# An *Inclusive* Future of Work

## A SYSTEMS APPROACH

SourceAmerica®

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# Project Overview

The employment landscape is evolving at a lightning-fast pace. The nature of how, when and where people work continues to change, and the future of work is more uncertain than ever. The extensive research and debate on the future of work has paid little attention to the potential impact on underrepresented populations, such as persons with disabilities. Recognizing this important gap, representatives from state, local and federal governments; community organizations; private companies; and philanthropic and academic institutions gathered together through an initiative organized by SourceAmerica® and the Lab at OPM. The purpose of this initiative is to gain a better understanding of the current state of disability employment in the United States and the changes needed to create a more inclusive future. The contents of this report reflect the collective input of more than 100 stakeholder groups that came together to understand the present in order to shape the future.

Concrete deliverables include the mapping of the complex systems of disability employment in the U.S.; models showing the role that educational, workforce development and policy systems currently play as well as potential changes needed; and a detailed report that includes specific recommendations for improvement. These deliverables were produced between December 2018 and May 2019. While the more immediate goal of this initiative is to ensure that persons with disabilities are included in the national dialogue about the future of work, its ultimate aim is to create a collaborative framework that continuously improves access to sustainable careers for persons with disabilities.

## Convener



### SOURCEAMERICA

SourceAmerica is a leading source of job opportunities for a dedicated and highly qualified workforce – people with disabilities. The SourceAmerica team connects government and corporate customers in need of products and services to our nationwide network of member nonprofit agencies that hire talented people with disabilities to get the job done. It's a business solution that makes the American Dream more accessible, and it's one we can all feel good about.

## Event Hosts



### NEW AMERICA

New America, founded in 1999, is a think tank and civic enterprise that focuses on a range of public policy issues, including technology, education and the economy.



### GEORGE MASON UNIVERSITY

The Mason Learning into Future Environments (LIFE) Program at George Mason University is an inclusive postsecondary program for individuals ages 18 to 23 with intellectual and developmental disabilities. One of the provisions of the 2008 Higher Education Opportunity Act (HEOA) was to create a set of criteria establishing select programs to be designated as Comprehensive Transition and Postsecondary (CTP) programs. As a CTP program, Mason LIFE provides a supportive academic university experience that offers a four-year postsecondary curriculum of study, including on- and off-campus work experiences.

## Working Group Members

Working group members served at the heart of this ambitious project. They accepted the challenge of learning and applying human-centered design concepts to understand the present and shape the future state of disability employment in the U.S. Group members represented an interdisciplinary collection of experts whose work includes policy, public administration, advocacy, research, philanthropy and human services. By participating in this initiative, they created the foundation for a new thought leadership community that is committed to working together to achieve a fully inclusive U.S. labor market.

- David Berthiaume, *U.S. Department of Labor, Office of Disability Employment Policy*
- Carol Carr, *National Council of SourceAmerica Employers*
- Donald Clark, *D.C. Government*
- Keri Gray, *Disability:IN*
- Isabel Hodge, *U.S. International Council on Disabilities*
- Andrew Imparato, *Association of University Centers on Disabilities*
- Amy Jensen, *U.S. AbilityOne Commission*
- Philip Kahn-Pauli, *RespectAbility*
- Taylor Kenny, *D.C. Government*
- Jennifer Liebschutz, *U.S. Office of Management and Budget*
- Susan Prokop, *Paralyzed Veterans of America*

- Michael Reardon, *U.S. Department of Labor, Office of Disability Employment Policy*
- Scott M. Robertson, *U.S. Department of Labor, Office of Disability Employment Policy*
- Denise Rozell, *Association of University Centers on Disabilities*
- Claire Stanley, *American Council of the Blind*
- Jonathan Stoops, *Poses Family Foundation*
- Rick Wright, *D.C. Government*
- Eliana Zavala, *U.S. Office of Management and Budget*
- Kimberly Zeich, *U.S. AbilityOne Commission*

## Subject Matter Experts

These individuals have specific and relevant subject matter expertise and served as adjunct members of the working group.

- Robert Bednarzik, *Georgetown University*
- Nicole Bleuel, *Google Creative Lab*
- John Connelly, *Council of State Administrators of Vocational Rehabilitation*
- Mika Cross, *FlexJobs*
- Anna Fife, *The Aspen Institute Future of Work Initiative*
- Ryan Goss, *Centre for Public Impact*

- Heidi Graff, *George Mason University*
- Carla Javits, *REDF*
- Taryn Oesch, *Training Industry, Inc.*
- Elena Silva, *New America*
- Rachael Stephens, *National Governors Association*
- Stephen Wooderson, *Council of State Administrators of Vocational Rehabilitation*

## Guest Advisers

Guest advisers gave presentations and participated in strategic discussions to enrich the working group's knowledge of critical topics.

- Vint Cerf, *Google*
- David D'Arcangelo, *Massachusetts Commission for the Blind*
- Stephanie Farfan, *RespectAbility*
- Aaron Kaufman, *The Jewish Federations of North America*
- Jonathan Kaufman, *J Kaufman Consulting and contributor for Forbes*
- Andrea Maresca, *Thorn Run Partners*

- Rita Martin, *Council of State Administrators of Vocational Rehabilitation*
- James Thurston, *The Global Initiative for Inclusive ICTs (G3ict)*
- Liz Weintraub, *Association of University Centers on Disabilities*
- Frances West, *FrancesWestCo and former chief accessibility officer of IBM*

# Advisory Committee Members

The Advisory Committee provided insights to the working group, which were then incorporated into the group's subsequent discussions and work. The Advisory Committee was made up of over 50 organizations that represent the diversity of the disability community, including community rehabilitation providers, think tanks, government representatives and self-advocates.

- George Abbott, *American Foundation for the Blind*
- Stephen Achilles, *Exceed Enterprises*
- Jeff Allen, *Zoom Group*
- Megan Aragon, *American Foundation for the Blind*
- JoAnn Baker, *NW Works*
- Josh Basile, *Determined2Heal*
- Borgi Beeler, *Kalix*
- Madeleine Bejin, *Bayaud Enterprises, Inc.*
- Megan Bergen, *Rappahannock Goodwill Industries*
- Tara Blasius, *Black Hills Works*
- Chris Brandt, *AtWork!*
- Charles Canton, *The Center for Pursuit*
- Reagan Chaney, *Melwood*
- John Charley, *Premier Alliances, Inc.*
- Brad Cohen, *Aspiritech*
- Abby Cooper, *Marc Gold & Associates*
- Gerard Cotter, *Chimes*
- Peter Creticos, *Institute for Work & the Economy*
- Justin Debord, *The Abilities Connection*
- Cari DeSantis, *Melwood*
- Bartholomew Devon, *Autism Speaks*
- Therese Fimian, *Marc Gold & Associates*
- Shirley Foote, *Melwood*
- Norvella Fowlkes, *Melwood*
- Jade Gingerich, *Maryland Department of Disabilities*

- Allen Gouse, *Easterseals Capital Region & Eastern Connecticut*
- Rebecca Hershey, *Goodwill Industries International*
- Mike Kivitz, *Adelante Development Center, Inc.*
- Angela Kohama, *Humanity & Inclusion*
- Lisa Kornegay, *Melwood*
- Michael Kramer, *The Corporate Source*
- Susan Lautenbacher, *Lark Enterprises, Inc.*
- Nicole LeBlanc, *National Disability Rights Network*
- Darlene Malzone, *Easterseals Western and Central Pennsylvania*
- Melissa Marvel, *Zoom Group*
- Michael May, *Envision, Inc.*
- Kate McSweeny, *ACCSES*
- Linnet Miller, *Ego-Ideal Inc.*
- David Moananu, *ServiceSource*
- Michael Murphy, *Brevard Achievement Center*
- Gerald Nebeker, *RISE Services Inc.*
- Doug Newsome, *Goodwill Industries of Upstate/ Midlands South Carolina*
- Meg O'Connell, *Global Disability Inclusion*
- Fernando Pardeiro, *Inclusite*
- Rachel Payne, *Didlake Inc.*
- Madeline Porth, *Arc of Northern VA*
- Tricia Porth, *Arc of Northern VA*
- John Michael Rangel, *TRDI*

- Milton Ridgeway, *Goodwill of Greater Washington*
- Debra Ruh, *Ruh Global Impact and The Valuable 500*
- Jo Anne Schneider, *Chrysalis Collaborations*
- Dahlia Shaewitz, *Institute for Educational Leadership*
- Clare Sherlock, *TechnoMetrica*
- Norciva Shumpert, *Marc Gold & Associates*
- Jim Sinocchi, *JPMorgan Chase & Co.*
- Judith Smith, *Poses Family Foundation*
- Sharon Smith, *WORK Inc.*
- Erika Spalding, *Didlake Inc.*
- Sharon Spratt, *Cottonwood Incorporated*
- Dave Szydlowski, *North Eastern Michigan Rehabilitation and Opportunity Center, Inc.*
- Jason Telander, *VTC Enterprises*
- Kristin Vandagriff, *Governor's Council on Disabilities and Special Education, Alaska*
- Ryan Venskoske, *NW Works*
- Todd Walker, *Didlake Inc.*
- Rick Webster, *National Industries for the Blind*
- Brenda Weitzberg, *Aspiritech*
- Marvece Williams, *Goodwill of Greater Washington*
- Sharon Winston, *Project HIRED*
- Mary V.L. Wright, *Institute for Work & the Economy*

# This is a Story *About* Progress.

Persons with disabilities continue to be one of the most marginalized populations worldwide. Despite the framework provided by landmark legislation, such as the Americans with Disabilities Act, and treaties like the United Nations Convention on the Rights of Persons with Disabilities, millions of people continue to be left out of the economy and society due to perpetual discrimination. This report represents a step toward addressing the exclusion of persons with disabilities, primarily in the area of employment.

The group's collective definition of the future of work is the intersection of social, legislative, economic and technological factors shaping how, when and where people will engage with work in the coming years. Most discussions on this topic focus on issues like robotics and artificial intelligence (AI). Though fascinating, these conversations have paid less attention to the likelihood that such technologies may deepen social and economic divides between groups. The benefits and consequences of the future of work are not likely to be evenly distributed throughout society. This report is a response to this critical issue.

Importantly, employment for persons with disabilities is an outcome that does not happen in isolation of advocacy, policymaking, education systems and a host of other factors. By examining such factors, we gain a better understanding of how they interact and result in the reality where persons with disabilities experience significantly lower rates of educational attainment and employment and higher rates of poverty compared to their nondisabled peers.

Though predictions about the future of work are not scientifically deterministic, there is a universal concern that economic disparities among groups may widen in the years to come. There is also consensus on the groups of individuals that are likely to be subject to technological unemployment due to lower rates of educational attainment, average annual income, predisposition to work in industries susceptible to automation and incidence of poverty.[1,2,3] Unfortunately, such traits match a generalized profile of persons with disabilities in the United States.

We cannot resign ourselves to accept the outcomes of these negative predictions. Instead, we must meet the challenges – reframing them as opportunities for progress. Within the future of work context, they include the

*"Disability is the essence of diversity, by definition. It runs across race, ethnicity, gender, socioeconomics, culture and the most important thing, it's the only minority group anyone can join at any time, which makes it unique. It's a community that actually embraces inclusion by definition."*

**– Jonathan Kaufman**

opportunity for technology to augment human ability and become an equalizer or to accentuate innate skills and talents that were previously overlooked. For example, the persistent barrier of inaccessible transportation may be overcome by advances in autonomous vehicles, smart city infrastructure and the growing prevalence of platform-based work that can be performed from any location.

It is with this spirit of acknowledging challenges, identifying opportunities and recognizing shared responsibility for the future that the group accepted this ambitious undertaking. The subject matter is critical, and the effort of the group represents a commitment to progress and a desire to pursue a shared vision of a fully inclusive labor market, and ultimately, a society without barriers for persons with disabilities.

1  Frey, C.B. & Osborne, M.A. (2017). The future of employment: How susceptible are jobs to computerisation? Technological Forecasting and Social Change, Volume 114, pp. 254-280. Retrieved from: **www.sciencedirect.com/science/article/pii/S0040162516302244?via%3Dihub**.

2  Parker, K., Rainie, L., Kochhar, R., & Rohal, M. (2016, October). The State of American Jobs. Pew Research Center, October 6, 2016. Retrieved from: **http://assets.pewresearch.org/wp-content/uploads/sites/3/2016/10/ST_2016.10.06_Future-of-Work_FINAL4.pdf**.

3  Manyika, J., Lund, S., Chui, M., Bughin, J., Woetzel, J., Batra, P., Ko, R., & Sanghvi, S. (2017, December). Jobs Lost, Jobs Gained: Workforce Transitions in a Time of Automation. McKinsey Global Institute, McKinsey & Company. Retrieved from: **www.mckinsey.com/~/media/McKinsey/Global%20Themes/Future%20of%20Organizations/What%20the%20future%20of%20work%20will%20mean%20for%20jobs%20skills%20and%20wages/MGI-Jobs-Lost-Jobs-Gained-Report-December-6-2017.ashx**.

# This is a Story *in* Progress.

SourceAmerica and the Lab at OPM co-designed the initiative that resulted in this report. Conceived as a series of educational workshops that married instruction with practical application, the initiative covered a lot of ground in a condensed period of time. This report offers a high-level overview of this process, which connected design theory to applied social innovation.

Each of the two-day sessions in this four-part workshop series included elements of instruction, group activities, guest speakers and extensive discussion. The instruction, led by the design experts at the Lab at OPM, touched on human-centered design theory and provided detailed introductions to new frameworks such as stakeholder, process, journey and systems mapping. Instruction was followed by group activities to promote divergent thinking and tap into the diverse perspectives of attendees. Presentations and panel discussions coincided with the general topics anticipated for each workshop. This approach allowed group members time to pause, learn and reflect on their assumptions. The guest speakers also helped to spark new lines of inquiry and expand on the content represented in the project outputs.

The Lab at OPM distilled the work of the group into usable data sets and graphical representations after each two-day session. Group engagement increased throughout the project as the design experts from the Lab at OPM led participants on a journey from abstract brainstorming to the creation of models depicting causal relationships.

The group identified general categories of stakeholders to simplify the discussion. These categories are represented in the stakeholder map. The report uses this map as a wayfinding tool to represent unique interactions among groups and systems dynamics. The visual representation of the interrelated systems offers some indication of the causal relationships that promote or limit labor market participation, employment, and by extension, economic and social inclusion.

Despite the group's purposefully inclusive approach, it is important to note that the broad diversity of the disability community cannot be accurately captured through charts, graphs and commonly referenced statistics. Therefore, the outputs must be regarded as incomplete and imperfect if the diversity of experiences and perspectives of the entire disability community is to be represented. This fact was accepted from the outset and is a limitation that was acknowledged by those who participated.

## An ambitious step forward...

As a first-of-its-kind experiment, this initiative represents an important step toward understanding the systems dynamics contributing to the current state of labor market participation by persons with disabilities. The outputs are intended as a launchpad for new collaborations between this group and the interested parties that accept this report's call to action. It is all too easy for the disability community to become consumed by debate over philosophical differences about how to achieve a common objective: a fully inclusive labor market, and in turn, a fully inclusive society. This project demonstrates the power of looking beyond differences to a unifying goal and recognizing our shared responsibility to shape the future.

## ...toward significant social change

The stakeholders who participated in this project acknowledged the level of work that must occur to achieve the desired future state. This report presents a discussion of the multitude of factors that contribute to the disparities in employment, and therefore, social and economic inclusion, between persons with disabilities and their nondisabled peers. The report also offers a set of recommendations that were developed by participants based on their extensive experience and knowledge. The recommendations by their nature are aspirational. Any step toward achieving them is a move toward progress.
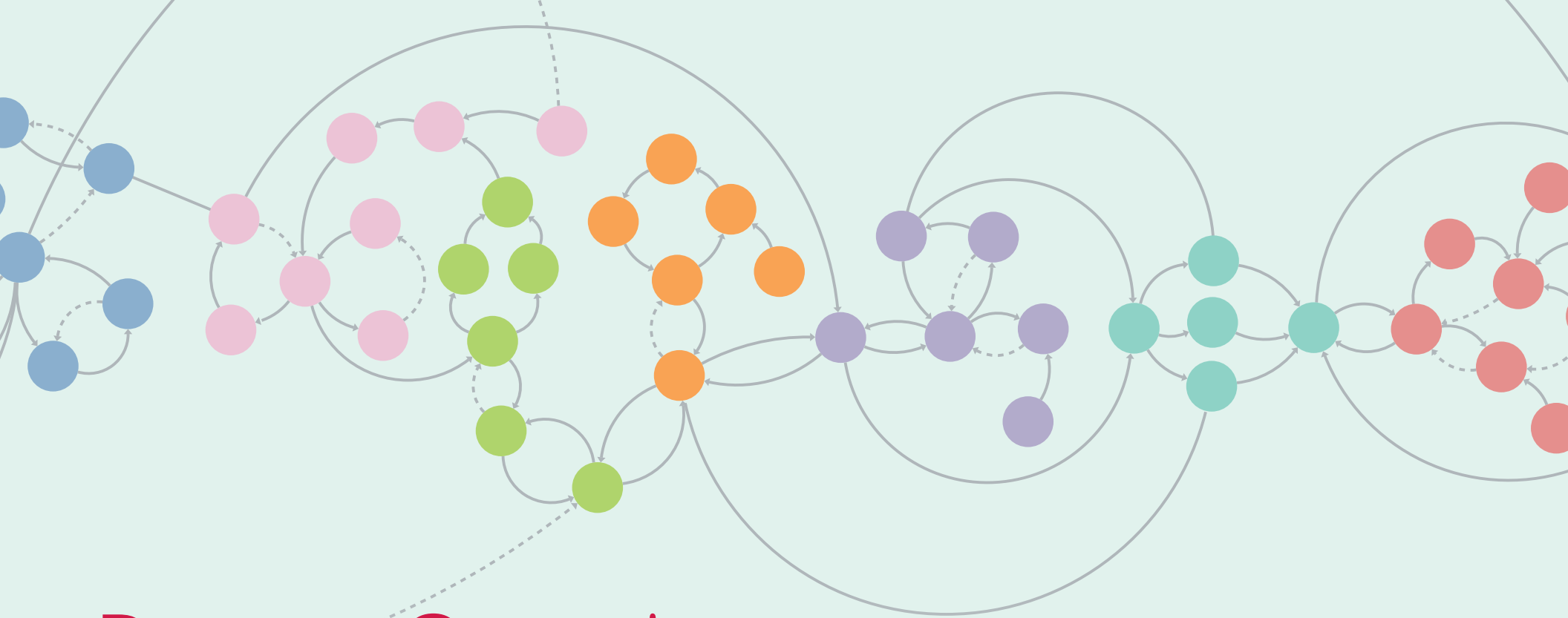
# Report Overview

Each section of this report contains graphical and narrative outputs developed through research, peer learning, human-centered design activities and constructive debate. The primary artifacts produced by the group are a stakeholder map and a systems map. Used in tandem, the maps offer a unique graphical depiction of the complex disability employment ecosystem. The maps are supplemented by narrative to provide context. The goal was to produce a report that was accessible, both in design and in content, to maximize usability for everyone.
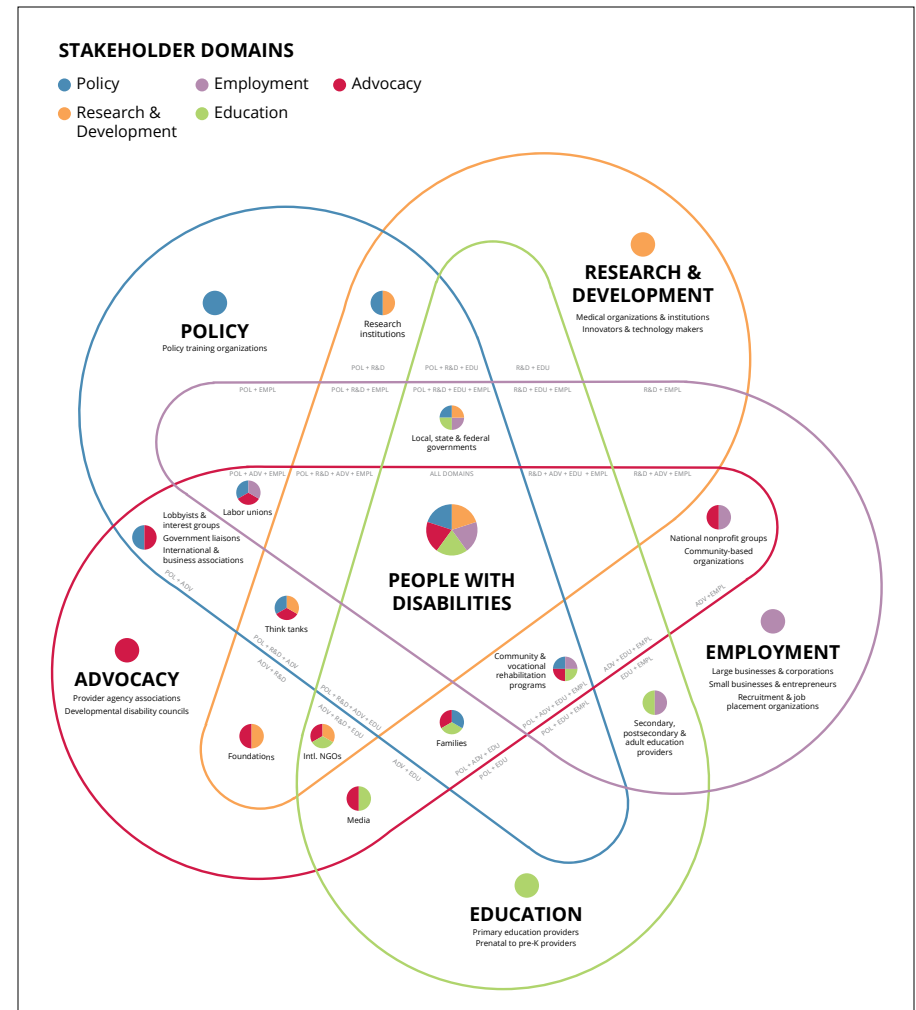
# Stakeholder Map

The stakeholder map is a graphical representation of the five domains within the disability community, the groups that belong to each domain and the intersectionality of those groups. The five domains are:

- **Advocacy:** Those who speak and work on behalf of persons with disabilities and their needs;

- **Policy:** Those who directly influence or enact relevant legislation;

- **Education:** Those who develop the knowledge and skills of persons with disabilities;

- **Employment:** Those who employ persons with disabilities or connect them to work; and

- **Research and Development:** Those who promote scientific discovery and technological advancement.

The domains and groups within the stakeholder map were identified based on participants' collective knowledge and are not exhaustive. It is also important to note that participants' identification of the groups within domains was based on perception of their primary function. For example, the domain for employers depicts only those groups that primarily function as service providers or that facilitate employment outcomes for persons with disabilities.
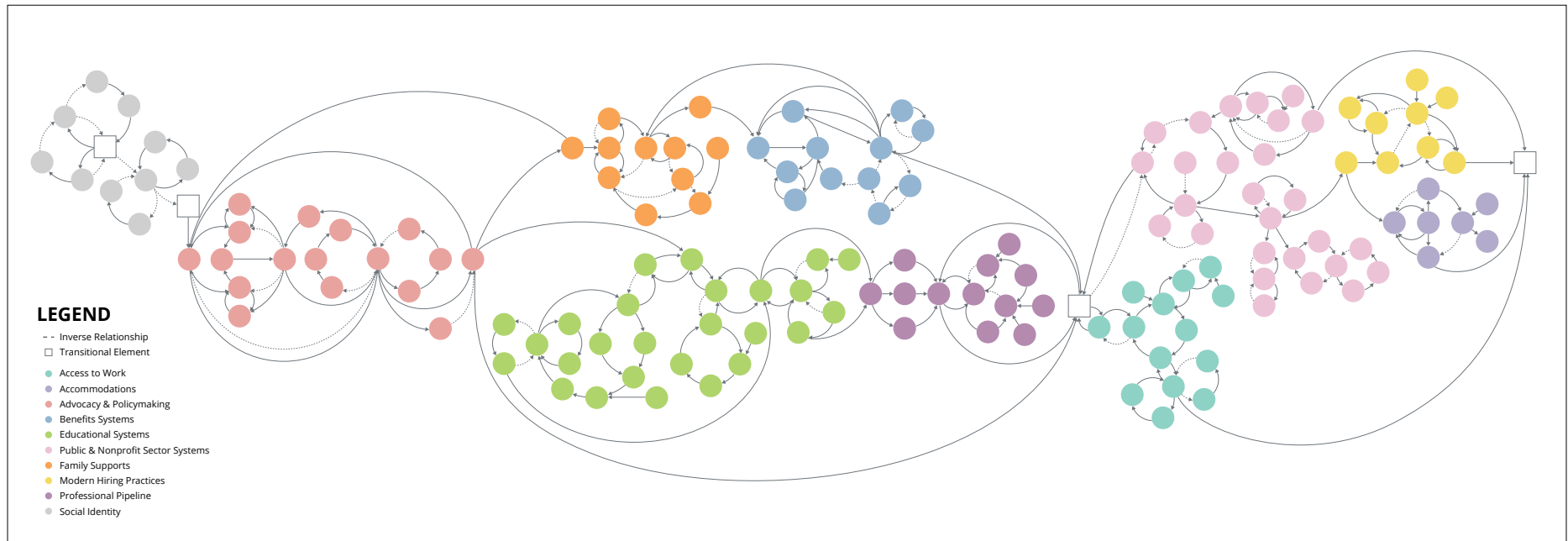
The stakeholder map is organized as a five-part Venn diagram to show points of intersection. It also shows areas where groups within the five domains are either unknown or do not presently exist, thus identifying opportunities for new actors to meet the future needs of the community. Functionally, the stakeholder map serves a dual purpose. It is primarily a wayfinding tool to aid in the navigation of the report and overlay domains and actors within the context of the systems map. Secondarily, the stakeholder map offers insight into where collaborations could occur to amplify impact.



**STAKEHOLDER DOMAINS**

- Policy
- Employment
- Advocacy
- Research & Development
- Education

RESEARCH & DEVELOPMENT
Medical organizations & institutions
Innovators & technology makers

POLICY
Policy training organizations

Research institutions

POL + R&D    POL + R&D + EDU    R&D + EDU

POL + EMPL    POL + R&D + EMPL    POL + R&D + EDU + EMPL    R&D + EDU + EMPL    R&D + EMPL

Local, state & federal governments

POL + ADV + EMPL    POL + R&D + ADV + EMPL    ALL DOMAINS    R&D + ADV + EDU + EMPL    R&D + ADV + EMPL

Lobbyists & interest groups
Government liaisons
International & business associations

Labor unions

National nonprofit groups
Community-based organizations

POL + ADV

**PEOPLE WITH DISABILITIES**

Think tanks

ADV + EMPL

POL + R&D + ADV

ADV + R&D

Community & vocational rehabilitation programs

ADV + EDU + EMPL

EDU + EMPL

**EMPLOYMENT**
Large businesses & corporations
Small businesses & entrepreneurs
Recruitment & job placement organizations

**ADVOCACY**
Provider agency associations
Developmental disability councils

POL + R&D + EDU + ADV    ADV + EMPL

ADV + R&D + EDU    POL + ADV + EDU + EMPL    POL + EDU + EMPL

Foundations    Intl. NGOs    Families

Secondary, postsecondary & adult education providers

ADV + EDU    POL + ADV + EDU    POL + EDU

Media

**EDUCATION**
Primary education providers
Prenatal to pre-K providers

# Systems Map

The systems map is a graphical representation of the interdependencies and causal relationships found among groups and their functions. It contains conceptual elements to depict observed outcomes such as stigma and discrimination, poverty and isolation, and employment. The systems map is intended to overwhelm by demonstrating the complexity of the subject being addressed. In subsequent sections, the expanded map is broken out into discrete sub-narratives, which elaborate on the current employment landscape for persons with disabilities.

The systems map follows the methodologies developed by thought leaders like the late environmental scientist Donella Meadows and systems thinking experts like David Peter Stroh and Daniel H. Kim. Although participants set out to map the system of disability employment in the United States, it was not until the group offered multiple rounds of input that sub-narratives began to emerge. Following the systems mapping process, participants distilled the diverse perspectives of the group into recognized archetypes, translating complexity into practical terms. Recurring archetypes include *fixes that fail, tragedy of the commons* and *shifting the burden*.



**LEGEND**

- – –  Inverse Relationship
- ☐  Transitional Element

- ● Access to Work
- ● Accommodations
- ● Advocacy & Policymaking
- ● Benefits Systems
- ● Educational Systems
- ● Public & Nonprofit Sector Systems
- ● Family Supports
- ● Modern Hiring Practices
- ● Professional Pipeline
- ● Social Identity

Archetypes are behavior patterns that can help explain and illustrate the system itself. In this case, identifying the patterns that result in the current state of disability employment provides insights not only into that system, but also into the steps needed to improve it. This report describes the application of systems archetypes in context.

The depiction of relationships and outcomes within the systems map is intentionally negative. Due to the significant disadvantages persons with disabilities face in the labor market, the group wanted to convey the need for action and represent the failure of current systems to produce the outcomes desired – and needed – by the community.

Like the stakeholder map, the systems map serves multiple purposes. Its primary role is to graphically depict the relationships among groups, functions and concepts to reveal the root causes of success or failure and the key points of leverage. A secondary purpose of the map is to identify gaps that can be addressed through continuous refinement. Moving forward, interested stakeholders can add their insights to the map as a way to keep it current and to enhance its overall usefulness. The final purpose of the systems map is to work in conjunction with the stakeholder map to help groups identify areas for collaboration in order to improve the performance of the system, build the capacity of the system and/or redirect functions altogether in response to changing environmental factors. The group's intention is to maintain the map as an open-source artifact that promotes ongoing interaction and continuous learning.

## ARCHETYPE DESCRIPTIONS

- **Drifting Goals:** Corrective action, often biased toward short-term fixes, is taken to address a gap between a goal and reality. At times, in order to accomplish quick wins, the standards for the goal are lowered, and long-term fixes are not achieved.

- **Escalation:** This is a reinforcing loop where one group perceives actions as threats by another group, causing a reaction. The threats continue until something disrupts the escalating tension.

- **Fixes that Fail:** Corrective action is taken, but it only addresses the symptoms and not the root cause, leading to unintended consequences.

- **Growth and Underinvestment:** The system does not operate optimally, because when demand grows without the system growing its investment accordingly, it can lead to lower standards to justify that underinvestment.

- **Limits to Success:** Positive outcomes become unsustainable due to a limitation in the system, leading to slowed growth or even a decline in effectiveness.

- **Shifting the Burden:** Short-term actions are taken to address symptoms rather than the root cause, leading to entrenched behavior where the side effects of the short-term actions overshadow the original problem.

- **Success to the Successful:** Greater investment in one group results in successful outcomes, driving ongoing investment in that group to sustain those results at the expense of the others.

- **Tragedy of the Commons:** Actions are taken in self-interest, overwhelming the capacity of the system and leading to diminishing benefits for all.[4]

4   Kim, D. H. (2000). Systems Archetypes I: Diagnosing Systemic Issues and Designing High-Leverage Interventions. Pegasus Communications, Inc.
     Retrieved from: **https://thesystemsthinker.com/wp-content/uploads/2016/03/Systems-Archetypes-I-TRSA01_pk.pdf**.

# Thematic Categories

During group sessions, participants engaged in a series of design activities to identify perceptions about the future, share expertise on current systems dynamics and unite around recommendations to effect change (see Design Activities Diagram). This work resulted in a series of rich data sets that the design experts at the Lab at OPM used to synthesize session outputs and lead the group through the development of artifacts and this report.

The following categories were identified through brainstorming activities that required group members to share their most pressing concerns. The categories are offered in no order of priority and are notably interdependent.

1. The Changing Nature of Disability (Population, Technology, Accommodation)

2. Demographic/Geographic Customization (Young, Elderly, Rural, Transportation)

3. Resources and Funding

4. Stakeholder Engagement and Communication (Employers, Educators, Disability Community, Neurodiversity)

5. Discrimination, Stigma, Low Expectations

6. The Changing Nature of Culture/Norms (Productivity, Organized Labor, etc.)

7. Political/Organizational Agenda Setting

8. Modernization and Alignment of Legacy Systems

9. The Changing Nature of Work (Time, Technology, Location)

10. Quality of Opportunities

11. Developing the Pipeline

12. Education, Skills, Training (Employers, Persons with Disabilities, Direct Service Providers)



DESIGN ACTIVITIES DIAGRAM
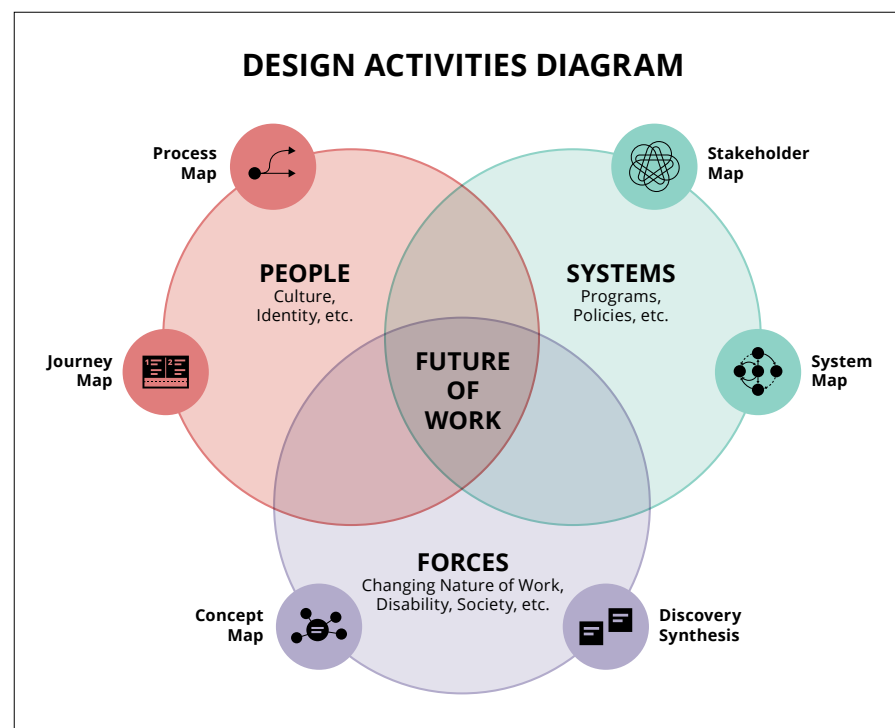
# Systems Narratives

The remainder of the report provides a detailed examination of the systems map to offer context; share perspectives from group members, subject matter experts and guest advisers; and inspire action. Each sub-narrative chapter follows a consistent pattern: definition, presentation of supporting evidence, storytelling using systems archetypes and identification of key map elements. The final section of the report presents the group's recommendations. These recommendations can be measured by their impact on systems dynamics and by the increase of sustainable inclusion of persons with disabilities.

# Report Layout

Core Narrative Element 1: Stigma and Low Expectations

**DEFINITION**

Through the group's analysis of the current landscape of disability employment, participants identified the presence of stigma and low expectations and a sub-narrative of social identity as a logical starting point for the systems map. Social identity is among the most important concepts discussed in this report. The theory of social identity represents the self-concept and self-esteem derived from group membership that drive behaviors and contribute to in-group and out-group differentiation.[5] This differentiation forms a basis for discrimination that manifests in a variety of ways. When people talk about the concept of "othering," they are referring to social identity-based distinctions, which are often laden with positive and negative attribution. At the risk of oversimplifying this concept, when this report refers to stigma and low expectations associated with social identity, it is referencing the lack of value that society assigns to persons with disabilities, which results in a lack of investment in education and employment. This underinvestment only serves to perpetuate negative outcomes, which then reinforce the stigma and low expectations applied to persons with disabilities and that they often express internally.

**EVIDENCE**

Unconscious and intentional othering of persons with disabilities occurs throughout society. The outcomes are measurable through the Bureau of Labor Statistics and census data referenced throughout this report, but there are other, more troubling outcomes. They include the disproportionately higher rate of violence perpetrated against persons with disabilities compared to their nondisabled peers. The frequency of violence is even higher for women with disabilities, and the severity of violence varies across the world due to cultural context.[6,7,8,9]

Within the context of employment, there is evidence of othering in the well-intended questions people ask, such as, "What kind of work can persons with disabilities do?" This question reveals underlying low expectations, because it would be inconceivable to ask the same question about any other minority group. This question, and others like it that reveal stigmas and low expectations, also fails to recognize that there is no singular profile of a person with a disability. Through aging, illness or an unforeseen event, every person may directly feel the impacts of disability during his or her lifetime. In fact, recent figures from the Centers for Disease Control and Prevention report that nearly one in four people in the United States has a disability.[10]

An appreciable level of societal inclusion cannot be achieved if persons with disabilities continue to be devalued based on perceptions of differences that perpetuate stigma and low expectations. Aspiring to a universal recognition of similarities rather than differences is perhaps an unrealistic goal, but progress in that direction may be the only way to achieve the desired future state of a society without barriers for persons with disabilities.

5 Oxford Reference. (2019). Overview: social identity. Retrieved from: www.oxfordreference.com/view/10.1093/oi/authority.20110810105901500.
6 Dammeyer, J. & Chapman, M. (2018). A national survey on violence and discrimination among people with disabilities. BMC Public Health 18, 355. Retrieved from: https://doi.org/10.1186/s12889-018-5277-0.
7 Waxman, B. F. (1991). Hatred: The unacknowledged dimension in violence against disabled people. Sexuality and Disability, 9(3).
8 Hughes, K., Bellis, M. A., Jones, L., Wood, S., Bates, G., Eckley, L., McCoy, E., Mikton, C., Shakespeare, T., Officer, A. (2012). Prevalence and risk of violence against adults with disabilities: a systematic review and meta-analysis of observational studies. Lancet, doi:10.1016/S0410-6736(11)61851-5.
9 Goodley, D. & Runswick-Cole, K. (2011). The violence of disablism. Sociology of Health & Illness 33(4), pp. 602–617. doi: 10.1111/j.1467-9566.2010.01302.x.
10 Centers for Disease Control and Prevention. (2019). Disability Impacts All of Us. Retrieved from: www.cdc.gov/ncbddd/disabilityandhealth/infographic-disability-impacts-all.html.

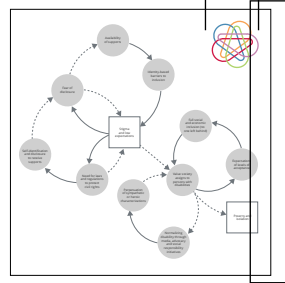**Map Explanation: Social Identity**

Within social identity, the group viewed the issue of disclosure as a primary determinant of how individuals experience stigma and low expectations that are self-imposed or placed upon them by others. In this case, the group used the term "disclosure" to mean self-identification by an individual about the impact(s) of his or her disability, leading to access to accommodations and associated supports.

The map begins with a *fixes that fail* archetype, in which the existence of stigma and low expectations leads to fear of disclosure due to concern about discrimination. If a person does not disclose their disability, they have reduced or no access to supports, which increases barriers to economic and social inclusion. Such barriers then perpetuate the existence of stigma and low expectations. The *fixes that fail* archetype is linked to a *shifting the burden* archetype, in which policymakers develop civil rights laws and regulations to break down barriers to access. However, the onus is then placed on persons with disabilities to self-identify, which again contributes to fear and resulting behaviors that may perpetuate exclusion.

Next, the map demonstrates how stigma and low expectations result in society's assigning little or no value to persons with disabilities. The element of value assignment represents the gap in the center of a *drifting goals* archetype. The goal is full social and economic inclusion, but when attempts are made to normalize disability through media, advocacy and social responsibility initiatives, they often perpetuate sympathetic or heroic characterizations of persons with disabilities. As a result, the expected rate at which society will embrace persons with disabilities is lower. The flow of these relationships contributes to the present levels of poverty and isolation experienced within the community.

**KEY ELEMENTS**

- **Starting Element:** Stigma and low expectations
- **Conceptual Root Cause:** Fear of the "other"
- **Key Element(s) of Leverage to Promote Change:**
  - Fear of disclosure
  - Normalizing disability through media, advocacy and social responsibility initiatives

**Core Narrative Element:** The report narrative and graphics are divided between three core narratives. Each major section of the report contains a core narrative header and is further broken down by sub-narratives.

**Definition and Evidence:** Each core narrative section contains a definition of key terms or themes that are further explained through sub-narrative text and graphics. The definitions establish a common baseline resulting from group discussions, and the evidence is supporting research to help frame critical issues.

**Map Explanation:** Each sub-narrative section contains a sequential explanation of the behaviors and relationships depicted in the sub-narrative systems maps. Using systems archetypes to create a structure, the explanations provide a guide for understanding the complexity captured in the graphical maps.

**Stakeholder Wayfinder:** Each sub-narrative map contains a mini, color-coded version of the stakeholder map found on page eight. The purpose is to provide an idea of the domains and representative groups that contribute to the behaviors and relationships depicted in the sub-narrative systems maps. This ties together the "who?" with the "what, why and how?"

**Sub-Narrative Map:** The sub-narrative maps are graphical representations of the behaviors and relationships between groups. The maps are based on systems thinking archetypes, and each section presents a magnified version to offer specific details based on the experience and input of the group.

**Key Elements:** Each sub-narrative section provides recommended focal points for the systems maps. These include the starting element, aligned with the map explanation text; a conceptual root cause of the major issue(s) being addressed; and proposed key elements that, if acted upon, may lead to measurable progress.
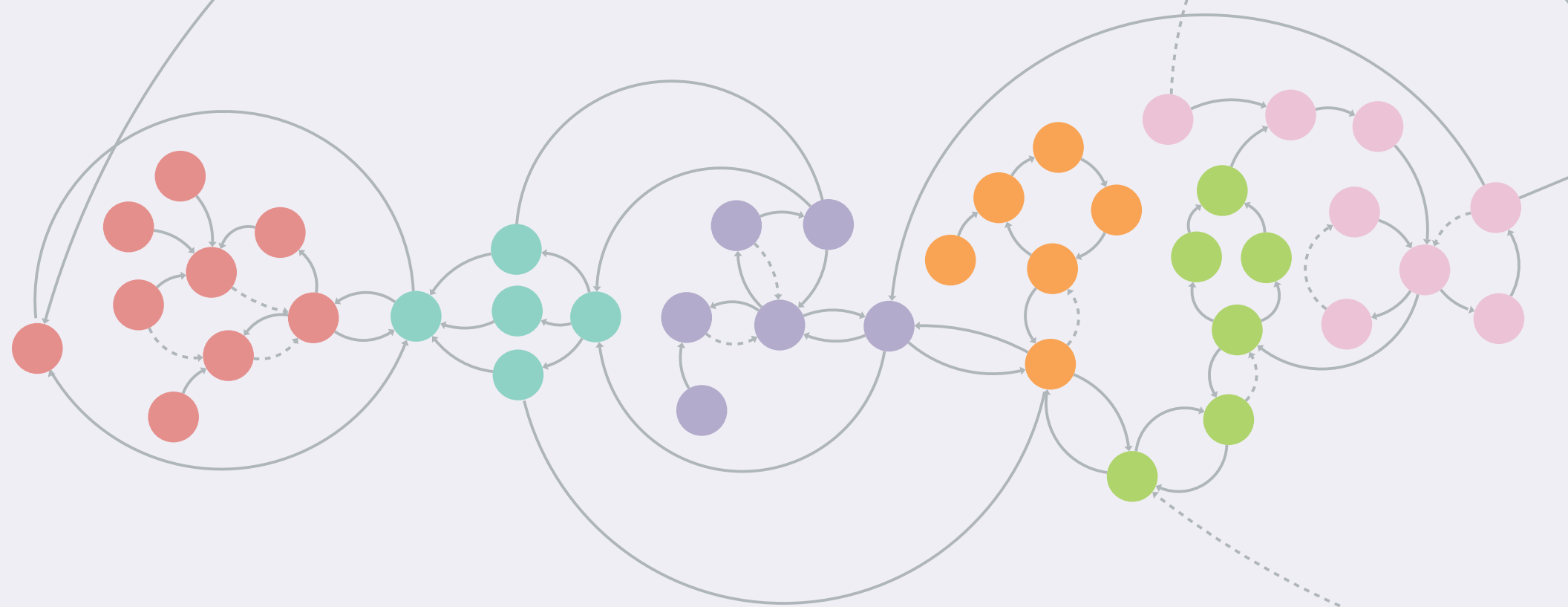
# Core Narrative

The systems map is tethered to a core narrative depicting a vicious cycle of stigma and low expectations, poverty and isolation, and un- and underemployment. As shown in the graphic on page 15, there is a reinforcing loop in which stigma and discrimination lead to low rates of employment and increased incidence of poverty and isolation. Increased poverty and isolation and low rates of employment perpetuate stigma and discrimination, circling back to un- and underemployment and increased poverty and isolation. The existence of this core narrative is substantiated by measurable economic and social trends, supported by extensive research, and generally accepted as true by members of the disability community.

*"The point here is, first of all, to set aside notions of disability for a moment and think about what people are capable of doing. That's really what's important. If you want somebody to do something, you have to know what they are capable of doing. And so we can call those things strengths, and we can ask about how to parse work so that it takes advantage of people's strengths."*
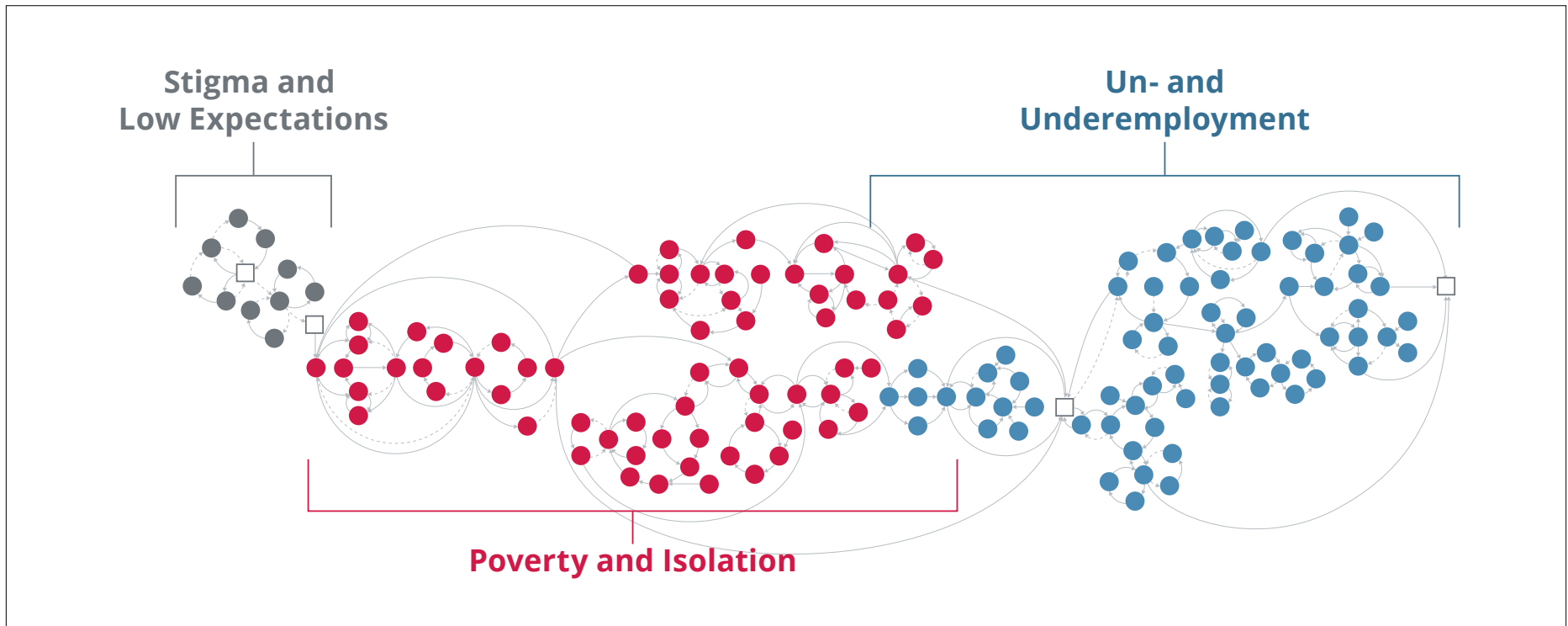
**– Vint Cerf**

In the expanded systems map, the three elements of the core narrative serve as thematic categories for related subsystems. They are as follows:

- **Stigma and Low Expectations**
  - Social Identity

- **Poverty and Isolation**
  - Advocacy and Policymaking
  - Family Supports
  - Benefits Systems

- **Un- and Underemployment**
  - Education Systems
  - Professional Pipeline
  - Access to Work
  - Public and Nonprofit Employment Systems
  - Modern Hiring Practices
  - Accommodations

The core narrative elements and the subsystems within them represent observable relationships that contribute to quantifiable outcomes of economic and social exclusion.

Sharing the core narrative of the systems map has become an effective method for engaging other audiences in this process. Members of the disability community recognize the straightforward nature of the core narrative as both accurate and troubling. The discussion naturally progresses to questions of what is contributing to the vicious cycle. This question is where the value of the expanded map comes into play.

# Core Narrative Element 1: Stigma and Low Expectations

**DEFINITION**

Through the group's analysis of the current landscape of disability employment, participants identified the presence of stigma and low expectations and a sub-narrative of social identity as a logical starting point for the systems map. Social identity is among the most important concepts discussed in this report. The theory of social identity represents the self-concept and self-esteem derived from group membership that drive behaviors and contribute to in-group and out-group differentiation.[5] This differentiation forms a basis for discrimination that manifests in a variety of ways. When people talk about the concept of "othering," they are referring to social identity-based distinctions, which are often laden with positive and negative attribution. At the risk of oversimplifying this concept, when this report refers to stigma and low expectations associated with social identity, it is referencing the lack of value that society assigns to persons with disabilities, which results in a lack of investment in education and employment. This underinvestment only serves to perpetuate negative outcomes, which then reinforce the stigma and low expectations applied to persons with disabilities and that they often express internally.

**EVIDENCE**

Unconscious and intentional othering of persons with disabilities occurs throughout society. The outcomes are measurable through the Bureau of Labor Statistics and census data referenced throughout this report, but there are other, more troubling outcomes. They include the disproportionately higher rate of violence perpetrated against persons with disabilities compared to their nondisabled peers. The frequency of violence is even higher for women with disabilities, and the severity of violence varies across the world due to cultural context.[6,7,8,9]

Within the context of employment, there is evidence of othering in the well-intended questions people ask, such as, "What kind of work can persons with disabilities do?" This question reveals underlying low expectations, because it would be inconceivable to ask the same question about any other minority group. This question, and others like it that reveal stigmas and low expectations, also fails to recognize that there is no singular profile of a person with a disability. Through aging, illness or an unforeseen event, every person may directly feel the impacts of disability during his or her lifetime. In fact, recent figures from the Centers for Disease Control and Prevention report that nearly one in four people in the United States has a disability.[10]

An appreciable level of societal inclusion cannot be achieved if persons with disabilities continue to be devalued based on perceptions of differences that perpetuate stigma and low expectations. Aspiring to a universal recognition of similarities rather than differences is perhaps an unrealistic goal, but progress in that direction may be the only way to achieve the desired future state of a society without barriers for persons with disabilities.

5  Oxford Reference. (2019). Overview: social identity. Retrieved from: **www.oxfordreference.com/view/10.1093/oi/authority.20110810105901500**.

6  Dammeyer, J. & Chapman, M. (2018). A national survey on violence and discrimination among people with disabilities. BMC Public Health 18, 355. Retrieved from: **https://doi.org/10.1186/s12889-018-5277-0**.

7  Waxman, B. F. (1991). Hatred: The unacknowledged dimension in violence against disabled people. Sexuality and Disability, 9(3).

8  Hughes, K., Bellis, M. A., Jones, L., Wood, S., Bates, G., Eckley, L., McCoy, E., Mikton, C., Shakespeare, T., Officer, A. (2012). Prevalence and risk of violence against adults with disabilities: a systematic review and meta-analysis of observational studies. Lancet. doi:10.1016/S0410-6736(11)61851-5.

9  Goodley, D. & Runswick-Cole, K. (2011). The violence of disablism. Sociology of Health & Illness 33(4), pp. 602–617. doi: 10.1111/j.1467-9566.2010.01302.x.
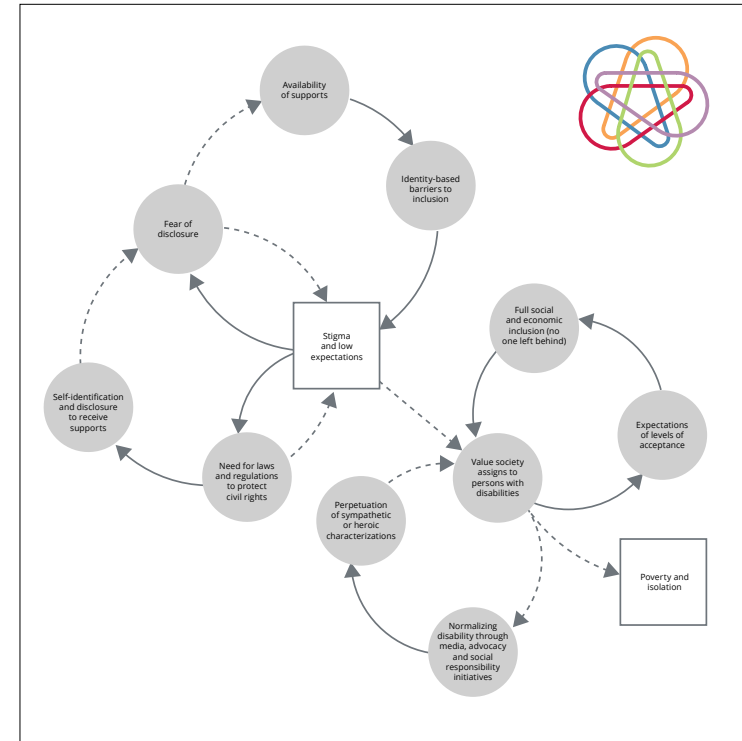
10 Centers for Disease Control and Prevention. (2019). Disability Impacts All of Us. Retrieved from: **www.cdc.gov/ncbddd/disabilityandhealth/infographic-disability-impacts-all.html**.

# Map Explanation: Social Identity

Within social identity, the group viewed the issue of disclosure as a primary determinant of how individuals experience stigma and low expectations that are self-imposed or placed upon them by others. In this case, the group used the term "disclosure" to mean self-identification by an individual about the impact(s) of his or her disability, leading to access to accommodations and associated supports.

The map begins with a *fixes that fail* archetype, in which the existence of stigma and low expectations leads to fear of disclosure due to concern about discrimination. If a person does not disclose their disability, they have reduced or no access to supports, which increases barriers to economic and social inclusion. Such barriers then perpetuate the existence of stigma and low expectations. The *fixes that fail* archetype is linked to a *shifting the burden* archetype, in which policymakers develop civil rights laws and regulations to break down barriers to access. However, the onus is then placed on persons with disabilities to self-identify, which again contributes to fear and resulting behaviors that may perpetuate exclusion.

Next, the map demonstrates how stigma and low expectations result in society's assigning little or no value to persons with disabilities. The element of value assignment represents the gap in the center of a *drifting goals* archetype. The goal is full social and economic inclusion, but when attempts are made to normalize disability through media, advocacy and social responsibility initiatives, they often perpetuate sympathetic or heroic characterizations of persons with disabilities. As a result, the expected rate at which society will embrace persons with disabilities is lower. The flow of these relationships contributes to the present levels of poverty and isolation experienced within the community.



**KEY ELEMENTS**

- **Starting Element:** Stigma and low expectations

- **Conceptual Root Cause:** Fear of the "other"

- **Key Element(s) of Leverage to Promote Change:**
  – Fear of disclosure
  – Normalizing disability through media, advocacy and social responsibility initiatives

# Core Narrative Element 2: Poverty and Isolation

**DEFINITION**

The section of the systems map dedicated to poverty and isolation contains three sub-narratives: advocacy and policymaking, family supports and benefits systems. The group identified recurring connections between these sub-narratives and the current state of poverty experienced by persons with disabilities (perpetuated by stigma and low expectations and feeding into the complex systems of employment). As a definition of poverty and isolation, the group relied on the measure of people who are either out of the labor force entirely or have income levels below the poverty line and are therefore classified as the "working poor."

The myriad federal benefits programs in the United States is a daunting subject to understand, let alone map in a logical and useful way. The group's exploration of benefits systems was limited in scope because of the specific focus on the impact on employment. With that focus in mind, the group's primary consideration was the interaction between Supplemental Security Income (SSI), Social Security Disability Insurance (SSDI) and Medicaid waivers (including Home and Community Based Services, or HCBS). Each program has criteria for eligibility and commonly applies strict caps on the level of income a person can earn to maintain his or her benefits. The application of income caps and their tangible and psychological impact became a focal point of the group's discussion about rates of poverty.

**EVIDENCE**

The incidence of poverty is all too easy to demonstrate within the disability community. Statistically, persons with disabilities experience a rate of poverty that averages 15 percent higher than their nondisabled peers.[11] It is important to recognize that there is a cyclical impact of institutional poverty that can contribute to the prevalence of disabilities due to negative physical and psychological effects. The group's discussions suggest that the interrelationships between advocacy, policymaking, family supports and benefits systems contribute to the persistent state of poverty experienced by the disability community.

The causal relationship between advocacy and policymaking is commonly known. The interests and desires of various groups, expressed by themselves or through intermediaries, influence the development of legislation at all levels of government. Within the disability community, there are significant philosophical differences on issues, including fair wages, employment settings and the extent to which individual agency is recognized. It is also common to see debates about which groups within the larger community are the most marginalized and in need of increased recognition and support from lawmakers. These variables are not unique to the United States and often play out in international venues. It was observed that more contentious disagreement and zero-sum game positioning regarding these subjects occurred rather than healthy debate and a willingness to find common ground. As a result, fractures within the community contribute to the lack of progress.

Central to the policy-based discussion is the re-enforcement of the concept of competitive integrated employment as the expected outcome achieved through workforce systems. Competitive integrated employment, as defined in the Workforce Innovation and Opportunity Act of 2014 (WIOA), is full-time or part-time work where:

- Persons with disabilities interact with other persons without disabilities to the same extent that individuals without disabilities would in comparable positions;

- There are opportunities for advancement; and

- Compensation levels are at or above prevailing minimum wages with equal access to benefits.[12]

Since enactment, the implementation of WIOA has disrupted the interaction between national workforce systems serving persons with disabilities and has placed added pressure to address long-standing laws that do not align with expected employment outcomes. The focus on competitive integrated employment is displayed as a causal factor to many of the systems dynamics noted in the map.

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11  Erickson, W., Lee, C., von Schrader, S. (2017). Disability Statistics from the American Community Survey (ACS). Ithaca, NY: Cornell University Yang-Tan Institute on Employment and Disability (YTI). Retrieved from Cornell University Disability Statistics website: **www.disabilitystatistics.org**.

12  United States Government, Government Printing Office (2014, July). Workforce Innovation and Opportunity Act, Public Law 113-128, 113th Cong. Retrieved from: **www.congress.gov/113/plaws/publ128/PLAW-113publ128.pdf**.

*"I was briefly on SSI and Medicaid, and I think it's an atrocity that the $2,000 asset limit has not been raised since 1989, because then you're perpetuating a cycle of poverty."*

– **Aaron Kaufman**

The role of family members and caregivers is extraordinarily important within the disability community. The un- and underemployment experienced by persons with disabilities has a ripple effect on their relatives, which then impacts their communities and – through the magnitude of the problem – states and the nation. Based on national studies, caregivers of persons with disabilities and elderly family members experience disruptions to their own employment situation in the form of lost hours, wages and savings. They also use more unpaid leave and request accommodations to support their loved ones. Upward of 39 percent leave their job to provide full-time care, and 34 percent leave due to limited flexibility in their work hours.[13] Family members and caregivers also factor in advocacy and policymaking as they assume the role of spokesperson for their loved ones. Family members and caregivers may also play a role in inhibiting the independence of persons with disabilities due to a combination of low expectations, fear and risk avoidance. It is hard to find fault with their apprehensions because they are largely a response to persistent structural marginalization of their loved ones.

The merits of federal benefits programs are a common point of debate on the economy. In 2013, it was estimated that the federal government spent $652 billion on disability services and income maintenance programs.[14] In 2017, there were an estimated 7.05 million people eligible for Supplemental Security Income based on disability status, and a total of $48 million dollars was spent on enrolled individuals. Data from the same year shows an estimated 9.8 million people eligible for Social Security Disability Insurance, which accounted for a total of $11.2 million dollars in expenditures.[15] Consistently, the issues related to such programs revolve around income caps that determine individual eligibility. These income caps of less than $1,000 per month for SSI and SSDI, and just over $2,000 for Medicaid waiver eligibility limits, act as deterrents for some individuals to increase their work hours or compensation rates out of fear of losing access to benefits.

13 Family Caregiver Alliance. (2016). Caregiver Statistics: Work and Caregiving. Retrieved from: **www.caregiver.org/caregiver-statistics-work-and-caregiving**.

14 Hemp, R., Braddock, D., Tanis, E.S., & King, M. (2016). U.S. Disability Services and Spending. National Conference of State Legislatures. Vol. 24, No. 18. Retrieved from: **www.ncsl.org/research/health/u-s-disability-services-and-spending.aspx**.

15 Lauer, E.A. & Houtenville, A.J., 2019. Annual Disability Statistics Supplement: 2018. Durham, NH: University of New Hampshire, Institute on Disability.

# Map Explanation: Advocacy and Policymaking

The archetypes of *tragedy of the commons, escalation* and *fixes that fail* were identified as the best descriptors of the advocacy and policymaking theme. This section of the map begins with the concept that policymakers act based on societal pressures for changes to existing laws and regulations and that these pressures sometimes originate from a recognition of pervasive disparities between groups. In the case of disability employment, this recognition leads to a *tragedy of the commons* archetype, where there is notable tension in the community based on philosophical differences regarding the achievement of competitive integrated employment.

As an oversimplified representation, and to avoid designating any one philosophy as good or bad, participants identified two types of groups: those seeking to change existing legislative paradigms (and, thereby, programmatic interventions) and those seeking to maintain existing models (principally to avoid unintended consequences). Both generalized groups exert influence over policymakers, but the result is often incremental legislative progress on both sides, because the groups are competing for attention from the same audience. As a result, they expend their social and political capital, often targeting each other in the process.
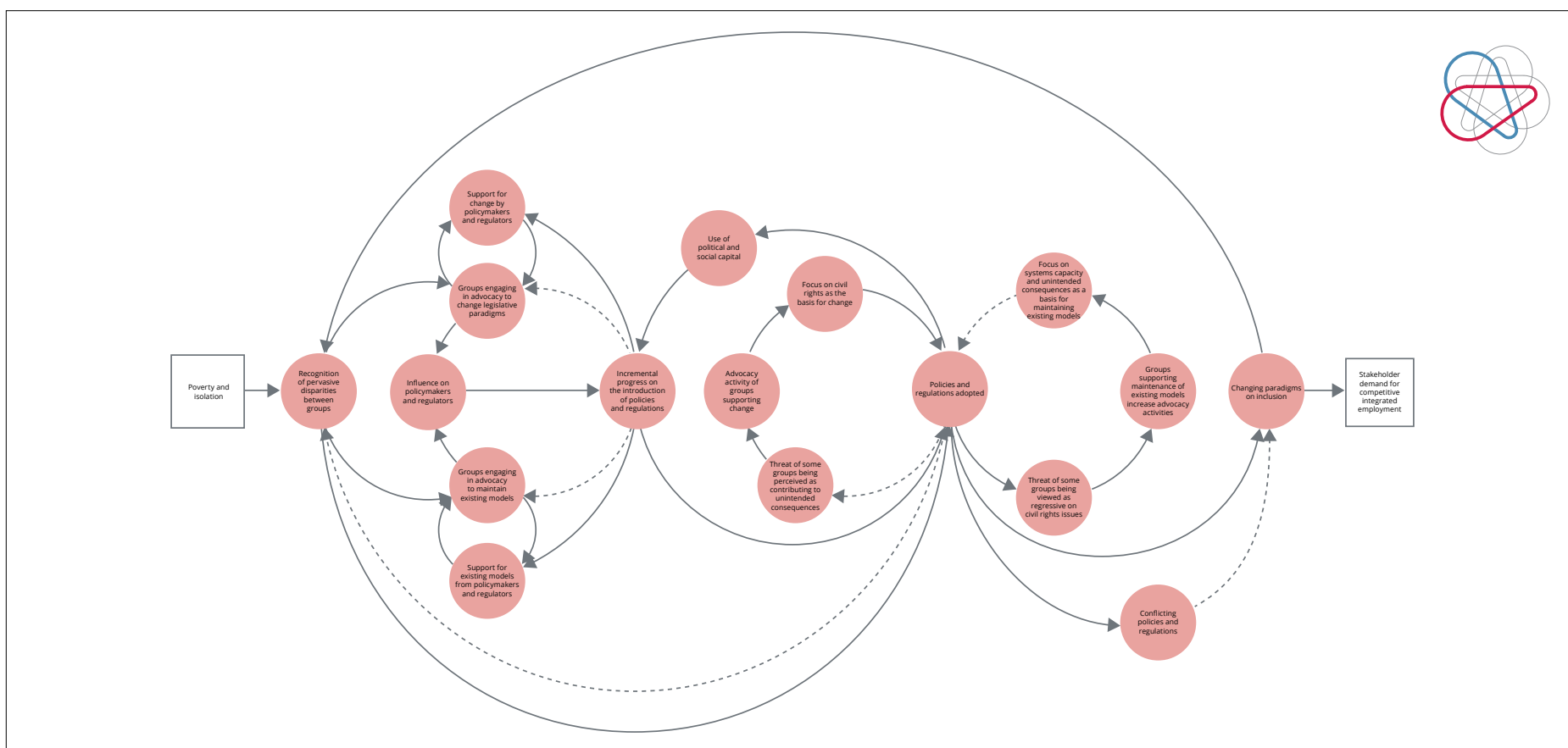
The incremental progress achieved through advocacy then connects to the related archetypes of *escalation* and *fixes that fail*. Regarding the concept of escalation, the map demonstrates how the two groups perceive each other's actions as a threat. The group focused on paradigm changes is threatened with being labeled as contributors to unintended consequences, including leaving persons with disabilities completely disenfranchised. In response, they accelerate their advocacy efforts and continue to focus on civil rights as the impetus for continued change in law and regulation.

At the same time, the group supporting maintenance of existing models is threatened with being labeled as regressive on civil rights issues. In response, they also accelerate their advocacy efforts, focusing on the lack of capacity within existing systems and unintended consequences as the rationale for maintaining existing models. The groups pull in opposite directions (although they ultimately want the same outcome with regard to economic and social inclusion), perpetuating a zero-sum game mentality that ultimately reduces the likelihood of progress and contributes to the current levels of employment and poverty.

It was noted that the results of policymaking and regulatory rulemaking do not always achieve their intended purpose. This reality is described in the *fixes that fail* archetype, wherein over time, advocacy efforts, combined with the recognition of disparities between groups in society, compel the legislative and executive branches to act by adopting new policies. However, the multitude of federal and state entities creating disability-related policy (employment, education, benefits, etc.) and the overwhelming number of definitions of the term "disability" in statute often result in conflict and confusion.

These issues are exemplified by the enactment of policies that advantage one group over another within the same broader community, resulting in the allocation of funding and resources that address one problem while exacerbating another. Within the map, the resulting adoption of policies and regulations leads to changing paradigms on inclusion, which continue to spotlight pervasive disparities between groups in society. These groups then re-engage in the policymaking process.
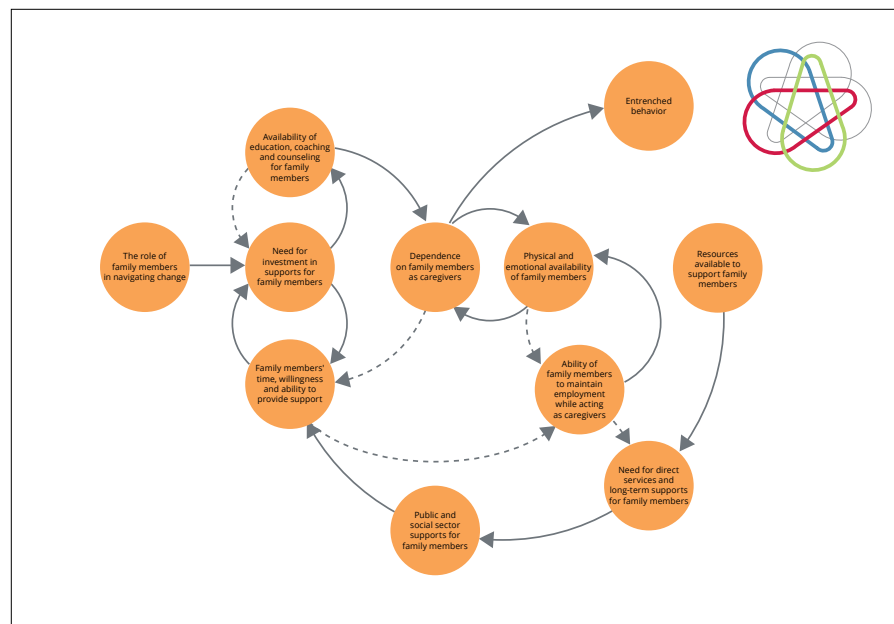
**KEY ELEMENTS**

- **Starting Element:** Recognition of pervasive disparities between groups

- **Conceptual Root Cause:** "Zero-sum" mentalities

- **Key Element(s) of Leverage to Promote Change:**
  – Incremental progress on the introduction of policies and regulations
  – Conflicting policies and regulations

*"You are the expert at what you are capable of doing. Even if you're someone who tends to devalue what you are capable of doing, you are still the expert. Having someone else tell me 'no, you shouldn't be doing what you want to do, you should be doing this…' is a problem."*

**– Stephanie Farfan**

# Map Explanation: Family Supports

Throughout discussions, the significant impact that family members and caregivers have on the employment of persons with disabilities was identified. The group used two archetypes in the map to represent the causal relationships of family supports. These supports are the result of advocacy and policymaking and feed into the benefits systems. The first archetype is *shifting the burden.* It starts from a transitional element, recognizing the role of family members in navigating change, and can also feed back into the advocacy and policymaking process due to the strong presence of the voices of families championing a cause.

From this transition, the effectiveness of families helping to navigate change is related to the level of investment made by society. The map shows that an external solution of education, coaching and counseling is intended to increase effectiveness and lead to more investment. The internal solution to increasing society's investment is family members' time, willingness and ability to provide supports. Ultimately, however, this reality may serve to perpetuate the "burden" or responsibility of families to remain a source of support for persons with disabilities.

The potential for ongoing dependence leads to a *growth and underinvestment* archetype. The growing presence of family member supports leads to a demand in physical and emotional availability, which in turn, impacts the caregivers' ability to maintain their own employment. The tension in whether family members can maintain employment leads to a perceived need for greater direct services and long-term supports for all parties. This need results in public and nonprofit sector systems' recognition of an opportunity to support family members, but their capacity to act is constrained by available resources. The limited supports available from public and nonprofit sector systems then has an impact on the time, willingness and ability of family members to provide support, which feeds back into their ability to maintain employment. Unemployment among family members and caregivers as a result of varying levels of dependence on their support creates an economic ripple effect felt at the local, state and federal levels.



**KEY ELEMENTS**

- **Starting Element:** The role of family members in navigating change

- **Conceptual Root Cause:** Dependence on family members as caregivers

- **Key Element(s) of Leverage to Promote Change:**
  - Family members' time, willingness and ability to provide supports
  - Need for direct services and long-term supports for family members
  - Resource availability to support family members

# Map Explanation: Benefits Systems

The benefits systems map depicts the collection of behaviors that contribute to economic disparities between groups. The archetypes include the *tragedy of the commons* followed by a pair of *fixes that fail*. As a starting point, the map shows how a cycle of dependence on benefits systems is fueled by income caps. The benefits are intended to minimize the health effects of poverty, but the caps ultimately perpetuate un- and underemployment because of the disincentive to maximize income. This dependency contributes to measurable disparities between groups and increases levels of isolation.

In response, policymakers and regulators take action to require increased integration but maintain income level restrictions to target access for individuals in a state of poverty. The result is a legislative and regulatory push for economic mobility that puts benefits at risk for persons with disabilities. This series of actions diminishes the likelihood of positive returns and overwhelms the capacity of the systems as they become unsustainable due to spending on federal benefits programs.

The issue of disincentives to earn income is at the center of two related *fixes that fail* archetypes. The first is based on the assumption that the challenge presented by income-based benefits can be overcome through increased employment by organizations that will provide employer-sponsored health care and retirement savings plans. But, this requires willingness on the part of employers to hire persons with disabilities and on the part of individuals to accept opportunities that may jeopardize their federal benefits. The entrenched fear of losing access to benefits results in un- and underemployment, which limits the reach of the proposed "fix." This reality, observed in the levels of employment and enrollment in benefits systems, reinforces fear, and the cycle continues.

The second *fixes that fail* archetype demonstrates how programs tailor-made to increase economic empowerment of persons with disabilities cannot gain the traction they need to be sustainable. This portion of the map begins with the general inability to maintain economic sustainability, as evidenced by measurable levels of unemployment and poverty. The proposed fix is the creation of economic empowerment laws and programs to allow persons with disabilities to save and use their money for necessary supports and services without fear of losing their federal benefits. Despite the promise such laws and programs offer, the behavior of persons with disabilities is driven by a lack
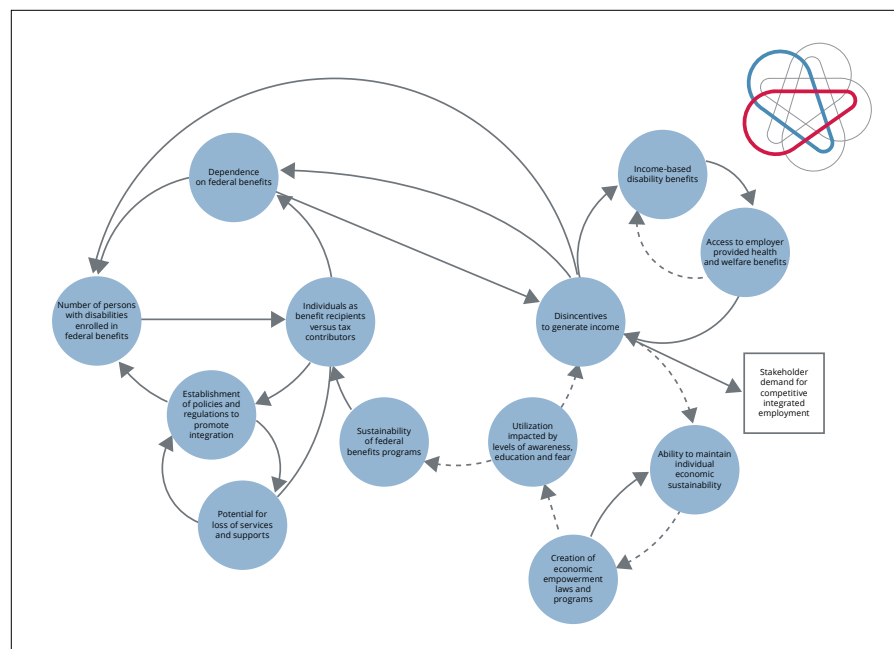


of awareness of such programs, low financial literacy and fear of unintended consequences. Such behaviors threaten the sustainability of economic empowerment programs, which require high levels of enrollment and reinforce the disincentive to generate income for fear of losing access to benefits.

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**KEY ELEMENTS**

- **Starting Element:** Number of persons with disabilities enrolled in federal benefits

- **Conceptual Root Cause:** Income-based disability benefits

- **Key Element(s) of Leverage to Promote Change:**
  - Disincentives to generate income
  - Potential for loss of services and supports

# Core Narrative Element 3: Un- and Underemployment

**DEFINITION**

The focus of this project is on the future of work. Therefore, the employment area of the core narrative received the most attention. This section of the report includes six themes: education systems, public and nonprofit workforce development, modern hiring practices, the professional pipeline, access to work, and accommodations. Each area is uniquely affected by changing social sentiment and subsequent federal and state policies. Education, a complex system on its own, is discussed in the next section of this report.

In the United States, much of the legislative and regulatory focus related to the employment of persons with disabilities falls to two complementary workforce development systems: the public sector, represented by the network of state Vocational Rehabilitation (VR) entities, and the nonprofit sector, represented by Community Rehabilitation Programs (CRPs). These traditional constructs of employment supports are supplemented by other public and nonprofit actors, such as the network of American Job Centers, nonprofit organizations that specialize in engagement with private sector companies, and technical assistance centers. The map includes the generalized categories of public and nonprofit sector systems to demonstrate how current systems dynamics impact their individual and collective success.

Rather than engage in a detailed discussion on human resources practices, the group examined the growing use of artificial intelligence (AI) in the hiring process. In particular, participants focused on AI-based recruitment and screening tools that are increasingly used to match profiles of candidates to available opportunities.

Relatedly, participants felt that the professional pipeline deserved attention. This pipeline encompasses the transition from school to work and from long-term unemployment to labor market participation. It also includes access to upwardly mobile opportunities within an individual's career. The group viewed the professional pipeline map in this report as an initial discussion point for the barriers that exist as a result of the misalignment of interests, skills acquisition programs and employers' commitment to inclusive hiring.

The map also includes a generalized concept of access, which incorporates physical and technological factors. Physical accessibility is divided into transportation and the construction and layout of buildings and workspaces. Technological accessibility, as used in this report, is a term that refers to the design of software and hardware commonly used in the workplace. Both physical and technological accessibility are persistent barriers to inclusive employment.

Related to accessibility are accommodations, which are an integral part of any discussion around the inclusive employment of persons with disabilities. Reasonable accommodations augment the work environment or the hiring process to promote equal opportunity for persons with and without disabilities.[16]

The map is not intended to represent a strict sequence in the journey from school to work; however, there are interesting causal relationships between each theme that, in aggregate, contribute to the present levels of un- and underemployment. It is important to recognize that individuals may enter and exit each system for various reasons and that the map is written with a negative tone to highlight the relationships that are not functioning in an optimal way.

**EVIDENCE**

Discussions on the future of work commonly reference the importance of lifelong learning, reskilling and upskilling to maintain employability in a dynamic labor market. Leading voices on the topic commonly recommend policy and programmatic interventions to ensure the individuals currently in the labor market have access to opportunities to develop skills for the future. Such recommendations rely on a generalized notion of the labor market and who works. Because persons with disabilities have much lower rates of labor market participation, they are not likely to be considered primary beneficiaries of such opportunities.

16 U.S. Department of Labor, Office of Disability Employment Policy. "Accommodations" Retrieved from: **www.dol.gov/odep/topics/Accommodations.htm**.

In developing the series of maps, the group focused on the environmental factors that exert pressure on the entirety of the system – pressure that different groups experience in different ways and that ultimately leads to changes in direction that may benefit persons with disabilities or that may unintentionally exacerbate existing barriers.

Within the United States and its territories, there are 53 government-funded Vocational Rehabilitation offices focused on employment, education and related supports for persons with disabilities.[17] In addition, there are over 5,000 nonprofit Community Rehabilitation Programs working on the same issues.[18] Both systems are intended to be complementary and self-reinforcing, and their combined efforts contribute to the annual employment levels of persons with disabilities, specifically individuals considered to have the highest barriers to entry. Both systems have unique capacity and capability, and they frequently intersect when individuals are receiving supports from them simultaneously.

Landmark policies, such as WIOA, have provided a catalyst for change within both systems. Driven by evolving social sentiment, a renewed focus on competitive integrated employment has placed added pressure on public and nonprofit sector programs to prioritize employment outcomes often associated with private sector companies. This pressure has resulted in a degree of friction between public and nonprofit sector systems, because previously successful employment outcomes may not conform with changing expectations of what constitutes inclusion. The change in expected outcomes impacts the flow of federal and state funding, the provision of services and the focus of disability service professionals. As demonstrated in the detailed series of maps associated with the public and nonprofit sectors, such changes can result in unintended consequences, including priorities that benefit some demographics at the expense of others and the separation of once complementary systems.

As expectations of private sector employment increase, it is important to gauge the readiness of companies to be much more inclusive in their hiring practices. In a recent survey by SourceAmerica and FlexJobs, almost 37 percent of organizations said they do not track disability status when it comes to hiring. However, 43 percent said they have a workforce hiring and retention strategy that includes persons with disabilities. Only about 30 percent of employers would rate their company's success with recruiting, hiring and retaining persons with disabilities as "excellent" or "better than average." Interestingly, many employers attribute that success not to their policies, leadership or culture but to the flexible nature of their work environment.

17  Job Accommodation Network. (2019). State Vocational Rehabilitation Agencies. Retrieved from: **https://askjan.org/concerns/State-Vocational-Rehabilitation-Agencies.cfm**.

18  Haines, K., Domin, D., & Butterworth, J. (2013). The 2010-2011 National Survey of Community Rehabilitation Providers: Estimating the Number of Community Rehabilitation Providers in the United States. Institute for Community Inclusion. Research to Practice Brief Issue No. 54. Retrieved from: **https://www.communityinclusion.org/article.php?article_id=354**.

*"And if you try to solve for poverty or solve for getting everyone online or for employment issues, you've got to focus on people with disabilities or you're not really going to make the kind of progress you want."*

– **James Thurston**

# Map Explanation: Education Systems

The map of the education systems contains five archetypes to convey the group's understanding of the present state. On the left side of the map is a *growth and underinvestment* archetype focused on the quality of educational programs and their accessibility. This is followed by an example of a *success to the successful* archetype, where limited investment in students with disabilities reinforces lower attainment levels than students without disabilities.

This discussion is focused primarily on pre-kindergarten through 12th grade levels, but the concepts are applicable to postsecondary education as well.

On the right side of the map is a *growth and underinvestment* archetype, which depicts the demand and availability of inclusive postsecondary programs. This leads to a *limits to success* archetype on the topic of school-to-work transition and a *fixes that fail* archetype for the pre-employment transition services (Pre-ETS) found in modern policy.

Beginning with the initial *growth and underinvestment* archetype, there are rising expectations for inclusive education settings, leading to increased demand for accessible, high-quality mainstream programs. The ability to achieve such a
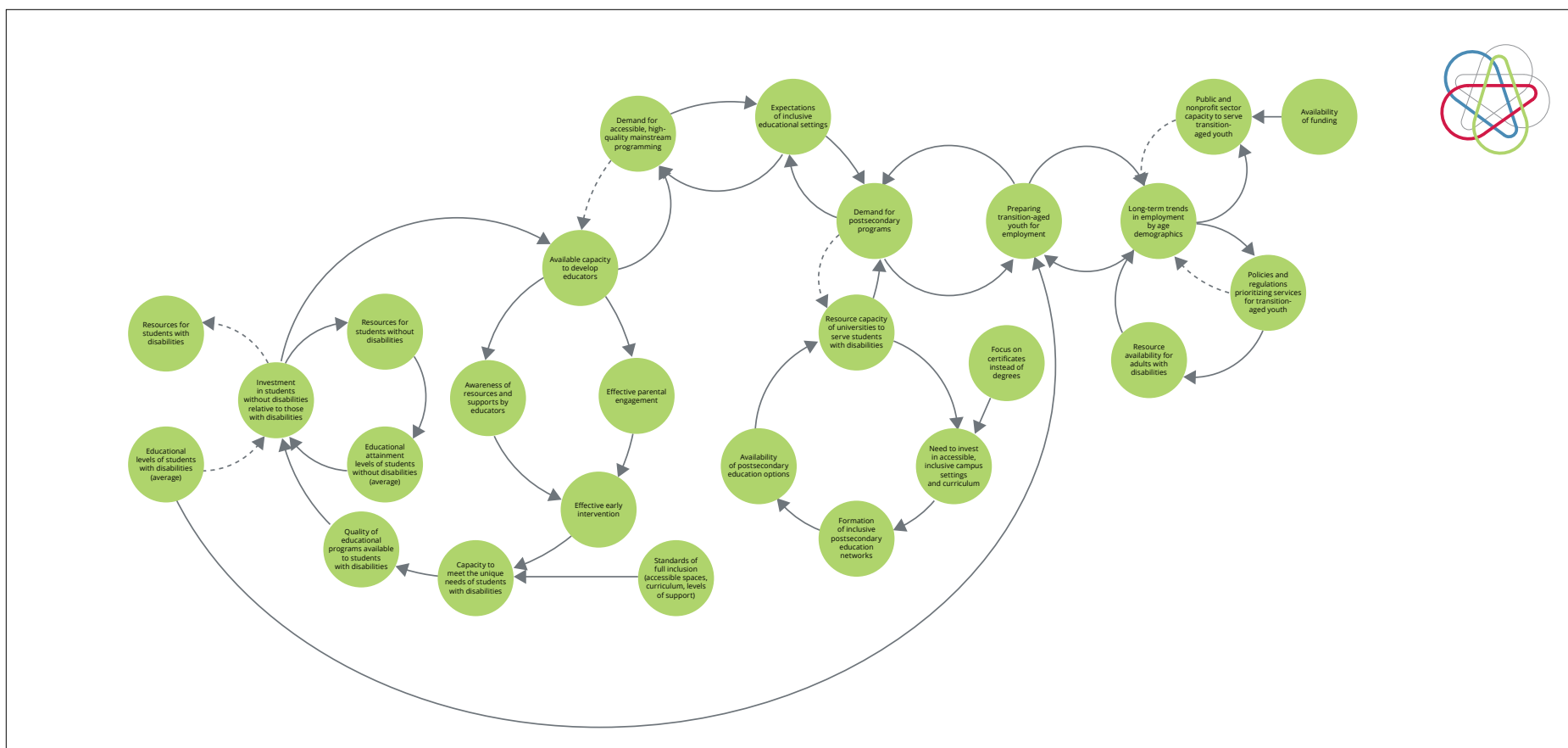
goal is constrained by the capacity to develop educators. Limited capacity to train teachers in how to work with students with disabilities leads to a lack of effective parental engagement and, in parallel, limited teacher awareness of available resources and supports.

Unfortunately, evidence indicates that teachers are not well prepared. For example, a recent report by the National Center for Learning Disabilities (NCLD) found that only 30 percent felt strongly that they could successfully teach students with learning disabilities, and only half believed those students could reach grade-level standards.[19] Improving teacher preparation is a key lever in the education map. This process entails changing existing preparation programs and professional development for teachers as well as others who work with students with disabilities. It also involves changes to federal policy to encourage more training as well as more in-school and in-classroom clinical experience for teachers and other staff (e.g., paraprofessionals, therapists and school counselors).

These limiting factors converge to impact the effectiveness of early intervention, which then affects available capacity to meet the unique needs of students with disabilities. This, in turn, impacts standards for full inclusion in mainstream programming. Together, these factors affect the quality of available programs. When programs are of low quality, they perpetuate disparities in the investment made in students with disabilities relative to their nondisabled peers. (This outcome is examined in more detail through the *success to the successful* archetype.)

Notably, early identification and intervention lead to lower levels of services and lower costs in later years. To achieve better outcomes, it is essential to increase the quality and availability of early developmental screenings, improve the alignment between education and health care agencies, and create smooth transitions between Part C (birth to age two) and Part B (ages three to 21) of the Individuals with Disabilities Education Act (IDEA).

The map demonstrates how investment in students without disabilities leads to greater access to resources. This increases educational attainment levels and provides an easily identifiable return on investment (ROI) for society. That high ROI for the education of students without disabilities reinforces the limited investment in students with disabilities, leading to fewer resources for students with disabilities and lower levels of educational attainment.

The right side of the educational systems map shows a perceived level of *growth and underinvestment*. These start with the rising demand for postsecondary programs and are driven by society's expectations of inclusive settings. The system's ability to meet this demand is hindered by the capacity of universities to serve the unique needs of students with disabilities. In order to overcome this obstacle, universities must invest in accessible, inclusive campus settings and curricula.

This demand and related investments have contributed to the formation of postsecondary programs specifically for students with disabilities. Because of the noted capacity issues, however, standards and expectations are lowered to focus on certificates of completion instead of traditional college degrees as acceptable programmatic outcomes. Though this sequence has increased the availability of postsecondary education options for students with disabilities, the resulting outcomes may not address a fundamental barrier to entry to the labor market and economic and social mobility: the lack of a traditional college degree. On the other hand, it does provide access to jobs that do not require a college degree, which may help to address the cycle of poverty for some.

The final series of archetypes in the group's representation of the education system relates to the transition from school to work. The national high school graduation rate for students with disabilities is only 67 percent, compared to 85 percent for students without disabilities.[20] When students with disabilities do graduate, they frequently face an array of disconnected services and supports. As a result, they have lower college attendance and persistence rates as well as lower rates of employment.

Through legislation, such as WIOA, transition programs and services are typically focused on a target age range of 14 to 21. Described through a *limits to success* archetype, the effort to prepare transition-aged youth for employment is measured by the long-term trends in employment by age, but performance is subject to available capacity within the public and nonprofit sectors to serve this group.

19 Galiatsos, S., Kruse, L., & Whittaker, M. (2019). Forward Together: Helping Educators Unlock the Potential of Students Who Learn Differently. National Center for Learning Disabilities & Understood. Retrieved from: **www.ncld.org/research/forward-together**.

20 U.S. Department of Education, National Center for Education Statistics. (2019). The Condition of Education 2019 (NCES 2019-144). Retrieved from: **https://nces.ed.gov/programs/coe/indicator_coi.asp**.

The limiting factor for achieving aspirational outcomes for this transition is the availability of funding for public and nonprofit sector service providers. Limited funding contributes to insufficient capacity, which hinders substantial advances in the transition from school to work for young persons with disabilities. Within the context of the larger community, participants identified an example of *fixes that fail,* where policies targeting supports for transition-aged youth constrain the availability of services for older adults with disabilities. This archetype is currently playing out in public and nonprofit sector systems, where funding quotas are skewed toward transition-aged youth, yet federal funding has not increased to support the ongoing services for other age cohorts within the community.

In 1975, Congress promised that the federal government would fund 40 percent of special education, but it currently only funds 15 percent. This lack of funding leaves states and districts unable to provide services to students with disabilities and contributes to a culture of scarcity. The IDEA Full Funding Act, introduced in March 2019, would increase federal spending to full funding levels.

As with other portions of the map, the exploration of the education systems is intentionally limited to maintain alignment with the overall objectives of the project. The group cited the specific causal relationships as critical areas contributing to the current state of employment. The map of the education systems leads to the introduction of the health and effectiveness of the professional pipelines that result in employment, either through public and nonprofit sector systems or directly with the private sector. It is important to note that the success or failure of these education systems directly feeds back into the social identity of persons with disabilities as well as the incidence of poverty and isolation.

**KEY ELEMENTS**

- **Starting Element:** Expectations of inclusive educational settings
- **Conceptual Root Cause:** Less value assigned to students with disabilities than those without
- **Key Element(s) of Leverage to Promote Change:**
  – Investment in students without disabilities relative to those with disabilities
  – Resource capacity of universities to serve students with disabilities
  – Preparing transition-aged youth for employment

*"My parents thought that it was really important that my sisters all went to regular school, so I would go to regular school. My parents in some ways treated me just the way that they treated my other sisters."*

**– Liz Weintraub**

# Map Explanation: Professional Pipeline

The group's representation of the professional pipeline topic includes a single systems archetype surrounded by transitional elements to maintain a connection between the education systems and access to work. Participants identified an expanded *limits to success* model to describe parallel behaviors by employers (generally defined as any entity that hires people to perform work) and persons with disabilities. The map begins with the demand by persons with disabilities for skills acquisition and work experience, which is subdivided into vocational training, apprenticeship programs and internship programs. These representative examples of skill building and experiential learning approaches are the general types of services offered through the public and nonprofit sector workforce development systems that are explored later in this report.

The perceived demand for skills and experience leads to the start of the *limits to success* archetype, identified by the effort to expand access to such opportunities for persons with disabilities. Performance toward this goal is dependent on the inclusiveness and accessibility of hiring and training systems, which are impacted by the behavior of employers and persons with disabilities as the primary actors. The effectiveness of hiring and training systems is subject to employers' authentic commitment to make workplaces inclusive. If there is no such commitment, the systems will ultimately underperform and further discourage participation by both persons with disabilities and employers. The limiting factor to employers' authentic commitment is their level of awareness and education, first about the availability of qualified persons with disabilities (commonly cited by employers as the greatest barrier to hiring persons with disabilities); second, about the diverse talents represented by the community; and third, about the risks and costs associated with hiring and accommodating persons with disabilities (commonly cited by employers as the second-greatest barrier to hiring persons with disabilities).

The group concluded that the behaviors of persons with disabilities follow a parallel track with the behaviors of employers, beginning with clarity around their individual career aspirations and confidence in their abilities. A lack of clarity and confidence often results from the reality that persons with disabilities are subject to low expectations by society, which creates multiple barriers to work, including low self-confidence. The level of confidence individuals have in their abilities impacts their interest in exploring the breadth of employment opportunities available in the labor market.
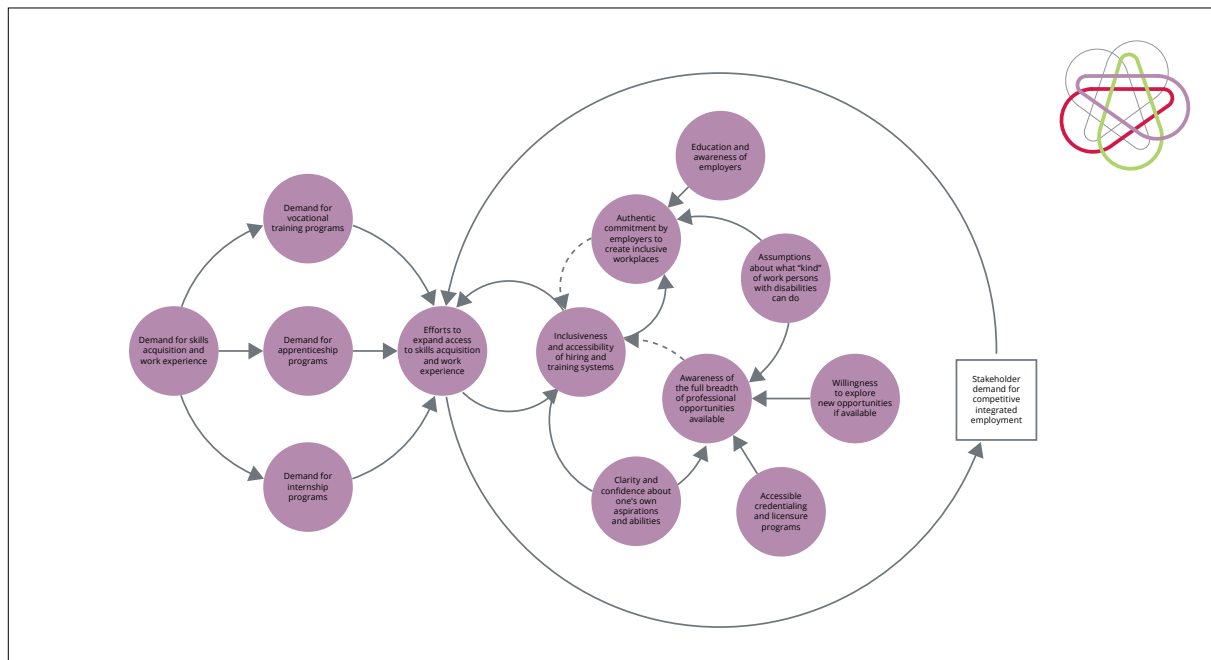
Another factor impacting the awareness of employment opportunities is the accessibility of credentialing and licensure programs and the level of risk individuals are willing to take to pursue available jobs. The employer and the individual paths also shared a limiting factor regarding perceptions of the types of work persons with disabilities can do. Fundamentally questioning the capacity persons with disabilities have in relation to work is commonplace and a direct representation of the perpetuation of longstanding social stigmas. In truth, the diversity of jobs persons with disabilities can succeed in matches the diversity of the community itself.

**KEY ELEMENTS**

- **Starting Element:** Demand for skills acquisition and work experience

- **Conceptual Root Cause:** Education and awareness of employers

- **Key Element(s) of Leverage to Promote Change:**
    - Inclusiveness and accessibility of hiring and training systems
    - Awareness of the full breadth of professional opportunities available
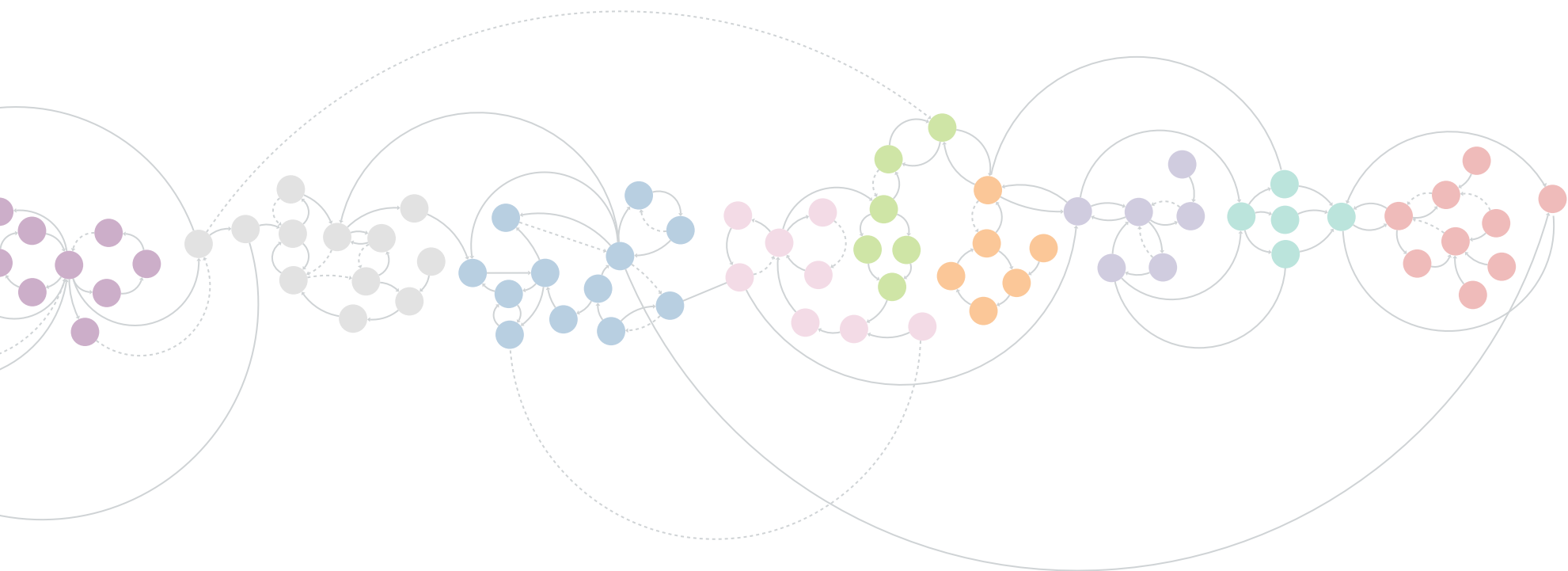
# Map Explanation: Access to Work

The group identified three archetypes that shed light on the physical and technological barriers faced by persons with disabilities. The first, *growth and underinvestment,* explores how persistent system barriers counter the demand for access. In turn, this interplay of factors leads to the diverging archetypes of *limits to success,* focused on the transportation system, and *success to the successful,* which offers a commentary on technology. While this narrative only scratches the surface of access-related barriers to employment, it represents consistent themes that impact the current situation and are likely to be growing factors in the future.

The *growth and underinvestment* archetype begins with a positive trend in stakeholder demand for competitive integrated employment. This trend, in turn, leads to demand for physical and technological accessibility. Progress toward meeting expectations is dependent on employers' awareness of and responsiveness to changing social norms. A change in behavior among employers contributes to a recognition of the need to address systemic barriers. At this point in the archetype, a limiting factor is introduced: Regulations that focus on accessibility often fall short of actual usability by persons with disabilities. This limiting factor results in delays in improvements that could increase universal access, which results in systemic barriers that persist over an extended period and cycle back to employers' awareness and responsiveness.

This limited investment in critical areas of accessibility is particularly apparent in the areas of transportation and technology. While great strides have been made in both areas as a result of the Americans with Disabilities Act, they continue to be significant challenges to inclusive employment. The issues with transportation are represented as a *limits to success* archetype in which the need for investment results in the frequent identification of transportation as a primary barrier. Progress in this area is limited by the extent to which the transportation infrastructure uses universal design principles, which is further constrained by a lack of inclusive urban planning strategies.
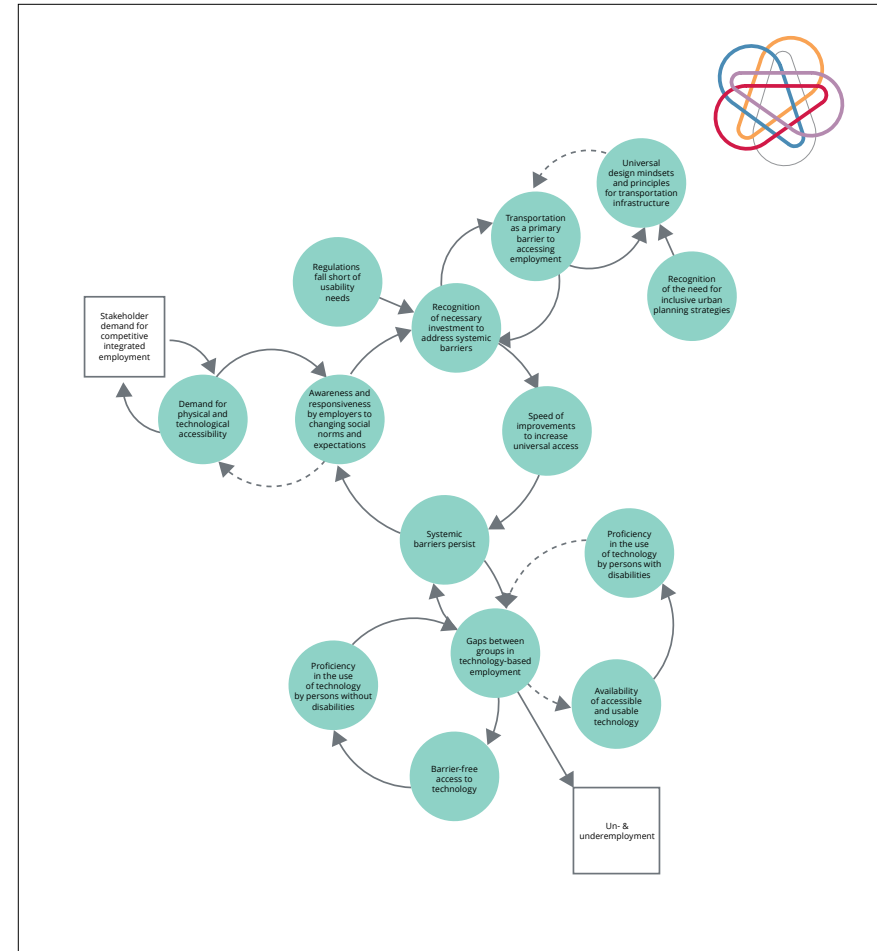
From a technology standpoint, examples from the group reflected the present and potential future gap in mastery between persons with and persons without disabilities. The map represents this issue in a *success to the successful* model. In this archetype, persons without disabilities typically have a resource that is not available to many persons with disabilities – namely, barrier-free technology – because of the difference in user experience. The improved user experience for persons without disabilities leads to greater technological proficiency because they are not encountering the barriers persons with disabilities may confront. Conversely, limited availability of accessible and usable technology has a negative impact on the technological proficiency of persons with disabilities. The net result of this interaction between general availability and the opportunity for mastery is observable gaps in technology-based employment in the present. As technology becomes a more integral part of even more jobs, these gaps have the potential to grow unless there is purposeful intervention.

**KEY ELEMENTS**

- **Starting Element:** Stakeholder demand for competitive integrated employment

- **Conceptual Root Cause:** Recognition of necessary investments to address systemic barriers

- **Key Element(s) of Leverage to Promote Change:**
  – Focus on regulations that fall short of usability needs
  – Barrier-free access to technology
  – Universal design mindsets and principles for transportation and infrastructure
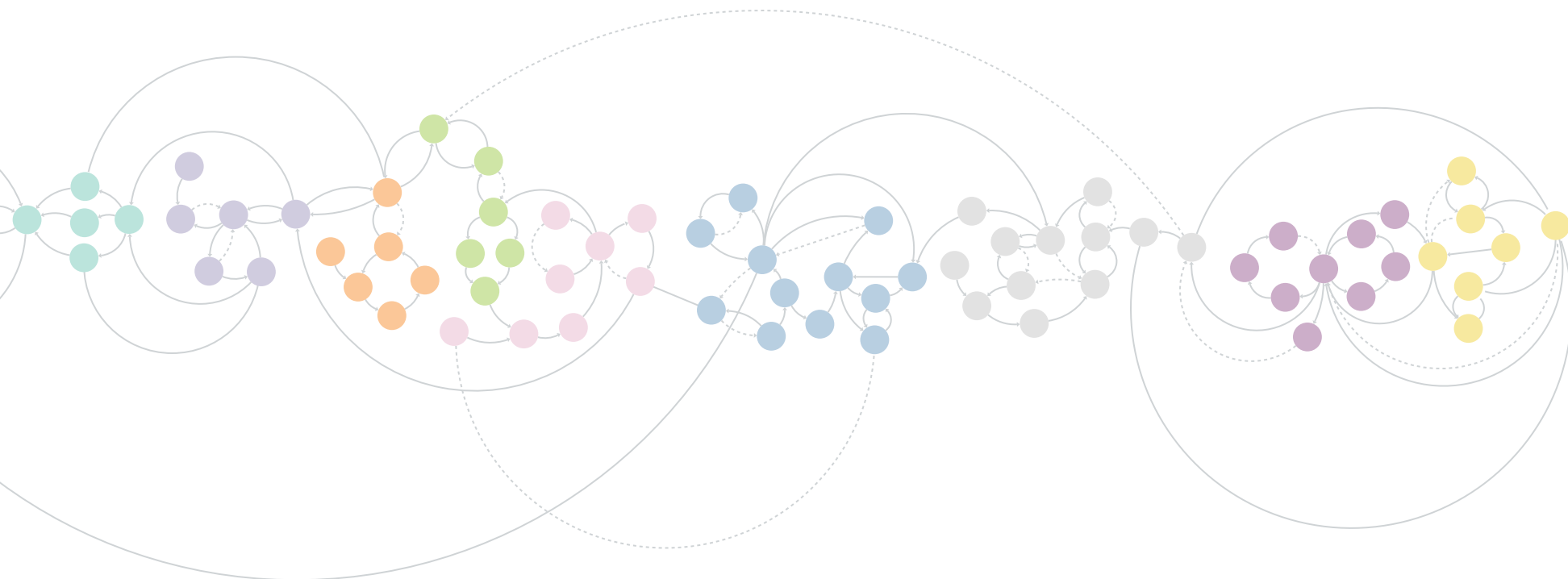
# Map Explanation: Public and Nonprofit Sector Systems

This portion of the map contains a substantial amount of detail due to the composition of the group and the high reliance on public and nonprofit sector systems to create employment for persons with disabilities. Through analysis following the working sessions and engagement with advisory committee members, participants identified seven linked archetypes that offer a comprehensive view of the present state of public and nonprofit sector employment systems. Sequentially, the archetypes reveal how, despite common goals, there are environmental factors that negatively impact the capacity of both systems, reducing the levels of labor market inclusion of persons with disabilities. The associated sub-narratives also depict how the private sector has become the primary focal point of activity, but the persistence of stigma and low expectations explored earlier in the report continue to be a barrier to progress.
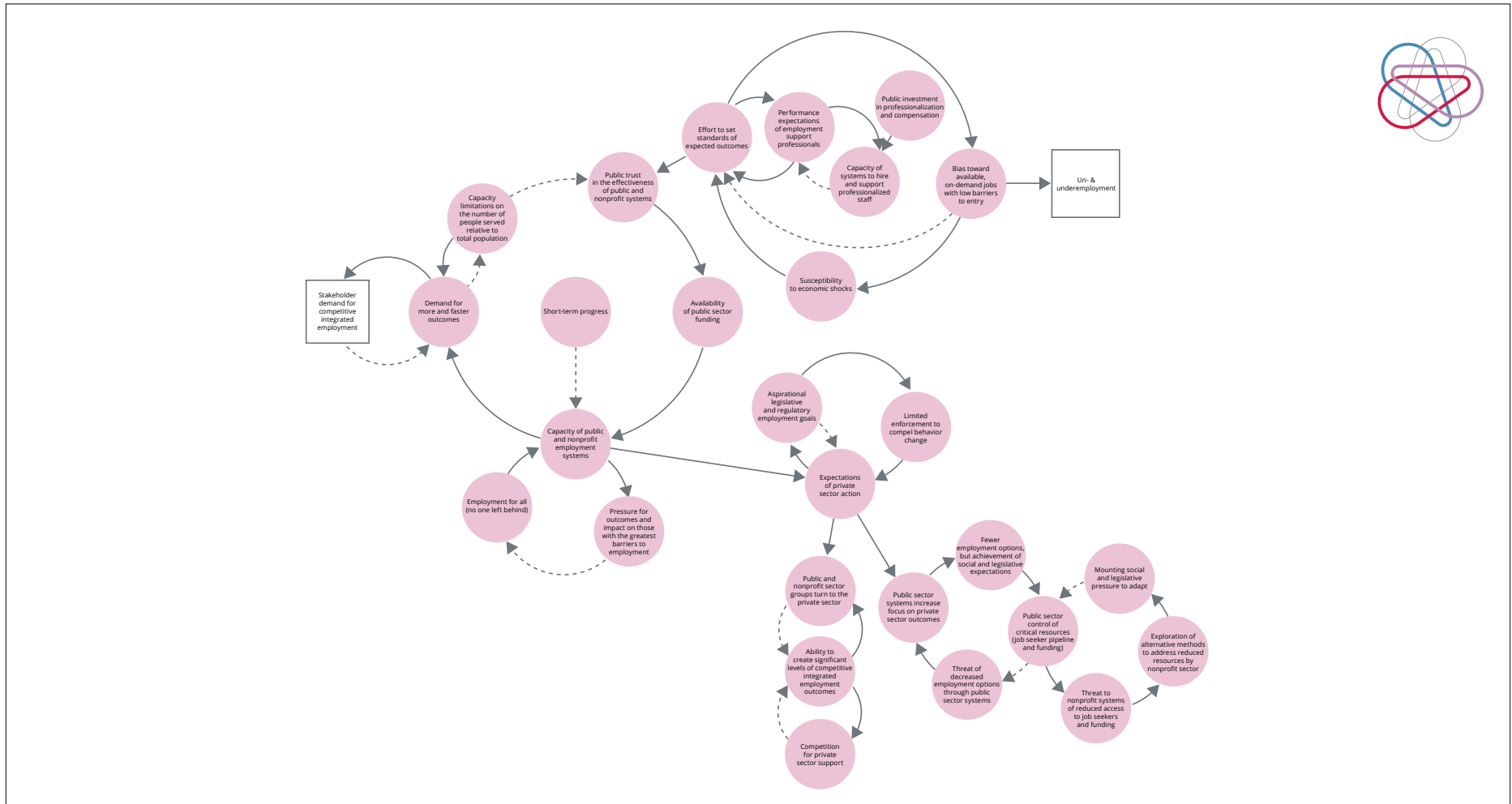
The map of the public and nonprofit sector systems begins with a *growth and underinvestment* archetype. This archetype represents the effort to achieve competitive integrated employment, which leads to a demand for improvement in the number of desired employment outcomes (and the speed at which they are achieved). Performance in meeting this demand is hindered by the capacity of both the public and nonprofit sector systems to serve a significant number of the total population of persons with disabilities who are disconnected from the labor market. Barriers to achieving expected performance impact the level of public trust in the effectiveness of the systems, which impacts the standard of expected performance and the availability of funding as public officials respond to social sentiment. The availability of funding has a direct relationship to the capacity of the systems to sustain and improve performance, which then affects the scalability.

The outcomes represented by the *growth and underinvestment* archetype are further influenced by interrelated archetypes of *limits to success* and *fixes that fail.* The *limits to success* archetype begins with the holistic effort to set standards for expected outcomes, which influences the performance of employment support professionals. The performance of these primary facilitators of employment for persons with disabilities is limited or enhanced by the systems' capacity to hire and support them. A major constraint in this scenario is the level of investment in the professionalization and compensation of employment support staff within the public and nonprofit sectors.

Surrounding this *limits to success* sub-narrative is a *fixes that fail* archetype that begins with the effort to set standards for outcomes but is diluted by a bias toward available jobs with low barriers to entry. This bias is evident in the job areas where persons with disabilities, especially those with the greatest barriers, are likely to be employed (typically identified as low-wage, low-skilled positions). These jobs are typically the most susceptible to economic shocks, leading to a reinforcement of the "last hired, first fired" paradigm experienced by many persons with disabilities.

Continuing from the *growth and underinvestment* narrative, the group identified a *drifting goals* sub-narrative that speaks to a mantra espoused by domestic and international groups: Leave no one behind. The *drifting goals* archetype begins with the goal of employment for all, which challenges the capacity of public and nonprofit sector systems to deliver on this promise. These systems experience an ongoing expectation of high outcomes regardless of their capacity. These expectations result in organizations focusing their services on the individuals who are positioned to enter the labor market more quickly at the expense of the persons with the greatest barriers to employment. This loop leads to an expectation for private sector employers to become more inclusive in their workforce composition, which can drive short-term progress due to a diminished focus on, and lower expectations for, the employment of individuals with significant barriers. The net result undermines the spirit of leaving no one behind and is visible in the employment trends for groups of individuals who are generally perceived as more difficult to hire and retain, such as persons with intellectual and developmental disabilities.

The next section of the public and nonprofit sector systems map depicts a *shifting the burden* archetype as attention turns to the private sector. Because of the limited ability of the public and nonprofit sector systems to create the significant levels of competitive integrated employment outcomes that would meet social and legislative priorities, they turn to the private sector. But this demand on the private sector creates a dependence on their action, which can perpetuate the limits of the current systems to achieve results. At the same time, the strategy of engaging the private sector creates nonproductive levels of competition between the systems and the actors within them. This competition and lack of cooperation can overwhelm private sector companies, contributing to limited progress.

Related to the *shifting the burden* dependence on the private sector is a *fixes that fail* archetype depicting the results of government intervention aimed at compelling the private sector to increase its employment of persons with disabilities. The expectation on the private sector to act results in the establishment of aspirational legislative and regulatory employment goals. Because of limited enforcement, however, there is less incentive to compel the private sector to prioritize the employment of persons with disabilities. The net result is a limited understanding of the level of employment these goals could achieve and low motivation by companies to comply.

The final public and nonprofit sector employment archetype contained in the map depicts the increase in friction between the two systems. To explain this sub-narrative, the group selected the *escalation* archetype. This escalation is a direct result of the growing demand for competitive integrated employment outcomes and the separation of public and nonprofit sector systems due to perceptions that traditional methods do not result in this type of employment. On the map, the left side of the *escalation* archetype demonstrates how the public sector is under threat because decreased use of nonprofit disability service providers lowers the potential number of available employment outcomes. This threat compels them to increase their focus on the private sector. While the private sector may produce fewer outcomes in the aggregate, those outcomes are typically preferred because of their compliance with the tenets of competitive integrated employment.

The right side of the archetype shows the parallel actions taken by the nonprofit sector system as a result of the threat of reduced access to funding and job seekers. In response, nonprofit entities are exploring alternative methods for receiving funding to maintain their mission and ongoing employment supports for persons with disabilities. The result is mounting social and legislative pressure on nonprofit service providers to adapt their models.

The *escalation* archetype demonstrates how the public sector ultimately maintains a stronger position because of its control over the funding and pipeline of job seekers that the nonprofit sector system has relied upon since its inception. Unfortunately, the results of limiting the number of possible employment outcomes results in growing waiting lists for services leading to discouragement and detachment from the labor market.

**KEY ELEMENTS**

- **Starting Element:** Demand for more and faster outcomes

- **Conceptual Root Cause:** Expectations of private sector action

- **Key Element(s) of Leverage to Promote Change:**
  - Capacity of public and nonprofit employment systems
  - Public investment in professionalization and compensation

*"Hiring people with disabilities is not just about meeting regulations, it's about innovation. People with disabilities have this incredible creativity."*

**– Frances West**

# Map Explanation: Modern Hiring Practices

The group's exploration of the systems elements of modern hiring practices is depicted in a *tragedy of the commons* archetype. The map begins with a connecting element regarding employer preparedness to hire, retain and accommodate persons with disabilities. From here, the group turned its attention specifically to the role of technology in identifying and screening job candidates.

Many organizations are using artificial intelligence (AI) algorithms to assess potential employees. However, these algorithms are only as good as the data used to create them. When that data only or largely involves a majority group, the AI can unintentionally screen out other candidates based on gender, race and – most relevant to this project – persons with disabilities. In other words, if the algorithm doesn't know that persons with disabilities can be effective employees, it will not select such individuals as job candidates. Because of the ubiquitous nature of technology-enabled human resources practices, participants found that concern over algorithmic bias as a barrier presently outweighs the potential positive impacts of using AI in the hiring of persons with disabilities.

Following the archetype from top to bottom, the bias toward candidates without disabilities is reinforced by the likelihood that their profiles will generally align with the idealized candidates that AI tools are programmed to look for. The algorithm's success in finding the "ideal" candidates reinforces the role of AI in the hiring process, which results in increased use, and by extension, efficiencies in screening and selecting candidates with similar traits. Because the technology may detect candidates with disabilities as outliers, they are less likely to advance in the screening and selection process. This scenario is a direct outcome of the bias of the human beings designing artificial intelligence programs as well as the lack of available data sets about candidates with disabilities. Based on the group's discussion, compounding this issue is the poor accessibility and usability of recruitment platforms. Both AI and accessibility problems create barriers for persons with disabilities to be accurately and positively represented, resulting in reduced opportunities to enter the labor market.
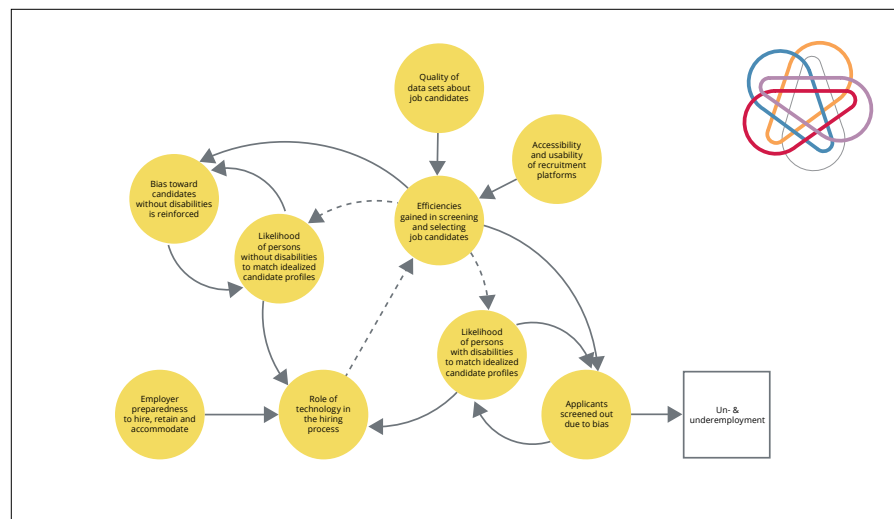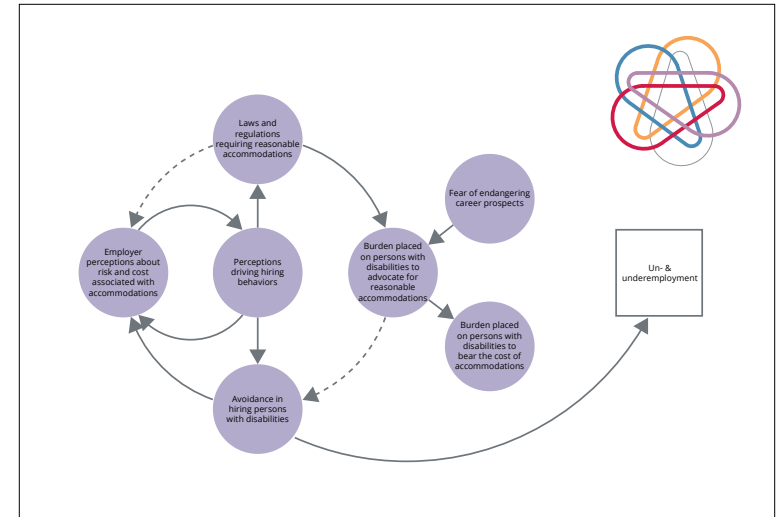


**KEY ELEMENTS**

- **Starting Element:** Employer preparedness to hire, retain and accommodate

- **Conceptual Root Cause:** Likelihood of persons with disabilities to match idealized candidate profiles (algorithmic bias)

- **Key Element(s) of Leverage to Promote Change:**
  - Quality of data sets about job candidates
  - Accessibility and usability of recruitment platforms

# Map Explanation: Accommodations

The group's discussion on the role of accommodations in inclusive employment resulted in the use of a *shifting the burden* archetype to demonstrate that the onus is commonly placed on the individual rather than the employer, despite legislative frameworks. With regard to the connecting element of employer preparedness to hire, retain and accommodate persons with disabilities, the map cites companies' ongoing fears regarding the risks and costs involved with understanding and providing workplace accommodations.

Beginning from the top of the map, it shows that the laws and regulations requiring reasonable accommodations can drive the trepidation associated with risk and costs. Employers' anxiety is due, in part, to the general assumption that persons with disabilities are prone to litigation when accommodations are not provided as expected. A self-reinforcing loop exists in which these concerns impact hiring behavior, which then leads to an increase in laws and regulations. The result is that employers avoid hiring persons with disabilities. Increased avoidance and limited representation of persons with disabilities may then perpetuate concerns over risk and costs because there is no compelling reason to confront the issue if the company is not receptive to hiring persons with disabilities.



Overall, this series of events places the burden on persons with disabilities to continuously advocate for their right to reasonable accommodations. Their capacity to do so, especially without universal acceptance and support from employers, is limited by a fear of losing current or potential career opportunities and being required to personally bear the financial burden of accommodations if they are not deemed reasonable when requested.

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**KEY ELEMENTS**

- **Starting Element:** Employer preparedness to hire, retain and accommodate

- **Conceptual Root Cause:** Perceptions driving hiring behaviors

- **Key Element(s) of Leverage to Promote Change:**
  - Avoidance in hiring persons with disabilities
  - Burden placed on persons with disabilities to advocate for reasonable accommodations
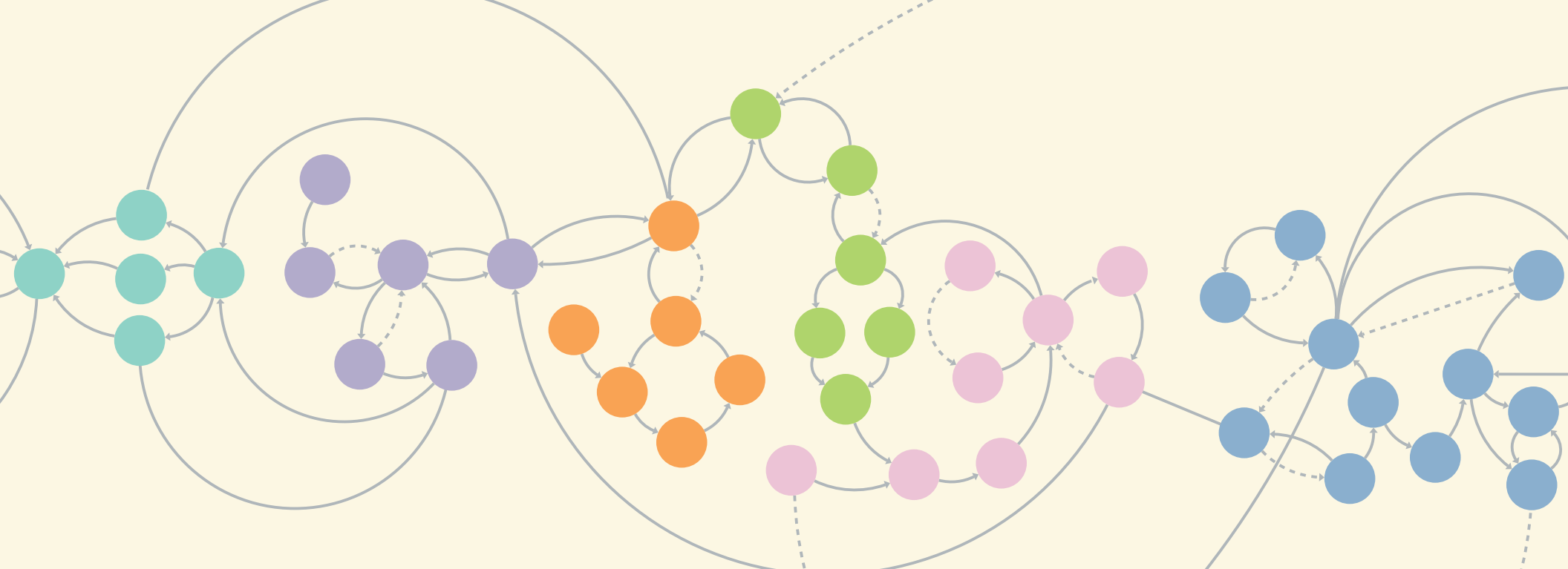
# Recommendations for Systems Change

The group's exploration of the present disability employment landscape and consideration of the key factors that may shape the future led participants to develop a core set of recommendations for change. One challenge set forth at the outset of the project was to identify specific areas of intervention that can contribute to significant progress. The following recommendations are meant to serve as a framework for collaborative advocacy with policymakers to impact current and future legislation or to serve as the basis for new demonstration programs. They span a range from practical to aspirational. Group members recognize that the level of change they collectively aspire to achieve will require sustained commitment and investment by all stakeholders.

# Recommendation 1

## Improve Disability Data Clarity and Collaboration

The algorithms used to identify potential employees are only as good as the data on which they are based. This recommendation, in its initial stage, proposes a pilot program to assess the data around persons with disabilities that could then be used to better calibrate algorithms to prevent bias toward persons with disabilities in the education and employment systems. To be successful, this approach must include persons with disabilities in the development of data sets that will invariably impact their access to future opportunities. Aspirationally, the entire data collection process could be reimagined through crowdsourcing, thus empowering individuals to have control over their self-disclosed information.

### NEEDS OR CHALLENGES TO BE ADDRESSED

- Data needs to be responsive to real-time changes in situations.

- Individuals have avenues to provide data but lack a platform.

- Individuals lack control over their information and how it is used.

### TRENDS OR FUTURES ANTICIPATED

- Increased reliance on data-driven decision making through algorithms.

- A greater willingness of individuals to claim an identity through crowdsourcing and social media.

### SHORT- AND LONG-TERM STAGES

- Research current trends and develop a list of existing efforts to address noted gaps in data on persons with disabilities.

- Conduct random sampling of 1,000 persons with disabilities to determine needed data.

- Develop a secure platform where individuals can self-report data and demonstrate potential benefits.

# Recommendation 2

## Create an Open-Source Interface for Artificial Intelligence (AI) Modeling of Policy and Regulatory Change That Can Serve as a Single Integrator of Policies and Regulations Impacting Persons with Disabilities at the Federal Level
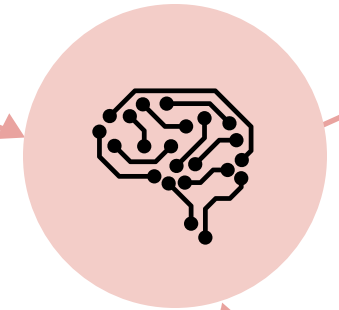
This recommendation was developed as a result of issues identified in the advocacy and policymaking sub-narrative. Given the competing interests and desires expressed by different groups during the policymaking process, policymakers do not have a neutral party to inform them of the possible consequences of legislative and regulatory actions. The recommended approach is to create an open-source interface that, using big data and predictive algorithms, would allow policymakers to model the potential impacts of their decisions. Used primarily by Congress, with access given to federal, state and local agencies, the interface would store all current policies and regulatory data impacting persons with disabilities. The interface would be used to identify conflicts between current policies and would be able to model the impact of proposed changes. It would also be available to the public for transparency. Ultimately, this could be used by, or as a precursor to, a central integrator of all public policies and regulations impacting the disability community.

### NEEDS OR CHALLENGES TO BE ADDRESSED

- Currently, there are multiple federal, state and local entities creating, interpreting and implementing policies that impact persons with disabilities.

- There is no central data-driven decision-making tool to inform policymakers and regulators of redundancies, inconsistencies, conflicts and unintended consequences of new policies and regulations.

### TRENDS OR FUTURES ANTICIPATED

- Increased use of AI and machine learning.

- Root cause of conflicts and barriers to progress addressed – leading to purposeful decision on whom to serve and whom not to serve.

- Nimble responsiveness to disruption through data-driven policy and regulatory interventions.

### SHORT- AND LONG-TERM STAGES

- Create a full accounting of all policies and regulations that impact persons with disabilities, including associated budget allocations and measured outcomes.

- Design test phases with key stakeholders, building from existing technology on agent-based modeling.

- Determine scalability and long-term costs and benefits.

# Recommendation 3

## Redesign and Improve Individualized Education Plans and Vocational Rehabilitation Plans

During the workshop sessions, the group identified a lack of consistency in the educational and job plans that are developed for persons with disabilities. Throughout their educational life, students with disabilities have an individualized education plan. These plans are intended to guide their education and growth. However, these plans do not include plans for post-education work and do not transition with students after they graduate. The group believed that holistic plans that take into consideration education, employment and impacts to medical benefits would better serve individuals as they transition from school to work.

### NEEDS OR CHALLENGES TO BE ADDRESSED

- Medical, education and employment plans need to be seamlessly connected over the lifetime for persons with disabilities.

- Biases about what people can do need to be addressed.

### TRENDS OR FUTURES ANTICIPATED

- Greater understanding of how to – and the importance of – expanding personalized learning plans for all without sacrificing specific supports and civil rights for students with disabilities.

- Fulfilling policy goals by linking disconnected programs to build continuity in services throughout a person's life and establish a clear path for achieving their career goals.

### SHORT- AND LONG-TERM STAGES

- Identify what needs to change (assessments, policy on funding following the child, data collection and evaluation, etc.).

- Determine how to personalize but maintain standardized processes and evidence-based strategies.

- Educate medical professionals and academic professionals about disability and early intervention.

- Pilot at the state level before going national.

# Recommendation 4

## Implement Non-Income Based Long-Term Support Services (LTSS) in the Workplace

Tying support services, such as Social Security Disability Insurance (SSDI), to income levels was identified early on as a barrier to employment. Many working group members commented on the fear among persons with disabilities of losing supports if they earn too much money. Currently, businesses do not offer expanded Home and Community Based Services (HCBS) benefits. HCBS is a state waiver that does not transfer into professional workplace settings. Employees requiring supports beyond what may be considered reasonable accommodations cannot access them, and it keeps them in a cycle of poverty. Detaching support services from income levels was viewed as a way to decrease the fear of losing supports and increase the number of people engaged in the labor market.

### NEEDS OR CHALLENGES TO BE ADDRESSED

- There is a disincentive for persons with disabilities to increase their earnings – reinforcing the outcome of poverty resulting from stigma and discrimination and un- or underemployment.

- The present framework for qualifying for benefits prevents upward mobility.

- There are variations in supports between states.

### TRENDS OR FUTURES ANTICIPATED

- Increasing corporate interest in diversity and inclusion, resulting in a willingness to provide workplace accommodations.

- Increasing international pressure for domestic public policy alignment with the objectives of the United Nations Convention on the Rights of Persons with Disabilities.

- Increasing international pressure to support achievement of the United Nations Sustainable Development Goals.

### SHORT- AND LONG-TERM STAGES

- Conduct comprehensive research on the benefits of non-income based long-term support services.

- Review international approaches.

- Convene a meeting of experts from across stakeholder groups to identify issues and model new approaches.

- Develop and launch demonstration programs to measure outcomes.

# Recommendation 5

## Enhance Telepresence in Remote Work

Remote work has already changed the way people engage with work, and it has the potential to greatly decrease barriers and increase access to work for persons with disabilities. Despite advances in making workplaces more accessible, many of them mandated by the Americans with Disabilities Act, work continues to be inaccessible for a significant number of persons with disabilities. This is not just due to inaccessible work environments, but also to a lack of transportation and limited accommodations at work. Given technological advances, remote work and telework have become viable and mainstream. Increasing access to remote work opportunities may significantly reduce a number of the barriers impacting access to work.

### NEEDS OR CHALLENGES TO BE ADDRESSED

- There is a disconnect between remote work from work culture and career advancement (isolation from physical workplace).

- There needs to be flexibility in work location to address multiple physical, psychosocial and economic barriers to ideal employment outcomes.

### TRENDS OR FUTURES ANTICIPATED

- Robotic advancement for office rovers.

- Growth of augmented reality (AR), mixed reality (MR), virtual reality (VR) and extended reality (XR).

- Accelerating growth of the gig economy.

- Increase in the availability of remote work.

### SHORT- AND LONG-TERM STAGES

- Source appropriate technology.

- Develop metrics and evaluation plan for pilot programs.

- Verify accessibility of telepresence devices and systems.

- Initiate pilots of:
  - Telepresence technology;
  - Robotic rovers that can integrate with the workplace for remote workers; and
  - Accessible simulation of the workplace for remote employees with disabilities.

- Develop funding and promote the ubiquitous use of telepresence supporting rovers and AR/MR/VR/XR for remote workers.

# Recommendation 6

## Make Diversity and Inclusion More Inclusive

Despite employers paying more attention to diversity in the workplace, many times these diversity efforts overlook the inclusion of persons with disabilities. To decrease stigma and the persistent low expectations placed on persons with disabilities, more education of employers is needed. Such education is an important step in overcoming mindsets that assign persons with disabilities to a limited number of occupations based on perceptions of their capabilities. If employers recognize that persons with disabilities are an incredibly diverse community – with interests, qualifications and abilities that far exceed longstanding stigmas – significant progress can be achieved.
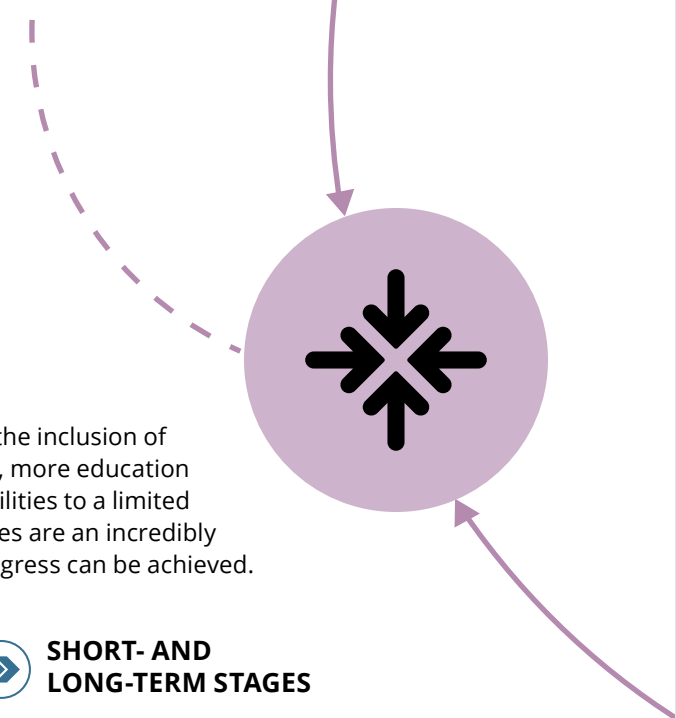
### NEEDS OR CHALLENGES TO BE ADDRESSED

- Underemployment and cyclical unemployment may be addressed by better matching jobs with individuals' skills and interests – resulting in outcomes that also address workplace stigmas because of successful results.

- There is an increasing interest on the part of employers in workplace diversity along with changing societal expectations of the inclusion of persons with disabilities.

- Often employers overlook the need to include accommodations and accessibility as part of their diversity and inclusion strategy, undermining their ability to find and retain talented employees.

- As the nature of how, when and where people work changes, there is the potential for expanded employment opportunities for persons with disabilities.

### TRENDS OR FUTURES ANTICIPATED

- Diversity and inclusion initiatives become more popular and successful.

- AI and machine learning used more in hiring and career mapping.

- Technological advances change the nature of work and jobs.

### SHORT- AND LONG-TERM STAGES

- Educate and train employers, including on the impact of future market changes.

- Ensure skill acquisition programs for persons with disabilities stay in step with the changing nature of work.

- Continue process improvement, engagement and transparency with stakeholders.

- Change the narrative about persons with disabilities in and across industries and the business community.
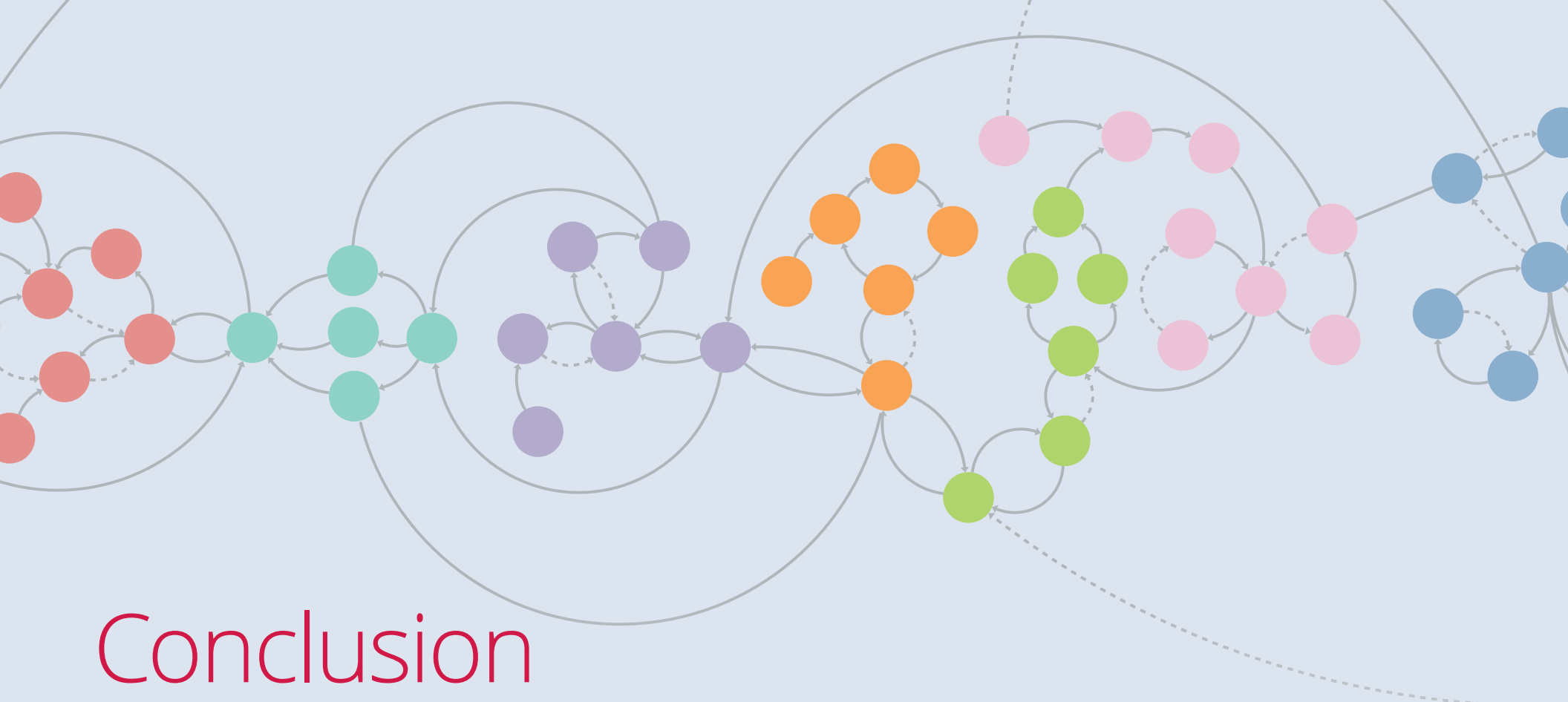
# Conclusion

The present-day dialogue around the future of work mostly excludes persons with disabilities. To address this issue and broaden the conversation, representatives from multiple private, public and social sector organizations gathered to collaborate and gain a better understanding of the nature of disability employment in the U.S. and how to achieve a more inclusive labor market. This project resulted in maps that demonstrate the complexity of the subject and a set of recommendations that aim to improve the outcomes of overlapping, interconnected systems. The hope for this report is that the initiative's resulting collaborative framework will serve as a practical and useful foundation for improving access to meaningful and sustainable careers for persons with disabilities. While it is impossible to predict what the coming years will bring, what is certain is that everyone has a role to play in shaping a more inclusive future.