

SAN ANTONIO HUMAN PROGRESS AND HUMAN SERVICES



**2035
SCENARIOS**

SCENARIOS CREATED BY



REPORT BY

SA2020[®]

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SPECIAL THANK YOU TO SAN ANTONIO HUMAN SERVICES PARTICIPANTS

Mercedes Alhaj
Michele Autenrieth Brown
Anais Biera Miracle
Orlando Bolaños
Rebecca D. Brune
Mary Ellen Burns
Keo Cavalcanti
Eusebio Diaz

Dawn Dixon
Meredith Doby
Jessica Dovalina
Andrea Guajardo
Rebecca Helterbrand
Scott McAninch
Laura McKieran, PhD
Cara Magrane

Richard Milk
Jennifer Moriarty
Henrietta Muñoz, PhD
Ingrid Petty
Jeanne Russell
Toni-Marie Van Buren
Ginger Walker
Melody Woosley

Methodology

IAF partnered with SA2020 and community partners to develop the Scenarios using the “Aspirational Futures” approach which IAF has evolved over the last three decades. This technique creates forecasts and then Scenarios in three zones (see *Figure 1*):

- A “zone of conventional expectation” reflecting the extrapolation of known trends, the expectable future (Scenario 1);
- A “zone of growing desperation” which presents a set of plausible challenges that an organization or field may face, a challenging future (Scenario 2); and
- A “zone of high aspiration” in which a critical mass of stakeholders pursues visionary strategies and achieves surprising success (Scenarios 3 and 4).

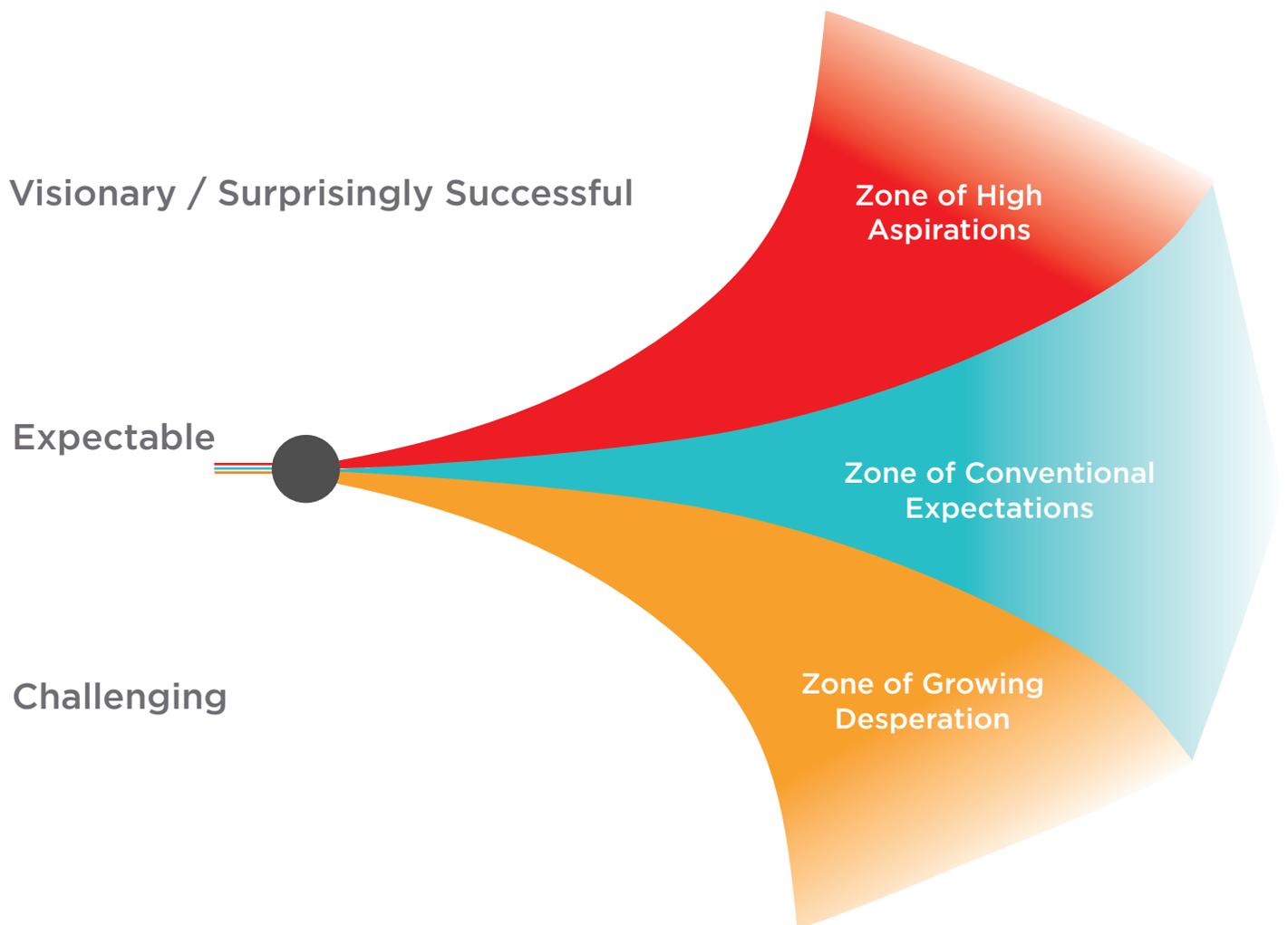


Figure 1: IAF’s “Aspirational Futures” Technique

The San Antonio Human Progress and Human Services 2035 Scenarios presented on the following pages were developed based on a review of human services programs and activities, plans and documents. We held interviews and focus groups with 16 Community partners with expertise on various human service aspects. We explored “driving forces” and preliminary forecasts for the economy, employment, the environment, technology, as well as trends within specific areas of human services (aging, behavioral health, children youth and family, disability, food and nutrition, housing, and income supports). San Antonio is fortunate to have two sets of shared goals in the SA 2020 goals and the SA Tomorrow Sustainability Plan that looks out to 2040. We used these to frame San Antonio’s aspirations or visionary forecasts.

More than 20 San Antonio-area human service and community leaders assembled on January 20, 2017 to review the preliminary forecasts and develop the distinct Scenarios.

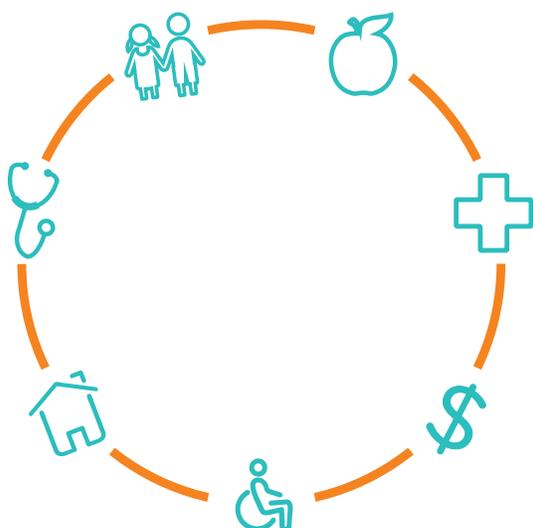
Using IAF’s “Aspirational Futures” approach and considering driving forces, the following 4 Scenarios were developed:

- Scenario 1: (Expectable)**
- Scenario 2: (Challenging)**
- Scenario 3: (Visionary)**
- Scenario 4: (Visionary)**

How to Read the Scenarios

For simplicity’s sake, these Scenarios are presented definitively and in the past tense, but remember: they are just different stories about how our future paths might unfold.

This report will first walk you through high-level overviews of each Scenario, exploring changes in our economy, climate, policies, and more—and what these shifts mean for human services in San Antonio. The next pages provide a more in-depth look at human services across each Scenario, including more specific recommendations. You will see how each Scenario might shape:



- Child and family services
- Food and nutrition
- Behavioral health services
- Income support services
- Disability services
- Housing services
- Aging services

SA2035 Community Report Card >>>>>>>

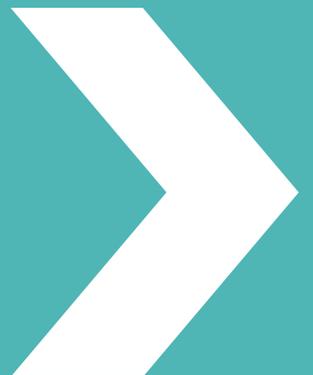
Below, explore a snapshot of San Antonio’s progress across each Scenario. Achievement of the SA2020 Goals and those in the SA Tomorrow Sustainability Plan vary depending on the forces in the macro environment (especially economy, employment, innovation, federal policy and climate), in Texas, the City and County, as well as the intensity with which the City and County pursue their preferred futures.

This report card identifies the extent to which key human services-related SA2020 and SA Tomorrow goals were achieved in the Scenarios. The Scenarios tell the story of how the forces interacted, and how some of the goals altered their focus or were transformed.

KEY Improved: +, ++, +++ ; Flat or Stagnant: = ; Worsened: -, --, ---

Community Indicator	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Increase Philanthropic Giving	+	+	++	+++
Increase Volunteerism	+	+	+++	+++
Reduce Recidivism	=	--	+++	+++
Reduce Index Crime Rate	+	--	+++	+++
Decrease Domestic Violence	+	--	+++	++
Increase Per Capita Income	-	---	++	++
Abundance advances lower cost of living	+	+	++	++
Reduce Unemployment	-	---	-	-
Reduce Underemployment	-	---	+	++
Improve Kinder Readiness	+	--	++	++
Improve 3rd Grade Reading	+	--	++	++
Increase High School Graduation Rates	+	---	+++	+++
Reduce Carbon Energy Use	+	+	+++	+++
Increase Solar Energy Use	++	+	+++	+++
Increase Development w/ Low Enviro Impact	+	-/=	+++	+++
Reduce Poverty Rate	+/=	---	+++	+++
Reduce Homelessness	-/=	---	++	++
Decrease Child Abuse	+	--	+++	+++
Improve Maternal and Child Health	+	-	+++	+++
Reduce Diabetes Rates	+	-	+++	+++
Improve Access to Health Care	=	--	+++	+++
Universal Access to Affordable Health Care	-	--	+++	+++
Expand affordable housing, healthy by design	+	=	+++	+++
Reduce Health and Behavioral Risks	+/=	--	+++	+++
Improve Housing Affordability	+	--	+++	+++
Improve Transportation Affordability	+	=	+++	+++
Mixed use development/Mixed income neighborhoods	+	+	++	++
Resilient Neighborhood Preparedness	+	+	++	++
Community parks and healthy living resources	++	=	++	++
Reduce urban heat island effects	+	-	++	++
Increase affordable healthy food	++	++	+++	+++
Increase local food production	++	++	+++	+++

SAN ANTONIO SCENARIOS: OVERVIEWS



RECOMMENDATIONS FOR SAN ANTONIO



Anticipate changing job realities, workforce development and “making a contribution”

1. Be proactive and flexible in evolving along with changing work, workforce and workforce development, and contributing apart from paid work
 - a. Anticipate job loss to automation; focus on job training for jobs and work that won't be automated and newly created jobs
 - b. Create more apprenticeships and entrepreneurial programs; ensure better remote access to job experiences; strategize with the business community; focus on vocational training and balancing hard and soft skills; prepare for “gig work” as well as “jobs”
 - c. As job loss increases, especially if a guaranteed basic income or other enhanced income supports are put in place, enhance people's ability to contribute apart from paid work
 - This involves both recognizing the need to make a contribution, and training for the specific tasks (e.g. child or elder care; food production, community volunteering)

Enhance technology and strategic capacities

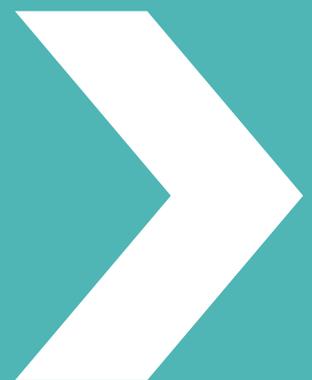
Utilize technology and influence technology development to support connection, equity and enhanced services to:

1. Engage the human services community and our partners in other parts of the country or world to share best practices and experiences
2. Anticipate automation and its impact on jobs in the community and the impact on human service needs and delivery
3. Automate human services, as appropriate, to enhance services, achieve greater equity and outcomes, optimize personal and virtual care
4. Use technology for enhanced community engagement and to enhance social health rather than isolation
5. Influence the application of AI, automation and technology to benefit low income individuals and families – e.g. appropriate use of virtual counselors; language translation; hearing enhancement; virtual home visitations

Do data integration and predictive analytics right

1. Ensure that privacy and discrimination protections are in place that enables sharing across community organizations and agencies (e.g. human services, health care, police and education)
2. Develop predictive analytics that can support prevention and more effective services without profiling and discrimination.
3. Build ecosystems that support evidence-informed, outcome-driven service
4. Use data and technology tools to map and identify strengths and opportunities for increased collaboration
5. Do all of this while incorporating the participants' perspectives

SCENARIO 1: IN-DEPTH



disproportionately impacting services available for immigrants, refugees, and asylum-seekers. Integrated information systems allowed sharing of information across health and human service agencies – making targeting, delivery and evaluation of human services easier. Intelligent agents used in human services grew more sophisticated and effective. Instant translation of languages used by human services customers was fast and accurate. By 2025 cognitive computing tools were handling much of the case management work, lowering human case managers’ workloads and allowing them to focus on the cases most in need and to oversee the work of the intelligent agents. Humans remained to oversee the work of robots and provide human touch where necessary.

Aging Services 1

Aging services evolved as by 2035, the number of people aged 65 and older in Bexar County had nearly doubled from 2015 levels to reach over 410,000¹, influenced by Baby Boomers and people that chose to retire in San Antonio. Some elders settled in the city, and others on the outskirts. This, at times, complicated access to services. Despite some persisting problems with isolation, social health for elders became a focus throughout the 2020s and is a key part of the wellbeing index used for senior services.

Senior services were integrated across the community through libraries, schools, cafes, and churches. YMCAs, the Jewish Community Center and others engaged as multiple use and multi-generational centers. Informal group homes and senior villages became more common in the 2020s. These centers, homes and neighborhoods emphasized the importance of aging with others; the Latin culture of San Antonio more easily embraced multigenerational homes. It became more common for housing and communal living arrangements to include people of different age groups which was both economical and more sustainable. Other influences on senior centers and shared homes included:

1. Universal design such as walkability and safe sidewalks built into most homes and neighborhoods
 - a. The SA2020 and Sustainability 2040 plans helped improve walkability
2. A shift in the stigma and language surrounding ‘group homes’ and villages which aided more clustering of services in neighborhoods and communities
3. Uber-like ride sharing, sometimes subsidized by the City and United Way, increased the mobility of low-income seniors
4. Telemedicine and virtual medicine enabled at-home care
5. Some villages and centers provided access to services such as yard maintenance, home repair, transportation, and health and wellness initiatives
6. 3D printing, community gardening and other production was shared; aiding older adults to save money and share resources.

As the number of seniors in the area increased, there were increased instances of disease and related disabilities. The percentage of individuals in San Antonio aged 65 and older with diabetes reached more than 25% by 2030 (102,500)². The Alzheimer’s population in the San Antonio area reached more than 41,000 people by 2035³. There

1 Texas Office of the State Demographer, cited by San Antonio Area Foundation, Projected Number of Seniors Age 65+ in Bexar County, <http://www.saafdn.org/Portals/0/Uploads/Images/initiatives/Population%20Projection%20Chart%20with%20source.jpg>, Accessed 25 January 2017.

2 Institute for Alternative Futures, Texas Diabetes Data and Forecasts, <http://www.altfutures.org/pubs/diabetes2030/TEXASDataSheet.pdf>, Applying San Antonio as 5.6% of Texas population, Accessed 25 January 2017.

3 Alzheimer’s Association, 2017 Alzheimer’s Disease Facts and Figures, <http://www.alz.org/facts/> 1 in 10 over 65 have Alzheimer’s. Rates higher for African Americans (2x as likely), Hispanics (1.5x as likely), and women account for 2/3 of all cases.

were research advances that slowed Alzheimer's, some from the University of Texas; yet this population still required special care and services.

In previous decades, social services for adults focused on helping seniors apply for public and private programs, but this need was reduced as programs became easier to apply for. Technology allowed seniors to operate in more tech-savvy ways during the 2020s, and communities shared this knowledge. Human services, such as those aiding disabled adults to become more self-sufficient and preventing abuse and neglect, became more inclusive and culturally sensitive.

Behavioral Health Services 1

The need for behavioral health services increased due to the stress and trauma of economic downturn and natural disasters, but the availability diminished repeatedly as health care changed and Federal spending was decreased. Substance abuse, including opioids, increased with growing harm to individuals, families and communities. The actions of human service deliverers were only as impactful as the financial resources available, which were particularly limited in the late 2010s but then rebounded.

During the late 2010s and early 2020s, the high costs to Bexar County of high utilizers (particularly, people who seek treatment through ERs) drew increased attention and led the County to focus more on preventive efforts to lower costs.

Preventive behavioral health efforts for children evolved:

1. Behavioral health screening for children began much earlier, generally by their first pediatric appointment. Screening was also done in school
2. All schools in the area created a system to identify suicidal and homicidal risk, and developed response programs to combat severe crises
3. Most schools in the County developed in-school behavioral health care facilities, which were neighborhood hubs accessible to children and parents
 - a. However, some inequality persisted across school systems including in-school access to behavioral health services
4. School therapists performed individual and family counseling—sometimes even going to the homes of high-risk children.

These interventions had some success. Suicide, previously the second leading cause of death among juveniles, decreased.

The SA2020 goal of reducing health and behavioral risks was not fully realized but progress was made in reducing the years of life lost prematurely before age 75. And the SA2020 goal of reducing obesity was partially achieved.

Behavioral health care in jails and prisons and post-incarceration expanded and contributed to reduced recidivism in the 2020s.

Case managers were assigned to partner with clients. Partnerships across sectors developed ways to securely obtain and share data with consent, allowing for more effective intervention; however, the success and ability of these interventions fluctuated as behavioral care in the 2020s lacked sufficient human and financial resources.

Churches and other faith-based organizations saw an increase in membership, including virtual congregations. This helped to provide a certain level of behavioral health support; however, some people needed more than churches could provide. Churches created a network across the County to share resources and enhance their outreach and efforts and partner with behavioral health non-profits. This partially filled the gaps left by federal cuts.

Organizations such as Clarity Child Guidance Center led the way in San Antonio's use of predictive analytics, early intervention, and partnerships that addressed behavioral health needs as early and effectively as possible. Most relevant databases and predictive analytics were primarily operated by the public sector or their providers initially due to privacy concerns.

By the mid-to-late 2020s, the spread of behavioral services was aided by increased use of software programs, smart apps, and virtual reality that could connect with patients and provide effective counseling. Apps evolved, expanding from monitoring physical conditions to monitoring feelings. "Affective computing" used in behavioral health tools proved effective and led to increased acceptance by the patient. Behavioral health apps progressed to virtual reality (VR). This included tele-therapy that uses VR as a tool, virtual therapists created using artificial intelligence, and in-clinic VR therapy. Human therapists provided oversight of these virtual counselors and dealt with the most complex cases. San Antonio continued to work to meet the needs of non-English speaking clients, both through using translation technologies and with bi- and multilingual staff.

Child and Family Services 1

Child and family services used mobile devices, some task automation, cognitive computing, and streamlining of data across agencies to improve service. Yet fundamentally, while delivery was more effective and efficient, agencies continued to struggle to meet the need.

Immigrants continued to be overrepresented among those living in poverty in San Antonio. During the late 2010s, ICE and other Federal agencies deported hundreds of immigrants living in the City and County. Many deported adults left behind children born in the U.S. who then needed foster care services.

During periods of increased foster care needs, private partnerships became much more important. To unburden government programs, local non-profits did more work on lower risk cases. Some foster children continued to move from family to family until they aged out of the program.

Despite being ruled unconstitutional, there were times when informal camps of immigrant children sprang up outside of the city. These experiences were damaging to children, and deportations were costly to the government left to care for the children without parents. By the mid-2020s there was comprehensive immigration reform which provided paths to citizenship but most of the deported were not allowed back.

Teen pregnancy rates continued to decrease in San Antonio, although racial disparities remained and the city hovered above the national average. These efforts and successes in reducing teen pregnancy rates in San Antonio persisted despite Texas law requiring abstinence only education in schools. Non-profits and other programs took the lead in sexual education and reproductive health.

San Antonio's major investment in Pre-K paid off. With voter approval for an increase in the city sales tax, the city created Pre-K 4 SA that serves about 10% of the city's 4-year-olds (low and middle income families). The early experience found that in that year, students go from below the national average to above the national average in three of 6 tested areas (math, literacy and cognition); at the national average on oral language and social-emotional readiness, and that they have closed three quarter of the gap on physical skills. Pre-K 4 SA's presence and approach led to improved Pre-K in existing school district programs.

More students had success with reading at grade level in the 3rd grade, but inequalities remained. The system of multiple school districts became even more difficult to manage with the growth between San Antonio and Austin. Schools worked to minimize summer loss of reading skills by students. The requirement that all middle and high school students develop career or college plans had varying levels of success.

San Antonio continued and built upon their historical commitment to welcoming refugees, despite hostile state and federal policy. As the State of Texas did not appoint a federally funded refugee resettlement organization, San Antonio leaned even more heavily on non-profit providers and churches for aiding refugees. Resettlement services included microenterprise development and refugee agriculture partnerships. Refugee acceptance became an increasingly contentious political debate issue spurred by recurring conflicts in 2020s in the Middle East, Asia, and Africa. Refugee services were often stretched thin. Community members volunteered to deliver some services, such as informal language lessons.

Disability Services 1

Local and state programs for people with disabilities included supportive housing, respite care for families of disabled, emergency response systems, and home and vehicle modification assistance. Generally, disability services grew more focused, benefit levels were reduced in the late 2010s and 2020s, and eligibility requirements stiffened, even while the number of people with disabilities and their degree of disability increased.

In 2022, the Social Security Disability Insurance (SSDI) trust fund reduced benefit levels, and raised eligibility requirements, making it harder to get the benefits. In 2032, the SSDI trust fund regulated service levels by using the national outcomes research database to assure only services with demonstrated success get reimbursed above maintenance level payments.

Diabetes was another source of disability. By 2030, diabetes affected over 284,500⁴ in San Antonio, diagnosed and undiagnosed, disproportionately impacting minorities. By

4 Institute for Alternative Futures, Texas Diabetes Data and Forecasts, <http://www.altfutures.org/pubs/diabetes2030/TEXASDataSheet.pdf>, Applying San Antonio as 5.4% of Texas population; with 5,270,100 total diagnosed and undiagnosed diabetics in San Antonio and 284,585 total diabetics in San Antonio. Accessed 25 January 2017.

2030, more than 30,000 people had a diabetes-related complication such as visual impairment, renal failure, or leg amputation.

New conditions such as increased opioid addiction, communicable diseases like Zika, and psychological trauma increased the number of people with recognized disability. Funding for opioid treatment increased during the late 2010s; however, access to treatment and success rates varied across race and socioeconomic classes.

Disability funding did rebound in the 2020s. Disability services evolved significantly by the mid-2020s as technology advanced; this included self-driving cars; intelligent digital assistants, 3D printing of smart prosthetics, home monitoring and home care robots. But many of these advances were costly and only covered by the best health insurance policies. Medicaid and Medicare covered some advances but not others, based largely on their costs. However, some widely accessible technological advances did help address isolation. Human service agencies helped customize the balance between technology and human interaction across integrated services for individuals.

Food and Nutrition Services 1

Food and nutrition support programs such as SNAP evolved. Federal funding was decreased while need remained the same or increased, so community organizations scrambled to fill the gaps. Cuts to programs like WIC decreased the number of places, such as child care centers, where low-income children receive daily meals. Fewer school children received school meals because of these limitations and higher barriers to qualifying.

SNAP moved to a block grant system, like TANF. Local health and human service agencies began coordinating their care and services with SNAP; as did state and federal programs. Community food banks and soup kitchens also checked with their customers to ensure that they were enrolled in SNAP, even as funding diminished 1% a year through the 2020s.

Extreme weather events, such as flooding, increased across Texas and San Antonio. During these times, SNAP's demand increased and efforts were made to increase accessibility such as expanding income eligibility under disaster SNAP, loosened rules on which types of food could be purchased, and allowing schools to serve free meals to children evacuated from their homes. However, many of these disasters came during periods of reduced funding and less benefits to be flexible with.

As SNAP and other food program funding diminished, people were encouraged to produce some of their own food. Community gardens, often in public spaces, grew, along with training in gardening. These were often near public housing and multiunit apartment buildings. Libraries also emerge as growing centers, operating as seed banks and giving classes around self-sufficiency technologies and tools. Schools' roles in food and nutrition expanded when possible, partnering with community-based organizations to provide meals when funds were slim.

Prepared or semi-prepared meals were provided by community groups, even as federal

funds for the Meals on Wheels program were cut. These local providers became more purposeful about the meals being nutritious and seasonal. However, these prepared meals were not always available and at times flooding and heat waves reduced the output of community gardens. And some efforts to increase nutritional value were resisted in favor of less nutritious but more familiar food.

Housing Services 1

In San Antonio, the funding for low-income housing remained largely from federal programs and there was variation of local direction across political periods and under different mayors.

SAHA had been providing housing for 27,000 families in San Antonio in 2015; 6,300 families in public housing units with federal funds for capital and maintenance costs; 13,400 families in Section 8 housing funded largely by with federal funds; and 6,800 families in subsidized non-profit or tax credit housing.

During the late 2010s, there were cuts to federal housing programs; however, tax credits for new construction remained. San Antonio developers competed vigorously for these tax credit-generating projects. The State continued to promote construction of low income housing in “high opportunity” neighborhoods; at times to the neglect of place-based revitalization.

By the early 2020s, HUD changed the Section 8 voucher program to better reflect neighborhood variation, not simply metro area market prices. This led to greater variation in the payment level of vouchers depending on the area, which was determined by average rent in the zip code. The overall funding for the program fluctuated over the 2020s.

There were some greater measures taken across the nation to increase low-cost housing stock. San Antonio communities engaged some of these tactics:

1. Rezoning to allow secondary living units on the property of single-family homes and encouraging building on empty space around homes. This was met with some resistance and animosity, particularly in the suburbs
2. Encouraging sustainable, energy efficient, low cost construction of units
3. Conservation trusts, tax credits, and non-profit owned and leased units helped maintain affordability of land and homes
4. Encouraging multifamily units that were livable and had a small ecological footprint
5. Ordinances that prohibited landlords from refusing to accept housing vouchers as rent
6. Encouraging alternative construction, including 3D printing of housing components and repurposed materials, and “tiny homes”

These policies were important and did lead to some increase in moderate and very low-income housing over the years, but this still could not keep up with the demand as more families lost income as unemployment grew and the City’s population grew. Overcrowding increased throughout the region, as did homelessness and Colonia-type “model subdivisions” (particularly in the unincorporated areas).

San Antonio moved towards a “housing first” model, following the example of other Texan cities to help those who require substance abuse care and other needs. This required and facilitated greater integration between housing and other human services, such as substance abuse counseling. Emergency shelter in cases of abuse or neglect continued to be provided throughout the 2020s, though the need periodically exceeded the supply.

San Antonio homeless also benefited from Haven for Hope, a privately funded and run traditional homeless shelter that encourages personal transformation. It is a 36-acre complex of housing, food, medical and dental clinics, and a YMCA. It gets homeless off the street and empowers them to get healthy, learn or enhance work skills, and move on to jobs and permanent housing elsewhere. With dormitory space for 850, it took that number of people away from living on the street. “Members” can stay for up to 2 years, though the average move comes after 6 months. Through the 2020s Haven for Hope maintained its impact in getting thousands of San Antonio homeless into jobs, better housing and healthier lives.

Income Supports 1 \$

Texas continued strict income support services and TANF regulations, such as low monthly cash benefits and barriers to access such as requiring that participants re-enroll in the program every three months. Other programs took this approach – all the while job loss to automation was making it less likely these recipients could get a job. Other benefits, including childcare, were moved to tax credits, even while many who did get employment typically made so little that they paid little or no taxes, and so they got little benefit from these tax credits.

Politically, the ability to gain federal funds varied through the succession of administrations. Cuts were particularly strong under the 2017-2021 administration and partially rebounded under administrations in the 2020s, particularly as the Millennial generation entered leadership and policy making positions. Total TANF spending grew in absolute dollars, though payments fell on a per-capita basis.

Texas did shift the “welfare cliff” with TANF, allowing a person to earn more income before they lost their TANF payments.

The need for income supports, particularly TANF and SNAP were repeatedly increased by extreme weather events effecting San Antonio, including dangerous heat and drought, and flooding. Damage to roads and transportation systems further prevented people from accessing employment after a weather event.

During these periods of environmental disaster, many human service workers found themselves without stable housing or access to food, and in the same position of need as many of their clients.

The refocus on empowering TANF recipients with education and skills training proved particularly important as the types and number of specific jobs available continued to shift due to increased computerization and the percentage of “gig work” rose.

In San Antonio, areas of job growth included advanced manufacturing, cyber security, entry and mid-level health care jobs, and the green economy. Predictive analytics were applied to TANF recipients to match skills and local, sustainable, job opportunities.

SCENARIO 2: IN-DEPTH



often-reduced donations. The hope and commitment of non-profits and faith-based organizations remained, but their ability to step up was limited.

Aging Services 2

As the Baby Boomer population aged, there was increased strain on health care and home care programs which faced budget cuts. Social Security payment levels did not keep pace with inflation and in some administrations, were slightly reduced. The political climate nationally and in San Antonio became more volatile.

Many senior services were cut; some were provided privately, including many important advances. The affluent could afford high tech and high touch home care, including effective home care robots that serve the elderly as caregivers and younger family members as aides. Low-income seniors were unable to access these new technologies as easily, and relied on familial relations for care which were sometimes strained as the economic downturn disrupted families. Some working-aged family members moved away from San Antonio to seek employment. When family members did fill the role of caregivers, there were often great emotional, financial, and physical impacts.

Cases of Alzheimer's and dementia increased in number as the Baby Boomer population aged. Diabetes related problems increased across seniors. The number of individuals in San Antonio aged 65 and older with diabetes was more than 70,000 by 2030⁵. The population with Alzheimer's in the San Antonio area reached more than 41,000 people by 2035. Low-income and Black and Hispanic populations were disproportionately impacted⁶. Problems of isolation and inability to access services and care exacerbated for elders with these conditions that live alone. Isolation, harm, and death increased during extreme weather events; in San Antonio drought, water scarcity, and dangerous heat often impacted senior population most harshly.

Behavioral Health Services 2

The need for behavioral health services increased due to the stress and trauma of economic downturn and increased vulnerability, but the availability diminished year after year. Abuse of substances including opioids increased dramatically with growing harm to individuals, families and communities. Despite evidence showing that behavioral health care can counter the epidemic of drugs, funding became scarcer during the 2020s. Health care reform left more uninsured and there were cuts in Medicaid.

There were notable increases in drug dependency, poly-substance abuse and related co-occurring disorders. Access to treatment and success rate varied across race and socioeconomic classes.

Behavioral health expert systems – “virtual counselors”, delivered via smart phones, did become very effective by the mid- 2020s. They were available to the affluent, those with expensive health insurance, and to the few low-income folks still on Medicaid managed care plans (these plans provided the app to their patients without charge).

⁵ Institute for Alternative Futures, Texas Diabetes Data and Forecasts, <http://www.altfutures.org/pubs/diabetes2030/TEXASDataSheet.pdf>, Applying San Antonio as 5.4% of Texas population. 1,343,200 total in the state of Texas over 65 had diabetes (diagnosed and undiagnosed) and over 70,000 in San Antonio. Accessed 25 January 2017.

⁶ NPR, Stress and Poverty May Explain High Rates of Dementia in African-Americans, <http://www.npr.org/sections/health-shots/2017/07/16/536935957/stress-and-poverty-may-explain-high-rates-of-dementia-in-african-americans>

Prisons remained major sites for providing behavioral health services, with wide variations across facilities in the quality of the behavioral health provided. From 2017-2021, the return of a “get tough” stance in criminal justice led to increased arrests and convictions. Black and Hispanic populations were most affected because their arrest rates remained higher and their sentences longer than for the White population. The Great Recession and other economic challenges increased poverty, contributed to higher crime rates, and continued high incarceration rates.

In 2020s, human services did use predictive analytics to help behavioral health providers triage the population when budget cuts meant people must be cut from programs. These cuts took a toll on providers as well as their clientele.

Child and Family Services 2

The need for child and family services grew for most of the two decades to 2035. Increased poverty, racial and ethnic disparities, and cuts to human services were among factors increasing need. There was a reduction in many non-crisis services. Although these ultimately save money, they could not be prioritized as San Antonio struggled to meet day-to-day demands. The cuts in services experienced in the late 2010s were largely reversed by 2023, when the Great Recession 2023 arrived. Job loss to automation added to the growth of poverty throughout the 2010s and 2020s.

Increased poverty contributed to greater child abuse and neglect, domestic abuse, opioid and other substance addiction, teen pregnancy, housing insecurity, food insecurity and depression. These contributed to adverse childhood experiences (ACEs) and trauma which impacted brain function and development for these children, which would negatively affect their gene expression for years to come. The community’s commitment to the SA2020 goals slowed some of this movement, but ultimately, the need for foster care grew. Foster care providers varied widely in their quality with some providers giving inadequate service or even endangering the children in their care. Cases of abuse in foster care systems grew throughout the 2020s. Many children entered the welfare and foster system in a period that saw funding cuts. Some of the children entered the system because their foreign parents had been deported. Child protective service workers became increasingly overworked and strained through the 2020s. Worker retention rates were low. Social service providers adopted automation of tasks to deal with staff cuts, and in 2035 there are fewer people who meet directly with children and families.

Adult protective services and refugee assistance services were cut repeatedly. Other programs that experienced cuts, or elimination, included: child care subsidies, programs to provide school clothing, transportation assistance, home repairs funding, and job training. In San Antonio faith-based, philanthropic and other community groups increased their efforts to address some of these unmet needs. And human service providers encouraged family self-sufficiency through home and community food production; trading time and services; sharing 3D printing for making many of the things they need.

While Pre-K 4 SA centers and their influence helped raise kindergarten readiness for

low-income kids, the gap in student achievement between schools was worsened. This continued and exacerbated the disproportionate outcome of funding, graduation rates, and academic success. The greater metroplex that developed as San Antonio and Austin regions merged complicated school district management.

Participation in the informal economy (sometimes in illegal activities) increased as more families were excluded from the formal economy and services. San Antonio further developed as a hub for child trafficking. Through the 2020s and 2030s the victims of these crimes required special services and trauma-informed care that was not always available to them.

Despite these challenges, there were instances where neighborhood and community networks built resilience and developed informal systems for child caring, meal sharing, and spreading information about the services that do remain.

Disability Services 2

Budget stress brought about increases in disability payroll taxes, reductions in federal Social Security Disability Insurance (SSDI) payment levels, and tougher eligibility standards.

The percentage of people with disabilities grew- particularly those related to diabetes- fueled by higher structural unemployment, more severe weather events, and growing chronic disease; in addition to a major economic recession in 2023. Developmental disabilities grew in the 2020s, fueled by parental drug abuse, lack of prenatal care and spread of the Zika virus and other diseases. State and local services for people with disabilities- which include housing and home modification assistance, transportation services, and job services- were also negatively impacted.

Accident-caused disabilities continued to grow. Deregulation of some businesses led to increased contamination of water and soil in some communities, which led to increased disease and disability. While some congenital conditions could be addressed in utero, and some after the person was born, these were expensive procedures, not covered by Medicaid and Medicare.

Veterans increased in number due to ongoing conflict and war. However, those returning, former veterans, and their families were often unable to access health care as the military doctors were deployed to warzones and the Veterans Administration's funds were reduced. There were fewer physicians and other disability/rehab providers in the area as those jobs became less lucrative career due to high cost of malpractice insurance, intense billing and payment requirements, and lower Medicaid reimbursements. San Antonio continued to lack specialists. Furthering the strain on people, more doctors refused to accept Medicaid payments. Medicaid recipients themselves faced greater barriers to access such as mandatory reapplication every several months, and stricter limitations to specific services.

There were technological and medical advances that removed disabilities or lessened their impact, but most low-income people lack access as Medicaid and Medicare do

not cover them or their families cannot afford them (e.g. advanced digital assistants, self-driving cars, 3-D printed prosthetics and orthotics, home robots, and neuro-enhancements). For example, in San Antonio, a rehabilitation hospital in the city offering state of the art nerve stimulator technology in the late 2010s allotted only 2% of their 300 hospital beds for patients using Medicaid benefits. Some other hospitals took no Medicaid rehab patients. These restrictions grew in the 2020s.

Parental drug abuse and lack of prenatal care contributed to higher developmental disability rates in the 2020s. The ability to lessen the impact of intellectual developmental disabilities decreased as special education funding and the number of specialized teachers and therapists were reduced. The racial and income segregation in the city persisted, and drove further inequality as students with greater educational and medical needs who live in higher income communities received services while many in low income communities did not.

Food and Nutrition Services 2

The severe economic recession in 2023 further exacerbated food insecurity- but unlike in past recessions, federal spending for SNAP benefits could not rise with the need. Despite obstacles, organizations such as churches and non-profits across San Antonio repeatedly increased their nutrition programs or funding, particularly in schools and early childhood centers.

SNAP benefits moved to a block grant, which was yearly reduced in size until the program ended in the late 2020s.

Home food production increased, along with community gardens and other forms of community co-production. Many schools maintained gardens. By the mid-2020s there was increased home fruit and vegetable production; many of these efforts were in low-income communities, and focused on knowledge sharing and encouraging home gardens. Food insecurity and hunger persisted and impacted education, health, and economic development.

Economic recessions, particularly the big one of 2023, drove some grocery stores out of business, which limited the options for food purchase. Public transportation was increasingly strained. The number of San Antonio residents in food deserts grew in the 2020s.

Periods of severe drought and storms hurt food production on the more than 2,000 farms in the County as well as the growing number of home and community gardens. Aquifer pollution and other challenges and related water shortages, as well as reduced air quality periodically further reduced production or the quality of the foods.

Housing Supports 2

Housing assistance had been declining from the mid-1990s to 2015. During the 2017-2021 Administration, funding to housing services was cut further. For families, job loss was a frequent cause for loss of housing. This accelerated during the Great Recession of 2023. Other contributing factors to housing instability increased as well including,

the severe cost burden for rent, and increases in domestic violence and disabilities. Large numbers of people lost their homes while human services had little to offer in response. Homeless populations soared while spending on them dropped. Churches in many areas of San Antonio stepped in temporarily and met some of the need, providing shelter and meals. Homeless camps arose or expanded in the City and County. Overcrowding in homes and apartments increased throughout the region, as did blight, homelessness and Colonia-type developments, often bringing with them increased rates of crime.

While housing services decreased and homelessness increased, many community members had used up their lifetime eligibility for programs such as TANF and SNAP. This left some without the ability to meet their basic needs. When state funds were provided for housing, there were strict mandates and a focus primarily on the mobility model, in which families living in high-poverty areas move to low-poverty areas using subsidies. This method was met with resistance and periods of gridlocked funding and action.

The availability and quality of low-income housing declined dramatically. HUD stopped or dramatically reduced much of its public housing and housing subsidy programs during the 2017 to 2021 Administration. City and state funds were not able to make up the difference. SAHA had been providing housing for 27,000 families in San Antonio in 2015⁷; 6,300 families were in public housing units where the federal funds for capital and maintenance costs roughly remained level. This was inadequate for maintenance and led to some units and buildings to be taken out of service. Section 8 housing voucher funding slowly declined, dropping from 13,400 families to 8,000 by the late 2020s. 6,800 families had been in non-profit or tax credit housing in 2015 – that number likewise decreased.

Income Supports 2 \$

Texas continued to be very restrictive income support services, such as with cash benefit amount and time limitation on TANF benefits. These limitations were made more extreme during periods of federal cuts. When jobs were available, racial discrimination persisted among hiring, or many people had criminal records which made them less hireable. Single parent households, increasingly the norm for low income families, were less able to meet their basic needs, and resorted to extreme measures, did without, or found alternative sources for food, shelter and services. The 2023 Great Recession pushed more families below the poverty line. Multi-generational homes increased. Through the 2020s a growing number of the population in prison are former TANF recipients who resorted to crime for survival.

Texas experienced water scarcity, water pollution, extreme heat and drought which increased the need for assistance. Widespread opioid use, and social unrest left more families in poverty and unable to meet their basic needs. Other problems such as increased infant mortality, decreased high school graduation rates, and increased family homelessness further stressed the situation.

Access to jobs was hindered as transportation funding from the federal government,

⁷ SAHA, <http://www.saha.org/index.php/current-residents>

the state and the city was reduced. Some major road projects were cancelled and road maintenance declined. Many low-income families needed public transportation to get their jobs - but some bus lines had to be dropped. Uber and similar services increased, as did self-driving cars and trucks, reducing some demand for public transport. But the cost for these remained out of reach for many low-income families, leaving many isolated from the lesser number of available jobs.

SCENARIO 3: IN-DEPTH



home food production. Aeroponics and other technology supported vegetable growing. Cultured meat and protein joined 3D printed food, increasing access to sustainable protein sources. Beyond food, 3D printing, or distributed manufacturing, allowed families to manufacture many of their needs. Some 3D printing was done at the local library, others at the successor to the Kinko copying store, and still others in homes (with the use of the 3D printer shared among neighbors). These advances supported self-sufficiency and were often looked on as “abundance advances.” In addition to having the basic income residents and their neighborhoods produce and co-produce many of their needs. This self-sufficiency is aided by the availability and effective use of “abundance advances.”

Demographics in Texas and San Antonio changed, as did political leadership and policy. The leadership of San Antonio continued to be younger, with more Hispanic and other ‘minority’ representation. Equity in education led to the consolidation of districts into one unified school district for the San Antonio area.

The information and communication environment changed. The successors to smart phones and their related apps expanded their services and became more intelligent. Data aggregations enabled predictive analytics applied to many aspects of life. People were educated around data sharing and using and given control of their own information. Cognitive computing, the driver of automation of many jobs and tasks, served families and individuals in doing home security, language translation, directing self-driving cars, and providing health care diagnoses and prescriptions. Virtual reality became widely used, including by elders.

Human Services were shaped by and often accelerated these transformations. After cuts and rebounds in the early 2020s, human services continued its movement to the generative business model of the human services value curve. Two-generation and multi-generation strategies were consistently used. The goal of human services moved from getting families to be self-sufficient to supporting their wellness and thriving. The need or demand for human services were somewhat reduced as the GBI reduced poverty; there was less child and elder abuse; healthier living slowed or prevented disease and some disabilities. But needs for services persisted. To optimize human service delivery, automation was applied as appropriate. Predictive analytics allowed human services to anticipate a family’s needs, optimize services for the family, identify and foster the most effective community partnerships, and, when needed, to triage among programs or clients when funding or services were being reduced.

Human services provided training on the wealth and financial literacy needed for families to successfully manage their guaranteed basic income, to optimize their use of “abundance advances,” and to have each family member pursue their contributions to the community. Having a sense of your worth, and your contribution, along with taking care of children, the elderly, volunteering in other settings helped reduce diseases of despair (including suicide and substance abuse.)

Aging Services 3

SA2020, then SA2030 promoted activity, healthy living, and increased community

involvement. For older adults in the San Antonio area this had a beneficial effect of slowing their aging, disabilities, and chronic diseases.

For aging services, there was greater integration of data across various aging services—such as those addressing housing and nutrition- with overall health and well-being. The ability to address physical, social and spiritual needs of people up to and through their dying days meant old age was a good time of life for a growing number of people. Human services aligned with human progress in their goal: everyone can contribute to their community and no one is without a sense of purpose, even in their later days.

Formal, informal, and virtual senior centers all grew, while many ceased to be “seniors only” centers. Most communities increased their senior activities and integrated senior services into libraries, schools, churches, cafes, and other settings, including homes and neighborhoods. Seniors spend more time volunteering and trading goods and services.

Senior group living and co-housing grew steadily through the 2020s, as did “smart homes” for many seniors. Smart home features play many roles- a friend, bookkeeper, secretary and counselor. Many smart homes support in-home food and energy production.

Senior housing and centers were influenced by several technological and community changes. These efforts included:

1. Integrating health and human services
2. New buildings and those retrofitted are energy efficient; universal design widespread
3. Transportation was made easier with self-driving cars and other advances
 - a. The SA 2020 and SA Tomorrow plans were largely successful in realizing their transportation agenda adjusted to integrate self-driving vehicles into the public transit system

Virtual reality and remote participation became increasingly easy, as even those in their 70s and 80s spend time in virtual reality. Much elder health care was done remotely or in VR, but when face-to-face doctor visits were needed, most often the transportation cost was subsidized by the City, County or the health care provider. In addition, public transport was influenced by the successes of private systems such as Uber and self-driving cars.

Nutrition programs, such as SNAP payments, were eliminated after a basic guaranteed income was implemented in the 2020s and adjusted for those receiving Social Security payments. Programs such as Meals on Wheels charged recipients, given their GBI payments, with only special categories of individuals, e.g. the disabled, whose meals remained free.

Behavioral Health Services 3

Many behavioral health problems were prevented in the 2020s as all families had a guaranteed basic income, and lowered their cost of living through low cost solar energy, home and community food production; 3D printing of many needs. This better addressed some of the root causes of behavioral health problems. In parallel with the

self-sufficiency gains and social value shifts there was an increase in behavioral health literacy that destigmatized getting behavioral care. This led to much greater acceptance of differences among people and of people seeking treatment and being able to talk about it.

Technology significantly accelerated behavioral care; effective and inexpensive software developed and used by leading health care providers proved to be very successful in the 2020s. In addition, the intelligent agents that Apple, Microsoft, and Google had built for years could also be instructed to give behavioral care. These programs were kept updated as information evolved.

These technologies did not replace interpersonal counseling and care, particularly for those with long-term and more severe mental illnesses. The balance between human and tech delivery was customized for each person.

Behavioral health services were influenced by advances in understanding ACEs and genetic and environmental contributors to behavioral health. Predictive analytics aided early intervention. For some behavioral health conditions that were largely genetic in their origin, in the 2020s effective genetic interventions were proven successful. The Medicare for All system covered or provided these advances. Better understanding of gene therapy helped prescribers have much more accuracy with prescribing appropriate behavioral health medication. Most prescription medication users had faster more successful responses as a result. Physical and behavioral health were given parity.

Some insurers offered discounts for those that pursued behavioral health care. Non-traditional services such as meditation, yoga, and exercise increased. Primary care involved early screening for known markers of behavioral health, and there is increased early intervention.

Homes for adults with behavioral health issues evolved with special smart home technology geared to residents' needs. Residents do home food production (from conventional gardening to high tech approaches); use face-to-face visits and virtual reality to relate to other communities; and generally, make themselves as self-reliant as possible. Some called these Freedom Homes. Health care and human service agencies supported social enterprises that develop and manage these homes.

Child and Family Services 3

The pursuit of the SA2020 goals of reducing poverty, child abuse, domestic violence, underemployment, teen pregnancies, and homelessness, while increasing per capita income, kindergarten readiness, 3rd grade reading levels, maternal and child health, were extended to 2035, and along with the SA Tomorrow 2040 goals, were largely achieved.

Guaranteed basic income payments were consistent and led to greater family stability, a reduction in domestic violence and child abuse, and contributed to lower teen pregnancy rates and increased high school graduation rates. GBI support led to volunteering by those not doing paid work; all contributed. Abundance advances

lowered the cost of living and helped provide family security as families used low-cost energy and storage, produced some of their own food, 3D printed in-home or in-community some of their home goods, lowered the cost of living and helped provide family security.

The commitment to equity and inclusion in San Antonio made low-income and minority children and families feel less isolated and part of the community. The development of more mixed income neighborhoods physically integrated families. All of this effected the emotional, physical and economic wellbeing of children and adults, reducing domestic violence and child abuse.

But while reduced, opioid and other substance abuse and addiction and behavioral health issues (including the effects of ACEs experienced in the decades before) persisted, giving rise to ongoing, if reduced, need for children, youth and family services. The GBI payments helped more families to take foster children, while aiding extended families and enabling more kinship placements.

Human service providers enhanced their partnerships with health care, public safety, education, and the business community. Protection of data security, identity and from discrimination, enabled integration of data and advanced analytics applied to that data. These served to identify at-risk individuals, vulnerable communities, and specific circumstances that prompt preventative actions. And those analytics identify the most appropriate services for each family member. Throughout the 2020s these services were rigorously evaluated for outcomes, enabling both quality improvement and cost reduction in the human services delivered. San Antonio was a national leader in many aspects of child services and in ensuring data was collected and used with consent.

Immigration was made more difficult during the 2017-2021 Administration, Federal support payments were reduced, and deportations increased. In the 2020s the U.S. returned to being an immigrant and refugee friendly nation. Immigration reform took place in the 2020s. Political and economic stability at home allowed the United States to successfully welcome significant numbers of refugees throughout the 2020s.

Services for these individuals and families came from federal, state, local, and private programs with blended funding streams. Where refugees had children born in the US, as citizens, they received the child's GBI payments. The isolation of immigrants and refugees and their service providers and neighbors was somewhat reduced using effective, low cost, culturally sensitive language translation apps.

Disability Services 3

Disability, or its impacts, were reduced during the 2020s. The slowing or reversal of chronic diseases, particularly diabetes, arthritis, Alzheimer's, and some cancers; physical activity and weight loss among overweight and obese individuals; safer and healthier work places and work styles all contributed to the reduction. Developmental disabilities were reduced somewhat with reduced poverty, consistent prenatal care, and safer environments.

Disability payments were affected by the implementation of the guaranteed basic income in the 2020s. These unconditional payments reduced, and in some areas eliminated, disability payments. Some individuals with severe disabilities (i.e.: they are dependent on costly caregivers) were eligible for disability payments in addition to guaranteed income. These additional benefits operated on a gradient of severity, similarly to the worker's compensation system.

Health and human services became more integrated both with sharing data and developing partnerships across all levels of delivery. Several systems followed the successful example of a San Antonio Autism Life Links, which linked multiple organizations and allowed clients to enter through a central portal, where information is appropriately shared. Clients were guided to best care practices. When carefully done, this brought about several positive results. Mental and developmental disability screening took place with primary care exams, and became less stigmatized. This increased the number of people in need who sought and received care. Across San Antonio school districts, a more cohesive policy plan was developed and put into practice which more equally and efficiently provided disability services for children.

There were remarkable medical and technological advances affecting disabilities, including:

1. 3D printing of home equipment and even smart prosthetics
2. Sophisticated home monitoring and home care robots
3. Friendly intelligent agents that act as helper, guide, counselor, therapist, translator, speech and hearing enhancer. These personal intelligent agents also communicate with family members, care givers and medical personnel about their person with disability
4. By the mid-2020s direct brain control of limbs for paraplegics was available; reversal of diabetes and Alzheimer's; and vision and hearing restoration for some
 - a. As the medical advances were proven effective and safe, and their initial costs dropped, they were covered Medicare for All.
5. By the late 2020s genetic analysis could predict disabilities and in utero testing and gene level repair was available in some countries
6. Diseases such as sickle cell disease, fragile X disease, retinitis pigmentosa, and others which are due to an abnormal gene, became treatable or preventable.
7. There was also progress in treating conditions caused by gene duplication, such as Down Syndrome. Many of the causes of disability, beginning in childhood, progressed towards being preventable. Treatment for additional genetic diseases such as schizophrenia, type 1 diabetes, and other chronic diseases evolved (likewise for cancer care).
8. Self-driving cars and other vehicles increased mobility. Many of these were available to low income individuals and families either because they were sufficiently low-cost, or because they are covered by the universal health care system. Racial, ethnic, and income disparities in disabilities and their treatment were lessened.

Food and Nutrition Services 3

Food insecurity was significantly reduced by the guaranteed basic income payments and by families and communities producing more of their own food, including:

1. Self-production of food in homes
2. Community co-production, including community gardening, and advances in hydroponics, aeroponics, and urban and vertical agriculture
3. 3D printed foods and cultured meats

In addition to technology, many areas built upon San Antonio's agricultural heritage, tapping into the knowledge of elders to re-teach home gardening, food culturing, and small-scale agricultural practices. The role of food in forming community and spiritual connection with others was recognized as an important facet of providing people with security, and this was celebrated in community programs and supported by state and federal funding agencies. Universal Pre-K was adopted and most sites, as well as schools, included a gardening component and education on nutrition. Food preparation and production grew in public, private, and nonprofit sectors.

Basic income provided a floor for family income, and displaced SNAP payments, allowing better access to their basic needs. Human services, schools, and health care shared data and allowed individualized and preventative approaches to addressing food and nutritional needs.

Housing Services 3

Although San Antonio was historically not a “high cost” city for housing, housing costs had been growing faster than wages and this continued in the 2020s. The GBI payments helped many pay the rent, but seldom was rent less than 50% of their GBI monthly payment. The need for low-income housing grew. Changing attitudes supporting equity and inclusion in the state, the recognition of housing as a fundamental need, and effective leadership enabled policy and program changes that significantly increased the low-income housing stock in the region; much of it in mixed-income neighborhoods.

In San Antonio, the funding for low-income housing remained largely from federal programs and there was variation of local direction across political periods and under different mayors.

SAHA had been providing housing for 27,000 families in San Antonio in 2015; 6,300 families in public housing units with federal funds for capital and maintenance costs; 13,400 families in Section 8 housing funded largely by with federal funds; and 6,800 families in subsidized non-profit or tax credit housing. Under the 2017-2021 administration, there were cuts to federal housing programs; however, tax credits for new construction remained. San Antonio developers competed vigorously for these tax credit-generating projects. The State continued to promote construction of low income housing in “high opportunity” neighborhoods; at times to the neglect of place-based revitalization.

After cuts during the 2017-2021 Administration, there was a rebound in Federal funds to build and maintain public housing and for section 8 vouchers. And San Antonio took a

variety of measures to increase the low-income housing stock:

1. Encouraging sustainable, energy efficient, low cost construction of units, both multifamily and individual new homes, and accessory dwelling units
2. Conservation trusts, tax credits, and non-profit owned and leased units helped maintain affordability of land and homes
3. Encouraging multifamily units that were livable and had a small ecological footprint
4. Ordinances that prohibited landlords from refusing to accept housing vouchers as rent
5. Promoting the growth of accessory dwelling units, to foster mixed-income neighborhoods, at first consistent with the 2015 San Antonio's ordinance on ADUs, but later expanding the areas where they could be developed and lessening other restrictions
6. Promoting the use of abundance advances to lower the household's cost of living

San Antonio moved towards a “housing first” model, following the example of other Texan cities to help those who require substance abuse care and other needs. This required and facilitated greater integration between housing and other human services, such as substance abuse counseling.

Emergency shelter in cases of abuse or neglect continued to be provided throughout the 2020s, though the need periodically exceeded the supply.

San Antonio homeless also benefited from Haven for Hope, a privately funded and run traditional homeless shelter that encourages personal transformation. This 36-acre complex has housing, food, medical and dental clinics, and a YMCA. Haven for Hope got people housed and aided them in achieving health and work skills towards jobs and permanent housing elsewhere. Through the 2020s it moved thousands of homeless into more stable conditions.

Housing services in the City and County were well integrated, consumer focused, and used predictive modeling and advanced analytics to anticipate emergency housing needs. Social impact bonds, or “pay for success” models, increased as data supported their success. This model was applied to housing. People without stable housing, or in areas of concentrated poverty, tended to be high users of very costly services such as emergency rooms. Stabilizing homes and communities saved money across the board. And housing services used the mobility model, encouraging families to move from low-income to moderate-income areas. Social impact bonds encouraged this, because it was shown that when participating in a mobility model, families that move from low-income to moderate-income areas saw an improvement in health outcomes. This was ultimately cost effective, and so a better case for funding impact bonds.

There were actions to both build affordable units in high opportunity neighborhoods and to revitalize areas that had been neglected. SAHA helped stimulate the creation of a real-time marketplace of all available housing units, organized by price, geography and unit size. Cross-sector partnerships helped build housing for low-income families, e.g. hospitals supporting the funding or loans.

Families and neighborhoods were strengthened through abundance advances, which included affordable options for climate-resilient homes, and the home and community production of food and energy. The City and federal housing regulations and incentives led landlords to equip their rental units with low cost solar energy and storage and pass the savings to renters.

Homelessness remained, but was drastically reduced. The basic income served to alleviate portions of chronic homelessness, but crisis related homelessness (due to environmental emergencies, violence, or behavioral health) remained.

Income Supports 3 \$

With the passage of the guaranteed basic income, TANF was largely eliminated along with SNAP, EITC and other income support programs, except when natural disasters brought emergency needs. Some programs such as housing subsidies and disability payments where the costs or needs exceeded the GBI payment levels, were continued. Yet in most cases, guaranteed income payments enabled the disabled to have better lives in which they contribute to their communities and society.

San Antonio was intentional about creating a network in which people could better participate in the community. People volunteered, or cared for children and elderly. Given the GBI payments for those not otherwise doing paid work, this contribution and the sense of meaning that accompanied it, was needed.

SCENARIO 4: IN-DEPTH



energy. Improved outcomes strengthened San Antonio's communities.

The equity movement impacted human services, as stigma around receiving services was decreased and support for them was increased.

Human services have adequate funds, including higher pay for the reduced number of human service staff and adequate overhead for human service provider organizations. Each client has a case manager/mentor who ensures they get the most appropriate services as well as support and encouragement towards wellness.

Many aspects of human service tasks were effectively delivered via virtual reality, smart phone apps and their successors in the 2020s. Smart phones and adequate Internet were universally accessible. Human service workers specialized in providing human touch when needed and in doing quality assurance for the automated services.

Job training in San Antonio focused on skills needed in jobs or gig economy work that would not be automated. San Antonio created jobs in biosciences, aerospace, and the green economy.

Data integration progressed towards shared databases, which strengthened the 'no wrong door' approach. Privacy, security, and consent are critical for these information systems. Although policy and ethics at times lagged technology, San Antonio remained committed to the integrity of these systems and their clients. Each person had their own comprehensive record and the ability to let agencies in, and be excluded from, this information. People were educated about what this record means, how it can be used, and how they can control that.

Aging Services 4

By 2035 there were over 410,000 aged 65+ in the County, including retirees who stayed in the County and others who retired there.

Major advances in treatment and prevention of Alzheimer's and diabetes, prosthetics, biomonitoring and home care technology. Most are available through Medicare.

The city successfully expanded and enhanced transportation (including using self-driving vehicles), built more affordable housing (including accessory dwelling units), expanded healthcare, and embraced new concepts for senior homes and villages.

Formal, informal, and virtual senior centers all grew, expanding nutrition and activity opportunities for seniors. Most changed their names to community centers and engaged multiple generations- integrating senior services into libraries, schools, churches, cafes, and other settings. As computer games and virtual reality evolved, human service providers fostered senior gaming and networking. Seniors shared and traded services, time and goods in the community. This included providing baby-sitting, tutoring or mentoring kids, senior assisted living services, in-home care services and light house cleaning.

Tele-health, virtual reality care, advanced bio-monitors, smart home technology, and secure data bases all helped advance care for seniors. Senior group living and co-housing grew steadily through the 2020s, as did “smart homes” for many seniors. This made exchanging services within group housing easier, while smart home features play many roles- including friend, bookkeeper, secretary and counselor.

The minimum wage for caregivers, as with all workers, is a living wage by 2025. Caregivers are better trained, aided by technology.

Behavioral Health Services 4

Behavioral health needs, both routine conditions and severe mental illness, grew more slowly in the 2020s as value shifts led to great inclusion and equity, reducing stress. Challenges remained, as did need for behavioral health services.

In the 2020s, universal access to health care (Medicare for All) was put in place with full integration of behavioral health with medical care. The societal value shifts toward inclusion and equity were palpable in the 2020s and touched many low income and marginalized communities—removing some of the social isolation they felt. In parallel with self-sufficiency gains and social value shifts there was an increase in behavioral health literacy that destigmatized receiving behavioral health care.

Big data and predictive analytics were pioneered in San Antonio, and this greatly advanced behavioral health services. Data was collected and used with full consent and consistent privacy measures. Data guided prevention efforts and aided understanding pharmaceutical combinations and their impact. Better understanding of gene therapy helped prescribers have much more accuracy with prescribing appropriate behavioral health medication. There were more psychiatrists, and more doctors that were trained and able to prescribe needed psychiatric drugs. Artificial intelligence, “Doc Watson” for behavioral health advised psychiatrists and primary care providers on behavioral health issues, and by the mid-2020s were operating as “virtual counselors” to patients whose conditions were more routine. There were treatment advances in the 2020s that were applied very rapidly.

These included better understanding of the effect of adverse childhood experiences on gene expression and behavioral health. For some behavioral health conditions that were largely genetic in their origin, in the 2020s effective genetic interventions were proven successful. The Medicare for All system of the 2020s covered or provided these advances. Better understanding of genomics helped providers have much more accuracy with prescribing appropriate behavioral health medication.

Data integration and better partnerships allowed behavioral health providers and schools to coordinate and determine if a preventive intervention was needed. Providers and schools shifted towards a more holistic approach to wellbeing. Schools used yoga and taught mindfulness to empower students to enhance their mental wellbeing. And they taught students to understand mental stabilizers—like getting enough sleep and eating healthfully.

Families were assigned a third-party case manager—sometimes this was a virtual counselor.

Houses of worship played a fundamental role in the mental health community across San Antonio, and their staff was trained to identify and discuss risk factors. Some churches expanded their role with wrap-around care and developed meaningful relationships with other providers. Churches had previously offered support groups for those in substance abuse recovery. These expanded to those recovering from different problems.

Child and Family Services 4

The pursuit of the SA2020 goals of reducing poverty, child abuse, domestic violence, underemployment, teen pregnancies, and homelessness, and energy use, while increasing per capita income, kindergarten readiness, 3rd grade reading levels, maternal and child health, were adjusted and extended to 2035 and were largely achieved. Likewise, the 2040 goals that added sustainability and encouraged equity were nearly all achieved by 2035.

Children, youth and family services evolved, driven by national, state and local equity movements. San Antonio made strides in addressing segregation. Community leaders and members became intentional about reducing the opportunity gap approaching all human service work in a culturally sensitive way. Need for child and family services was also influenced by the rise of the minimum wage to a living wage and abundance advances which helped provide greater family stability.

Human services used predictive analytics in coordination with schools to anticipate needs for children and their families. Community health workers, some paid by human service agencies or non-profits, some working as volunteers, but all from the local community played an important role in providing and coordinating services. This helped build trust and develop community networks.

While the living wage pulled those families with full time workers out of poverty, it also sped up job loss to automation and the shift to “gig work”. San Antonio experienced high employment and underemployment, though its economy and workforce remained diversified and there were not major reductions in military personnel. Income support payment levels were raised and no longer “temporary”. Work requirements for those receiving those benefits included volunteering in the community, and caring for children and older adults. Along with enhanced housing support and enlarged low income housing stock most families were more economically stable.

With universal health care came better family planning and reduced teen pregnancies. Neighborhoods were revitalized and strengthened through home and community co-production of food, goods and services. The crime rate went down and more childcare co-ops and networks emerged across neighborhoods and communities.

There was evolution in other areas of child and family services or the factors surrounding it:

1. Educational inequity across Bexar County was reduced, allowing higher educational attainment rates for low income youth, particularly women and mothers
2. Pre-K was universal and the quality in all school districts rose to that of Pre-K 4 SA. Virtually all kids were ready for kindergarten.
3. Some child abuse and neglect persisted, as did the need for foster care. Kinship care grew and payment to foster care families grew. Foster care was audited and held to a high standard. Case managers were aided by the data integration with behavioral and primary care and schools.
4. Family services provided training in self-sufficiency practices and using abundance advances
5. Adult abuse and neglect, domestic violence and the need for adult protective services, were reduced, but still present. They were often identified through primary care screenings and integrated community data.

Disability Services 4

Generally, people across San Antonio were healthier and disability rates declined. The digital divide was addressed and technological tools were universally accessible. Reductions in physical and developmental disability rates were driven by: reductions in drug use, consistent pre-natal care; better genetic screening; slowing or reversal of chronic diseases, particularly diabetes, arthritis and Alzheimer's; safer environments, and safer and healthier work places and work styles. Mental and developmental disability screening took place with pediatric and primary care exams which increased the number of people who sought and received care.

San Antonio developed more green spaces, and promoted healthier lifestyles. Some of these positive changes were outlined in the SA Tomorrow sustainability plan. Employers offered incentives for better, healthier lifestyles to their full-time employees and their gig workers. There was federal and local emphasis on healthy lifestyles, including prevention of disability. When individuals did require disability services there was adequate funding, mentoring, and rehabilitation to make these services a success.

Predictive and preventive measures worked in combination with remarkable medical and technological advances affecting disabilities. This included:

1. Self-driving cars enhanced mobility, and public transport embraced new technologies
2. 3D printing of home equipment and even smart prosthetics
3. Sophisticated home monitoring and home care robots
4. Friendly intelligent agents that act as helper, guide, counselor, therapist, translator, speech and hearing enhancer
5. By the mid-2020s direct brain control of limbs for paraplegics, reversal of diabetes and Alzheimer's and vision and hearing restoration was available for many
6. Diseases such as sickle cell disease, fragile X disease, retinitis pigmentosa, and others which are due to an abnormal gene, became treatable or preventable.
7. There was also progress in treating conditions caused by gene duplication, such

as Down Syndrome. Many of the causes of disability, beginning in childhood, progressed towards being preventable.

Many of these are covered by universal health care (Medicare and Medicaid combined). Human service agencies provided some additional services and helped families chose among options from their health care provider and other vendors.

Food and Nutrition Services 4

The SA Tomorrow 2040 goal of increased local food production was achieved in the 2020s with significant home and community production of food. This ranged from conventional community gardening to high tech in-home aeroponic growing and urban agriculture using converted multistory parking garages, as well as shipping containers. 3D printed foods were widely used in the 2020s, as was cultured meat. TANF, SNAP, and Earned Income Tax were all expanded to better reflect need and cost of living, as well as the ability to buy these alternatives or buy the seeds and other factors needed for in-home and in-community growing.

Food and nutrition services adopted individualized and preventative approaches to addressing each client's food and nutritional needs. This included integration between health and human services, across public and private agencies, and greater screening within school systems. For example, if a child was identified as at-risk or nutritionally deficient, they may be directed towards local food services and their information discreetly and appropriately shared with the school system. Additionally, if a child was identified as at-risk or nutritionally deficient, their entire family was identified and ultimately assigned a case manager. There was no 'wrong door' for entering the continuum of nutritional services and other human services, both for families and individuals. Human services used a more comprehensive wellness model, addressing food, exercise, and medicine. This was supported by success in pursuing the SA2020 and SA2040 goals for healthy housing, parks, access to health care, mixed use/mixed-income neighborhoods, greater equity and resilience especially for underserved areas.

Housing Services 4

Although San Antonio was historically not a "high-cost" city for housing, costs had been growing faster than wages and this continued in the 2020s. The GBI payments helped many pay the rent, but seldom was rent less than 50% of their GBI monthly payment. The need for low-income housing grew. Changing attitudes supporting equity and inclusion in the state, the recognition of housing as a fundamental need, and effective leadership enabled policy and program changes that significantly increased the low-income housing stock in the region; much of it in mixed income neighborhoods.

In San Antonio, the funding for low income housing remained largely from federal programs and there was variation of local direction across political periods and under different mayors.

SAHA had been providing housing for 27,000 families in San Antonio in 2015; 6,300 families in public housing units with federal funds for capital and maintenance costs; 13,400 families in Section 8 housing funded largely by with federal funds; and

6,800 families in subsidized non-profit or tax credit housing. Under the 2017-2021 administration, there were cuts to federal housing programs; however, tax credits for new construction remained. San Antonio developers competed vigorously for these tax credit-generating projects. The State continued to promote construction of low-income housing in “high opportunity” neighborhoods; at times to the neglect of place-based revitalization.

After cuts during the 2017-2021 Administration, there was a rebound in Federal funds to build and maintain public housing and for section 8 vouchers. And San Antonio took a variety of measures to increase the low-income housing stock:

1. Encouraging sustainable, energy efficient, climate change resilient, low-cost construction of units, both multifamily and individual new homes, and accessory dwelling units; ensuring that all of these were “healthy by design” from the start
 - a. In the 2020s, 6,000 new public housing units were created; all of which were in mixed-income neighborhoods.
2. Conservation trusts, tax credits, and non-profit owned and leased units helped maintain affordability of land and homes
3. Ordinances that prohibited landlords from refusing to accept housing vouchers as rent
4. Promoting the growth of accessory dwelling units, to foster mixed-income neighborhoods, at first consistent with the 2015 San Antonio’s ordinance on ADUs, but later expanding the areas where they could be developed and lessening other restrictions.
5. Promote the use of abundance advances to lower the household’s cost of living
 - a. City and federal housing regulations and incentives encouraged landlords to equip their rental units with solar energy and storage and pass the savings to renters.

Homelessness was reduced. The remaining homeless persons and families received more personal attention and services from local agencies. There was better awareness of the services available, and how to access them. Other aspects of housing services include: aiding aging in place and combining wellness focused medical services and education with housing.

San Antonio moved towards a “housing first” model, following the example of other Texas cities to help those who require substance abuse care and other needs. This required and facilitated greater integration between housing and other human services, such as substance abuse counseling.

Emergency shelter in cases of abuse or neglect continued to be provided throughout the 2020s, though the need periodically exceeded the supply.

San Antonio homeless also benefited from Haven for Hope, a privately funded and run traditional homeless shelter that encourages personal transformation. Through the 2020s it moved thousands of homeless into more stable conditions.

Housing services were consumer focused and use predictive modeling and advanced analytics to anticipate emergency housing needs. The growing support for equity and

inclusion in San Antonio and the U.S. affected how neighbors and neighborhoods felt about low and very-low income housing, and special needs housing. Many people became more accepting and welcoming of this diversity.

In addition to the housing related changes, self-driving vehicles revolutionized travel and car ownership. There was concern this could have threatened San Antonio's VIA public transport. But, consistent with the attitudes calling for equity, the VIA agency successfully integrated a fleet of self-driving vehicles into its public service, adding significant flexibility to its services and reducing isolation of some parts of the City and County.

Income Supports 4 \$

Job loss to automation nationally and in San Antonio was recognized as a permanent part of the economy and workforce. Human services remained focused on job training towards good paying jobs. San Antonio companies in biosciences, aerospace, and the green economy were leaders and generated many jobs in the 2020s. Virtual training for certificates and degrees increased, allowing people to access education on their own terms.

San Antonio led the state and nation in raising the minimum wage to a living wage. This was particularly helpful to many of the 120,000 workers in the city in the hospitality sector. The increase prompted slightly faster automation of many jobs (particularly in retail sales, fast food, and some hospitality sector jobs). Also, many employers shifted their workforce from full or part time employees working at the living wage or above, to having workers on the "gig economy". This work often provided insufficient income, and need for income supports continued.

In this setting of high structural unemployment, after cuts in income support payments during the 2017-2021 administration, in the 2020s, federal income support payments were expanded and some, such as TANF, were recognized as not being "Temporary". And work requirements shifted to include volunteering, caring for children or older adults, or other contributions in the community.

Income supports were coordinated with other human service, health and education efforts. Housing vouchers, public housing, affordable low-income housing helped with housing. Health care was universal and shared data with human services and education to best assess personal and family needs. Investment in Pre-K 4 SA and upgrading Pre-K in school districts, along with more equitable quality education set kids on a better path for success in adulthood. Predictive analytics worked with and within schools for upstream intervention.

When families do require government assistance, there were adequate funds. Barriers to access—such as language—were largely addressed with technology and San Antonio's previous work to address the digital divide. The administrative work for income support and other human services was automated, allowing cost and time savings. Each family or individual was matched with a case manager to explain TANF, aid in matching recipients with work opportunities and to address overall wellness. These case

managers were both in-person and virtual, depending on the client. Predictive analytics and tools for assessing the integrated needs for each person and family led to getting what each person most needs. Policy makers, community organizations, and community members were all more understanding of ‘equity’—there was a shift from “I” to “we” and so receiving income supports was no longer stigmatized.

End Notes

ⁱ Job loss to automation

Job loss to automation and cognitive computing will have a major impact on the economy, family income, and the need for human services in the years ahead. We believe it has been happening and it will eliminate more jobs through the 2020s. As in past disruptions of this type, new jobs will be created. Some of these are identified in the sources below. And there will be teaming of AI and human workers (in 2017 the best chess competitors are teams of humans, without grand master chess champions and multiple computers, no supercomputer as often used for IBM's Watson. Yet the new jobs are likely to be far fewer than the jobs lost. For these human services Scenarios, we have developed estimates across the Scenarios, based on the references below. We have worked with human service experts to apply and check forecast for specific human service jobs as well. Here are highlights of the forecasts which indicate the range from which we developed the forecasts we are using in our Scenarios.

- Within five years, robots and so-called intelligent agents will eliminate many positions in customer service, trucking and taxi services, amounting to 6 percent of jobs, according to a Forrester report. “By 2021, a disruptive tidal wave will begin,” said Brian Hopkins, VP at Forrester, in the report. “Solutions powered by AI/cognitive technology will displace jobs, with the biggest impact felt in transportation, logistics, customer service, and consumer services.” <http://www.cnbc.com/2016/09/12/ai-will-eliminate-six-percent-of-jobs-in-five-years-says-report.html>
- Forrester forecasts in the report “The Future of White-Collar Work: Sharing Your Cubicle With Robots” that cognitive technologies such as robots, artificial intelligence (AI), machine learning, and automation will replace 16% of U.S. jobs, while the equivalent of 9% jobs (8.9 million) will be created — a net loss of 7% of U.S. jobs by 2025. Office and administrative support staff will be the most rapidly disrupted. Newly created jobs will include robot monitoring professionals, data scientists, automation specialists, and content curators: Forrester forecasts 8.9 million new jobs in the US by 2025. <https://www.fastcoexist.com/3050428/robots-will-take-your-job-but-first-theyll-be-your-annoying-co-worker>
- McKinsey Global focuses on probability of tasks within occupations being automated, and determined that 49% of time spent on tasks could be automated with current technologies, but only 5% of total jobs in the report “A Future that Works: Automation, Employment, and Productivity; Harnessing Automation for a future that works” <http://www.mckinsey.com/global-themes/digital-disruption/harnessing-automation-for-a-future-that-works>.
- An OECD policy brief “Automation and Independent Work in a Digital Age” forecasts that an average of 9% of jobs are at high risk for automation; these are jobs for which 70% of the tasks could be automated. <http://www.oecd.org/employment/Policy%20brief%20-%20Automation%20and%20Independent%20Work%20in%20a%20Digital%20Economy.pdf>.
- A study by the UK office of PWC analyzed the workforce in several countries. In terms of specific sectors, it found different degrees of risk for automation: transportation and storage (56%), manufacturing (46%) and wholesale and retail (44%), but lower in sectors like health and social work (17%). For countries overall, the jobs at high risk of automation by the early 2030s are U.S. (38%), Germany (35%), UK (30%) and Japan (21%). PWC, Will robots steal our jobs? The potential impact of automation on the UK and other major economies, PWC UK Economic Outlook, March 2017, pg 30, <https://qz.com/941163/pwc-study-automation-risk-is-higher-for-american-jobs-than-for-workers-in-germany-the-uk-and-japan/>

- Oxford University researchers Frey and Osborne project about 47% of total U.S. employment is at risk for automation in the report “The Future of Employment: How Susceptible are Jobs to Computerization?” http://www.oxfordmartin.ox.ac.uk/downloads/academic/The_Future_of_Employment.pdf
- New Jobs Created
 - There will be new jobs created. The Forrester study cited above, and others, identify some of these: Forrester forecasts in the report “The Future of White-Collar Work: Sharing Your Cubicle With Robots” states that 9% of overall jobs (8.9 million) will be created.
 - The cognitive era will create new jobs, such as robot monitoring professionals, data scientists, automation specialists, and content curators: Forrester forecasts 8.9 million new jobs in the U.S. by 2025. Forrester forecasts Artificial intelligence (AI) will be a \$47 billion industry by 2020. The top ten AI technologies are: natural language generation, speech recognition, virtual agents, machine learning platforms, AI optimized hardware, deep learning platforms, semantic technology, biometrics, image and video analysis, and robotic process automation.
 - Gartner forecasts that by 2020, 20% of businesses will have workers that monitor and guide neural networks. (See “The Disruptive Power of Artificial Intelligence” <http://www.gartner.com/smarterwithgartner/the-disruptive-power-of-artificial-intelligence/>)
 - IBM CEO asserts that ultimately AI will create jobs- including programmers, developers, and jobs that manage the relationship between AI and humans (See “IBM CEO says AI and automation will create jobs” <http://www.businessinsider.com/ibm-ceo-says-ai-and-automation-will-create-jobs-2017-1>)
 - Forrester Research, a marketing research company, projects that 15 million new jobs will be created in the U.S. over the next decade, resulting from automation and artificial intelligence. The report explains that most new jobs will be in the fields of software, engineering, design, maintenance, support and training. Newly specialized lawyers will be needed to regulate the interaction between humans and robots, and new human resources positions in guiding staff as robots enter the workplace (See “This is how many U.S. jobs robots will create over the next 10 years”, Jacob Passy for Marketwatch.com, <http://www.marketwatch.com/story/this-is-how-many-us-jobs-robots-and-automation-will-create-over-the-next-10-years-2017-04-04>)
 - Other future jobs include avatar designers, synthetic acting casting agents, roboticists, fluid interface engineers and programmable surface designers.

ii Human services job loss to automation

Some task automation was applied across human service worker categories:

- Most levels of human service workers had their work on eligibility dramatically reduced by automation of information gathering and eligibility determination.
- Language translation, reflecting cultural, religious, and personal sensitivities of the person/client is instantly available for any language between 2020 and 2025.

Specific human service job categories during the 2020s saw job loss to automation, expert systems, and cross agency collaboration:

- 80% reduction of secretaries, administrative assistants, receptionists and information clerks - 50% reduction of accountants and auditors
- 10% reduction of personal and home care aides (Many of the physical tasks required by personal and home care aides, such as lifting and cleaning patients, are more difficult and costly to automate)
- 10% reduction of social workers – (though many tasks automated or accelerated: Home risk assessment - periodic physical inspection is needed but intermittent inspection can be done by smart phone and from data from smart home systems; Generation of case records and reports is expedited or automated fully; Some assessments of children or family conditions can be done by interviews by intelligent agents that generate recommendations or prescriptions that are ultimately approved by the social worker or physician/licensed prescriber; Virtual reality and holographic advances allow social workers to interview, interact, counsel without traveling once rapport is established; Assessment of

physical abuse on the skin can be done by deep learning algorithms review of smart phone images of skin bruises; Genetic and epigenetic testing is done routinely on children. Repeated genetic testing allows identification of some types epigenetic changes caused by adverse childhood events.

- 50% reduction of human service assistants (through automation of secretarial and administrative tasks; use of self-driving cars supply much of the transportation needs)

iii Developing low and very-low income housing options

Housing remains a major human need. Housing insecurity brings a series of other needs. Communities around the country are and will use a variety of approaches to increase the stock of low and very low income housing, including:

- Allowing a higher number of unrelated individuals to live in the same house;
- Facilitate accessory dwelling unit development, and require maintaining the units as low income for several years;
- Fostering neighborhood parking and driving regulations to dampen traffic from increased residents;
- Taxing unoccupied homes;
 - Prohibiting or taxing AirBnB and related uses of rental properties or taxing that use to provide a fund to make other properties available; Restrict rentals in accessory dwelling units and other low income housing to a minimum of 30 or 60 days
- In addition to federally funded vouchers create state or locally funded vouchers;
- This serves to help alleviate concentrations of poverty by giving voucher holders more options of where to live.
- Tax construction profits to add to the funds for low income housing development;
- When low cost solar and other sustainable energy production and storage becomes available, require or incentivize landlords to install this and pass the savings on to renters;
 - Or enable, through loans from utilities or others, installation of this equipment; paying the loans off with the energy savings.
- Adjust regulation to support fast construction of safe, sustainable and energy efficient new developments that include very low income housing;
- Support and encourage alternative construction, including 3D printing of housing components and repurposed materials, using modular and “tiny homes”;
- Use various combinations of these approaches to deconcentrate poverty.

iii The Guaranteed Basic Income

The guaranteed basic income, also called the Guaranteed Annual Income, the Negative Income Tax, the Citizen’s Income, and the Basic Income Guarantee has been proposed by conservatives and liberals in the U.S. for decades. Richard Nixon proposed the Negative Income Tax. Conservative Charles Murray supports basic income to help keep the United States competitive during labor market transformation to robotics and replace the current welfare program (see Murray, “A Guaranteed Income For Every American,” <https://www.wsj.com/articles/a-guaranteed-income-for-every-american-1464969586>).

Support by liberals and conservatives offering different rationales. For example, some conservatives favor reduced government spending, eliminating duplicative programs and staff, through an effective way to reduce poverty (see *The Atlantic*, “The Conservative Case for a Guaranteed Basic Income” <https://www.theatlantic.com/politics/archive/2014/08/why-arent-reformicons-pushing-a-guaranteed-basic-income/375600/>).

Basic income experiments have taken place across the world. In Canada and Namibia, both of their GBI experiments saw a reduction in poverty and other positive impacts such as increased

graduation rates and decreased hospitalizations and teenage pregnancies. The Canadian province Manitoba piloted basic, minimum income- referred to as “mincome”- in the mid-1970s. Although the program was removed after a few years, it yielded positive results including higher rates of remaining in school, lower rates of hospitalization, and hardly a change in work rates (see Surowiecki, James. “Money For All”. *The New Yorker*. N.p., 2016. Web. 7 July 2016). The amount of money recipients received was determined by need (see Lum, Zi-Ann. “A Canadian City Once Eliminated Poverty And Nearly Everyone Forgot”. *The Huffington Post*. N.p., 2016)

Finland is currently piloting a basic income, which aims to cut red tape and reduce poverty and unemployment. (See, *The Guardian*, “Finland trials basic income for Unemployed,” <https://www.theguardian.com/world/2017/jan/03/finland-trials-basic-income-for-unemployed>.)

There has been growing support in recent years as the forecasts for job loss to automation have grown. The projections for total job loss by roughly 2030 in the United States range from: 47% (Frey and Osborne), 38% (Price Waterhouse Cooper), to 9% (OECD).

Hawaii has become the first state to pass a bill in the houses of State Legislature towards a universal basic income (UBI) bill HRC89. Hawaii has experienced job declines in their agricultural sector and service jobs being automated. The bill sets up a working group to explore options for the state UBI, involving members from State House and Senate, director of human services, Chamber of Commerce and University of Hawaii’s Economic Research Organization. This group will develop policy recommendations. (See, Vox, “Hawaii is considering creating a universal basic income”, <https://www.vox.com/policy-and-politics/2017/6/15/15806870/hawaii-universal-basic-income> and Business Insider, “Hawaii just became the first U.S. state to pass a bill supporting basic income” <http://www.businessinsider.com/hawaii-basic-income-bill-2017-6>).

There has been growing support in recent years as the forecasts for job loss to automation have grown. The projections for total job loss by roughly 2030 in the United States range from: 47% (Frey and Osborne), 38% (Price Waterhouse Cooper), to 9% (OECD).

While there are a range of levels that the GBI has been proposed e.g. \$10,000 income plus 3,000 for health insurance, up to \$32,000 yearly in Switzerland; the level in this forecast \$12,000 yearly for adult citizens and \$4,000 per child is proposed by Andrew Stern (see Stern, Andy and Lee Kravitz. *Raising The Floor: How A Universal Basic Income Can Renew Our Economy And Rebuild The American Dream*. 1st ed. New York: Public Affairs, 2016. Print.)

The costs of a GBI would be roughly 3 trillion yearly. Stern provides a “menu” to fund GBI (an income of \$12,000 for every adult, which would cost between \$1.75-\$2.5 trillion in federal funds each year. Add another \$296 billion when including \$4,000 for all those under 18)

- Ending all or many of the current 126 welfare programs, which cost \$700 billion in government and \$300 billion state government
 - Eliminating food stamps (save \$76 billion), housing assistance (\$49 billion), and EITC (\$82 billion)
- Adjusting long term retirement policy for future generations, but not changing Social Security for those who have already been contributing to the system
- Creating a new and more cost effect non-employer based healthcare system
- Some redirection of government spending and taxation
- Raise revenue by eliminating all or some of the federal governments \$1.2 trillion in tax expenditures; do away with reductions such as investment expenses, preferential treatment of capital gains, foreign taxes, charitable contributions, mortgage interest, and accelerated depreciation.

- Raise revenue by eliminating all or some of the federal governments \$1.2 trillion in tax expenditures; do away with reductions such as investment expenses, preferential treatment of capital gains, foreign taxes, charitable contributions, mortgage interest, and accelerated depreciation.
- Increased revenue from new sources and new technologies
 - Consider a value added tax (VAT) of 5 to 10% on the consumption of goods and services, with all revenue funding basic income
- Implement a Financial Transaction Tax (FTT) (also known as the “Robin Hood Tax” and “Tobin Tax”) a tax on financial transactions, such as a federal tax on stock sales and financial transactions
- Wealth tax, a levy on the total value of personal assets, including housing and real estate, cash, bank deposits, money funds, stocks, etc.
- Look at trimming expenditure on the federal budget, such as reducing military budget (current \$600 billion), farm subsidies (\$20 billion), or subsidies to oil and gas companies (\$30+ billion)
- Carbon Tax, which at a rate of \$15/ton of CO₂ would bring \$80 billion in annual revenue, or about \$250 per U.S. resident
- A “common goods tax” such as the one placed on oil to fund the Alaska Permanent Fund
- A reduction of tax havens
- Jerome Glenn shared an additional two sources for funding basic income:
- Robot licenses and taxes
- Universal minimum corporate tax.

Some advocates of supporting low-income populations criticize GBI/UBI as being too costly, and suggest enhancing existing approaches:

Bob Greenstein of the Center for Budget and Policy Priorities argues that: “The record of recent decades (in raising people out of poverty) ... points to an alternative course — pushing for steady incremental gains through available mechanisms, including means-tested programs, to provide as much of a floor as possible for Americans of lesser means. In 1967, the safety net lifted out of poverty only 4 percent of Americans who would otherwise be poor. Today, it lifts 42 percent of such people out of poverty, with programs like SNAP and the EITC playing crucial roles alongside Social Security. A multi-pronged strategy — working to start phasing in the Child Tax Credit with the first dollar of a parent’s earnings, substantially raising the minimum wage, extending affordable child care and rental assistance to many more families, enlarging SNAP benefits (as a Hamilton Project paper proposes), and strengthening Social Security benefits for low-income workers — would substantially strengthen the income floors.” See: Bob Greenstein, “Commentary: Universal Basic Income May Sound Attractive But, if It Occurred, Would Likelier Increase Poverty Than Reduce It”, *Center on Budget and Policy Priorities*, September 18, 2017, <https://www.cbpp.org/poverty-and-opportunity/commentary-universal-basic-income-may-sound-attractive-but-if-it-occurred>.

Former Clinton Treasury Secretary Robert Rubin argues for enhanced federal jobs or job training programs rather than a GBI. There are high-needs areas across the state and people should be engaged in needed work such as caring for the elderly, and paid a living wage. In a NY Times article, Rubin explains “public employment should be viewed not as a social program but as a public investment with a high rate of return.” He argues that basic income does not fulfill the desire people have to be productive members of workforce, in addition to being too costly. See: Rubin, R. (2017, November 8). Why the U.S. Needs a Federal Jobs Program, Not Payouts. *The New York Times*. Retrieved from <https://www.nytimes.com/2017/11/08/opinion/federal-jobs-program-payouts.html>.

And in California advocates argue that using the means-tested, targeted expansion of the Cal EITC would be more effective, more affordable, and more likely to be achieved. EITC has the information to determine eligibility from tax forms, and expansion would be less costly than administering a new program. Additionally, “providing income through a state tax credit would prevent the payment from being reduced by federal income tax”. See: *California Budget and Policy Center, California Already Has a Basic Income Policy – It’s Called the EITC and It Should Be Expanded*, November 1 2017. <http://calbudgetcenter.org/blog/california-already-basic-income-policy-called-eitc-expanded/>.

iii Abundance Advances

Technologies that can help families and communities meet some of their basic needs and increase self-sufficiency are arriving and will become more widely used in the 2020s. These include technologies for low cost energy and storage, food production, and 3D printing of home goods, electronics, and even homes.

Low cost solar energy production and storage is likely in the 2020s. There are many potential avenues for this. Some solar cell technologies are nantennas, kerovskite and perovskite materials that will provide highly effective solar cells. Battery storage costs are decreasing, and are projected to continue to become less expensive (see, <http://reneweconomy.com.au/tesla-already-forcing-down-battery-storage-prices-in-australia-57681/>). Other forms of sustainable energy may develop as well, e.g. small scale cell fusion that produces low cost energy from sources in water may become available (see, *University of Gothenberg in Science Daily*, <https://www.sciencedaily.com/releases/2015/09/150925085550.htm>)

3D printing of goods may disrupt global supply chains and allow local and customized production of goods, often using sustainable and upcycled materials. This can include for better prosthetics and implants (see, United States Food and Drug Administration Medical Applications of 3D Printing, <https://www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/3DPrintingofMedicalDevices/ucm500539.htm>). 3D printing of homes and multiunit buildings has already begun.

Advances in food production include aeroponics and hydroponics (growing plants in an air, mist or water environment) to produce nutritious food in large amounts quickly and sustainably. This can be done in urban environments using vertical farms and other techniques. Cultured meat is progressing in taste and affordability and may be a sustainable and accessible source of producing protein. Impossible Foods (<https://www.impossiblefoods.com/>) is one of several companies that are producing fully plant-based meats and cheeses. Futurist Thomas Frey after reviewing these developments forecasts that “by 2025 industrial grown meats will become the world’s cheapest food stocks” <http://www.futuristspeaker.com/job-opportunities/the-coming-meat-wars-17-mind-blowing-predictions/>

See also, Peter Diamandis and Steven Kotler, *Abundance: The Future is Better Than You Think*, 2012, New York, Free Press; and K. Eric Drexler, *Radical Abundance*, 2013, New York, Public Affairs