate nationwide estimates published in economics journals. The Robin Hood Metric Equation considers only how improved English skills result in higher earnings, but E.S.L. classes can also help participants in many other ways that are difficult to measure: ability to communicate with children's school and teachers, less hesitance to access services that require English, greater confidence speaking in public, etc. We have added an additional 50% gain to better represent the intangible benefits not included in a strict labor market calculation.	

	English as a Second Language (E.S.L.), English literacy skills improvement	REVISED ROBIN HOOD METRIC EQUATION: *Present discounted value of the following calculation: [(XX participants complete a year of E.S.L.) * (XX percent of participants receive assistance solely because of this program) * ($13,000 average earnings for a recent immigrant with low skills) * (2 percent increase in earnings due to improved English literacy) * (1.5x gain to account for non-labor-market gains)]*

5	***High school equivalency attainment with no further education***	ORIGINAL ROBIN HOOD METRIC EQUATION: *Present discounted value of the following calculation: [(XX participants who take the high school equivalency exam) * [(XX percent actual exam pass rate) – (50 percent counterfactual exam pass rate)] * [($17,600 average earnings with a high school equivalency diploma and no further education) – ($16,000 average earnings for a high school dropout and no further education)]]*[lxx]
	Above is the original Robin Hood Metric Equation 11. An in-depth explanation with references can be found on page 20 in the Robin Hood Metric Equations BETA. GED test takers are quite successful in Texas; 73.5% of test takers passed according to Texas GED results from 2013.[lxxi] We use this data to replace Robin Hood's 50% counterfactual pass rate. We also use US Census data to update the earnings for high school diploma holders from $17,600 to $35,615 and the earnings for a high school dropout from $16,000 to $26,782.[lxxii]	
	High school equivalency attainment with no further education	REVISED ROBIN HOOD METRIC EQUATION: *Present discounted value of the following calculation: [(XX participants who take the high school equivalency exam) * [(XX percent actual exam pass rate) – (50 percent counterfactual exam pass rate)] * [($35,615 average earnings with a high school equivalency diploma and no further education) – ($26,782 average earnings for a high school dropout and no further education)]]*

6	***Low literacy gains***	ORIGINAL ROBIN HOOD METRIC EQUATION: *Present discounted value of the following equation: [(XX participating students reach seventh-grade reading level) * (XX percent of these students receive assistance solely because of this program) * ($16,000 average earnings for a high school dropout) * (10 percent increase in earnings due to improved literacy)]*[lxxiii]

	Above is the original Robin Hood Metric Equation 15. An in-depth explanation with references can be found on pages 23 in the Robin Hood Metric Equations BETA. We update the earnings for a high school dropout from $16,000 to $26,782 based on US Census data.[lxxiv] There is not sufficient evidence to change the 10% increase in earnings due to improved literacy, so we use Robin Hood's original estimate.	
	Low literacy gains	REVISED ROBIN HOOD METRIC EQUATION: *Present discounted value of the following equation: [(XX participating students reach seventh-grade reading level) * (XX percent of these students receive assistance solely because of this program) * ($26,782 average earnings for a high school dropout) * (10 percent increase in earnings due to improved literacy)]*

7	***Job training and placement, general jobless population with a high school diploma***	ORIGINAL ROBIN HOOD METRIC EQUATION: *Present discounted value of the following calculation: [(XX participants enter the program) * (XX percent of participants who enter training, graduate and remain employed for one year solely because of the program)* [($XX average annual posttraining earnings) – ($11,200 average annual earnings for a jobless population with a high school diploma)]] Note: $11,200 baseline earnings are used here to approximate counterfactual earnings (earnings of participants in the absence of this program).*[lxxv]
	Above is the original Robin Hood Metric Equation 23. An in-depth explanation with references can be found on pages 30-31 in the Robin Hood Metric Equations BETA. We use US Census data to update the earnings for a jobless high school diploma holder to from $11,200 to $21,369.[lxxvi] Robin Hood estimates that jobless individual earn 40% less than others with a comparable education, and our counterfactual value is 40% below the average earnings for a high school diploma holder.[lxxvii]	
	Job training and placement, general jobless population with a high school diploma	REVISED ROBIN HOOD METRIC EQUATION: *Present discounted value of the following calculation: [(XX participants enter the program) * (XX percent of participants who enter training, graduate and remain employed for one year solely because of the program)* [($XX average annual posttraining earnings) – ($21,369 average annual earnings for a jobless population with a high school diploma)]]*

8	***Job training and placement, general jobless population with no high school diploma***	ORIGINAL ROBIN HOOD METRIC EQUATION: *Present discounted value of the following calculation: [(XX participants enter the program) * (XX percent of participants who enter training, graduate and remain employed for one year solely because of the program)* [($XX average annual posttraining earnings) - ($8,200 average annual earnings for a jobless population with no high school diploma)]]. Note: $8,200 baseline earnings are used here to approximate counterfactual earnings (earnings of participants in the absence of this program).*[lxxviii]
	Above is the original Robin Hood Metric Equation 24. An in-depth explanation with references can be found on pages 31-32 in the Robin Hood Metric Equations BETA. We use US Census data to update the earnings for a jobless high school diploma holder from $8,200 to $14,740.[lxxix] Robin Hood estimates that jobless individuals earn 40% less than others with a comparable education, and our counterfactual value is 40% below the average earnings for individuals who do not have a high school diploma.[lxxx]	
	Job training and placement, general jobless population with no high school diploma	REVISED ROBIN HOOD METRIC EQUATION: *Present discounted value of the following calculation: [(XX participants enter the program) * (XX percent of participants who enter training, graduate and remain employed for one year solely because of the program)* [($XX average annual posttraining earnings) – ($14,740 average annual earnings for a jobless population with no high school diploma)]]*

9	***Job training and placement, immigrants with high school diplomas***	ORIGINAL ROBIN HOOD METRIC EQUATION: *Present discounted value of the following calculation: [(XX participants enter the program) * (XX percent of participants who enter training, graduate and remain employed for one year solely because of the program) * [($XX average annual posttraining earnings) – ($13,000 average annual earnings of immigrants with a high school diploma)]] Note: $13,000 baseline earnings are used here to approximate counterfactual earnings (earnings of participants in the absence of this program).*[lxxxi]
	Above is the original Robin Hood Metric Equation 27. An in-depth explanation with references can be found on pages 34 in the Robin Hood Metric Equations BETA. We updated the earnings for an immigrant with a high school diploma from $13,000 to $24,931 based on US Census data.[lxxxii] Robin Hood estimates that immigrants earn 30% less than non-immigrant individuals with a comparable education, and our counterfactual	

	value is 30% below the average earnings for individuals who have a high school diploma.[lxxxiii]	
	Job training and placement, immigrants with high school diplomas	REVISED ROBIN HOOD METRIC EQUATION: *Present discounted value of the following calculation: [(XX participants enter the program) * (XX percent of participants who enter training, graduate and remain employed for one year solely because of the program) * [($XX average annual posttraining earnings) – ($24,931 average annual earnings of immigrants with a high school diploma)]]*

10	***Job training and placement, immigrants with no high school diploma***	ORIGINAL ROBIN HOOD METRIC EQUATION: *Present discounted value of the following calculation: [(XX participants enter the program) * (XX percent of participants who enter training, graduate and remain employed for one year solely because of the program)* [($XX average annual posttraining earnings) – ($9,600 average annual earnings of immigrants with no high school diploma)]] Note: $9,600 baseline earnings are used here to approximate counterfactual earnings (earnings of participants in the absence of this program).*[lxxxiv]
	Above is the original Robin Hood Metric Equation 28. An in-depth explanation with references can be found on pages 34-35 in the Robin Hood Metric Equations BETA. We updated the earnings for an immigrant without a high school diploma from $9,600 to $17,197 based on US Census data.[lxxxv] Robin Hood estimates that immigrants earn 30% less than non-immigrant individuals with a comparable education, and our counterfactual value is 30% below the average earnings for individuals who do not have a high school diploma.[lxxxvi]	
	Job training and placement, immigrants with no high school diplomas	REVISED ROBIN HOOD METRIC EQUATION: *Present discounted value of the following calculation: [(XX participants enter the program) * (XX percent of participants who enter training, graduate and remain employed for one year solely because of the program)* [($XX average annual post training earnings) – ($17,197 average annual earnings of immigrants with no high school diploma)]]*

11	***Mood disorder treatment, impact on earnings, female children***	ORIGINAL ROBIN HOOD METRIC EQUATION: *Present discounted value of the following calculation: [(XX participating female children with mood disorder) * (XX percent of children get treatment solely because of the program) * (60 percent of children respond to treatment) * ($20,000 average earnings for a low-income population) * (15 percent decrease in earnings prevented as a result of the treatment)]*[lxxxvii]
	Above is the original Robin Hood Metric Equation 36. An in-depth explanation with references can be found on pages 38-39 in the Robin Hood Metric Equations BETA. We set the average earnings for the local low-income population at $24,870, which the Bureau of Labor Statistics cites as the 25th percentile of annual income for workers in the Austin-Round Rock metropolitan area as of May 2016.[lxxxviii] The figures of 15% and 60% come from a study on the economic costs of chronic depression on the labor market.	
	Mood disorder treatment, impact on earnings, female children	REVISED ROBIN HOOD METRIC EQUATION: *Present discounted value of the following calculation: [(XX participating female children with mood disorder) * (XX percent of children get treatment solely because of the program) * (60 percent of children respond to treatment) * ($24,870 average earnings for a low-income population) * (15 percent decrease in earnings prevented as a result of the treatment)]*

12	**Parents more likely to work due to childcare**	ORIGINAL ROBIN HOOD METRIC EQUATION: *(XX participating families) * (6 percent more employed families solely due to child care) * ($20,000 average earnings for a low income population)*[lxxxix]
	Above is the original Robin Hood Metric Equation 42. An in-depth explanation with references can be found on pages 43-44 in the Robin Hood Metric Equations BETA. We update the average earnings for a low-income population from $20,000 to $24,870, which is a weighted average of the income of high school dropouts and high school diploma holders based on US Census data.[xc]	

	Parents more likely to work due to childcare	REVISED ROBIN HOOD METRIC EQUATION: *(XX participating families) * (6 percent more employed families solely due to child care) * ($24,870 average earnings for a low-income population)*

13	***Early intervention***	ORIGINAL ROBIN HOOD METRIC EQUATION: *(XX children referred for early intervention) * (XX percent of students are referred to early intervention solely because of the program) * ($17,700 average lifetime benefits of an early intervention program)*[xci]
	Above is the original Robin Hood Metric Equation 128. An in-depth explanation with references can be found on pages 117-120 in the Robin Hood Metric Equations BETA. We keep the Robin Hood Foundation's original estimate of $17,700 average earnings for a recent immigrant with low skills, which is a complex average of various rates and findings from the public health literature. We find that the original equation applies equally well to Austin service providers without any change.	
	Early intervention	REVISED ROBIN HOOD METRIC EQUATION: *(XX children referred for early intervention) * (XX percent of students are referred to early intervention solely because of the program) * ($17,700 average lifetime benefits of an early intervention program)*

14	***Pervasive development delay (P.D.D.), early intervention (E.I.)***	ORIGINAL ROBIN HOOD METRIC EQUATION: *Present discounted value of the following equation: [(XX children with P.D.D.) * (XX percent of children get treatment solely because of the program) * (15 percent of children respond to treatment) * (0.35 QALY increase) * ($50,000 per QALY)]*[xcii]
	Above is the original Robin Hood Metric Equation 129. An in-depth explanation with references can be found on pages 120-121 in the Robin Hood Metric Equations BETA. The Robin Hood Foundation chooses the 15% treatment response rate as a reasonable middle between a 5% estimate and a 50% estimate in the literature. We believe that this is likely too conservative, and we adopt a 25% treatment response rate instead. The value of $50,000 for a Quality-Adjusted Life-Year is commonly used in cost-benefit analyses.	

	Pervasive development delay (P.D.D.), early intervention (E.I.)	REVISED ROBIN HOOD METRIC EQUATION: *Present discounted value of the following equation: [(XX children with P.D.D.) * (XX percent of children get treatment solely because of the program) * (25 percent of children respond to treatment) * (0.35 QALY increase) * ($50,000 per QALY)]*

15	***Health benefit from earning a high school equivalency diploma plus attending college for at least one year***	ORIGINAL ROBIN HOOD METRIC EQUATION: *(XX participants who pass the high school equivalency exam) * [(XX percent of high school equivalency holders who complete a year of college) – (20 percent of high school equivalency holders enroll in college) * (50 percent counterfactual success rate)]* (1.80 QALY increase) * ($50,000 per QALY)*[xciii]
	Above is the original Robin Hood Metric Equation 130. An in-depth explanation with references can be found on pages 121-122 in the Robin Hood Metric Equations BETA. The Robin Hood Foundation uses 20% enrollment rate for high-school-equivalency holders. A recent study states that about 40% of GED holders go on to enroll in a four-year college, but this estimate takes into account many GED holders who wait years before enrolling.[xciv] Since most local service providers will not be keeping reliable long-term data on program participants, we will continue to use the more conservative rate of 20%. We keep the figure of a 1.80 QALY health benefit due to graduating from high school, which the Robin Hood Foundation draws from Peter Muennig's work on the health gains from improved education. The Robin Hood Foundation here takes the impact on health from earning a high school equivalency diploma and at least one year of college to be similar to that from graduating from high school. The value of $50,000 for a Quality-Adjusted Life-Year is commonly used in cost-benefit analyses.	
	Health benefit from earning a high school equivalency diploma plus attending college for at least one year	REVISED ROBIN HOOD METRIC EQUATION: *(XX participants who pass the high school equivalency exam) * [(XX percent of high school equivalency holders who complete a year of college) – (20 percent of high school equivalency holders enroll in college) * (50 percent counterfactual success rate)]* (1.80 QALY increase) * ($50,000 per QALY)*

16	***Health benefit due to graduation from high school***	ORIGINAL ROBIN HOOD METRIC EQUATION: *(XX participating high school students, adjusted, who enter high school as ninth graders) * [(XX percent actual high school graduation rate) – (50 percent counterfactual graduation rate)] * (1.80 QALY increase) * ($50,000 per QALY)*[xcv]

	Above is the original Robin Hood Metric Equation 131. An in-depth explanation with references can be found on page 122 in the Robin Hood Metric Equations BETA. Texas has much higher high school graduation rates than New York, so instead of the 50% counterfactual rate, we use 88%, which the Texas Education Agency reports as the four-year high school completion rate for disadvantaged students in Austin in 2015.[xcvi] We keep the figure of a 1.80 QALY health benefit due to graduating from high school, which the Robin Hood Foundation draws from Peter Muennig's work on the health gains from improved education. The value of $50,000 for a Quality-Adjusted Life-Year is commonly used in cost-benefit analyses.	
	Health benefit due to graduation from high school	REVISED ROBIN HOOD METRIC EQUATION: *(XX participating high school students, adjusted, who enter high school as ninth graders) * [(XX percent actual high school graduation rate) – (88 percent counterfactual graduation rate)] * (1.80 QALY increase) * ($50,000 per QALY)*

17	***Primary care***	ORIGINAL ROBIN HOOD METRIC EQUATION: *(XX individuals receiving primary care) * (XX percent of participants get medical services solely because of the program) * (0.07 QALY increase) * ($50,000 per QALY)*[xcvii]
	Above is the original Robin Hood Metric Equation 154. An in-depth explanation with references can be found on page 136 in the Robin Hood Metric Equations BETA. We keep the 0.07 QALY increase from receiving primary care, which the Robin Hood Foundation adapts from Peter Muennig's work on the value of health benefits from medical services. The value of $50,000 for a Quality-Adjusted Life-Year is commonly used in cost-benefit analyses.	
	Primary care	REVISED ROBIN HOOD METRIC EQUATION: *(XX individuals receiving primary care) * (XX percent of participants get medical services solely because of the program) * (0.07 QALY increase) * ($50,000 per QALY)*

Appendix G: Potential Outcomes for a 2-Gen Program Evaluation[xcviii],[xcix],[c]

Items in blue are initial outcome recommendations, as outlined in the main body of the report, section titled "Austin 2-Gen Outcome Evaluation Metrics and Framework."

Glossary

AISD: Austin Independent School District
COA: City of Austin
ERC: Texas Education Research Center
HHSC: Health and Human Services Commission
NSC: National Student Clearinghouse
TEA: Texas Education Agency
TWC: Texas Workforce Commission
TWIST: The Workforce Information System of Texas

	Category	Measurable Outcome	What's Measured	When Measured (if applicable)	Source of Data (or test used, if applicable)*
CHILD	**Education**	Pre-reading/ reading skills	Letter and word identification	PreK – 3rd grade	Woodcock-Johnson III Letter-Word Identification or Letter Naming*
			Word recognition and reading comprehension using syntactic and semantic clues	1st grade	Woodcock-Johnson III Passage Comprehension
			Early writing and spelling	PreK – 1st grade	Woodcock-Johnson III Spelling
			Reading comprehension	3rd grade	Early Childhood Longitudinal Study-Kindergarten (ECLS-K)
		Pre-writing/ writing skills	Perceptual and motor skills	PreK	McCarthy Draw-a-Design

			Writing	1st grade	Woodcock-Johnson III Writing Samples
		Vocabulary	Vocabulary knowledge and receptive language		Peabody Picture Vocabulary Test (PPVT) III
			Color identification		Color names
		Math skills	1:1 correspondence	PreK	Counting Bears
			Ability to analyze and solve math problems	PreK – 3rd grade	Woodcock-Johnson III Applied Problems
			Knowledge of math concepts, symbols, and vocabulary, counting, identifying numbers, shapes & number patterns	K, 1st and 3rd grade	Woodcock-Johnson III Quantitative Concepts-Concepts and Number Series
			Mathematical computations	1st, 3rd grade	Woodcock-Johnson III Calculation
		Oral comprehension	Oral comprehension using syntactic & semantic clues	PreK – 3rd grade	Woodcock-Johnson III
		Phonetic awareness	Phonetics of words, syllables & phonemes	PreK, K	Preschool Comprehensive Test of Phonological & Print Processing: Elision (CTOPPP)
			Phonetic & structural skills	K, 1st grade	Woodcock-Johnson-III Word Attack

		School performance, overall	Improved performance on STAAR test	-Reading and mathematics, 3rd – 8th grade -Writing, 4th, 7th grade -Science, 5th, 8th grade -Social studies, 8th grade	ERC (TEA testing data)
		School attendance	Increased number/share of school-days attended	PreK – 12th grade	ERC (TEA)
		Graduation rate	Student graduates on time	12th grade	ERC (TEA)
		Grade promotion	Reduced number/ rate of grades repeated	K – 12th grade	Parent reports or ERC (TEA)
	Social Capital	Problem behavior	Decline in problem behaviors (total problem, hyperactive, aggressive and withdrawn behavior)	PreK – 3rd grade	Adapted Child Behavior Checklist (parent survey)
			Emotional symptoms, conduct problems, hyperactivity, peer problems and pro-social skills	3rd grade	Strengths and Difficulties Questionnaire (parent or teacher survey)
		Parent-child relationships	Closeness, conflict and positive relationship measures	PreK – 1st grade	Parent-Child Relationship Scale (parent survey)

		Social skills and competencies	Social skills and learning behaviors	PreK – 3rd grade	Developing Skills Checklist, Social Sills & Positive Approaches to Learning (parent survey)
			Internalizing, externalizing, peer relations and school measures	3rd grade	Child Self-Assessment on Academic and Social Skills
			Social behavior and self-regulation	3rd grade	Social Competencies (teacher survey)
	Health & Wellbeing	Health insurance	Higher rate of insurance coverage	PreK – 12th grade	HHSC**/parent surveys
		Health status	Lower BMI/rate of obesity		HHSC/ parent surveys
			Increased executive functioning	PreK, K	Pencil Tap Test, Gift Test
	Economic Assets	Savings	Child savings account established / maintained / balance increased	PreK – 12th grade	Parent surveys
PARENT	**Adult Education**	Completion of GED attainment program	Higher educational attainment for parent		ERC (NSC)
		Completion of postsecondary degree/certificate program	Higher educational attainment for parent		ERC (NSC)
	Health & Wellbeing	Health insurance	Higher rate of insurance coverage		Parent surveys
		Mental health status	Decreased psychological distress		Parent surveys

	Workforce Development/ Economic Assets	Earnings	Improved socioeconomic status		TWC/TWIST
		Participation in workforce training program	Adult's motivation to start a new career or move up in current career track		TWC/TWIST
		Reduced reliance on public aid	Increase in self-sufficiency		HHSC
		Dollar amount in savings account	Increase in family's financial stability		Parent surveys
		Access to stable and affordable housing	Greater family stability (both financially and physically)		COA***, Parent surveys
	Social Capital	Access to emergency childcare	Higher number of reliable friends and/or family members		Parent surveys
		Number of answers to the question: "How many people can you ask to borrow $100?"	Higher number of reliable friends and/or family members		Parent surveys
	Child Education	Number of days per week that parent reads to child	Increased literacy in the household		Parent surveys
		Expectations for child's educational attainment	Greater aspirations for child's future		Parent surveys

**All tests listed would be conducted by the provider organization, United Way, or by an independent field testing group.*
***HHSC can measure rates of insurance coverage for children only if the children are enrolled in Children's Health Insurance Program (CHIP)*
****See 2014 Comprehensive Housing Market Analysis: http://www.austintexas.gov/sites/default/files/files/NHCD/2014_Comprehensive_Housing_Market_Analysis_-_Document_reduced_for_web.pdf*

Appendix H: Utility Value Tables as a Screening Tool

Early Childhood Education **Relative Utility: 90**

Objective	Criterion	Utility Values	
Early Childhood Education	Accreditation standard	0 0.25 0.5 0.75 1	Unlicensed (i.e. unknown quality) Licensed by State DFPS (i.e. minimum quality standards met) Texas Rising Star Certified NAC Accredited NAEYC Accredited or Head Start Center

Key Terms:
DFPS: Department of Family and Protective Services
NAC: National Accreditation Commission for Early Care and Education Programs
NAEYC: National Association for the Education of Young Children

Sector-Based Workforce Development **Relative Utility: 15**

Objective	Criterion	Utility Values	
Training Programs and Industry and Employer Involvement	Provides training targeting specific industries and which is designed to meet regional workforce needs. Leverages relationships with industry employers to create a pipeline for employment upon completion of training program.	0 0.5 1	Not industry-specific, not designed to meet needs, no collaborations Industry-specific OR designed to meet needs; collaborations with industry employers in place, but no agreed upon pipeline Industry-specific AND designed to meet needs; collaborations with industry employers in place AND agreed upon pipeline
Alignment with career pathways	Coordination of services between sector-based trainings and career pathways and complementation of efforts	0 1	No coordination of services (or no career pathways program) Coordination of services in which efforts complement each other
Work credentialing	Provides opportunities to develop stackable, marketable credentials and to earn an industry-recognized certificate	0 1	No opportunities for work credentialing Stackable, marketable credential development which leads to industry-recognized certificates

Incentive and planning funds:	Provides the following: (1) Incentives related to childcare (2) Incentives related to the cost of the program (3) Incentives related to earning income while completing program	0 0.25 0.75 1	No incentives provided Provides 1/3 of the listed incentives Provides 2/3 of the listed incentives Provides all 3 of the listed incentives
Career coaching	One-on-one counseling to determine fitness for specific industries, to develop course plan, and to track progress of course plan	0 0.25 0.5 1	No career coaching provided Initial consultation to determine fitness for specific industries ONLY Initial consultation to determine fitness for specific industries PLUS development of course plan Initial consultation to determine fitness for specific industries, development of course plan, AND regular meetings to track progress of adherence to course plan
Duration, with intense dosage (D)	Aims to take the least amount of time to develop the most essential skills for sector-specific employment	0.20 0.40 0.60 0.80 1	D >= 24 weeks 21 <= D < 24 weeks 18 <= D < 21 weeks 15 <= D < 18 weeks 12 <= D < 15 weeks

Career Pathways **Relative Utility: 15**

Objective	Criterion	Utility Values	
Program maps with transfer pathways	Develops and provides program maps: (1) Showing students clear pathways to completion, further education, and employment in fields of importance to the region (2) Includes transfer pathways, which establish alignment of pathway courses and expected learning outcomes with	0 0.5 0.75 1	No program maps provided Program maps provided, not tailored to specific region (cookie cutter); no transfer pathways included Program maps provided and are tailored to specific region, but no transfer pathways included Program maps provided and are tailored to specific region; transfer pathways included

	transfer institutions, optimizing applicability of community college credits to university majors		
Opportunities in High School to "on-ramp" to programs of study	Prepares high school students for easy transition after graduation by providing the following opportunities: (1) High school pathways: Aligning dual credit courses and student learning outcomes with community college academic degree programs or career and technology certificates (jointly designed by high school and community college instructors) (2) Early remediation in final year through a College Prep Course that accelerates remediation of basic prerequisite skills of community college pathways (3) Program "gateway" courses: Helps students explore academic and career options (from eighth grade through the beginning of college), aligns math and other foundation skills coursework with a student's program of study, and integrates and contextualizes instruction to build academic and non-academic foundation skills throughout the high school and college- level curricula	0 0.5 0.75 1	No opportunities provided for high school students Provides 1/3 opportunities for high school students Provides 2/3 opportunities for high school students Provides 3/3 opportunities for high school students

Accelerated remediation	Provides assistance to very poorly prepared students to increase chances of success in college-level courses as soon as possible	0 0.5 1	No accelerated remediation provided for very poorly prepared students Accelerated remediation provided, unknown/questionable quality High-quality accelerated remediation provided (successfully prepares students for college-level courses)
Advising process	Supports students by accomplishing the following objectives: (1) Helps make informed choices and strengthening clarity about transfer and career opportunities at the end of their chosen college path (2) Assists with the development of an academic plan with predictable schedules (3) Monitors progress (4) Intervenes when getting off track	0 0.25 0.5 0.75 1	No advising process in place to help students stay on path Advising process in place; meets 1/4 objectives Advising process in place; meets 2/4 objectives Advising process in place; meets 3/4 objectives Advising process in place; meets 4/4 objectives
Learning outcomes assessment	Utilizes program-level learning outcomes aligned with the requirements for success in employment and further education in a given field, and applies the results of learning outcomes assessment to improve the effectiveness of instruction across high school, community college, and university programs	0 0.5 1	Does not conduct a learning outcomes assessment Conducts learning outcomes assessment, no indication of applying results to better inform practice Conducts learning outcomes assessment AND applies results to better inform practice
Applied learning experiences	Provides opportunities for group projects, internships, and other applied learning experiences to enhance instruction and student success in courses across programs of study	0 1	No opportunities for applied learning experiences provided Opportunities for applied learning experiences provided

Economic Asset Building **Relative Utility: 4**

Objective	Criterion	Utility Values	
Provides Housing	(1) Assists families in obtaining safe, affordable housing in a healthy environment to promote family well-being and stability (2) Ideal housing services are program-specific campuses with other participants to foster social capital and decreases transportation issues	0 0.5 0.75 1	Program does not provide affordable housing services Program coordinates affordable housing to those in need but not in a program-specific community. Affordable housing in a campus-life community with other program participants. Affordable housing in a campus-like community with other program participants, with some program components provided on campus (i.e. childcare, enrichment classes, etc.), additional services provided on campus
Income Supplements	(1) Rent/utility payment assistance (2) Tax credits (3) Program success-based monetary incentives	0 0.5 0.75 1	No assistance provided Tax credits offered Program-based incentives offered Direct cash transfer provided
ECE & Childcare Subsidies	(1) Provides free quality ECE or coordinates free quality ECE with third-party provider (2) Provides or provides subsidies for after-school care or extended child care to cover a full workday (3) Provides or provides subsidies for enrichment programs such as summer programs, etc.	0 0.5 0.75 1	No subsidies provided Child care subsidy of less than 50% Child care subsidy covering at least 50% Free ECE provided
Student Financial Aid	(1) Provides financial aid for postsecondary education and workforce development program (2) Provides information and assistance in receiving grants, scholarships, affordable student loans,	0 0.5 0.75 1	No information about student financial aid provided Information about outside funding provided Student loan counseling and assistance with finding outside funding opportunities Financial aid and counseling provided

	etc. (3) Provides student loan counseling and debt management services if a problem with past student loans exist		
Financial Education	(1) Financial literacy courses - consider length, intensity, curriculum, evaluation of program if available (2) The curriculum provides tangible skills and results. Participants are required to make a realistic financial plan and monthly budget.	0 0.25 0.5 0.75 1	No financial literacy course Short financial literacy course without set curriculum Ongoing financial literacy course without set curriculum Short financial literacy course with curriculum Ongoing financial literacy course with curriculum
Asset Building Services	Potential components: (1) Banking assistance and bank account creation (2) Tax services (3) Home ownership assistance programs and education and/or Home foreclosure emergency assistance/services Extras: (1) Childrens' Saving Accounts (2) Home weatherization, efficient energy/utility assistance programs and education	0 0.5 0.75 1	No asset building services offered Provides 1 of 3: banking, taxes and navigating home ownership Provides 2 of 3: banking, taxes and navigating home ownership Provides assistance with banking, taxes and navigating home ownership; also provides some in "extras" category
Wraparound Services	(1) Assist and coordinates available services based on the participants' eligibility, such as TANF, SNAP, WIC, Headstart, Medicaid and other health benefits, unemployment, etc.	0 0.5 1	Does not coordinate with other services Coordinates with 1 to 2 services Coordinates services

	(2) Legal services - child support/ family court assistance		
Transportation/Program Accountability	(1) The program is accessible for participants. Most components of the program are in close proximity, i.e. childcare, workforce training/education, etc. (2) The program addresses/assists in transportation issues. (3) The program provides transportation services or public transit vouchers.	0 1	No transportation assistance provided Provides transportation assistance
Basic Needs	The program provides: (1) Food assistance, food pantry, meals provided etc. (2) Clothing - "Dress for Success" initiatives, etc. (3) School supplies and necessary materials for workforce development and education (4) Other basic needs or additional services	0 0.5 1	No basic needs assistance Assistance with 1 basic need (i.e. food or clothes) Food, clothing and other assistance

Key Terms:
ECE: Early Childhood Education
TANF: Temporary Assistance for Needy Families
SNAP: Supplemental Nutritional Assistance Program
WIC: Women, Infants, and Children

Social Capital **Relative Utility: 2.5**

Objective	Criterion	Utility Values	
Cohort Model	Opportunity for participants to go through program with consistent set of peers	0 0.5 1	No cohort model Cohort model Cohort model with organized peer support
Community/Faith-Based Organizations	Links with community or faith based organizations	0 0.5 1	No connection to community/faith-based org Provide referrals to community/faith-based org Strong connection to community/faith-based org
Leadership and Empowerment Programs	(1) Life skills classes as preparation for career training (2) Leadership training and opportunities	0 0.5 0.75 1	No life skills or leadership training provided Life skills/leadership class without curriculum Life skills/leadership class with curriculum Life skills/leadership class with curriculum and leadership opportunities provided
Family Engagement	(1) Parenting classes (2) Parent/child activities	0 0.25 0.5 0.75 1	No active family engagement Parent/child activities are organized Parenting classes without curriculum provided to adults Parenting class with curriculum provided to adults Whole family parenting classes provided

Health and Well-Being **Relative Utility: 2.5**

Objective	Criterion	Utility Values	
Mental Health Supports	(1) Offers clinical mental health services, peer-to-peer counseling, and integrated family therapy to promote the mental well-being of both parent and child (2) Provides crisis intervention services to address the effects of trauma	0 0.5 0.75 1	Program does not provide any type of mental health services Offers mindfulness exercises and classes, medication management and support, and stress management techniques Provides peer-to-peer counseling, mental health evaluations, or referral and linkage to CBOs

	and toxic stress participants experience in their everyday lives (3) Connects and refers participants to Community-based organizations with mental health services and programs		Provides clinical individual and/or family case management services through clinical workers, mental health clinics, or home visiting programs (includes crisis intervention and substance misuse services)
Physical Well-Being	(1) Has a curriculum that educates parents on the benefits of eating well, nutrition, and exercise for both parent and child (2) Encourages parents to exercise and eat well by providing group physical activities and classes (3) Empower parents by coordinating any available health services the participant might be eligible for	0 0.5 0.75 1	Program provides no services related to promoting health Informs participants on the benefits of exercise and eating healthy Offer nutrition and physical wellness classes; provide access to fitness centers; offer group exercise activities; start/grow a community garden Assist and coordinate available health services based on the participants' eligibility (i.e. TANF, SNAP, WIC, Medicaid)
Support to Build Strong Parent-Child Relationships	(1) Provides methods and avenues for parent and child to develop healthy, strong bonds (2) Encourages parent-child interaction and curriculum on the importance and variety of types of interaction	0 0.5 0.75 1	Program offers no services Encourages parent-child interaction Reinforce parenting skills with workshops and parent-child activities; educate parents on the importance of talking/reading/singing to baby at an early age Offer home visiting programs; educate parents on socio-emotional learnings; reinforce curriculum with cultural sensitivity
Family Planning	(1) Offer a curriculum on sexual health and well-being including contraceptives	0 1	Program provides no family planning services Provide sexual health and well-being curriculum; access to contraceptives

Key Terms:
CBO: Community Based Organization

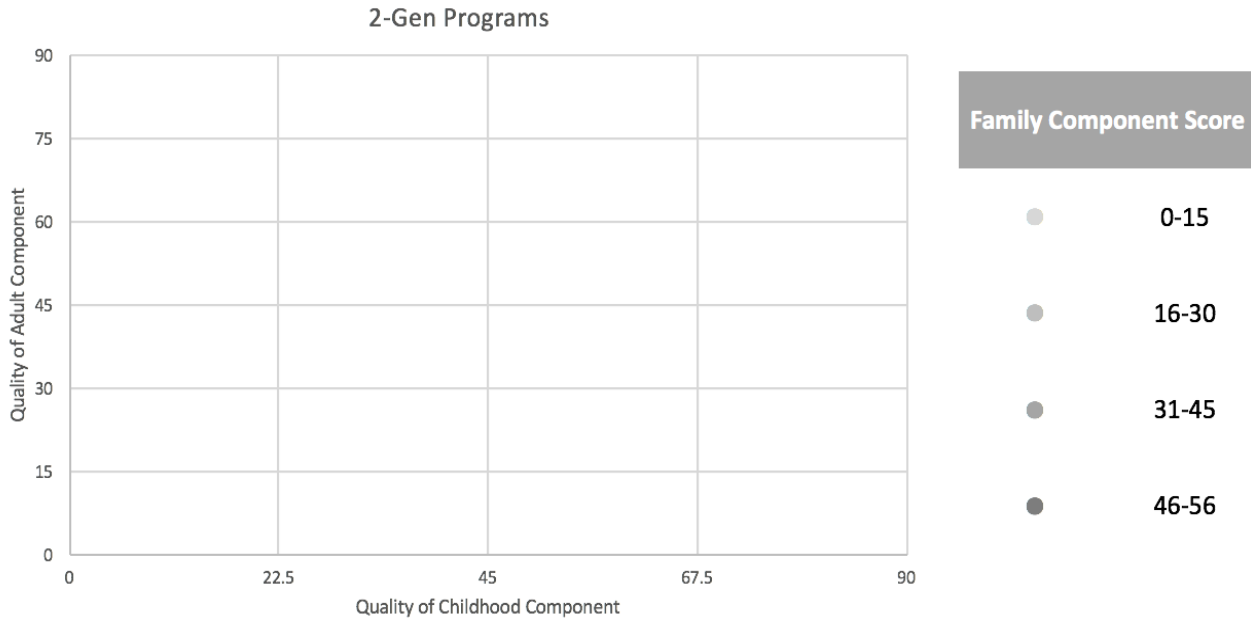
Maximum Amounts:

Category	(Number of Objectives) * (Highest Utility Value)	Relative Utility	Maximum Amount of Points Allocated for Category
Early Childhood Education	1 * 1 = 1	90	**90**
Sector-Based Workforce Development	6 * 1 = 6	15	**90**
Career Pathways	6 * 1 = 6	15	**90**
Economic Asset Building	9 * 1 = 9	4	**36**
Social Capital	4 * 1 = 4	2.5	**10**
Health & Well-Being	4 * 1 = 4	2.5	**10**
TOTAL			**236**

*Note: The calculated total amount of points includes 90 points for either Sector-Based Workforce Development OR Career Pathways. If a program offers both, the total amount of points would increase by 90 points (326) to factor in scores for both categories.

As previously mentioned, the overall "2-Gen scores" produced by the screening tool for different programs can be plotted on a graph to serve as a visual comparison which provides more detail than merely looking at the raw scores. A benefit to using to this approach is to better determine the magnitude to which the different categories are contributing to these overall scores. The way the axes are set up in the proposed format on the next page allows users to see if programs are more adult-centric, child-centric, family-centric, or any combination of the three. This allows for further insight into the 2-Gen nature of programs assessed by the screening tool. Future efforts will include modifying this format as necessary and plotting scores resulting from the screening tool to produce a preliminary graph.

Proposed Format for Visual Representation of Scores:



Note:

- Quality of Childhood Component uses the score of the Early Childhood Education category

- Quality of Adult Component uses the score of either the Sector-Based Workforce Development OR Career Pathways category (in the case where both categories are scored, an average will be taken and used to plot on the chart).

- The Family Component Score is the sum of the scores for the Economic Asset Building, Social Capital, and Health and Well-Being categories. The data points darken in color as the Family Component scores increase.

Glossary

2-1-1 United Way: Call center that facilitates connections between Texas residents and local services and resources.

Abecedarian Project: Comprehensive early education program for young children at risk for developmental delays and school failure that operated in Chapel Hill, North Carolina between 1972 and 1985, and underwent numerous assessments of its long-term effects on participants.

Accelerated Remediation: Shorter remedial courses designed to provide assistance to very poorly prepared students and increase chances of success in college-level courses as soon as possible.

Applied Learning Experiences: Opportunities for group projects, internships, and other applied learning experiences provided in schools to enhance instruction and student success in courses across programs of study.

Ascend at the Aspen Institute: Policy program geared toward fostering collaboration on ideas that improve the educational outcomes and economic security of parents and children through a two-generation approach to addressing poverty.

Ascend's Two-Generation 'Gears': Framework featuring five interconnected 'gears' that include social capital, early childhood education, postsecondary and employment pathways, economic assets, and health and well-being.

Aspen Institute: Organization that focuses on educational and policy studies through a non-partisan lens.

The Aspen Institute's *Two-Generation Playbook*: Resource provided by Ascend at the Aspen Institute that provides information regarding two-generation approaches, core components, and opportunities.

CareerAdvance® Program: Program operated by the Community Action Program of Tulsa County since 2009 that provides training for the parents of children enrolled in early education (i.e., Head Start, Early Head Start and Oklahoma Early Education) in healthcare careers, such as phlebotomist and certified nursing assistant (CNA) with tuition, books, and childcare provided.

CBO: Community-Based Organization.

Cohort Model: Program model for education and training featuring active participation of consistent set of peers.

Community Action Program (CAP) of Tulsa County: Anti-poverty agency, employing a two-generation approach, that provides low-income families with early childhood education programs and comprehensive enrichment programs.

DFPS: Texas Department of Family and Protective Services

Early Childhood Education (ECE): Programs that improve the educational outcomes of children by closing the gaps in school readiness and achievement between students from disadvantaged backgrounds and their wealthier counterparts.

Early Head Start (EHS): Variation of the Head Start program that serves pregnant women and their children up to the age of three.

Economic Assets: Two-Generation 'gear' that includes asset building activities, housing, transportation, financial literacy, health insurance, food assistance, childcare subsidies, and educational benefits such as financial aid.

Enhanced Early Head Start: Variation of the Head Start program that emphasizes parental outcomes in terms of employment and economic self-sufficiency.

Family Planning: Curriculum focusing on sexual health and well-being, including the use of contraceptives and related services.

Financial Education or Financial Literacy: Financial literacy courses, workshops, or any other programs that educate individuals on the basics of family finances. Subjects can include student financial aid, tax preparation courses or services, banking education, budgeting, etc.

Food Insecurity: Inconsistent access to adequate food supply due to lack of financial resources that occurs throughout the year leading to a greater dependence on emergency food measures.

Head Start: Program founded in 1965 that provides free preschool and early childhood development to low-income children and their parents with the goal of reducing inequality in early education.

Health and Well-being: Two-Generation 'gear' that emphasizes social determinants of health such as neighborhood connections, community, and Medicaid expansion through the Affordable Care Act.

Income Supplements: Supplemental economic resources that can be in various forms, such as tax credits, subsidies, rent/utility assistance, transportation vouchers, nutrition programs, and program success-based monetary incentives.

Learning Outcomes Assessments: Utilizes program-level learning outcomes aligned with the requirements for success in employment and further education in a given field, and applies the

results of learning outcomes assessment to improve the effectiveness of instruction across high school, community college, and university programs.

Living Wage: Minimum salary that would meet an individual's and/or family's basic needs.

Metropolitan Statistical Area (MSA): Geographical area containing a population of 50,000 or more individuals, one or more counties, and a social and economic integration between adjacent areas and the urban core.

Milwaukee's New Hope Project: Program running from 1994 to 1992 that offered employment services, such as job-search assistance, income supplements and childcare subsidies, to working parents and their children.

Minimum Wage: Mandatory minimum amount that an employer must pay to employees. Current federal minimum wage is $7.25 per hour.

NAC: National Accreditation Commission for Early Care and Education Programs

NAEYC: National Association for the Education of Young Children

On-Ramp Study Programs: University-run program that prepares high school students for easy transition after graduation by providing college preparation opportunities, such as high school pathways, remediation courses, and program "gateway" courses.

Perry Preschool Project: Program that provided free, high-quality preschool to low-income and at-risk three- and four-year-old African-American children in Ypsilanti, Michigan from 1962 to 1967.

Postsecondary & Employment Pathways: Two-Generation 'gear' encompassing postsecondary education and employment leading to family-supporting wages.

SNAP: Supplemental Nutritional Assistance Program, a federally funded program of the U.S. Department of Agriculture formerly known as the Food Stamp Program.

Social Capital: Two-Generation 'gear' that emphasizes the positive effects of peer support, interpersonal relationships with family, friends and neighbors, community participation, involvement in faith-based organizations, leadership programs, and mental health services.

TANF: Temporary Assistance for Needy Families, the federal/state cash welfare program in the United States, formerly the Aid to Families with Dependent Children Program.

Texas Public Education Information Resource (TPEIR): Resource through the Texas Education Agency that provides reports and data regarding educational topics and trends in Texas.

Texas Rising Star: Quality rating and improvement system for Texas early childhood programs overseen by the Texas Workforce Commission.

Traditional Utility Functions: Analytical method that considers multiple objectives by determining the relative utility of each variable. The Program Scan screening tool uses several objectives, which are divided into categories based on the different general components that comprise 2-Gen programs.

Two-Generation (2-Gen): Programs that intentionally serve parents and children simultaneously in hopes of sustaining gains in education, social capital, economic well-being, and mental and physical health for long-term family economic security and stability.

WIC: Women, Infants and Children Program, the special supplemental federal nutrition program for women, infants, and children.

Work Credentialing: Opportunity to develop stackable, marketable credentials and to earn an industry-recognized certificate.

Wraparound Services: "Based in an ecological model, wraparound draws upon the strengths and resources of a committed group of family, friends, professionals, and community members. Wraparound mobilizes resources and talents from a variety of sources resulting in the creation of a plan of care that is the best fit between the family vision and story, team mission, strengths, needs, and strategies."[ci]

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