

Connecticut Human Progress and Human Services 2035 Scenarios

By

*Connecticut Department of Social Services
and
the Institute for Alternative Futures,*

Supported

by the Kresge Foundation

Table of Contents

INTRODUCTION	2
WHY SCENARIOS?	3
METHODOLOGY	3
SCENARIO 1: THE LAND OF STEADY HABITS	5
AGING SERVICES 1	7
BEHAVIORAL HEALTH SERVICES 1	8
CHILDREN, YOUTH AND FAMILY SERVICES 1	10
DISABILITY SERVICES 1	11
HOUSING SERVICES 1	12
INCOME SUPPORTS 1	13
SCENARIO 2. YOYO: YOU'RE ON YOUR OWN	15
AGING SERVICES 2	16
BEHAVIORAL HEALTH SERVICES 2	17
CHILDREN, YOUTH AND FAMILY SERVICES 2	18
DISABILITY SERVICES 2	20
HOUSING SERVICES 2	21
INCOME SUPPORTS 2	22
SCENARIO 3. NORTH STAR	23
AGING SERVICES 3	25
BEHAVIORAL HEALTH SERVICES 3	26

CHILDREN, YOUTH AND FAMILY SERVICES 3	27
DISABILITY SERVICES 3.....	28
HOUSING SERVICES 3	30
INCOME SUPPORTS 3	31
SCENARIO 4. NEW CHARTER OAK	32
AGING SERVICES 4.....	33
BEHAVIORAL HEALTH SERVICES 4	35
CHILDREN, YOUTH AND FAMILY SERVICES 4	36
DISABILITY SERVICES 4.....	38
HOUSING SERVICES 4	39
INCOME SUPPORTS 4	40
END NOTES.....	42

Introduction

What will human progress, human need and human services be in Connecticut in 2035? What implications does it have for today's strategies for public and private human service providers and community partners? The Connecticut Human Progress and Human Services 2035 Scenarios offer a tool for the Connecticut human services community to explore these questions at the level of their own jurisdiction and to better inform future-oriented, long-term strategies and efforts. For this purpose, these scenarios consider a range of forces, challenges, and opportunities shaping human services and offer a plausible set of expectable, challenging, and visionary pathways for how human services and human service providers may change over the years to 2035.

These scenarios will be used at a Scenario Workshop on August 9, 2017 at the Lyceum Conference Center, where participants will consider the “robustness” of current directions and strategies and develop recommendations focused on the near term and the long-term future.

These Connecticut Human Progress and Human Services 2035 scenarios are an important part of a larger project on the futures of human services– conducted by the Institute for Alternative Futures (IAF) and supported by the Kresge Foundation. In addition to developing scenarios for the human services community in six cities and counties and two states, IAF is also developing a set of national human service scenarios. The national scenarios and these Connecticut scenarios will allow human service leaders, practitioners and partners to consider their own work in the context of these alternative futures, to challenge their assumptions about the future, to identify

emerging risks and opportunities, and to formulate more robust strategies with a greater potential to advance their mission over the decades to come.

Why scenarios?

The future is uncertain. However, scenarios – different stories describing how the future may unfold – can be used to bound that uncertainty into a limited number of paths. These paths help us think about different probabilities in a larger space of possibilities. Scenarios also force us to consider the systems surrounding our topic and to clarify our assumptions. People who work with scenarios find more creative options than those who plan based only on the past and present. Strategies, plans, and actions can also be “future tested” against the different scenarios to assure robust initiatives rather than continued efforts based on outdated assumptions. Scenarios are thus a powerful method for systematically addressing the uncertain future.

Methodology

IAF partnered with the Department of Social Services and community partners to develop the scenarios using the “Aspirational Futures” approach (see **Figure 1** below) which IAF has evolved over the last three decades. This technique develops forecasts and scenarios in three zones:

- 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).

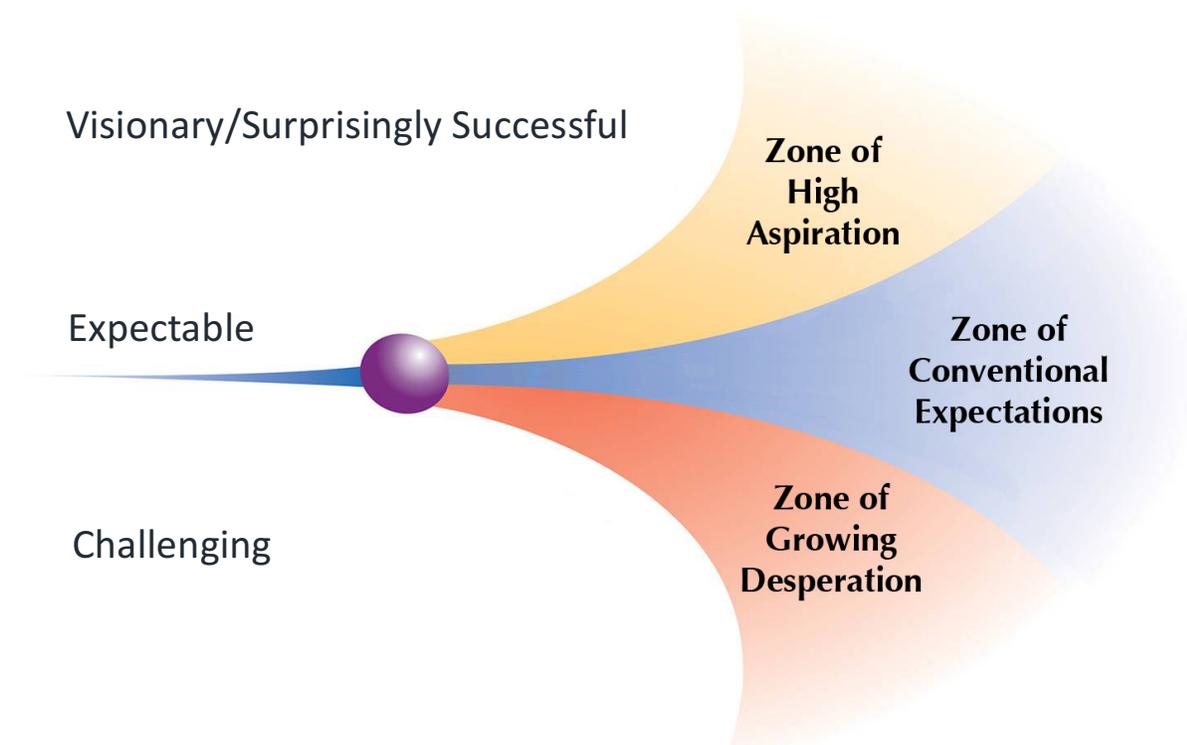


Figure 1: IAF’s “Aspirational Futures” Technique

The Connecticut 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, and interviews with human service providers and partners. We explored “driving forces” and preliminary forecasts for the community the economy, employment, the environment, technology, as well as trends within specific areas of human services (aging, behavioral health, children youth and family, disability, housing and income supports). During two days of forecasting sessions on June 29th and 30th 46 human services leaders gathered to review the preliminary forecasts and develop the distinct scenarios presented below. The scenarios presented below will be used at the August 9th Scenario Workshop.

The first scenario is “expectable” or “most likely” given current trends. The second is challenging and considers some key things that “could go wrong” (including another great recession, flooding, funding cuts). The third and fourth are visionary. The third explores human progress in attitudes, technology, and policy – particularly a guaranteed basic income. The fourth explores surprisingly successful attitudes, policies, patterns of work and pay, and technology. As you read these consider how likely each is. And consider how preferable each is – which would you want to take place.

Scenario 1: The Land of Steady Habits

The U.S. economy had slow economic growth, at 1 to 2% each year between 2015 and 2035, with downturns for recessions and higher growth in the years just after the recessions.

Connecticut had similar, sometimes slightly slower, economic growth. Meanwhile, employment continued to transform. Many jobs were automated, a net loss of 7% nationally by 2025 and significantly more by 2030¹; Connecticut had a similar job loss. Lower skilled workers were most impacted by this job loss, though middle and high-income jobs were also lost in large numbers. For the lowest paid of those employed in “jobs” the minimum wage rose slowly. As the state experienced its “age wave” many Baby Boomers retired. And the work in “jobs” was evolving to become piece work on the “gig” economy. By 2030 this was a predominant part of the workforce in the State. Job creation was aided by the ongoing “Yankee ingenuity” in the state and its associated entrepreneurial effort.

Connecticut’s population increased from 3.57 million to 3.75 million in 2025 then declined to 3.7 million in 2030. The state aged – both in urban and rural areas. Many of the wealthier senior population left the state, reducing the state’s tax base.

The younger population, generally with higher educational attainment, that did remain in state were concentrated in the more urban areas. Connecticut worked to invest in urban areas to make them more attractive and desirable. However, the trend of corporations relocating out of Connecticut and moving to the larger urban areas of New York City and Boston continued, which led to loss of talent from the state. And many of the jobs left behind by insurance and other companies who moved their corporate headquarters, were automated away in the 2020s. When funds were available Connecticut, developed urban infrastructure and pursued housing initiatives to attract young people and businesses, but years of structural budget deficits limited these efforts.

Connecticut remained a state of towns and small cities (largest city at 150,000 residents) with significant inefficiencies in government infrastructure and services. Transportation to work or to access services remained an issue for many in the state. For some areas by the late 2020s systems of self-driving vehicles operated by public and private transit companies had overcome those difficulties.

Global warming impacted Connecticut through increased droughts and flooding, extreme heat and more severe winter weather. Hurricanes did burden the state, but none as significant as the Hurricane Sandy and its \$360 million damage to the state. The droughts, flooding and extreme heat lowered agricultural production in some years, but also led to longer growing seasons and periods of increased agricultural productivity. Climate conditions enhanced the spread of some vector borne diseases, both in Connecticut and other areas of the country.

The challenges of the uncertain period of the late 2010s and the economic shifts of the 2020s and onwards allowed an opportunity for Connecticut leadership and community to be intentional about guiding a reemergence of civics and the development and maintenance of civil society, particularly in reaction to the less civil society experienced at the end of the 2010s.

Human Services in Scenario 1 -- Despite challenges, human services overall became more integrated, collaborative, efficient, and productive. There were significant decreases in federal human services spending during the late 2010s combined with the growth of block grants. The tenor on Human Services of the very conservative 2017-2021 administration led to cuts in several human service programs and the elimination of others. Work (or seeking work) requirements persisted for many benefits, even as job loss to automation was affecting Connecticut, making it more difficult to find employment. The federal government encouraged data integration to track recipients and eligibility. Non-profit organizations that delivered human services were impacted by periods of reduced funds. Some were forced out of business.

Funding generally rebounded in the 2020s with periodic retrenchments as the national or state economy went into a minor recession.

Connecticut continued as a leader in implementing two and multi-generational approaches to human services. The work was reflective of aspects of the Human Service Value Curve (HSVC)ⁱⁱ, a framework developed by American Public Human Services Association (APHSA) to guide human services movement from a regulative business model to a generative one.

Some human service funding moved towards a “pay for success” model and public-private partnerships accelerated achieving these markers of success. Data integration and cross-agency partnerships became more common and important, but with challenges along the way. Public policy shifted towards supporting data integration, driven by more public support and engagement for sharing data. Though, data availability changed as public officials and political climates changed across the decades. Over time, data sharing became more widespread. Data hacking and theft remained a threat, and actions were repeatedly taken to avoid this.

Many human service jobs were automated or done by expert systemsⁱⁱⁱ. The remaining human service workers became more productive. State and local agencies made efforts for human services to be a more attractive career path, but struggled to have wages keep pace with other sectors, particularly during periods of state funding cuts. The human service workforce decreased, but positions remaining are generally more professional. Although there were fewer people employed, more is required of each person. Consequently, most employees have a higher skill set.

Connecticut continued to confront inequity between towns and historical racial and economic segregation. The revenues between wealthier and less wealthy towns continued to cause to disparities in services, despite some state laws and regulations, particularly for education. There were modest increases in these redistributive efforts in the 2020s.

Aging Services 1

Moving to 2035, aging services in Connecticut were affected by the “age wave” and demographics, technology, advances in service quality along with cuts and rebounds in the funding and level of services. Those 65 and over in the state grew from 577,000 in 2015 to 794,000 in 2030¹. The ratio of working age in the state to those over 65 dropped from 4.35 working age person to 2.75 per each 65+ resident. And the number of family or close friends for each 65+ person similarly dropped from about 7 to 1 to 4 to 1 during those years.² Some diseases grew among the 65+ population. For example, diabetes rose from 150,000 in 2015 to 206,000 by 2030; Alzheimer’s grew to 79,000 in 2030.

Technology affected aging services and for many slowed aging disabilities. Televisits and virtual reality were commonly used by most elders in the state in the 2020s. Personal biomonitors, smart home sensing, combined with health data allowed predictive analytics that anticipated potential events. Self-driving vehicles lowered transportation costs and reduced isolation. Neighborhoods became more supportive of aging in place. “Villages” provided easier access to services. More families became “multigenerational”, some by choice, others because of the increasing cost or rent or inability to sell one’s home. Some communities encouraged accessory dwelling units added on to homes or put in the yard.

Many government-provided senior services were reduced due to budget cuts between 2017 - 2021, including home care through Medicaid, rental assistance, respite care, elder abuse and neglect prevention services, and disability payments. Human service agencies in Connecticut were conscious of using funds in the most efficient manner, particularly as federal funding levels fluctuated. The 2020s saw rebounds in spending for most of these programs with periodic decreases driven by economic declines.

Medicare saw reductions in payment levels followed by rebounds, along with better integration with nursing care and assisted living. Telehealth, personal biomonitors, smart home sensors, and integration of this data, enabled predictive analytics that spotted declines earlier. For many seniors, healthier living slowed their decline and in the 2020s and there were some medical advances that slowed disease progress and disability. Though the most significant of these, the cures for Diabetes and Alzheimer’s were too costly for Medicare coverage and unavailable to most CT seniors.

¹ Institute for Alternative Futures, *Connecticut Diabetes Data and Forecasts*, <http://www.altfutures.org/pubs/diabetes2030/CONNECTICUTDataSheet.pdf>

² AARP report on CT “The ratio of potential family caregivers to the growing number of older people has already begun a steep decline. In 2010, there were 7.2 potential family caregivers for every person age 80 and older. By 2030, that ratio will fall sharply to 4 to 1, and is projected to drop further to 3 to 1 in 2050.”

Medicaid saw cuts in payment levels late 2010s that affected nursing home care and disability payments for many in the state. There were some rebounds in payment levels in the 2020s. And Medicaid providers likewise integrated telehealth visits, personal monitoring, smart home sensing, and predictive analytics to optimize care in the 2020s. Medicaid pursued value-based strategies to continue to integrate with non-medical services.

Other aging services from DSS and other providers in the state saw reductions and rebounds in funding, along with evolution:

- Nutrition programs, particularly Meals on Wheels saw severe cuts in the late 2010s, followed by rebounds in the 2020s. Home and community food production was encouraged. Demand for food banks grew, even where their available food was reduced.
- Most communities integrated their senior centers into other community sites and services, including libraries, schools, cafes, and churches. Many senior centers changed their name as they broadened their audience and range of services.
- Energy and heating aid programs were affected by federal cuts 2017 to 2021, with rebounds in the 2020s.

Behavioral Health Services 1

The need for behavioral health services in the state increased due to the stress and trauma of economic downturns, social and economic exclusion, extreme weather events, increased opioid and other substance abuse, neighborhood and domestic violence, and particularly adverse childhood experiences (ACEs).

The poverty rate in Connecticut increased in the 2020s as wages remained low and many lost jobs to automation or moved to part time work on gig economy. Already low-income areas were particularly affected. Children in those high poverty neighborhoods continued to grow up in environments that contributed to behavioral health problems. Early identification of children at risk, by human services and health care providers, became more sophisticated and took advantage of the linked information from schools, medical records, and neighborhood peers. Research on ACEs formed a base for teachers, school counselors, and in-school clinics to be trained to identify behavioral risks and needs. However, funding constraints often meant the needs were not addressed.

Enhanced approaches to identification and prevention emerged. “Behavioral Vaccines,” behavioral interventions that ward off mental health issues, like the Good Behavior Game, were developed and widely used. These Behavioral Vaccines had been proven effective in the US and other countries and were deployed in Connecticut in the 2020s.

Through the 2020s, there were breakthroughs with gene treatments and other medical advances for some diseases and behavioral health conditions.

Technology was a great influencer in evolving the delivery of behavioral health services. Building on earlier work with the Connecticut Department of Children and Families on Emergency Mobile Psychiatric Services, as well as that of the national nonprofit-Crisis Text

Line, Connecticut's 211 service (both phone and online) employed analytic software that could screen the tonal quality of the voice and words used in a call or text to determine if they were in-crisis or close. This was particularly helpful in dealing with the 120,000 or more crisis and suicide prevention calls received each year by determining what type of response and how urgently responses were needed. While most of the crisis calls to 211 are situational – families being evicted, having electricity shut off, etc. - many are behavioral. Working with the Department of Social Services, 211 could target specific needs and have; for example, clinicians dispatched to a school site to reduce expulsions and suspensions (work that first started in 2008 with the CT Department of Children and Families).

Some aspects of behavioral health became more commonly delivered through software programs and apps. Health care providers gave these interactive programs, deployed as smart phone apps (and in the 2020s the successors to smart phones), to their patients. Human counselors and the human concern they provide remain important, but these programs and apps are effective for some conditions. Smart phone users can choose to have them play the role of virtual personal counselor. While not “practicing medicine,” the best of these systems does provide effective behavioral care for minor or simple conditions.

Use of these “virtual counselors” displaced some human therapists during the 2020s. Human therapists provided human touch, human concern, particularly for significant behavioral health issues; and they provide oversight of patients’ uses of apps and programs. These human service providers use predictive analytics to help triage the population when budget reductions mean people must be cut from programs.

Even as some human counselors were being displaced, Connecticut accelerated the use of Community Health Workers (CHWs). CHWs were deployed by health care providers. These CHWs, often residents of the neighborhood they work in, met with families in their homes to identify needs and barriers and to reinforce care/counseling given by clinicians or virtual counselors. Connecticut had grown the pool of community health workers by developing a training and certification program, and by developing the data that showed their use could reduce costs.

Integration of behavioral health services with health care varied as health care reform was suspended, then started again in the 2020s. However, in some communities, because of the lack of behavioral health providers, primary care physicians and nurse practitioners were providing behavioral care.

Connecticut Medicaid continued to be the main source of public funding for behavioral health services. It remained committed to greater integration with non-medical services, and advances such as integrated claims data sets, and extensive use of predictive modeling and data analytics.

During the 2017-2021 administration, criminal justice adopted a “get tough” stance. Incarceration rates increased, with continued disproportionate rates for African Americans and Hispanics. Behavioral health services grew within those jails and prisons that provide them, though they remained insufficient.

Children, Youth and Family Services 1

The need for children and youth services varied through the 2010s and 2020s as cycles of poverty, substance abuse and other factors led to continued child abuse and neglect. Generally, across human services, there were federal spending reductions in the late 2010s. Despite the campaigns around brain science and support for healthy early childhood development and positive new strategies, the political climate of the 2020s resulted in some programs being cut and eliminated. Connecticut was unable to compensate for federal cuts. However, many early child care and early childhood development programs were not as drastically reduced, or remained steady in their funding. Head Start retained strong support in Connecticut. Child care services were reduced less than 10% even during periods of peak declines in funding.

Many residential programs run by non-profits operated on flat or decreased funding. The trend of community based care (CBC) continued and concentrated resources. Programs that fell outside of DCF, for example in the Council of Family Service Agencies, were more susceptible to reductions during periods of budget cuts. Some programs were slowly and repeatedly reduced in funding, but never eliminated; for example, fatherhood initiative programs.

The number of children in out-of-home services had been decreasing but saw an uptick in the late 2010s followed by a decline in the 2020s. By 2025, the overall number of children in out of home welfare services declined from about 4,300 in 2015 to around 3,500. This was accompanied by a shift away from group care settings to family foster care and more kinship placements.

Data integration across local agencies (schools, police, health care, judicial partners and court systems) allowed better awareness of each child's and family's needs. The two national databases – AFCARS and NCAN- evolved and expanded, beginning in the late 2010s. While inter-operability with data was not yet fully achieved, there was progress toward this aim in the 2020s and 2030s. All data remained encrypted and did not reveal the identity of those involved. Additional privacy and security measures were put into place.

By automating some of the tasks of child and family service workers, workers became more effective, and in some agencies, so much more productive, that the number of child and family service providers was reduced by 10% by the late 2020s. Child and family service agencies became more familiar with and deployed “Doc Watson”/AI programs widely by 2025.

Connecticut provided information mobility to their child welfare workforce in the late 2010s, allowing social workers to access data in the field, avoiding returns to the office and increasing productivity. Advances of this type expanded in the 2020s with televisits and when appropriate virtual care.

Connecticut pursued different avenues towards preventive and more equitable child and family services, including:

- Investment in pre-K by town school systems grew, prompted by the proven costs these school systems could avoid by reducing the need for later special education services

- Greater efforts to equalize the level of educational services across towns
- Regional consolidation was pursued in some parts of the states as diminishing school age populations and fiscal pressures required the consolidations
- Despite periods of increased deportations (some of which left the US born children of the deportees to join the foster care system), Connecticut remained its commitment towards welcoming immigrants
- In the 2020s, child care quality increased as Child care, Head Start and Pre-K providers were better trained, they were aided by technology, and state and local monitoring and regulation that improved their functioning
- “Behavioral vaccines”, like Positive parenting programs, good behavior games were promoted across the state; often with positive outcomes and high return on investment.

Despite the progress, Connecticut faced some challenges with advancing and delivering child and family services the 2020s that were new or evolved. Despite some efforts to combat this, the town structure and regionalization of the state resulted in increasing disparity of child and family services. Increased work in the “gig economy” often with less traditional work hours outside of 9 to 5 made child care for single parent household particularly difficult. Nationally, parental leave was put in place in the 2020s, but only up to four weeks, and only for those workers with benefits (which decreased as full-time employment decreased).

Disability Services 1

Although there was significant progress towards reducing disabilities, the need for human services in this area persisted. The largest increases in disability came with the Age Wave of 220,000 more 65+ seniors in Connecticut by 2030, accompanied by the rise in diabetes and Alzheimer’s and their accompanying disabilities. By 2030, there were over 56,000 diabetes related disabilities in the state- including visual impairment, renal failure, and leg amputation³. Those living in poverty had disproportionately high disabilities.

Funding for disabilities services varied with the health of the national and Connecticut economies, with reductions in some programs around recessions and during the late 2010s Administration. In the 2020s there were reductions in federal Social Security Disability Insurance (SSDI) payment levels, and tougher eligibility standards for SSI. Disability services grew more focused, benefit levels were reduced, eligibility requirements stiffened, and barriers to access, such as needing to reapply for payments every six months strained families.

The state moved towards more community based care and home-style settings. Disability services evolved along with society’s perception of disability. This led to more advocacy for inclusion and embracing all members of the community. The human service workforce continued to provide or fund services and to promote disability policies.

³ Institute for Alternative Futures, *Connecticut Diabetes Data & Forecasts*
<http://www.altfutures.org/pubs/diabetes2030/CONNECTICUTDataSheet.pdf>

Facing growing need and declining resources, and the opportunity to be more cost effective, human service agencies accelerated the automation of as many disability services as possible. Human services worked towards greater data integration across agencies, schools, and other stakeholders; however, this was met with periodic challenges. The state made progress towards the development of a common, standardized data set to help better analytics and implementation of services. State departments were tasked with managing data of service recipients and smart analytics allowed for better hot spotting of high utilizers and targeting optimal services.

During the 2020s, there were remarkable medical and technological advances affecting disabilities. These included:

- Self-driving cars enhanced mobility
- 3D printing of home equipment and even smart prosthetics
- Sophisticated home monitoring and home care robots, and friendly intelligent agents that act as helper, guide, counselor, therapist, translator, speech and hearing enhancer
- Direct brain control of limbs for paraplegics was available; prevention or cures for diabetes and Alzheimer's; and vision and hearing restoration.
- Diseases such as sickle cell disease, fragile X disease, retinitis pigmentosa, and others which are due to an abnormal gene, became treatable or preventable. 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).

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.

Education became more inclusive for children with disabilities. However, difference across school systems persisted. Connecticut continued to provide educational supports for adults with intellectual disabilities up to age 21. There was greater accessibility for all to pursue higher education in college, or other environments, to strengthen independent living skills. Connecticut was intentional about greater inclusion and equitable access to job training; however, this was partially stunted as more jobs were lost to automation.

Housing Services 1

Demand for housing services were influenced by high costs of rent, job loss to automation, and changes in funding for services. This led to increased housing instability for families, which sometimes had negative psychological impacts on children. Funding for housing services fluctuated across time. In response, transitional housing programs were generally decreased, and replaced by rapid rehousing programs.

Housing for persons with disabilities, mental illness, and addiction evolved. These became more often provided through an integrated community center model; in many communities, large homes were converted to supportive housing for people with particular needs.

Communities used several approaches to increase the stock of low and very low income housing^{iv}, including:

- Raising the number of unrelated people who could live in a home and allowing secondary dwelling units to be built onto an existing home or in its yard. More non-related people, of differing ages and abilities, shared homes in mixed income residential settings
- Group homes evolved, with more non-related people, of differing ages and abilities, sharing homes in mixed use residential settings. This allowed residents to provide common supports
- Building more public housing; increasing number and value of housing vouchers
- Universal design and sustainable, more energy efficient building materials.

Few communities used all of these strategies, though many communities used some of them to enlarge the stock of low and very-low income housing. Even in the successful communities, the increased housing stock could not keep up with the demand as more families lost income as unemployment grew.

Zoning changes, affordable housing stock, and locating them in mixed income neighborhoods raised issues with many in Connecticut. There was opposition in the state legislature to zoning changes that allow more density. Wealthier towns were apprehensive, fearing increased noise and traffic, lower property values, and “those people”. Human services and policy makers ran intentional campaigns for greater acceptance of low income folks.

Yet Connecticut’s reality of many small towns and its reliance on property taxes with great disparities in house values and town wealth remained as obstacles to change. Policies requiring sharing to provide some equalization of education expenses per capita were continued.

In most communities, the “housing first” model of human services was followed with housing service providers using self-sufficiency assessments to identify the individual’s or family’s needs and to coordinate with other providers. However, during periods of strained resources and a less supportive political climate, the housing first model required participants pass drug tests and other barriers. The CAN- Coordinated Access Network- continued to work towards decreasing homelessness. There was a continued focus on matching individuals with best, targeted services. However, limited resources often meant only a minority of individuals and families in need could be helped.

Income Supports 1

Income supports were shaped by economics changes, fluctuations in funding levels for services, and changes in human service integration. The number of families in poverty that were receiving

income supports had been declining in Connecticut⁴. During the late 2010s, the Temporary Assistance for Needy Families (TANF) payments were reduced. This impacted all income programs in Connecticut that were funded by TANF, particularly Temporary Family Assistance (TFA) and Jobs First Employment Services (ES). This included cash payments and child care assistance. The levels of cash allowances under TANF rebounded in the 2020s and were adjusted for inflation. By 2024, TANF reforms had followed the recommendations of the American Public Human Services Association (APHSA) on TANF as a tool to stimulate meaningful employment. In Connecticut, TFA and ES continued as the main TANF related programs.

TFA continued its 21-month lifetime limit, and the emphasis on job training continued and evolved as jobs transitioned. When federal TANF support rebounded in the 2020s, TFA could reach more people who needed the support. Jobs First Employment Services (ES) continued and evolved as jobs and economics evolved, moving to new skills and retraining in the 2020s as some of the more traditional jobs were lost to automation.

The Earned Income Tax Credit (EITC) maintained its bipartisan support and continued to supplement the income of low income families by reducing or eliminating their federal taxes. Connecticut was one of the 26 states in 2015 that supplemented federal EITC payments by adding a percentage of the federal credit or reducing/eliminating state taxes. Federal payment levels were held flat during the 2017-2020 Administration and grew slightly above inflation in the 2020s. The 26 states that provide their state enhancement to EITC grew to 35 by 2030. However, job loss to automation included many low wage jobs, which reduced the number of people earning enough to receive EITC payments.

Food and nutrition income support programs evolved as well. Cuts to programs like WIC decreased the number of places, such as child care centers, where low income children received daily meals. Higher barriers to qualifying further limited the number of kids getting food. SNAP, which had been on track, set by the 2014 Farm Bill, to be reduced about 1% a year through 2024, was cut even further during the late 2010s Administration. This brought on stricter limitations such as a 3-month limit for unemployed and childless clients, a ban on drug felons, and requiring photo IDs.

In the 2020s total funding levels for SNAP were raised and applying for SNAP was made much easier and quicker. Better information systems linked individuals and their data with other government programs. Once an individual or family is at or below a certain income level they are automatically qualified for SNAP and other relevant programs. SNAP's Employment and Training programs worked to operate as a team with other employment programs. Programs targeted jobs that would not be automated and for which the person could be trained and had the relevant capacities. But even after the training in many communities' job shortages remained and/or the people offered jobs did not have reliable transportation.

Health and human service agencies began coordinating their care and services with SNAP; as did state and federal programs. For example, a Medicaid participant who would benefit from certain

⁴ Center on Budget and Policy Priorities, *Connecticut's TANF Cash Assistance Is Disappearing for Poor Families*, http://www.cbpp.org/sites/default/files/atoms/files/tanf_trends_ct.pdf

foods or nutritional supplements could be encouraged and aided to buy those foods. Some personal, financial, and community data was included by the early 2020s, once protections for privacy, security and discrimination were in place.

Scenario 2. YOYO: You're on Your Own

The years leading up to the 2030s were filled with challenges. The economy overall grew slowly for most of the two decades to 2035, with periodic recessions. The big one, the Great Recession of 2023, was particularly challenging to employment, tax receipts, and human service spending. The digitization of life continued with the movement from the internet, social media and smart phones to virtual reality, artificial intelligence and cognitive computing. This improved many aspects of life and learning. But it also led to significant job loss to automation. These were in addition to the usual cyclical job loss during a severe recession. Connecticut's economy was impacted as more businesses migrated out of the state towards major urban centers. For some of the jobs that did remain, Connecticut often did not have the properly educated and trained workers available to fill these positions.

The age wave arrived growing the number with serious diseases and disabilities. Rural areas became more isolated. Many elders and others in rural areas sought to move into urban areas to better access services, but couldn't sell their homes. Racial and economic segregation of the state intensified, increasing inequality. Education spending became more unequal as did outcomes. Resentment and animosity between communities grew.

The economic downturns did lead to an increase in self-sufficiency efforts, particularly family and community food production as well as the trading of services and other resources in low income communities. However, it also led to periods of civil unrest and increased isolation. Particularly in communities that did not have the resources to increase their self-sufficiency.

The need for most types of human services grew while resources were often limited, especially during the Trump administration. Human service funding was cut in the late 2010s, then rebounded in the early 2020s only to see major cuts during and after the Recession of 2023; followed by another rebound in the second half of the 2020s. Governmental cuts sometimes meant that some communities turned to local foundations, churches, and other community groups, but these were struggling as well. In addition to government programs, more non-profits went out of business, particularly during the Recession, which created more gaps in service provision.

Human service organizations were forced to move from the mantra of "do more with less" to "do less with less;" to automate what they could; to collaborate to ensure that the funds and services provided were deployed most effectively for the individual's or family's unique needs; and to reinforce their overworked and underpaid employees on the importance of their mission. In addition to jobs lost because of funding cuts in the 2020s, about 15% of the remaining human service jobs in Connecticut were lost to automation and cognitive computing.

Public policy makers influenced how the state dealt with cuts – determining the mix of changes in regulation, oversight, and resource allocation. There were cuts in preventative services at levels previously unexperienced. Service levels and benefit levels were reduced. Public policy continued the trend of reduced rates of providing services. Increased regulatory requirements further limited ability to innovate, prohibiting potential cost efficiencies. The ‘land of steady habits’ attitude, along with political disagreement, hindered much innovation of policy.

During these difficult times, Federal funders demanded more return on investment analysis and outcomes from programs. DSS did this analysis and it drove policy decisions. The Connecticut LEAN program played an important role in helping to optimize processes and find key areas for automation, which proved very beneficial in times of limited resources.

Aging Services 2

Aging services were cut repeatedly during the two decades leading to 2035 even as need for them increased. This started with the cuts from 2017 to 2021. Much of these cuts were restored in 2021 only to be cut again during the Great Recession of 2023. All the while, the Boomer “Age Wave” expanded the need for health care and home care programs.

Many senior and adult day care centers had to be closed across the state, and more services were curtailed. In responses, there was a greater reliance on informal services; however, these services were not regulated by the state.

With governmental cuts, the non-profit sector providers lost income. Some of these were driven out of business. Services and providers restructured to keep programs close to the community. This restructuring involved partnerships, mergers and collaborative efforts when possible.

Diabetes and Alzheimer’s in seniors across the country worsened. Alzheimer’s impacted 1 in 10 adults over the age of 65⁵. By 2030 in Connecticut there were over 79,000 seniors who have Alzheimer’s. Diabetes rates of elders increased. The health disparities for seniors that are low income and/or Hispanic and Black worsened⁶.

The 2023 Recession saw unemployment skyrocket. Federal, state and local government budgets were cut, particularly during the bleak years from 2024-2027. Many cities and counties had to close their senior centers and curtail meals on wheels and other nutrition programs. As the aging

⁵ Alzheimer’s Association, *2016 Alzheimer’s Disease Facts and Figures*, <http://www.alz.org/facts/>

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>

population increased, so did instances of elder abuse across the state⁷. These were largely underreported and when instances were reported, there was limited ability for Protective Services for the Elderly (PSE) to address the situation.

Poverty and job loss contributed to diseases of despair, such as addiction. Connecticut continued having higher hospitalizations due to opioid overdoses and deaths in the 50-65 and 65 and above ages than the national average. As opioid, and other addictions, increased during economic decline, more grandparents in the state were caring for their grandchildren. The competition between caregivers for children and caregivers for elders strained families and care givers.

During the 2020s and 2030s, there were great medical and technological advances. The affluent could afford high tech and high touch home care, including from increasingly effective home care robots that take care of the elderly as caregivers. There were cures for Alzheimer's and diabetes, but these were expensive and not covered by Medicare or Medicaid. Low income seniors did not get most of the medical breakthroughs or disability reducing technologies and had to continue to rely on family members when they could (the ratio of family and kin to elder dropped from 7 to 1 in 2010 to 4 to 1 in 2030). The 2023 economic downturn disrupted families as some family members moved away for employment. When family members did fill the role of caregivers, there were often difficult emotional, financial, and physical impacts.

Workers in the aging services area (like other Human Service workers) who did not lose their jobs went for long periods without raises in their already low-paying jobs. The non-profit organizations they worked for remained tenuous, not getting adequate payment for overhead or institutional support; often getting paid late and intermittently losing major contracts and having to lay off workers. Aging service agencies, both government and private, encouraged more family and community care. This worked in many communities, but left low income and minority elders disproportionately without adequate care. The economic downturn impacted the family members of seniors, particularly stressing families with multiple generations under the same roof, which in the 2020s made up a larger percentage of families in Connecticut.

Behavioral Health Services 2

Behavioral health services decreased dramatically due to budget cuts even while the evidence accrued to show these services reduce cost in the long run. The conservative health care reform slowed the integration of behavioral health into health care. Poverty grew, along with its associated increases in domestic and community violence, teen pregnancy, housing and food insecurity, and chronic disease. Drug abuse, including opioids, continued its increase with growing harm to individuals, families and communities. Despite evidence from demonstration projects around the country showing that behavioral health can counter the epidemic of drug abuse, funding became scarcer during the 2020s.

⁷ New Haven Register, "As Connecticut population ages, elder abuses rises"
<http://www.nhregister.com/general-news/20140906/as-connecticut-population-ages-elder-abuse-rises>

Health care reform left more uninsured and there were cuts in Medicaid. Whereas 700,000 had been on Medicaid in Connecticut in 2017, federal spending cuts with more block grant discretion to the states led Connecticut to maintain the level of service but reduce availability. In the late 2020s only 500,000 in the state receive Medicaid. Behavioral health services are included for these recipients, many using the virtual counselor phone apps. However, Medicaid remained the main source of public funding for behavioral health in the state.

Prisons remained important sites for providing behavioral health services, with wide variations across facilities in the quality and effectiveness of the behavioral health provided and there remained substantial unmet need. In the years 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 in the state, 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.

In this environment, inequality persisted along with cuts in funding. In the face of these increasing hardships, and cuts in services (behavioral health and most other human services), self-sufficiency was being encouraged, effectively making it a YOYO situation (You’re on Your own).

Children, Youth 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. 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.

The increase in poverty contributed to greater child abuse and neglect, domestic abuse, opioid and other substance addiction, teen pregnancy, housing insecurity, food insecurity and depression. The adverse childhood experiences (ACEs) and trauma which impacted brain function and development for these children would negatively affect their gene expression for years to come. The need for foster care grew – but because of cuts in funding to human service staff and contractors, and to foster families, in 2030 there were about the same number of placements as 15 years earlier.

There was a reduction in many of the non-crisis services, which ultimately save money, but could not be prioritized as the state struggled to meet day-to-day demands. The services cut include prevention and intervention services, and birth to three services.

Connecticut was brought back to levels of stress in the child welfare system not experienced since the late 1980s. As staff was reduced the rate of child abuse and neglect reports that were being investigated fell back from virtually 100% to around 60% by 2025. This situation had a precursor with the Juan F. case⁸ that had led to Connecticut being under a consent decree, which included federal oversight. As the investigation rate overwhelmed increased caseloads, federal oversight of the state child welfare system grew. Social service workers were unable to provide necessary attention to each individual case. This was compounded by both state and federal cuts, which reduced the overall placements available for children within the system, and case manager oversight.

There were more instances of unlicensed child care and a reduction in child care infrastructure. Connecticut residents had been higher utilizers of unlicensed home care paid for by the state than other areas of the nation. The educational level of caregivers decreased. Lack of resources meant hiring people who were willing to accept lower wages – often those with less education or training to best provide child care. These posed problems with quality control, and instances of abuse and neglect increased.

The school achievement gap between schools and racial and income groups worsened. The economic and racial segregation of the state deepened, with growing isolation and inequity across areas. Instances of human trafficking became more common across the state.

Single headed households increased in the state, bringing more financial insecurity and other instabilities which harmed the wellbeing of children and families. Some of these single headed households were mothers raising children whose fathers were incarcerated or otherwise unable to parent.

In many low-income communities, there are more disconnected youths not in school or working and this led to increased gang activity. There were fewer resources for juvenile corrections, and more adolescents, aged 16 and 17, were placed in state prisons with adults because of decreased funding for juvenile facilities despite increased need.

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 some parts of the state faith-based, philanthropic and other community groups increased their efforts to address some of these unmet needs. 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.

Human service providers automated much of their work to deal with staff cuts. Human service areas used the integrated information system to target the best set of services from their dwindling pool of programs and funds. This information is integrated from other community services – health care, police, and schools. But there were times when the information systems

⁸ Children’s Right, “Class Actions: CT – Juan F. v. Malloy”
http://www.childrensrights.org/class_action/connecticut/

were not updated or reliable. When data was not properly entered, or updated, this led to instances of children and families not receiving services that they should have received.

Immigration reform never happened. The conservative administration deported many between 2017-2021. Some deported parents were forced to leave their US born children behind – adding to local foster care burden. The U.S. stopped accepting refugees from war torn areas of the Middle East. The refugees that were already in the U.S. often met with resentment from American residents, fostered by Islamophobia and other-phobic sentiments. Due to lack of resources and hostility from neighbors, some refugee families formed their own isolated communities. Human services continued to provide immigrant services at decreased levels in most communities, though providers and recipients did benefit from the use of language translation apps that were available by the second half of the 2020s.

Disability Services 2

The number of people with disabilities grew year after year, fueled in part by the aging population with more chronic diseases – particularly diabetes and Alzheimer’s. Increased disabilities were fostered by the impacts of the 2023 Great Recession, the ongoing higher structural unemployment, fewer people receiving health care, particularly Medicaid, and more severe weather events.

The largest increases in disability came with the Age Wave of 27 million more 65+ seniors by 2035, accompanied by the rise in diabetes and Alzheimer’s and their accompanying disabilities. In Connecticut those with diabetes rose from 358,000 to 500,000 in 2030, 55,000 of whom have visual impairments and 590 with leg amputations that year⁹. While not covered by the states definition of disability, Alzheimer’s drove up parallel needs. By 2030 10% of the 794,400 65+ in Connecticut, or over 79,000, had Alzheimer’s. Both diabetes and Alzheimer’s continued to disproportionately affect Hispanic and African American populations.

Adults with physical disabilities continued without a state agency specifically geared towards meeting their needs. This led to greater disparity among this population.

Developmental disabilities grew in the 2020s, fueled by parental drug abuse, lack of prenatal care and spread of the Zika virus and other diseases. 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 and many insurance programs. Accident-caused disabilities continued to grow. Deregulation of some businesses led to increased contamination of water and soil in some communities, which led to some increased disease and disability.

As services further disconnect and experience cuts, families that do receive services did so from more and more different areas and agencies and these were often poorly coordinated.

⁹ Institute for Alternative Futures, *Connecticut Diabetes Data & Forecasts*
<http://www.altfutures.org/pubs/diabetes2030/CONNECTICUTDataSheet.pdf>

Diminished disability services contributed to increased abuse, neglect and discrimination among those with disabilities. There was greater despair and violence across the state. Isolation increased and many human service agencies faced growing unmet need.

There were cuts in special education funding and a reduced number of specialized teachers and therapists. The racial and income segregation in the state 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.

Inequality for persons with disabilities increased. Some persons with disabilities had to enter institutionalized care settings, as they did not have access to resources such as home care aides. This was ultimately the highest cost option, with lower outcomes, but resulted from increased lack of Medicaid and other insurance coverage for independence services.

There were technological and medical advances that removed disabilities or lessened their impact, but most low-income people cannot afford many of the technological advances and most are not covered by Medicare or Medicaid. Especially as Medicare and Medicaid services were reduced in the 2020s.

Low income families did have access to some low-cost technologies by the second half of the 2020s. Intelligent agents that link biomonitors and other health data with health care providers to alert the person, their family and/or their doctor as needed and effective virtual behavioral counseling and were provided by capitated managed Medicare, Medicaid and other health care plans.

Housing Services 2

Housing assistance had been declining from the mid-1990s to 2015. The conservative administration of 2017-2021, more hostile Congresses, and economic downturns led to a decline in housing assistance levels not seen since before the Reagan administration. There were some rebounds in the 2020s and 2030s. But in most communities, housing services had to determine who got what services, with often a large share of the needy or eligible group not getting any of the services.

Loss of a job was a frequent cause for loss of housing. This accelerated during the Great Recession of 2008-2009. Other contributing factors to housing instability such as severe cost burden for rent, domestic violence and disabilities increased as well. 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 Connecticut stepped in temporarily and met some of the need, providing shelter and meals. In some areas, tent cities sprang up.

Some laws and regulations were changed in a few communities to allow more unrelated individuals to share housing units and to permit secondary dwelling structures in yards or attached to existing homes. Yet some state regulations promoting denser neighborhoods were reversed. In many neighborhoods, existing residents resisted increasing density and were hostile

to those lower income families who did move into the neighborhood. And exclusionary zoning policy persisted in many areas.

There were several negative consequences as housing quality could not be maintained, including increased disease. Squatting in vacant homes and buildings became a more popular phenomenon, with the attendant risks for fires and unsafe environments.

The increase in housing instability contributed to increased human trafficking and other crime.

Unstable and unsafe housing, as well as increased family homelessness, had a negative impact on children. There were increased instances of abuse and neglect, sometimes due to a parent having to choose between housing costs, medicine, and food. This increased the workload for the child welfare system.

Income Supports 2

TANF, and all other cash assistance programs, experienced greater cuts and limitations- and some were fully eliminated- particularly under the conservative administration of the late 2010s and subsequent conservative administrations. These cuts worsened during the 2020s as the job categories TANF recipients could seek were narrowed, further limiting the ability of TANF recipients to find employment. The income support programs Connecticut funded with TANF were negatively impacted; benefits were reduced, made stricter, and some programs were eliminated. The Great Recession of 2023 made the situation worse. Many families were less able to meet their basic needs, and resorted to extreme measures, did without, or found alternative sources for service outside the human service sector.

For many families, the only means available in the 2020s came through the informal or underground economy as neither paid work nor adequate government assistance could be found. This underground economy included legal and illegal efforts. By 2035, a growing number of the population in prison were former TANF recipients who had resorted to crime for survival. More people required emergency assistance, medical assistance (with more ER visits), and temporary disability assistance but there were fewer financial and human resources available.

The EITC had slightly reduced payment levels during 2017-2021, but grew slightly above inflation through the 2020s. Connecticut continued its EITC efforts, but by 2030 some states had stopped supplementing the federal credit. However ongoing job loss to automation as well as recession-induced unemployment, particularly during and after the 2023 Great Recession, reduced the number of families benefiting from Federal EITC payments.

Food costs continued to increase between 2.5 and 5% each year, yet wages and family incomes declined, and the SNAP program suffered significant cuts. Switching SNAP into a block grant further reduced its economic and nutritional impact, harming its low-income recipients. While there were periods of supportive Administrations and SNAP-friendlier Congresses which reversed, or slowed SNAP's decline, it continued until the late 2020s, when despite overt need, the SNAP program ended all together. In 2015, 46 million people received SNAP benefits

nationally- by the late 2020s, before the program was terminated, that number had fallen to 20 million.

Scenario 3. North Star

There were transformations in Connecticut taking place in the economy, values and policies that led to major changes in the 2020s. There were accelerated by the challenges of the Trump administration from 2017 to 2021 when some Federal human service programs were cut while others were eliminated.

The economy overall continued to grow slowly with major shifts in employment. A net 7% loss of jobs to automation by 2025 was followed by greater job loss in the years to 2035. Much of the remaining paid work shifted to consulting or piece work on the “gig economy”. Manufacturing evolved as home goods, electronics, and even food could be 3D printed locally or in your home.

Simultaneously, values and attitudes shifted. Equity and inclusion became the norm in most communities in Connecticut. The visible social and economic exclusion during the late 2010s helped accelerate this shift. This in turn supported a range of major policy shifts in health care, housing and income supports. In the 2020s, universal access to a single payer health system was adopted. Spending for low income housing was significantly increased and local policies were changed to allow greater density and promote mixed income neighborhoods. Given the growing job loss to automation and the complexity yet insufficiency of the patchwork of income support programs, a guaranteed basic income^v was created that unconditionally provides all adult citizens \$12,000 yearly and \$4,000 for each child.

Connecticut applied its Yankee ingenuity during these transformations to ensure that programs and services achieved their greatest potential outcomes. This included the creation of a shared vision developed by the public for the state. This vision served as a “North Star” – a point in the future where the economy was working for all, where equity and inclusion was the norm, where individuals and families could pursue and achieve wellness and thrive. Together the state and its communities did achieve the conditions they sought.

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. 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.

The transformations were accelerated by a range of technologies applied to enhance equity and inclusion. Low cost solar and other sustainable energy production and its storage was installed

throughout the state. In-home and in-community food production, from convention gardens to high tech aeroponics and cultured meat led to a wealth of healthy, accessible food. Home building costs were reduced as 3D printing of house parts and even 3D printing of whole homes was put in place. This lowered the cost of living in Connecticut, particularly for low income families. “Abundance advances^{vi}” was the name given to these social and technological innovations.

Connecticut’s historic reliance on small towns and cities (none over 150,000 population in 2015) evolved. To be more efficient, and to aid in achieving the vision of equity and inclusiveness, towns in many regions consolidated and rationalized their services. Spending on services, including education, was more effectively equalized. The trend of corporate headquarters moving to New York or Boston continued, while many of the remaining jobs were automated. This changed Hartford and other local economies. The guaranteed basic income led many to relocate to lower cost regions of the State.

Human Services in Connecticut were shaped by and often accelerated these transformations. Human services suffered the cuts of the late 2010s, followed by some rebounds. The guaranteed basic income radically shifted income support programs – eliminating several (TANF/TPA, SNAP, some child care and disability payments).

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. Services were integrated fully across and within communities, enhancing the environment in which people live. Human services used their Yankee ingenuity to invent enhanced ways to achieve outcomes. The need for human services was somewhat reduced as the GBI reduced poverty; there was less child and elder abuse; healthier living slowed or prevented disease and some disabilities.

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. Human services supported “behavioral vaccines”, behavioral interventions that ward off mental health issues and unhealthy behavior, like Good Behavior Games. Internally, human services used predictive analytics 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. The increased use of block grants, as well as greater flexibility in using funds across siloed programs, allowed human services to optimize the services an individual or family most needed and were most likely to achieve the outcomes sought.

Aging Services 3

The “age wave” that hit Connecticut and increased demand for aging services was paralleled by the movement of human services towards more integrated, customized, flexible and generative services. Human services, supported by policy shifts and technology, helped elders to thrive and contribute to the community.

The guaranteed basic income “topped up” those 65+ whose Social Security or pension/retirement income was less than \$12,000 annually (these were adjusted annually for inflation, as were Social Security payments).

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. More seniors volunteer and trade 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 smart State planning. Connecticut was proactive about better urban development and planning and implementing ‘smart cities’ to integrate innovations and address inequality. These efforts included:

- Integrating health and human services
- Consolidation and regionalization of services as towns consolidated
- Better sharing of resources across town boundaries, when they did not consolidate
- New buildings and those retrofitted are energy efficient; universal design widespread
- Transportation made easier with self-driving cars and other advances.

Wellness and equity were the foundation for ‘positive aging’ efforts across the state – these campaigns promoted respect and dignity of older adults, fostered a sense of self-worth, and supported productivity. These expanded state programs such as Age Out Loud and Disrupt Aging. Positive aging became an integrated value and goal, and attitudes towards and within the senior population evolved.

Community-based and philanthropic services helped connect neighborhoods and community members with local services. Formal networks of ‘Gatekeepers’ developed and maintained volunteer organizations to educate on and deliver services. The infrastructure for these networks and their leaders was aided through smart city planning. Seniors, even home bound seniors using virtual reality, increased the services they provided through these networks.

Health care evolved, improved in quality, and focused on extending healthy years. Changes included: Telehealth and virtual health that reduced the need for seniors to “go to” the doctor; health system support for shaping the social determinants of health in their communities; prevention and cures, available through Medicare (the single payer plan) by the mid-2020s for diabetes, Alzheimer’s, and many cancers.

Others aging service areas that evolved included nutritional programs and adult protective services. Both used technology (such as drones and smart homes respectively), predictive analytics and community delivery to be more impactful.

Behavioral Health Services 3

Many behavioral health problems were prevented in the 2020s by economic and social changes. This included greater family stability and less isolation and segregation. 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.

Enhanced approaches to identification and prevention emerged. “Behavioral Vaccines”, behavioral interventions that ward off mental health issues, like Good Behavior Games, were developed and deployed. These Behavioral Vaccines had been proven effective in the US and other countries and were deployed in Connecticut in the 2020s. Universal developmental screenings, informed by this explosion of genetic, epi-genetic, environmental and social data, were a routine part of primary care as well as day-care, pre-K, and school testing.

Technology was a great influencer in evolving the delivery of behavioral health services. Building on earlier work with the Connecticut Department of Children and Families on Emergency Mobile Psychiatric Services, as well as that of the national nonprofit-Crisis Text Line, Connecticut’s 211 service (both phone and online) employed analytic software that could screen the tonal quality of the voice and words used in a call or text to determine if they were in-crisis or close. This helped analyze and guide intervention with suicide calls, significantly lowering deaths by or attempted suicide. While most of the crisis calls to 211 are situational, many are behavioral. Working with the Department of Social Services, 211 could target specific needs and have; for example, clinicians dispatched to a school site to reduce expulsions and suspensions. This was work that first started in 2008 with the CT Department of Children and Families. The use of this service was widespread and effective, and being replicated in other areas addressing substance use, basic needs and general health.

These 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 of the 2020s covered or provided these advances. Physical and behavioral health were given parity. Technology significantly accelerated behavioral care; effective and inexpensive software, “virtual counselors”, developed and used by leading health care providers proved to be very successful in the 2020s. These did not replace human counselors, but served as a different option or supplement to the work of human therapist. These too were accessible through Medicare for All.

However, the need for some behavioral health services remained. For that care, the use of the Harvard Tool for Implicit Bias and similar tools led to more sensitive care, while advances in clinical care, evaluation of that care, and targeting for individuals contributed to higher efficacy of human counselors and virtual counselors. And a new level of human provider emerged; community health workers (CHWs) deployed by health care providers. These CHWs, often residents of the neighborhood they work in, met with families in their homes to identify needs and barriers and to reinforce care/counseling given by clinicians or virtual counselors. Connecticut had grown the pool of community health workers by developing a training and certification program, and by developing the data that showed their use could reduce costs. Targeting families teetering on the edge of crisis was done both by predictive analytics as well as by local early childhood councils who know neighbors and the community.

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.

The behavioral health workforce evolved. As behavioral health morbidity was significantly reduced demand for care dropped. Virtual counselors displaced some human therapists. Human counselors typically focused on the more challenging behavioral health conditions as well as oversee the automated systems, but the combination of virtual and human care was customized for each individual.

Children, Youth and Family Services 3

A major positive influence for child and family services need was the guaranteed basic income; which led to greater family stability, a reduction in family violence and child abuse, lower teen pregnancy rates and increased high school graduation rates. Financial and wealth literacy programs were provided to help families use their income most effectively and understand the wrap-around services they need.

However, there were side effects of the GBI. While addictions were reduced, for those who remained addicted to various drugs, the GBI provided a more stable source of money for buying their drugs. Substance abuse was viewed as a public health issue with treatment covered under single payer health care.

Decreased poverty and addiction contributed to a decrease in demand for child welfare services. But the need for child and family services persisted. Child abuse and neglect came into sharper focus, aided by the data sharing among schools, health care and human services, as well as predictive analytics. Overall, the need for foster and out of home services decreased in the 2020s. Child welfare services were influenced by several factors, including:

- Where the child must leave their parents' home, the basic income payment follows them to foster care, group homes or kinship placements

- There was a success payment for foster families where the family is given a financial bonus; the amount of which is related to how much the state saved with the successful and healthy placement
- The basic income allowed more family members to step in and provide kinship care, without the intervention or oversight of DCF
- Services became more tailored to specific needs; for example, gender neutral homes for LGBTQ youth
- Additional tax breaks for foster and adoptive parents were put in place.

In addition, positive parenting programs became widespread and impactful. This helped prevent many potential incidents requiring child welfare intervention. Good behavior games were integrated into the state’s school curriculum and help children develop positive behaviors that they then carry into adulthood. Connecticut is a national leader with these programs.

Early childhood services, such as Head Start and Pre-K, were made universally available in early 2020s and their impact on learning was enhanced over the decade by better trained day-care providers, widespread use of engaging learning technology and increased accessibility of neighborhood parenting and cooperative day care programs. Connecticut helped to ensure that technology complemented and enhanced social and emotional development.

Workforce training anticipated the changing conditions: the GBI provided an income floor so most who continued to work sought more meaningful and/or higher paying jobs; the automation of jobs required working with local employers to assess what jobs were at risk; and the growth of “gig economy” work with its flexible hours and virtual work settings required more specific skill training for work in various sectors.

Adult protective services focused on plans that enhance the threatened adult’s choices with their services. Many cases of adult mistreatment were identified through primary care screenings, which enabled prompt intervention, often preventing or lessening recurring mistreatment.

Political and economic stability in this country allowed the United States to successfully welcome significant numbers of refugees throughout the 2020s. Refugees are provided housing and clothing, nutritional services, and physical and mental health care, and job training or small business creation coaching; though they do not get the guaranteed basic income benefit. Services for these individuals and families came from federal, state, local, and private programs with blended funding streams. Where refugees have children born in the US, as citizens, they get the child GBI payments. The isolation of immigrants and refugees and their service providers was dramatically reduced using effective, low cost, culturally sensitive language translation apps.

Disability Services 3

Disability, or its impacts, were reduced during the 2020s. This reduction was due in part by: 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. Developmental disabilities were reduced somewhat with

reduced poverty, consistent prenatal care, and safer environments. Yet disabilities and disparities in disability levels along racial, ethnic and income lines persisted, even as awareness of these disparities furthered efforts to reduce them.

The GBI benefit led to the elimination of disability payments to many (particularly where the \$1000 monthly GBI payment to each adult exceeded the SSI and state monthly disability payments). Some individuals with more severe disabilities, particularly where they are dependent on costly caregivers, treatment or technology, received payments for these.

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

- 3D printing of home equipment and even smart prosthetics
- Sophisticated home monitoring and home care robots
- 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
- 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
 - As the medical advances were proven effective and safe, and their initial costs dropped, they were covered by Medicare for All.
- By the late 2020s genetic analysis could predict disabilities and in utero testing and gene level repair was available in some countries.
- Self-driving cars and other vehicles increased mobility.

Mental and developmental disability screening takes place with physical health care exams, and became more accessible. This increased the number of people who sought and received care. Physical and mental services were customized for each person with a disability, and they were better guided through a continuum of care providers.

Data was used as a tool for empowerment. Human service agencies could share and integrate data to understand the degrees of disability, the genetic proclivity, or environmental promoters of disability among family members and could do predictive analytics to optimize the services they received. This family-focused data, along with community data, and data on effectiveness of services and technology allowed more effective priority setting for what services to provide.

Education became more inclusive of those with disabilities. Widespread screening for autism had increased diagnosis rates. These students had received costly separate services. By the mid-2020s the factors associated with autism were better understood, which allowed both prevention and better medical treatment and education approaches. Better understanding of needs and technology allowed the majority of these students to be in regular inclusive classrooms.

Homes for adults with disabilities evolved with smart home technology geared to resident's needs. Universal design was adopted, allowing greater mobility, aging in place and ultimately saving costs. Many group living situations had an overseer that helped make the advances shared and beneficial for all. They also helped connect residents with services and the community. There was formal infrastructure developed across communities to make these programs successful, and promote shared resources and creative housing developments.

Health care and human service agencies supported the social enterprises that develop and manage these homes where people live well in a common environment of support. These management organizations provide property management, cleaning, home health care aides (equipped with language translation and speech augmentation earpieces), and other services needed to keep the home's residents independent. These homes have residents are various ages, income levels and abilities. Sometimes called Freedom Houses, some were in refurbished older unused properties, others in new units embedding universal design.

Housing Services 3

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 moderate, low-income and very low-income housing stock in the state; much of it in mixed income neighborhoods. There had been legislation in 2017 which enacted a zoning presumption in favor of approval of "temporary health care structures" in situations in which a resident needed caregiving. Connecticut's statutory policy statement supporting "livable communities" helped set a tolerant legislative tone. However, there were periods of more and less supportive policy towards housing changes and at times these changes were resisted and rejected. By the 2030s the philosophical shift towards equity guided the way people voted and the way elected officials governed.

Town and regional consolidations in some cases aggregated housing agencies, and gave opportunities to rationalize and adjust zoning and regulations. This and changing attitudes made it easier to have secondary units built into existing homes or in the yard; to increase public housing, including multi-family units; provide more vouchers; facilitate advanced lower cost construction (3D printing of components or the whole house on site). Wealthier areas of the state supported denser neighborhoods, with many working proactively to do traffic calming, welcome new neighbors and keep the property values up.

During the 2020s these changes, along with the basic income, reduced concentrations of poverty and housing instability.

Housing services used and expanded self-sufficiency assessments including the housing mobility model for each individual case to assess housing and other needs and identify best, case-specific plans of action. For example, some clients need a monetary stipend, some need stipend and services, and some need a stipend and intensive services. Many agencies provide a continuum of services where people easily flow in, out, and across the spectrum per their needs. Housing services use predictive modeling and advanced analytics to anticipate emergency housing needs. Human service deliverers and their partners' systems know if there have been layoffs or other challenges and can check with families if they are at risk of missing utility or rent payments.

Households became more generative of some of their needs as they produce and co-produce food and other necessities. Connecticut and local governments provided regulations and incentives for landlords to install low cost solar energy and storage and pass the savings on 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. Integrating mental and behavioral health with health care, and having these services be more accessible, lessened the rates of chronically homeless with severe behavioral health conditions.

Income Supports 3

Income support programs were reduced during the Trump Administration (and some eliminated altogether). But the programs were redefined in the 2020s with the creation of the guaranteed basic income (GBI). GBI payments provided a low but stable income to all citizens. Given the guaranteed income payment, CT EITC and TANF and associated programs were largely eliminated along with SNAP and others. Given the high cost of housing in the state, Connecticut did continue to provide housing vouchers, as well as using other means to increase the stock of low and very low-income housing.

Some programs such as emergency and medical assistance and additional resources for the persons with disabilities were continued. Yet in most cases, GBI payments enabled people to have better lives in which they contribute to their communities and society. Financial and wealth literacy became a larger part of human services in the 2020s to train people on the optimal uses of their GBI and other funds. Refugees and immigrants are not eligible for GBI, so alternative systems remained in Connecticut to meet the needs of this population.

Food insecurity in Connecticut was significantly reduced by self-production of food in homes and in communities utilizing both traditional and technology assisted growing. These include hydroponics, aeroponics, and urban and vertical agriculture, 3D printed foods, cultured meat and other advances. Community food production efforts led to the emergence of community leaders that help build well-being and implement evidenced best practices for food and nutrition security.

However, some food insecurity remains, as does homelessness, pockets of poverty, as well as soup kitchens and other feeding programs. The remaining food and nutrition services are integrated fully with other social services and community food productions efforts. And these food-focused human service efforts continue to provide volunteer or employment opportunities so that clients have meaningful ways to help others meet their food needs. 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, even as specific cash or income supports for food diminished.

Scenario 4. New Charter Oak

The 2020s saw accelerated change in attitudes, economics, and policies. The 2017 administration had ridden into office on discontent with the economy – but little was done for those long unemployed and those newly unemployed because of automation. The economy grew during the late 2010s as did unemployment, income inequality, and gridlock in Washington. That set up a major shift in policies and regulations in the 2020s driven by major value shifts.

This deeper value shift toward more empathy, equity and inclusion was not new – it had been growing throughout the first two decades of the 21st Century. It became more visible in the 2016 election, grew during the late 2010s administration and became a powerful force in the 2020s. It led to public support for new policies, regulations and community – for a “new charter” as the economy was transforming. This affected many policy areas.

Nationally, this included the implementation of a living wage and pay protections for those working on the “gig economy”. There was a shift to a four-day work week (drawing upon the historical precedence of the Wagner Act of the 1930s). This allowed more work to be shared. Work schedules became more flexible, including more telework and virtual work. As with other policies, states had experimented with it in advance and Connecticut had been one of the first states to successfully adopt a four-day work week prior to Congress acting. While this was happening job loss to automation grew – leading to a net 7% loss of jobs by 2025 in the U.S. and Connecticut – with higher losses in the following decade.

Technology continued transforming the nation and Connecticut – from information, social media and communication, to manufacturing, food and health care.

One class of these technologies lowered the cost of living and enabled families to become more self-reliant. These “Abundance advances” provided low cost energy, highly productive in-home food growing, and local manufacturing (3D printing) of many home goods and electronics. For new housing, local materials were fed into 3D printers to produce the components for rapid construction of quality, low cost homes. Low cost solar and other renewal energy as well as in-home and in-community energy storage was widely installed in Connecticut in the 2020s. Policies promoted the spread and use of these abundance advances – for example, requiring landlords to install and use low cost energy and share the savings with their tenants.

Human services shifted towards a wellness model, addressing the physical, mental, and emotional well-being of individuals and families. Human services became more integrated, automated, efficient and effective. Programs were integrated across Federal, State and local levels, with accelerated eligibility determination and enrollment, integration of data across agencies and sites (e.g. school, work, medical care), and customized care with predictive analytics.

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.

Human services worked to empower people into wellness. This included supporting “abundance advances” and their effective use by low income families and “behavioral vaccines” - preventative measures that engage healthy social behaviors, often with a very high return on investment. Among these were positive parenting programs (PPP) and the Good Behavior Game (GBG). Such measures were reflective of operating at the generative level of the APHSA Human Service Value Curve.

Given the high structural unemployment (from automation and the living wage), income supports, particularly EITC and TANF were increased. Eligibility and payment became more simplified and efficient. Housing remained a major issue and efforts were successful at increasing the stock of low income and very low-income housing – by more public housing, more vouchers, and allowing denser neighborhoods with secondary dwelling units. The value shift toward equity and inclusion led many affluent communities to seek effective integration of lower cost housing in their neighborhoods.

Job training in Connecticut focused on skills needed in jobs or gig economy work that would not be automated. Connecticut created jobs in health care and social services sector. The state was intentional about building the infrastructure to help those that can work find meaningful employment.

Human service need, and particularly high utilizer costs, were reduced, largely due to effective preventative measures. Longevity increased as premature deaths were prevented. Predictive analytics could identify who is most at risk, determine which services and how they are delivered for best outcome. As a result, much of the human suffering which human services had responded to was prevented or reduced. This led to an increased faith in government.

Aging Services 4

Aging services accelerated its movement to more integrated, customized, and generative services. The ability to aid in addressing physical, social and spiritual needs of people up to and through their dying days increased the wellness of low income elders. Aging was approached with pro-active planning, for all aspects of care and life.

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 share and trade services, time and goods in the community. This includes providing baby-sitting, tutoring or mentoring kids, and senior assisted living services, in-home care services and light house cleaning.

Beyond sharing or trading services, the culture of giving/contributing grew, along with the recognition of the importance that contributing or giving provides to a person's sense of meaning. This giving and shared activity by seniors decreased social and physical isolation, encouraged meaningful relationships, and enhanced the community.

Better "aging in place", as well as senior group living and co-housing grew steadily through the 2020s, as did "smart home" features for most Connecticut seniors. Features of many senior lives and homes included:

- Universal design became widespread in the 2020s; all new developments, multi-unit housing, and many individual homes are accessible
- Transportation was aided by self-driving car services
- In home and in community food production
- Smart home or phone-linked features play many roles- friend, bookkeeper, secretary, counselor, appliance and home maintenance monitor, and security monitor
 - Smart homes monitored elders' health and could track falls and other events. For example, sensors can detect and differentiate a slumping fall from a concussive fall and smart monitoring systems can anticipate falls by identifying changes in gait.
 - Smart hearing aids and language translators translate across languages but also enhance the volume and clarity of words for the hearing challenged, schedule appointments and communicate with doctors' offices and arrange transportation

Human service workers helped define a customized balance of technology and human support based on the need of individuals.

Health care evolved, improving in quality and its success in extending healthy years. Prevention and cures were found by the mid-2020s for diabetes, Alzheimer's, and many cancers. Health care was re-reformed with a single payer system (Medicare for All) put in place by the mid-2020s. These cures and other breakthroughs were covered. Much elder health care is delivered remotely or in virtual space. Prevention, senior activity and healthier living, enhanced personal contribution and meaning, and the breakthrough cures led to healthier elders who delayed the frailty and disability of their final years.

A major elder food program, Meals on Wheels, was cut during between 2017 and 2021 but rebounded in the 2020s. Senior nutritional programs evolved through predictive analytics to customize nutrient needs, more local food, and more self and community food production.

Employment services for the elderly focused on training, often virtual, for jobs not likely to be automated. As people lived better into their mature years, greater longevity led to seniors exploring their second, third, or fourth career opportunity past their sixties. There was more reskilling of elders, job sharing, and gig economy work, often done remotely or virtually.

With the Age Wave came increased opportunity for elder abuse and neglect. Aging protective services used predictive analytics and integrated data (from health care, police, schools, other human services) to anticipate potential abuse and neglect.

There was greater education for family members around preparing for all aspects of aging, including developing a will, end of life planning, and long-term care and supports. These conversations and legal actions help eliminate some of the stress that often came with aging and life transitions. Web-based support for this, including the MyPlaceCt website, expanded and developed more interactive virtual consultations.

Behavioral Health Services 4

Behavioral health issues and care evolved through the 2020s. There was full integration of behavioral health in medical care and universal access to that. 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. This led to greater acceptance of differences and of people seeking treatment; and being able to talk about it.

Enhanced approaches to identification and prevention emerged. “Behavioral Vaccines”, behavioral interventions that ward off mental health issues, like Good Behavior Games, were developed and deployed. These Behavioral Vaccines had been proven effective in the US and other countries and were widely deployed in Connecticut in the 2020s. Positive and early influence on an entire family was able to prevent some behavioral health problems in children.

The growing power of genomics produced a large knowledge base of associations between genes and the environment, which enabled an explosion of epigenetic research showing how environments effect gene expression. 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 gene therapy helped prescribers have much more accuracy with prescribing appropriate behavioral health medication. Most prescription medication users had a faster response as a result.

Technology was a great influencer in evolving the delivery of behavioral health services. Connecticut’s 211 service – both online and via phone- successfully used analytic software that could screen the tonal quality of the voice and words used in a call or text to determine if they were in-crisis or close. This helped analyze and guide intervention with potential risk of suicide, significantly lowering deaths by or attempted suicide. While most of the calls to 211 are situational, many are behavioral. Working with the Department of Social Services, 211 could target specific needs and have; for example, clinicians dispatched to a school site to reduce expulsions and suspensions. The use of this service was widespread, effective and replicated for other areas of need such as substance abuse.

While significantly reduced, some behavioral health issues remained in the 2020s, caused by as yet unfixable genetic conditions, accidents, trauma, reduced but still present abuse and neglect, neighborhood violence; and the impacts of adverse childhood experiences in the 1980s and 1990s (when the current 40 and 30-year-olds were children). For these individuals, where treatment is relevant, genomic and epigenetic data, as well predictive analytics leads to more effective cognitive behavioral therapy and medication.

Behavioral health providers, employed in health care systems, or practicing independently, became more sensitive and capable. Use of the Harvard Tool for Implicit Bias and similar tools led to more sensitive care, while advances in clinical care, evaluation of that care, and targeting for individuals contributed to higher efficacy of human counselors, as well as the virtual counselors that were widely deployed in the 2020s. Predictive analytics also allowed behavioral health providers to anticipate individuals and families at risk and reach out to them.

A new level of human provider emerged; community health workers (CHWs) deployed by health care providers. These CHWs, often residents of the neighborhood they work in, met with families in their homes to identify needs and barriers and to reinforce care/counseling given by clinicians or virtual counselors. Connecticut had grown the pool of community health workers by developing a training and certification program, and by developing the data that showed their use could reduce costs.

Universal developmental screenings, informed by this explosion of genetic, epi-genetic, environmental and social data, were a routine part of primary care as well as day-care, pre-K, and school testing.

Homes for adults with behavioral health issues evolved with special smart home technology geared to resident's needs. Residents do home food production with conventional gardening and aeroponics; use virtual reality to relate to other communities; and generally, make themselves as self-reliant as possible. These are sometimes called Freedom Homes.

The behavioral health workforce evolved. As behavioral health morbidity was significantly reduced the demand for care dropped. And virtual counselors displaced some human therapists. The ones that remain focus on the more challenging behavioral health conditions as well as oversee the automated systems. The balance between technology and human service delivery was customized for each individual.

Children, Youth and Family Services 4

Children, youth and family services evolved, driven by national, state and local equity movements. The state made strides in addressing segregation and historical racial inequities. The state was intentional about reducing the opportunity gap, desegregating the state and approaching all human service work in a culturally sensitive way. Need for child and family services were also influenced by the introduction of a living wage and abundance advances which helped provide greater family stability.

Multi-generational approaches became the default mode for child and family services in the 2020s because they were shown to be the most effective way to improve health and prosperity for families and communities. Positive parenting programs are widespread and impactful. This helped prevent many potential needs for child welfare intervention. Good behavior games and integrated into the state's school curriculum and help children develop positive behaviors that they then carry into adulthood. Connecticut is a national leader with these programs.

Integration of data and predictive analytics identified at-risk children, allowing for early intervention. This helped keep more children in their homes. Cases were addressed in a way that works with a customized plan, specific to children and family members.

Technology helped shift from predictive analytics to prescriptive analytics, with interventions to detected needs – current and oncoming. For example, human service workers could identify families most at-risk and show up at the hospital when a new child was born. They could work with the family and ensure there are home visits, coaching models, and certain support programs beginning at the start of the child's life. This was proactive as these families were determined to have a very high likelihood of requiring services further down the road.

Furthermore, genetic information was linked to health care allowing for early detection and intervention for some conditions. For example, high cortisone levels in mothers can be an indicator that a child may develop asthma in a stressful environment. When these were detected, human service workers joined with the mothers to help lessen the stress of their environment and reduce their cortisone levels.

As child abuse and neglect was reduced, the need for foster care by 2035 was reduced greatly because families and communities grew stronger. The need for foster care dropped during the 2020s. There were more resources helping children stay in-home or with family members in healthy environments. Families were more willing and able to take foster kids into their homes. And gender-neutral homes for LGBTQ youth were common in most communities.

After the slowdown of immigration during the 2017-2021 Administration, legal immigration was significant throughout the 2020s. Translation is made easier due to widespread use of instant translation apps for most languages. Services became more culturally sensitive and appropriate every year. Among American citizens, media and political narratives helped shift attitudes towards being increasingly welcoming of refugees, as did the upsurge in the values of inclusion and equity.

Other areas of child and family services that evolved included:

- Unintended pregnancies were reduced, due in part to reliable access to high quality birth controls covered with universal health care.
- The number of single parent households declined as young people recognized that having two parent or partner led households offered more financial stability and other positive impacts.
- Educational inequity across the state was reduced, allowing higher educational attainment rates for low income youth, particularly women and mothers

- Pre-K became universal
- Parental leave was established nationally along with universal access to infant and early childhood care
- Human services provided employment training that was optimally matched to the client's skills, knowledge and capacities, focused on jobs not likely to be automated; this training used the optimal learning technologies including virtual reality
- Family services provided training in self-sufficiency practices and using abundance advances (particularly low-cost energy, distributed manufacturing and food production)
- Adult protective services - many cases of adult mistreatment were identified through primary care screenings or integrated community data.

Disability Services 4

Disability, or its impacts were reduced, in part driven by: reductions in drug use, consistent prenatal care; better genetic screening; slowing or reversal of chronic diseases, particularly diabetes, arthritis and Alzheimer's; and safer and healthier work places and work styles. Developmental disabilities were reduced somewhat with reduced poverty, consistent prenatal care, and safer environments. Yet disabilities and disparities in disability levels along racial, ethnic and income lines persisted, even as awareness of these disparities furthered efforts to reduce them.

Health and human services became more integrated; sharing data and developing partnerships across all levels of delivery, which brought about several positive results. Mental and developmental disability screening takes place with physical health care exams which increased the number of people who sought and received care. Physical and mental services were customized for each person with a disability, and they were better guided through a continuum of care providers, including public agencies and non-profits.

Data integration helped care givers understand genetic proclivity or environmental promoters of disability among family members and could do predictive analytics to optimize the services they provided. By the late 2020s genetic analysis could predict disabilities and in utero testing and gene level repair was available in some countries. Diseases such as sickle cell disease, fragile X disease, retinitis pigmentosa, and others which are due to an abnormal gene, became treatable or preventable. 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).

Family-focused data, along with community data, and data on effectiveness of services and technology allowed more effective priority setting for what services to provide. Hot spotting, or identifying areas of greatest needs and placing resources in these areas, was driven by data analytics. Connecticut pioneered behavioral vaccines, investing early in positive outcomes for communities, including persons with disabilities.

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

- Self-driving cars enhanced mobility
- 3D printing of home equipment and even smart prosthetics
- Sophisticated home monitoring and home care robots
- Friendly intelligent agents that act as helper, guide, counselor, therapist, translator, speech and hearing enhancer
- 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.
 - As the medical advances were proven effective and safe, and their initial costs dropped, they were covered by Medicare for All and Medicaid.

Human service agencies provided some services directly and helped families chose among providers or vendors.

Education became more inclusive of those with disabilities. Widespread screening for autism had increased diagnosis rates. A commitment by schools to greater inclusiveness, aided by technology, led the majority of these students to be taught in regular, inclusive classrooms. Connecticut was a leader in education inclusion.

The State was proactive in adapting new and different job training programs for those with disabilities, in working with employers to forecast jobs and match potential workers. Many Connecticut employers embraced the different needs of their employees.

Many homes evolved with special smart home technology geared to resident's various needs. These technologies changed the role of human service workers, as they served more in providing oversight. Residents did home food production and used virtual reality. Some call these Freedom Homes. Health care and human service agencies help support the social enterprises that develop and manage these homes, providing property management, cleaning, home health care aides (equipped with language translation and speech augmentation earpieces), and other services needed. In many communities, the downsizing of families left many large homes open for turning into the Freedom Houses. These are often encouraged in communities where altered zoning and regulations had allowed more density and the neighborhood welcomed the diversity, calmed the expanded traffic, and kept up their value.

Housing Services 4

The growing support for equity and inclusion in Connecticut 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 even welcoming of this diversity. Federal, state and local policies took advantage of this, building more dense, mixed income housing with ample very low income units. Local regulations changed to allow secondary dwelling units built onto homes or in yards; and to allow more unrelated individuals in housing. Housing and human services personnel worked with other agencies and the community to dampen traffic and to get existing residents to welcome the new arrivals. During the 2020s these reduced concentrations of poverty.

Localities worked successfully to have these mixed income neighborhoods with greater density feel neighborly, safe and not lose their market value. There was more success at moving people towards home ownership. And state and local governments provided incentives and regulations to have landlords or utility companies install low cost energy production and storage and pass the savings on to renters.

As Connecticut has its own housing authority – at the state and town level, not just federal – there was the opportunity to create affordable, mixed use housing in every community. Funding for these services rebounded and increased in the 2020s. Connecticut service diversified their income streams, which lessened their reliance on property tax. Each community was able to identify how mixed income and mixed use would best fit into the fabric of their community. Housing for persons with special needs was no longer developed in a way that was obviously ‘different’. Rather, there was greater mixed income, mixed use, and mixed ability housing. Public housing was consciously ecologically integrated into communities. “Smart city” planning aided with connected. Older homes were refurbished, which helped address and avoid blight. This tapped into the historical pride of the state.

Voucher programs were an area of opportunity for increasing housing options and embracing integration. This allowed mixed income housing in middle and higher income areas, which balanced income demographics while maintaining much of the state’s history and uniqueness. Vouchers had been increasing in the late 2010s, moving from 5,000 to 6,000 units from 2011 to 2017. This upward trend continued through the 2020s.

Housing services integrated were integrated with other areas, such as behavioral health and transportation. Housing services were consumer focused and use predictive modeling and advanced analytics to anticipate emergency housing needs. Human service deliverers and their partners’ systems know if there have been layoffs or other challenges and can check with families if they are at risk of missing utility or rent payments. Housing services coordinated with other agencies in using a self-sufficiency matrix to assess needs and identify best, case-specific plans of action for each person/family.

Homelessness was reduced because of more consistent work with higher minimum wages, better income support for those not employed, including housing choice vouchers, increases in low and very low income housing stock, and more consistent access to behavioral health services. The remaining homeless persons and families received more personal attention and services from local agencies. There is better awareness of the services available, and how to access them. Other aspects of housing services include: aiding aging in place, combining wellness focused medical services and education with housing, and involving landlords in prevention strategies.

Income Supports 4

Leading up to 2030, attitudes and policies around income supports evolved. Income supports focused on job training for positions not automated in the 2020s; simultaneously, more people lost jobs to automation or found work in the gig economy. The four-day work week was put in place, and that did lead to a few more jobs, but also faster automation and shifting to gig work. It

was recognized that, given growing structural unemployment, key income supports would not be temporary for many. This allowed them to be better accepted and less taboo. Other policy changes included raising the minimum wage, some efforts to slow job to automation and to protect “gig workers”.

The Connecticut EITC was affected by the increase in the minimum wage. This led some employers to reduce hours worked, reducing those employees’ total income. The higher wages also led to cost increases and inflation, disproportionately affecting low income families. The federal “poverty level” was adjusted accordingly, and incorporated local variations in cost. EITC was amended to apply to single individuals and childless couples as it had to those with children and EITC income ceilings were raised. Those who were able to get full time jobs by the late 2020s were making \$30,000 yearly or \$60,000 with two full time employed family members. This put them above the EITC ceiling levels for getting the credit. But millions of workers were part time or doing piece work on the “gig economy” and they remained below the EITC threshold and they received the tax credit from the US and Connecticut.

SNAP and other nutrition programs rebounded in the 2020s; expanding their incentives to buy fruits and vegetables, particularly from local sources. There were many efforts to increase self and community food production; for example, in urban settings, converted parking garages became vertical gardens; high-tech growing sites inside shipping containers produced an acre’s worth of food. This reduced food insecurity, as did in-home and in-community food growing.

TANF payment levels expanded, as did the length of time they could be received. “Temporary” was removed from the programs name as it became Aid to Needy Families (ANF). Connecticut likewise changed Jobs First Temporary Family Assistance (TFA) to Family Assistance (FA). Connecticut training for employment, including it Jobs First Employment Services (ES), focused on jobs that were not likely to be automated in the near future and jobs that had been created as technology advanced. Training also included how to increase family self-sufficiency by making effective use of the various abundance advances.

The regulations for income support programs, both federal and state, were adjusted to allow integration of support payments for an individual or family – this allowed both an aggregation of the funds and broader choice on how the funds were spent.

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>)

ii Human Services Value Curve

In developing these scenarios, we looked for human service visions, or descriptions of their visionary states. One leading contender for the preferred future of the field is the Human Services Value Curve. Developed by Harvard’s Technology and Entrepreneurship Center’s Leadership for a Networked World With American Public Human Services Association (APHSA).

APHSA argues that the desired progression in value can best be described from the point of view of the consumer in this way:

-
- At the regulative level, consumers receive a specific product or service that is timely, accurate, efficient and easy to understand.
 - At the collaborative level, consumers “walk through a single door” and have access to a complete array of products and services that are available “on the shelf.”
 - At the integrative level, products and services are combined into packages, and designed and customized with input from the consumer themselves, delivered in the most convenient ways, with the objective of best meeting the consumer’s true needs and driving positive outcomes.
 - At the generative level, those providing products and services are joining forces to make the consumer’s overall environment better for them, resulting in value that is broader and more systemic than an individual or family might receive

More information is available at:

http://www.aphsa.org/content/dam/aphsa/pdfs/Resources/Publications/TOOLKIT_Moving%20through%20the%20Value%20Curve%20Stages_.pdf

A group of local human service agency leaders within APHSA developed the “local vision” for the human services value curve in terms of what it would include, namely these core components:

- A resolute focus on a person-centered approach to casework and service delivery
- Testing and implementation of innovative evidence-based practices
- Partnering with other organizations and systems across sectors
- An integrated infrastructure, with information technology systems that enable and produce cross-system data; led first by the integrated health and human services information system.
- A workforce of “skilled tradespeople” able to build community well-being— with the competencies to deliver evidence-based practices
- Effective and efficient internal change management processes that enable leaders to continuously improve their organizations
- Accountability processes that clarify outcome measures and quantify impacts, including reduced health care costs, improved health, and greater self-sufficiency.

And these principles guiding human services:

- Solid prevention- and strengths-based orientation
- Two-generation and multi-generation approaches
- Holistic, person-centered, and customized service planning
- Both pre-trauma and trauma-informed strategies
- Sustained attention on fatherhood engagement
- Commitment to defining and tracking of a set of common indicators across all well-being and health domains.

See: A NEW PATHWAY TOWARD PROSPERITY AND WELL-BEING, *A Concept Paper by the National Council of Local Human Service Administrators, May 16, 2016*

iii Human services job loss to automation

For most jobs, there are tasks that can be automated rather than the whole job. For human services the tasks most like to be automated include:

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

Specific human service job categories will have more of their tasks automated during the 2020s leading to reductions in jobs in that category. Our estimates, growing from the references above, particularly from Osborne and Frey, and McKinsey, led us to this estimate of human service job loss:

- 80% reduction of secretaries, administrative assistants, receptionists and information clerks (where these were not already reduced, as many human service agencies did in the 2010s)
- 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, will remain difficult and costly to automate) (though the Japanese are providing leadership in developing personal care robots; their “Robear” robot can perform some of the tasks of home care aids now).
- 10% reduction of social workers – (though many Social Worker tasks will be automated or accelerated including: 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 will be expedited or fully automated; Some assessments of a child or of 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 assessed by deep learning algorithms reviewing images of skin bruises taken by a smart phone; Genetic and epigenetic testing will be done routinely on children and considered in assessments; Repeated blood and genetic testing will allow identification of some types epigenetic changes caused by adverse childhood events.)
- 50% reduction of human service assistants – (and secretarial and administrative tasks will be automated; use of self-driving cars will perform transportation tasks; though human service assistants or others will still perform the “escort” role or tasks for those who are frailer or persons with disabilities).

^{iv} 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 those listed below. The scenarios identify different mixtures of these approaches as well as local support and opposition to them:

- Rezoning to allow secondary living units on the property of single family homes and encouraging building on empty space in the yards around homes;
- Allowing a higher number of unrelated individuals to live in the same house;
- Encouraging sustainable, energy efficient, low cost construction of new units;
- 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;
- Require or incentivize landlords to accept housing vouchers;
- 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, to install 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 of local 3D printing of home parts with quick on-site assembly will be available in many communities in the 2020s^{iv}
- Use various combinations of these approaches to deconcentrate poverty.

^v 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 in 1971.

Support by liberals and conservatives offers 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/>).

Leading 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,” Retrieved from: <https://www.wsj.com/articles/a-guaranteed-income-for-every-american-1464969586>).

Basic income is presented as a way to make welfare programs more impactful, challenge ideas of safety nets, adapt to technological change and evolve the relationship between work, income and identify. See: Flowers, Andrew (Apr 25, 2016). *What Would Happen If We Just Gave People Money?* Retrieved from: <http://fivethirtyeight.com/features/universal-basic-income/>

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 a 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>.)

Hawaii has become the first state to call for a study of a universal basic income (UBI) (bill HRC 89 in the Hawaii House). 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 US state to pass a bill supporting basic income” <http://www.businessinsider.com/hawaii-basic-income-bill-2017-6>).

Support for a GBI has been growing 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). The menu includes:

- Ending all or many of the current 126 welfare programs^v, 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.
- Increased revenue from new sources
 - 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
- 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

^{vi} [Abundance Advances end note](#)

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