State of Minnesota

Olmstead Plan Quality of Life Survey Baseline Report

A comprehensive and longitudinal study of the quality of life of a sample of Minnesotans with disabilities.

Submitted by The Improve Group

Accepted by the Olmstead Subcabinet
March 26, 2018

Acknowledgements

We would like to thank the following individuals for their contributions to the Olmstead Quality of Life Baseline Survey.

Interviewers

Anne Flueckiger
Barbara Hinz
Cassie Fredricks
Cheryl Morris
Dan Pysno
Dave Edens
Erika Herrmann
Erin McCloskey
Jami Jerome
Jenna Askevold
Jennifer Onsum
Julie Olson
Julie Vogeler
Katrina Simons
Kilomarie Granda
Laura Leeson
Levi Martin
Mark Adzick
Pamela Johnson
Pepper (Adeline) Green
Steve Guberman
Teresa O'Keefe

Advisory Group members

Darlene Zangara, Olmstead Implementation Office (OIO)
Diane Doolittle, OIO
Melody Johnson, OIO
Mike Tessneer, OIO
Dan Newman, Minnesota Department of Human Services (DHS)
Claire Wilson, DHS
Colleen Wieck, Minnesota Governor's Council on Developmental Disabilities
David Sherwood-Gabrielson, Minnesota Department of Employment and Economic Development (DEED)
Eve Lo, DEED
Dr. Jim Conroy, Consultant
Nagi Salem, Minnesota Department of Health
Sarah Thorson, DHS

A special thank you to the Center for Outcome Analysis and Dr. Jim Conroy for their support in adapting the Quality of Life survey tool for Minnesota's Olmstead Plan.

For additional information or to receive this report in an alternative format please contact the Olmstead Implementation office at (651) 296-8081 or MNOlmsteadPlan@state.mn.us.

Contents

Acknowledgements 2
  Interviewers 2
  Advisory Group members 3
Executive summary 8
  People surveyed 8
  Data Limitations 8
  Survey Results 9
    Decision-making. 9
    Quality of life. 9
    Earnings. 9
    Outings. 9
    Integration. 9
    Relationships. 9
  A baseline 10
Purpose 11
Background 11
  Key process steps timeline 12
Methodology 13
  Tool selection 13
  Population of interest 13
    Who is not included 15
    Data sources 15
  Sampling 16
  Race and ethnicity 16
  Outreach and consent process 17
    Outreach 17
    Service providers 17
    Case managers and other contacts 18
    Consent process 18
    Considerations for consent process 18
    Statistics 19
Conducting the survey 19

- Survey structure 19
- Survey modes 20
  - Alternative modes 20
  - Person-centered approach 20
- Communication accommodations 20
- Barriers to completion 21
  - Survey length 21
  - Survey content 22
  - Interruptions to schedule 22
  - Communication needs 22
  - Outdated contact information 22
- Training of interviewers 22
- Abuse and neglect 23
  - Documentation and reporting 23
  - Training 24
  - Reported incidents of abuse and neglect 24

Analysis 24
- Subgroups for analysis 24
- Statistical methods 24

Results 25
- Demographic breakdown 25
- Geographic breakdown 26
  - Disability type 27
- Survey analysis 27
- Community Integration and Engagement: Time, Money, and Integration During the Day 28
- Community Integration and Engagement: Integrative Activities Scale 32
- Decision Control Inventory 35
- Quality of Life inventory 37
- Closest Relationships Inventory 38
- Assistive technology 40
- Limitations 41
  - Weighting Data 41
  - Comparability 41

        - Non-response and declining to participate 41
        - Self-reported data and proxies 42
- Experiences from the field 43
- Considerations for future work 43
    - Data quality 44
    - Next steps 44
- Bibliography 45
- ADDENDUM: 46
- Olmstead Plan Quality of Life Survey Baseline Report 46
    - Purpose 47
    - Overview on the approach and criteria for weighting outcome scores 47
    - Weighting Results 48
        - Service Setting 48
        - Primary Diagnosis 49
        - Guardianship Status 50
        - Race 50
        - Age 51
        - Gender 52
        - Geographic region 53
    - Weighting recommendations and future analyses 55
    - Outcomes by day and residential services 56
        - Overview 56
        - Explanation of analysis 56
        - Results 56
        - Community Integration and Engagement: Time, Money, and Integration During the Day 57
        - Community Integration and Engagement: Integrative Activities Scale 60
        - Decision Control Inventory 61
        - Quality of Life inventory 62
        - Closest Relationships Inventory 62
        - Assistive technology 63
    - Conclusion 64
- Appendix A: Survey results by region 66
    - Section overview 66

Community Integration and Engagement: Integrative Activities Scale 71
Decision Control Inventory 72
Quality of Life Inventory 73
Closest Relationships Inventory 74
Assistive technology 76
Appendix B: Survey Results by Service Setting 78
Section overview 78
Community Integration and Engagement: Time, Money, and Integration During the Day 78
Community Integration and Engagement: Integrative Activities Scale 85
Decision Control Inventory 86
Quality of Life Inventory 88
Closest Relationships Inventory 89
Assistive technology 91
Appendix C: Survey Results by Disability Type 94
Section overview 94
Community Integration and Engagement: Time, Money, and Integration During the Day 94
Community Integration and Engagement: Integrative Activities Scale 99
Decision Control Inventory 100
Quality of Life inventory 101
Closest Relationships Inventory 101
Assistive Technology 104

Executive summary

The Olmstead Quality of Life Survey is designed to assess and track the quality of life for people with disabilities. The results of this survey will be critically important to understanding how the State of Minnesota is meeting the goals of the Olmstead Plan.

People surveyed

The survey was conducted between February 2017 and November 2017. At completion, 2,005 people that were selected by random sample participated in the survey. This survey was designed specifically for people with disabilities of all ages who are authorized to receive state-paid services in potentially segregated settings. This survey seeks to talk directly with individuals to get their own perceptions and opinions about what affects their quality of life. The primary groups included in the survey sample are:

- People with physical disabilities
- People with intellectual/developmental disabilities
- People with mental health needs/dual diagnosis (mental health diagnosis and chemical dependency)
- People who are deaf or hard of hearing
- People who are blind or visually impaired
- People with brain injuries

The settings from which the survey sample was drawn were selected based on a 2014 report developed by the Minnesota Department of Human Services for the Olmstead Subcabinet.[1] The report highlighted potentially segregated settings. These settings include:

- Center Based Employment
- Day Training and Habilitation (DT&H)
- Board and Lodging
- Supported Living Facilities (SLF)
- Boarding Care
- Nursing Facilities and Customized Living Facilities
- Community Residential Services (Adult Foster Care and Supported Living Services)
- Intermediate Care Facilities for Persons with Developmental Disabilities (ICF/DD)

Data Limitations

The results in this report reflect the experiences of the participants and speak directly to the settings from which the sample was drawn. The results are not generalizable to all people with disabilities in Minnesota. The survey sample was drawn randomly from well-defined groups of people receiving supports—for these groups specifically, the ability to draw generalizations from this data is very strong.

---

[1] MN Department of Human Services. (2014). Minnesota Olmstead Plan: Demographic Analysis, Segregated Setting Counts, Targets and Timelines.

This report should be viewed as a general analysis of the collected data and does not include any sophisticated analysis such as weighting or regression.[2]

Please refer to the Limitations section for a further breakdown of potential data issues (Page 38).

Survey Results

The Quality of Life survey is comprised of five distinct modules that measure different aspects of daily life. Each module is calculated separately and are unique scores. The overall results for each module are as follows:

Decision-making.

- The survey measured participants' decision-making, as compared to what decisions paid staff made for them. This was scored 0 to 100 on the Decision Control Inventory (DCI). Minnesota's average DCI score is 66.2 out of 100.

Quality of life.

- Interviewers asked participants 14 questions, the answers to which were then calculated into an overall quality of life score. Minnesota's baseline quality of life score is 76.6 out of 100.

Earnings.

- More than 800 participants reported some earnings, including wages or piecework. On average, participants earned $95 per week. Hourly earnings ranged from $3.30 to $7.60 depending on employment type.

Outings.

- Participants averaged 32 outings per month, which is lower than the general population (46 outings outside the house per month, not counting work).[3]

Integration.

- Integration scores are highest for activities such as competitive employment, self-employment, volunteer work, and supported employment. In contrast, integration is lowest in day training and habilitation, sheltered employment or workshops, and adult day programs. This is consistent with other research. However, these scores indicate a higher level of potential segregation in certain community-based settings.

Relationships.

- Relatives were the most commonly reported relationship type (46 percent), followed by staff of any type (26 percent), and other friends (22 percent).

---

[2] In order to generalize to all people receiving supports across service settings, careful weighting might improve accuracy. Weighting based on geographic location was tested and found to make very little difference at this baseline stage of the work. We will continue to test weighting in future sample years to be certain about whether it is necessary.

[3] Center for Outcome Analysis. (2017). Service Excellence Summary: Baseline Data Summary for Briefing. Prepared for Clearwater Council of Governments.

A baseline

The Quality of Life survey is designed to be a longitudinal survey, which means participants will be re-surveyed in the future. The differences between this baseline survey and follow-up surveys will be used to better understand whether increased community integration and self-determination are occurring for people with disabilities receiving services in selected settings.

This report details the baseline data, which will be the foundation for measuring change. The first follow-up survey is tentatively scheduled to begin in late 2018.

Purpose

The State of Minnesota's Olmstead Plan requires a longitudinal study be conducted to assess and track the quality of life for people with disabilities in certain settings. In a longitudinal study, individuals are tracked over time to measure changes in their quality of life. This helps the State of Minnesota determine the effectiveness of its Olmstead Plan, including whether increased community integration and self-determination are occurring for people with disabilities. The Olmstead Subcabinet selected the Center for Outcomes Analysis Quality of Life Survey tool to measure changes in quality of life as people with disabilities choose to move to more integrated settings. Interviewers conducted 2,000 surveys with people with disabilities across the State of Minnesota between February and November 2017. This report serves as a starting point, outlining the baseline survey findings. A random sample of participants from this baseline survey will be selected for a follow-up survey to be conducted at least 12 months after the first survey, starting in late 2018. Data from the follow-up survey will be available in 2019.

Background

Minnesota's Olmstead Plan comes as part of the State of Minnesota's response to two court cases when individuals with disabilities challenged their living settings. In a 1999 civil rights case, *Olmstead v. L.C.*, the U.S. Supreme Court held that it is unlawful for governments to keep people with disabilities in segregated settings when they can be supported in the community. The case was brought by two individuals with disabilities who were confined in an institution even after health professionals said they could move to a community-based program. In its ruling, the U.S. Supreme Court said unjustified segregation of people with disabilities violates the Americans with Disabilities Act.[4] This means states must offer services in the most integrated setting, including providing community-based services when possible. The Court also emphasized it is important for governments to develop and implement a plan to increase integration.

In 2009, individuals who had been secluded or restrained at the Minnesota Extended Treatment Options program filed a federal class action lawsuit, *Jensen et al v. Minnesota Department of Human Services*.[5] The resulting settlement required policy changes to significantly improve the care and treatment of people with developmental and other disabilities in Minnesota. One provision of the *Jensen* settlement agreement provided Minnesota would develop and implement an Olmstead Plan.

An Olmstead Plan documents a state's plans to provide services to people with disabilities in the most integrated setting appropriate for the individual. Minnesota's Olmstead Plan keeps the State accountable to the *Olmstead* ruling. The goal of the plan is to make Minnesota a place where "people with disabilities are living, learning, working, and enjoying life in the most integrated setting."[6]

---

[4] U.S. Department of Justice Civil Rights Division. (Retrieved November 2017). Olmstead: Community Integration for Everyone. Retrieved from ADA.gov: https://www.ada.gov/olmstead/olmstead_about.htm

[5] Minnesota Department of Human Services. (2017). Jensen Settlement. Retrieved from Department of Human Services: https://mn.gov/dhs/general-public/featured-programs-initiatives/jensen-settlement/

[6] Olmstead Subcabinet. (2017). Putting the Promise of Olmstead into Practice: Minnesota's Olmstead Plan. Retrieved from https://www.dhs.state.mn.us/main/idcplg?IdcService=GET_FILE&RevisionSelectionMethod=LatestReleased&Rendition=Primary&allowInterrupt=1&noSaveAs=1&dDocName=dhs-292991

As part of the Plan's "Quality Assurance and Accountability" section, subsequent surveys will be conducted two or three times during the following three years to measure changes from the baseline. The Olmstead Quality of Life Survey is longitudinal. Over time, this will measure progress in quality of life based on reports from Minnesotans with disabilities.

Key process steps timeline

1999: *Olmstead v. L.C.* U.S. Supreme Court case makes it unlawful for governments to keep people with disabilities in segregated settings. States begin developing Olmstead Plans.

December 2011: The *Jensen et al v. Minnesota Department of Human Services* settlement agreement requires development of a Minnesota Olmstead Plan.

January 2013: Governor Mark Dayton issues an executive order establishing the Olmstead Subcabinet. This group begins developing the Minnesota Olmstead Plan.

June 2013 – June 2015: The Olmstead Implementation Office (OIO) receives more than 400 public comments. The Olmstead Implementation Office and Subcabinet members attend more than 100 public listening sessions to guide their development of the plan.

April 2014: The Olmstead Subcabinet votes to approve the Center for Outcomes Analysis Quality of Life survey tool as the most appropriate way of measuring the quality of life of people with disabilities.

June 2014: Research and evaluation firm The Improve Group is selected to conduct the pilot study through a contract with Minnesota Management Analysis and Development.

June – December 2014: The Olmstead Quality of Life Survey is piloted with approximately 100 people with disabilities. People with disabilities were hired to conduct surveys. Considerations from the pilot are incorporated into the Quality of Life Survey Administration Plan.

January 2015: Governor Mark Dayton issues another executive order, further defining the role and nature of the Olmstead Subcabinet.

August 2015: The first mediated Minnesota Olmstead Plan is released. The Plan was revised in February 2017.

September 2015: The U.S. District Court for the District of Minnesota approves the Minnesota Olmstead Plan, citing components that ensure continued improvements for people with disabilities, such as the Quality of Life (QOL) survey.

July 2016: The Minnesota Department of Human Services' Institutional Review Board grants approval to the Olmstead Quality of Life Survey. IRB approval is required because of the significant vulnerability of the people to be surveyed.

August 2016: The Olmstead Implementation Office issues a request for proposals for administration of the full survey.

September 2016: The Improve Group is selected as the vendor to carry out the full survey.

Winter 2016: The existing survey advisory group, created in 2013, was enlarged to include more state agency representatives.

February 2016 – November 2017: The Improve Group implements the baseline Olmstead Quality of Life survey with 2,000 people with disabilities across Minnesota.

November – December 2017: The Improve Group analyzes and reports survey results to the Olmstead Subcabinet as well as the Olmstead Implementation Office.

Late 2018: The first follow-up survey will be conducted with a random sample of participants from the baseline survey to detect any changes in quality of life.

Methodology

Tool selection

The Olmstead Implementation Office reviewed seven possible tools for consideration and presented them to the Subcabinet. The office used the following criteria to judge the tools: applicability across multiple disability groups and ages, validity and reliability, ability to measure changes over time, and whether integration is included as an indicator in the survey. The Subcabinet voted to use a field-tested survey tool developed by the Center for Outcome Analysis (COA). The tool was tailored to the Minnesota Olmstead Plan for this survey. The Subcabinet selected the COA tool because it is **reliable, valid, low-cost, and repeatable for all disability types.** That said, the tool is not applicable to all people with disabilities as it specifically measures quality of life only for those in the potentially segregated settings identified for the population of interest**.**

The COA tool meets the criteria above as it can be used with respondents with any disability type; is longitudinal, measuring change over time; and includes reliability and validity data. The COA Quality of Life survey tool measures:

- How well people with disabilities are integrated in and engaged with their community;
- How much autonomy people with disabilities have in day-to-day decision-making; and
- Whether people with disabilities are working and living in the most integrated setting that they choose.

The Olmstead Quality of Life Survey is only one way the experiences of people with disabilities will be gathered. The survey is intended to be a tool for providing oversight and accountability for the plan.

Population of interest[7]

The population of interest for the baseline survey is people with disabilities who are living and/or working in settings that were a focus of the Minnesota Olmstead Plan. This includes people in these eight settings of all ages and disability types.

---

[7] The Improve Group. (2016). Quality of Life Survey Administration Plan.

Table 1: Description of settings

Center Based Employment	Programs that provide opportunities for people with disabilities to learn and practice work skills in a separate and supported environment. Participants may be involved in the program on a transitional or ongoing basis, and are paid for their work, generally under a piecework arrangement. The nature of the work and the types of disabilities represented in the workforce vary widely by program and by the area in which the organization is located.
Day Training and Habilitation (DT&H)	Licensed supports to provide persons with help to develop and maintain life skills, participate in community life, and engage in proactive and satisfying activities of their own choosing. Health and social services directed toward increasing and maintaining the physical, intellectual, emotional and social functioning of people with developmental disabilities
Board and Lodging	Board and Lodge facilities vary greatly in size—some resemble small homes and others are more like apartment buildings. They are licensed by the Minnesota Department of Health (or local health department). Board and lodges provide sleeping accommodations and meals to five or more adults for a period of one week or more. They offer private or shared rooms with a private or attached bathroom. There are common areas for dining and other activities. Many offer a variety of supportive services (housekeeping or laundry) or home care services (assistance with bathing or medication administration) to residents.
Supervised Living Facilities (SLF)	Facilities that provide supervision, lodging, meals, counseling, developmental habilitation, or rehabilitation services under a Minnesota Department of Health license to five to more adults who have intellectual disabilities, chemical dependencies, mental illness, or physical disabilities.
Boarding Care	Boarding Care homes are licensed by the Minnesota Department of Health and are homes for persons needing minimal nursing care. They provide personal or custodial care and related services for five or more older adults or people with disabilities. They have private or shared rooms with a private or attached bathroom. There are common areas for dining and for other activities.
Nursing Facilities and Customized Living Services	Nursing facilities are inpatient health care facilities that provide nursing and personal care over an extended period of time (usually more than 30 days) for people who require convalescent care at a

	level less than that provided in an acute facility, people who are chronically ill or frail elderly, or people with disabilities. Customized living is a package of regularly scheduled individualized health-related and supportive services provided to a person residing in a residential center (apartment buildings) or housing with services establishment.
Community Residential Setting (Adult Foster Care and Supported Living Services)	Adult foster care includes individual waiver services provided to persons living in a home licensed as foster care. Foster care services are individualized and based on the individual needs of the person and service rates must be determined accordingly. People receiving supported living services are receiving additional supports within adult foster care.
Intermediate Care Facilities for Persons with Developmental Disabilities (ICF/DD)	Residential facilities licensed as health care institutions and certified by the Minnesota Department of Health to provide health or rehabilitative services for people with developmental disabilities or related conditions and who require active treatment.

Who is not included

The goal of the baseline survey was to be as inclusive as possible, given the constraints of the project and acknowledging that certain populations may be missed by the baseline survey. This population does not include people who are incarcerated, youth living with their parents, people living in their own home or family home who do not receive day services in selected settings, people who are currently experiencing homelessness, or people who are receiving services in settings other than the identified eight. For these reasons, it is important to note the results can only be generalized for these eight settings.

Data sources

Data for the survey sample was provided by the Minnesota Department of Human Services (DHS) and the Minnesota Department of Employment and Economic Development (DEED). DHS holds data for all data sources except Center Based Employment. DHS provided data for all people with disabilities with authorized services in the other seven services and settings as of July 2016. The vendor has a data sharing agreement with DHS that allowed access to the individual-level data needed for the survey.

DEED holds data for people receiving services through Center Based Employment. Initially, DEED could not share identifiable data with the vendor. However, DEED provided the vendor with ID numbers, provider information, and residential status information for individuals in Center Based Employment as of January 2016. The vendor used this information to remove individuals who may receive DHS residential services from the DEED dataset so there was no duplication in the sample. This eliminated the possibility of an individual being selected twice.

In summary, the four main sources of data include data from DHS, data from DEED, outreach tracking data, and the Quality of Life (QOL) survey tool. Data from DHS and DEED primarily included individual demographic data such as name, birthdate, race/ethnicity, disability, guardianship status, contact information, and information about services received. Outreach tracking data included details about contacts made with the person and/or their guardian to participate in the survey.[8]

Sampling

The population of interest for the survey was people with disabilities who are authorized to receive state-paid services in the potentially segregated settings identified above. The sample includes:

- People with physical disabilities
- People with intellectual/developmental disabilities
- People with mental health needs/dual diagnosis (mental health diagnosis and chemical dependency)
- People who are deaf or hard of hearing
- People who are blind or visually impaired
- People with brain injury

The selected methodology for the QOL Survey is **simple random sampling**, which refers to a randomly-selected sample from a larger sample or population, given all individuals in the sample had an equal chance to be chosen. Simple random sampling is easier to understand, sample, analyze, and reproduce. Simple random sampling also allows for more flexibility to accommodate changes in setting definitions. As such, the simple random sample method is the most flexible approach for the long term and maximizes chances for inclusion. Given the primary research questions and tight timeline for the QOL Survey, a simple random sample design was the most efficient and effective approach that could provide the strongest foundation for future surveys.

The process for selecting the sample was as follows:

- Before finalizing the sample, the vendor conducted power analysis to make sure it was sufficiently representative of the population of interest by service setting, disability type, economic region, race/ethnicity, and age. Power analysis is a technique used to estimate the number of observations required to have a good chance of detecting an effect. In this case, it provided a target number of surveys that needed to be completed for each setting.
- The merged dataset was used to calculate the target number of completed surveys for each setting. The vendor set targets for secondary characteristics such as race and ethnicity, disability type, and economic region before selecting the final sample.[9] The targets were developed from the full sample. These targets were used to help guide outreach and recruitment strategies.

Race and ethnicity

Racial and ethnic disparities in Minnesota were considered in the survey. Since the vendor used simple random sampling to select participants for the survey, it was expected that the race/ethnicity breakdown of those selected for the survey would mirror the demographics of the individuals receiving services in the selected settings.

---

[8] The Improve Group. (2016). Quality of Life Survey Administration Plan.

[9] The Improve Group. (2016). Quality of Life Survey Administration Plan.

Outreach and consent process

The vendor used multiple contact methods to reach people selected in the random sample. Such methods included phone calls, mail, and email. The vendor also produced a video explaining the purpose of the survey that was posted on the survey's website. The advisory group provided input on contact methods and recommended changes to the outreach strategy to improve the fidelity of the project. Outreach was conducted on a rolling basis, starting in February 2017 and continuing until the end of the survey administration period in November 2017.

To encourage people in the randomly-selected pool to participate in the survey, the vendor conducted phone outreach to participants, guardians, and service providers. When possible, the vendor contacted participants and guardians directly. However, receiving limited contact information for participants and guardians was anticipated; therefore, service providers were the primary point of contact for recruitment. During outreach, the vendor screened participants and either scheduled an in-person interview or conducted a telephone interview. If the participant had a legal guardian, the vendor managed the consent form process for phone interviews, including re-sending consent forms when necessary. Potential participants in the sample were assigned an identification number for use in communication to protect individual-level information. All communication about participants for the purposes of monitoring and scheduling used these assigned identification numbers.

Outreach

For individuals who did not require guardian consent, the vendor sent mail notification of selection. The notification included information about the study, a consent form, and instructions on how to opt out via phone or email. A follow-up phone call occurred within 14 days to schedule an interview. The vendor documented the strategy and effort to receive a clear yes or no from every participant or guardian. Unreachable individuals remained eligible to take the survey until the end of the administration period.

If an individual had a legal guardian, the vendor sent notification of selection to the guardian before contacting the participant. If contact information was available, the vendor sent guardian and provider notification at the same time. When the vendor did not have guardian contact information, the vendor worked with providers and case managers to reach the person's guardian and obtain consent to contact the participant. Providers/case managers could do this by either contacting guardians directly or by providing the vendor with contact information. This contact strategy aligned with the overall outreach strategy as providers and case managers may also have been contacted to help facilitate survey administration by encouraging individuals to participate and by arranging interview times.

Service providers

It was essential to establish credibility and authority with providers by having state agencies make first contact with provider agency directors about the QOL Survey. This showed that the state agency supported the survey and its intended goals. Outreach to providers started immediately before the vendor began outreach to participants and continued, as needed, throughout the project. Outreach took place through existing communication channels, such as bulletins, newsletters, and email listservs.

Additionally, the vendor notified service providers by mail or phone when a client was selected to participate in the survey. The vendor used email to schedule appointments, but did not use email as a primary contact method. The vendor submitted the list of unresponsive providers to the Olmstead

Implementation Office for follow-up. If an individual was no longer receiving services from the provider, the contact was listed as “not active.” Providers may have been asked to:

- Confirm the individual is receiving services at that location
- Help obtain guardian consent (if needed)
- Assist with notifying participants
- Schedule interviews (if appropriate)
- Assist with survey scheduling (if appropriate)
- Provide support during interviews (if requested by the interviewee)

Case managers and other contacts

Case managers at lead agencies, tribes, and other organizations were also asked to help with contacting legal guardians and participants. DHS notified lead agencies about the study and their role in supporting the project via existing communication channels. The vendor contacted case managers and other contacts as needed during the survey administration period.

Consent process

For all survey participants, the vendor obtained guardian and/or individual consent before individuals took the survey. In cases when guardian contact information was unavailable or not current, the vendor contacted providers or case managers (when applicable) with a request for assistance in collecting initial consent from participants’ guardians.

All participants were given the option to opt out of the survey before an interview was scheduled. Additionally, survey participants could decide not to finish the survey at any time during the interview. Survey participants were also asked to give informed consent at the time of the interview. If the individual did not give consent, or if they did not understand the consent form, they were not interviewed.

The vendor secured a data sharing agreement with DHS, which gave the vendor permission to contact individuals directly to participate in the Olmstead QOL survey and obtain initial consent. However, since guardian status and contact information are typically held at the county level, DHS did not have reliable contact information for guardians. If DHS did not have guardian contact information, the vendor worked with providers and case managers to contact guardians to obtain consent.

DEED holds the data for people who receive services through Center Based Employment. To share participant data with the vendor, DEED required Consent to Release Information Form from each program participant or their guardian. The vendor eventually obtained a data sharing agreement with DEED to contact individuals directly.

Considerations for consent process

The informed consent process allowed participants time to formulate their response about whether or not they would like to take the survey. This recognized that when first approached, people may not feel comfortable saying no to a person in a perceived position of authority.

Communications to providers included information about how the vendor and the Olmstead Implementation Office would protect participants’ privacy and rights during and after the survey. Many providers receiving funding from DHS are asked to support the administration of multiple surveys throughout the year. The vendor recognized the multiple requests that providers must balance.

The additional steps to gain first consent and access to contact information for participants/guardians from DEED caused a delay in selecting the sample and sending information to providers.

Statistics
The below table illustrates the extent of survey outreach.

Table 2: Overview of survey outreach and contacts

Sample size	11,667
Letters sent	19,475
Phone calls made	33,823
Sample contacts by phone (preliminary)	Over 9,000
Consents received	2,409
Declines received	1,898
Miles driven	153,000

Conducting the survey

Survey structure

To reduce the burden on participants and streamline the survey process, the vendor prefilled the demographic, disability, and housing sections of the survey based on state agency data. Based on the pilot, it was anticipated that the data from state agency records would be more accurate than self-reported data. The pilot also showed that asking participants these questions instead of using state data would have increased the length of the survey. Few pilot participants were able to complete this section, and the questions were a frequent source of stress. If state agency data was incomplete or missing, the vendor attempted to collect the data from providers or staff. If the data was not available and the participant was not able to answer the questions, the fields were left blank.

The QOL Survey is divided into five modules, not including questions about assistive technology. The modules were arranged so that the questions most important to the Olmstead Plan are asked at the beginning of the survey. In terms of both administration and analysis, each module is designed to stand on its own. The pilot showed that some participants may be unable to complete more than one module due to issues related to their disabilities. Because of these considerations, it was inappropriate to require the person respond to all the modules in order to consider the survey complete. As such, surveys were considered complete if 75 percent of the first module is finished. In all, 2,005 surveys were completed; 1,902 participants completed all five modules of the survey.

Survey modes

Interviewers administered the survey in person, which took approximately 45 to 60 minutes. The interviewer read each survey question and entered the person's responses via a tablet using a secure survey platform. Participants were given the option to follow along using a paper copy of the survey. The person selected for the study was intended to be the primary respondent to the survey. However, the participant had the option to choose a support person to help them respond or to respond on their behalf. The names of everyone participating in the survey were recorded on the consent form.

The vendor planned for four hours per survey for coordination, travel, and survey administration in the Twin Cities metro area. Surveys conducted in greater Minnesota took longer. A protocol for following up with participants who missed, canceled, or rescheduled interviews was developed to ensure everyone had the opportunity to take the survey, while respecting their right to decline in their own way.

Face-to-face interviews were conducted in the location of the participant's choice, which could include their home, workplace, provider office, or a public location. The participant's guardian or another chosen individual could help choose the location. If the interview was scheduled during regular service delivery, the vendor worked with the provider to minimize the disruption to service delivery. In the event the vendor was unable to honor the participant's first choice of location, an alternative location was selected.

Alternative modes

To accommodate the preferences and abilities of potential participants, the survey was also offered as a traditional phone survey, or by videophone or on the web. The pilot showed that offering multiple survey modes would likely boost response rates by allowing options that may be more convenient or comfortable for participants. The study was also more person-centered in offering different survey modes. No participants chose to take the survey via videophone or web.

The vendor managed the consent process for phone interviews, including documenting verbal consent and resending consent forms as needed. If the participant had a legal guardian, the vendor did not conduct an interview until they received documentation of informed consent. In addition, the vendor worked with individuals, guardians, and providers to accommodate other communication tools or survey mode requests.

Person-centered approach

Interviewers used person-centered approaches when scheduling and conducting surveys. This approach meant making the survey as accessible as possible for all participants in terms of formatting, scheduling and conducting the survey. Through all stages of the survey process, interviewers used person-centered communication.

Taking a highly individualized and person-centered approach based on participant and/or guardian preferences regarding survey time and location made it difficult to build other scheduling efficiencies into the overall survey administration.

Communication accommodations

If a case manager, provider, or guardian was involved in scheduling interviews, the vendor asked if accommodations were needed for the person to participate in the survey. All participants received a paper version of the survey in advance to review or reference during in-person interviews. The vendor provided reasonable accommodations to complete the survey as requested by the participant or their representative. If the vendor was unable to provide an accommodation for any reason, the vendor notified the Olmstead Implementation Office.

- For participants who were deaf or hard of hearing, the vendor worked with American Sign Language (ASL) interpreters/providers to minimize barriers to scheduling interviews in a timely manner with participants. In addition, the vendor recruited interviewers who could conduct the survey in ASL.
- For participants who were blind or visually impaired, a paper copy of the survey was available in large print text, if helpful. The survey was also made screen reader-compatible and modified to include additional instructions to guide individuals through the survey.
- The vendor worked with specialized interpreters to accommodate deafblind participants. The vendor aimed for the person to be able to work with a trusted interpreter who is knowledgeable about that individual's communication preferences. All materials for consent, communications, and the survey tool were made available in advance.
- Individuals who are nonverbal or have limited expressive communication used a variety of tools such as sign language, technology, or cards to communicate. The vendor worked with the person's staff or another trusted individual to assist with participation in the survey. Additional accommodations included providing the survey materials to be pre-loaded into any existing communication tools the person uses.
- For non-English speaking participants, materials for the survey including the Quality of Life tool, consent forms, and communication materials were translated into Spanish, Somali, Hmong, and other languages. The vendor worked with multiple translation providers to minimize barriers to scheduling the interviews. The vendor also recruited interviewers who speak targeted languages. To accommodate the large variety of language and dialects spoken by potential participants, the person was also given the option to choose an interpreter, such as a family member or trusted community member.

Barriers to completion

The Olmstead Quality of Life survey tool was designed to be administered to people of all disability types. However, some participants were expected to have difficulty completing the survey, including participants who could complete a single module. In total, 1,902 (95%) participants completed the survey, which was a much higher completion rate than anticipated.

The following are examples of the primary barriers that were experienced during survey implementation:

Survey length

Depending on the individual, the survey took roughly 45 to 60 minutes to complete. Some participants were unable to sit still for that long, while others found the survey cognitively exhausting. Ideally, it was best to schedule a second interview to complete the survey, but this was impractical given the project's constraints. If the participant showed signs of fatigue, the interviewer would ask the person if they wanted to continue with the survey. At this point, the participant could choose to take a break or end the interview. Participants or their support person could request a break or to end the survey at any time. If a participant was having trouble concentrating/sitting still, interviewers would encourage participants to move around the room or take a short activity break.

Survey content

If the participant was uncomfortable with the survey content, the interviewer would ask the person if they wanted to keep going, if they wanted to skip the question, or if they wanted to skip to the next module. Again, participants could also choose to end the survey at these times. Interviewers could also use the alternate scale for participants who live in their own home without supports. The alternate scale was created by the survey designer for individuals who do not have staff in their home.

If the participant did not understand the questions, the interviewer would ask if there were someone the person would like to have assist with the survey. If there was not a support person available, the interviewer would end the survey.

Interruptions to schedule

Some participants did not handle interruptions to their normal daily schedule well. This could result in severe anxiety or distress. Several individuals did not understand why they were being taken away from their regular activities and, even though they had previously agreed to participate, refused to take the survey. The vendor worked with providers, guardians, and support persons to try to anticipate such situations and schedule interviews outside of structured activity times. The interviewer could also work with the individual and their support person to integrate the survey into regular activities.

Communication needs

The vendor attempted to provide reasonable accommodations for participants, including providing interpreters and supporting the use of assistive technology. However, there were times when the vendor was unable to provide the accommodation at the time of the survey. In the event the vendor was unable to honor the request or new accommodations arose during the survey, the interview was rescheduled.

Outdated contact information

Providers, staff, and guardians were integral to obtaining consent and administering the survey. Frequently, inaccurate or old guardian contact information hindered survey implementation. In other cases, staff turnover, leave, or lengthy response times caused delays, or the vendor could not locate the correct person in the provider organization. Guardian and provider non-response also were also barriers.

Training of interviewers

Survey interviewers had two primary responsibilities: to conduct in-person surveys and to remind people to take the online version of the survey. Efforts were made to recruit interviewers with diverse backgrounds and from a range of geographic regions, so that they reflected the sample population to be surveyed. The vendor partnered with disability service providers to identify survey interviewers, including people with disabilities who are in supported employment contexts. As a result, the vast majority of interviewers are people with a self-disclosed disability or people with a professional background in disability services.

All project staff members, including interviewers, contractors, and staff, were required to complete interviewer training, as was required by the IRB-approved survey administration plan. Training, which was a combination of self-guided trainings, presentations, group discussions, and shadowing, was roughly 40 hours. Training covered the following subjects, with additional topics as needed:

- Vendor policies and procedures
- Human Subjects Training
- Data security and protecting individuals
- Project background
- Orientation to the survey tool
- Person-centered approaches
- Interviewing skills and reducing bias
- Consent process
- Providing accommodations
- Reporting abuse/neglect
- Technology and troubleshooting
- Practice surveys

Abuse and neglect

Procedures were in place for documenting and reporting any incidents in which people threatened to hurt themselves or others, or for incidents of reported or suggested abuse or neglect. These procedures required that all incidents of self-reported, observed, or suspected abuse or neglect be reported to the Minnesota Adult Abuse Reporting Center or Common Entry Point (MAARC/CEP) within 24 hours of the interview. All incidents, including incidents that did not require a report, were documented internally and reported to the Olmstead Implementation Office.

Documentation and reporting

Interviewers were required to report all suspected cases of abuse or neglect to the supervisor on duty as soon as it was safe to do so. The vendor was responsible for determining if the incident needed to be reported to the MAARC/CEP. The procedure for documenting and reporting abuse was as follows:

At the time of the interview:

- Call 911 to report serious or immediate danger
- Report the incident to the provider or a staff person (if appropriate)
- Complete the Documentation of Suspected Abuse or Neglect Form
- Report the incident to the supervisor on duty

Within 24 hours of the interview:

- Submit the completed Documentation of Suspected Abuse or Neglect Form
- Report the incident to MAARC/CEP (if required)
- Notify the Olmstead Implementation Office about the incident and next steps

Within 72 hours of the interview:

- Submit a written report to MAARC/CEP (if required)

Training

Staff members who could have contact with participants were required to complete the DHS Vulnerable Adults Mandated Reporting. Interviewers also received training on study-specific requirements for documenting and reporting suspected abuse and neglect. Ongoing training was provided as needed.

Reported incidents of abuse and neglect

Due to the vulnerability of the population of interest and the training outlined above, interviewers erred on the side of reporting possible abuse or neglect. Out of 2,000 surveys, interviewers reported possible abuse or neglect in 15 cases.

Analysis

The results in this report are the first phase of analysis. The results are high-level data meant to provide a general picture about quality of life. The results are not weighted for any factors, subsequent analyses will attempt to weight data, which may cause subsequent results to vary. Future analyses will also break out quality of life by setting, geography, and demographics.

Subgroups for analysis

Specific subgroups within the study population were identified as being of interest for understanding the factors impacting quality of life for Minnesota residents with a disability. The table below summarizes the subgroups that will be used for making comparisons or understanding which groups require more focused attention in the future. Additional analysis will be released in 2018.

Table 3: Potential subgroups for analysis of the Quality of Life survey

Potential subgroup	Description
Settings	Eight potentially segregated settings where people with disabilities receive services, including residential and employment settings.
Disability Type	Primary disability types in the sample, including physical disabilities, intellectual/developmental disabilities, mental health needs/dual diagnosis, deaf or hard of hearing, blind or visually impaired, and brain injury.
Geographic	Population living within a specific area of the state with defined geographic boundaries (e.g., Minnesota economic development regions).

Additional analysis may be done by guardianship status, race/ethnicity, age, and living situation.

Statistical methods

The baseline analysis of the Quality of Life survey data includes primarily descriptive statistical methods. Frequencies and measures of variability can also be applied to the responses to questions on the Quality of Life Survey. The results listed in this report are not weighted for non-response error or other factors. Further analysis will try to account for non-response.

Results

Participants were asked about five topics: community integration and engagement, autonomy over daily life, perceived quality of life, closest relationships, and assistive technology. Interviewers recorded participants' perceptions of their own lives, which aligns with the survey's person-centered approach but may lead to some inaccuracies due to self-reporting. Analysis below applies only to the specific settings from which the sample was drawn; results cannot be generalized to all people with disabilities in Minnesota.

Tables below compare survey participants to the overall sample. This comparison is meant to show the difference (if any) between people that took the survey to people selected to take the survey.

Demographic breakdown

Table 4: Eligible population, sample, and survey participation by gender

Participant gender	Eligible population (%)	Sample (%)	Survey Participants (%)
Female	38.8%	40.8%	43.1%
Male	51.3%	54.9%	54.9%
Unknown (not reported)	9.9%	4.3%	2.0%
Total	**100.0%**	**100.0%**	**100.0%**

Participation rates were not significantly different based on gender. If gender is "unknown," the individual's gender was not reported in DHS or DEED data. The original DEED data did not include demographic information. This accounts for the high percentage of "unknown" gender in the eligible population.

Table 5: Age of survey sample and survey participants

	Youngest Age	Oldest Age	Average Age
Sample	7	102	47
Survey participants	9	90	47

The average age of individuals in the sample and survey participants was 47 years old at the time of selection. The sample included children who are living in selected settings. Surveys with minor participants were completed either by-proxy with the guardian or guardian's appointee or with the guardian present.

Table 6: Eligible population, sample, and survey participation by race

Participant race	Eligible population (%)	Sample (%)	Survey Participants (%)
Asian	1.5%	1.6%	1.5%
Black	6.1%	6.6%	4.3%
Native American	2.1%	2.1%	2.5%
White	78.5%	83.1%	85.9%
Two or more	0.3%	0.3%	0.2%
Other or unknown	11.5%	6.3%	5.5%
Total	**100.0%**	**100.0%**	**100.0%**

Participation rates were low among people who identified their race as Black. This is likely related to low participation rates in the metro area, where 85 percent of potential Black participants receive services. An analysis of response rates will be included in the Phase 2 report.

Race was “unknown” if it was listed as such in agency data or if race was not provided. The original DEED data did not include demographic information. This accounts for the high percentage of “unknown” race in the eligible population.

Table 7: Eligible population, sample, and survey participation by ethnicity

Participant ethnicity	Eligible population (%)	Sample (%)	Survey Participants (%)
Hispanic/Latino	1.4%	1.6%	1.4%
Not Hispanic/Latino	88.3%	96.3%	88.3%
Unknown	10.3%	4.8%	10.3%
Total	**100%**	**100.0%**	**100%**

Participation rates were also low among Hispanic/Latino individuals. Further analysis of contact and completion rates could be conducted to better understand differences in participation rates by ethnicity.

Race was “unknown” if it was listed as such in agency data or if race was not provided. The original DEED data did not include demographic information. This accounts for the high percentage of “unknown” ethnicity in the eligible population.

Geographic breakdown

Table 8: Participant demographics by region

Region of service	Eligible population (%)	Sample (%)	Survey Participants (%)
Central	12.3%	15.8%	15.8%
Metro	45.0%	34.2%	34.2%
Northeast	11.5%	11.5%	11.5%
Northwest	9.2%	13.0%	13.0%
Southeast	9.5%	12.1%	12.1%
Southwest	12.1%	13.5%	13.5%
Total	**100%**	**100.0%**	**100.0%**

Participation rates were lower in the seven-county metropolitan area than in the rest of the state. The regions were based on lines of services as of July 1, 2017, and have not been updated to reflect location changes at the time of the survey.

Breakdown by setting

Table 9: Survey participation by service setting

Service setting	Eligible population (%)	Sample (%)	Survey Participants (%)
Adult Foster Care	58.6%	62.4%	73.1%
Boarding Care	0.3%	0.5%	0.3%
Board and Lodging	4.3%	4.7%	3.6%
Center Based Employment	5.0%	4.8%	4.5%
Day Training & Habilitation	37.4%	39.0%	46.7%
Intermediate Care Facilities for Persons with Developmental Disabilities	6.5%	6.9%	5.3%
Nursing Facilities and Customized Living	19.8%	20.6%	13.0%
Supervised Living Facilities	0.5%	0.7%	0.5%

Note: Percentages do not equal 100 due to overlap between settings.

The survey oversampled boarding care and supervised living facilities because of the relatively small number of people in these settings. The census was used instead of a sample in order to reach as many people as possible. Therefore, these groups are overrepresented in the sample percentages.

People in adult foster care and day training and habilitation had higher participation rates, whereas people in nursing facilities had lower participation. Further analysis could be done of contact and completion rates to better understand the differences in participation by setting.

Disability type

Table 10: Survey participation by disability type

Disability type	Sample (%)	Survey Participants (%)
Physical Disability	29.8%	29.4%
Mental Health or Dual Diagnosis	17.1%	13.4%
Brain Injury	3.9%	4.2%
Intellectual or Developmental Disability	59.1%	68.7%
Blind or Vision Impaired	1.3%	10.4%
Deaf or Hearing Impaired	4.5%	5.8%

Note: Percentages do not equal 100 due to individuals with multiple diagnoses.

This breakdown is by primary disability type. Higher participation rates among people with intellectual or developmental disabilities may be related to higher participation rates at day training and facilitation and adult foster care settings.

Survey analysis

The survey analysis is consistent with methods used in previous studies using this survey instrument, and follows guidelines provided by Dr. Jim Conroy and the Center for Outcome Analysis.

The following is a preliminary analysis of the survey responses. The results are presented with unweighted data and are not generalizable to the population. Phase 2 analysis will include weighted results which may affect the results presented.

Community Integration and Engagement: Time, Money, and Integration During the Day

Participants described their hours worked, earnings, and integration over the previous week. The hours estimate included how many hours during the week the person worked, on average, in each kind of setting listed. These settings included formal activities such as self-employment, regular competitive employment, supported employment, and unpaid activities like school or volunteering. Social and individual activities were addressed in the next module. Earnings included how much money the person earned from each of these activities. Integration was a rating from 1 (completely segregated and never in the presence of people without disabilities) to 5 (completely integrated and nearly always in a situation where people without disabilities might be present). For all questions, interviewers were to ask the person first, then whoever knows the person best, such as a guardian, close friend, or staff.[10]

Table 11. Number of participants by day activity type

Day activity type	Number of survey participants in day activity	Unweighted percent of survey participants
Go to work	1,319	66.2%
Go to school	73	5.0%
Go to other day activities	727	39.6%
No activities reported	54	2.7%

Nearly two-thirds of participants (66 percent) reported spending time in a work setting and over one-third (40 percent) said they attend other formal day activities such as an adult day program. A few participants (3 percent) said they do not take part in any formal day activities. This indicates that nearly everyone who participated in the survey attends at least one formal activity during a typical week. It was not uncommon for people to attend more than one activity, such as two different paid activities, or some combination of employment, school, and other day activities.

If the activity was unclear, interviewers asked a series of questions about the activity, including what the individual does at the activity, where they go for the activity, and if they are paid for the activity. The interviewers used the person’s responses to classify the setting, relying on state definitions for the activity if available.

Table 12: Number of participants in day activities by type

Day activity type	Number of participants in activity type	Unweighted percent of participants in activity
Self-Employed	9	0.4%
Competitive Employment	151	7.5%
Supported Employment	214	10.7%

---

[10] Center for Outcome Analysis. (2017). Service Excellence Summary: Baseline Data Summary for Briefing.

Day activity type	Number of participants in activity type	Unweighted percent of participants in activity
Enclave or Job Crew	323	16.1%
Sheltered Employment or Workshop	504	25.1%
Pre-vocational or Vocational Rehabilitation	21	1.0%
Day Training and Habilitation	209	10.4%
Other Job	28	1.4%
Private School	-	-
Public School	10	0.5%
Adult Education	31	1.5%
Other School	32	1.6%
Adult Day Program	506	25.2%
Volunteer Work	155	7.7%
Other Day Activities	138	6.9%

The most common day activities across participants are Sheltered Employment or Workshop (26 percent), Adult Day Program (25 percent), and Enclave or Job Crew (16 percent); these activities are all considered potentially segregated settings. Additionally, 18 percent of participants reported being in some type of community-based employment, including competitive jobs (7.6 percent) or supported employment in a competitive job (10.5 percent). School settings were the least common, with only 33 participants in any type of school activity.

These activities are not mutually exclusive, and individuals can take part in one more day activities in a week. Approximately one-third of survey participants reported taking part in more than one activity.

Table 13: Average weekly hours by day activity type

Day activity type	Number of survey participants reporting hours	Average weekly hours
Self-Employed	1	1.0
Competitive Employment	145	18.4
Supported Employment	195	17.7
Enclave or Job Crew	295	18.9
Sheltered Employment or Workshop	483	21.6
Pre-vocational or Vocational Rehabilitation	21	16.5
Day Training and Habilitation	198	20.9
Other Job	27	17.1
Private School	-	-
Public School	10	25.8
Adult Education	28	12.7
Other School	30	8.1
Adult Day Program	490	19.9
Volunteer Work	138	4.4
Other Day Activities	129	5.9
All day activities	**1,565**	**24.7**

Note: Participants could report hours in more than one day activity.

On average, participants reported spending 24.7 hours per week in day activities. This includes all the hours reported in any day activity. Paid activities, which include any activities where individuals receive wages, held the highest average weekly hours (20.5 hours). While for individual settings, the highest average weekly hours were spent in Public School (25.8 hours), Sheltered Employment or Workshop (21.7 hours), Day Training and Habilitation (20.9 hours), and Adult Day Programs (19.9 hours).

Note that weekly hours were self-reported and may not reflect the actual time spent at each setting.

Table 14: Average weekly earnings by day activity type

Day activity	Number of survey participants reporting earnings	Average weekly earnings
Self-Employed Earnings	4	$222.02
Competitive Employment Earnings	113	$146.25
Supported Employment Earnings	151	$131.57
Enclave or Job Crew Earnings	190	$87.47
Sheltered Employment or Workshop Earnings	259	$63.01
Pre-vocational or Vocational Rehabilitation Earnings	8	$70.64
Day Training and Habilitation Earnings	114	$38.60
Other Job Earnings	20	$91.50
All paid activities	**816**	**$95.18**

More than 800 participants reported some earnings, including wages or piecework. Earnings are based on self-reported amounts and may not reflect actual earnings in all cases. If the participant did not know how much they earn, the field was left blank.

On average, participants earned $95 per week across all settings. Within this, weekly earnings were the highest in more integrated settings like Competitive Employment (where participants earned an average of $146 per week) and Supported Employment ($132 per week). More integrated settings also had higher average hourly earnings, between $7.30 and $7.60 an hour. Self-employment earnings were by far the highest on average, but only four participants reported earning money this way.

Weekly earnings in settings with the most people, including Enclave or Job Crew and Sheltered Employment or Workshop, were far lower on average, at $87 per week or $63 per week, respectively. This breaks down to $5.16 and $3.54 an hour.

The majority of participants who reported earning some or all wages through piecework (114 people total) were in Sheltered Employment and Day Training and Habilitation.

While the Self-Employment Earnings had the highest hourly wages by job type, only one person reported this job type earning. The highest average hourly wages by job type were in the Supported Employment Earnings and Pre-vocational or Vocational Rehabilitation Earnings, both averaging $7.60 an hour. Lowest average hourly wages were in Sheltered Employment or Workshop Earnings ($3.50) and Day Training and Habilitation Earnings ($3.30).

It is important to note that some participants reported a combination of hours and earnings in competitive employment that resulted in an hourly wage that is less than minimum wage. In addition, some people reported weekly earnings in excess of $1,000 or well below the expected wage for the activity type—either due to data entry error or because the participant responded with a value that was well out of range. These responses have not been removed from the preliminary analysis. These results are indicative of the challenges of using self-reported data

Table 15: Integration level by day activity type

Day activity type	Number of survey participants reporting integration level	Average integration level
Self-Employed	9	3.8
Competitive Employment	151	4.1
Supported Employment	213	3.3
Enclave or Job Crew	321	2.2
Sheltered Employment or Workshop	499	1.5
Pre-vocational or Vocational Rehabilitation	21	1.9
Day Training and Habilitation	204	1.4
Other Job	28	2.3
Private School	-	-
Public School	10	2.3
Adult Education	31	2.3
Other School	30	2.3
Adult Day Program	493	1.5
Volunteer Work	149	3.4
Other Day Activities	134	2.4
All day activities	**1,608**	**2.1**

The integration level tells us how much interaction participants have during their daily activities with people who do not have disabilities. A higher score indicates more interaction with the general population during the day, while a lower score indicates that people in that work setting are primarily interacting with other individuals with disabilities. An integration score of 3 is right between segregated and integrated, indicating some level of interaction with people who do not have disabilities. A score below 3 indicates activities are mostly or completely in segregated settings.

Integration scores (the average integration levels for each day activity) are highest in the more integrated activities such as competitive employment (4.1), self-employment (3.8), volunteer work (3.4), and supported employment (3.3). In contrast, integration is lowest in Day Training and Habilitation (1.4), Sheltered Employment or Workshops (1.5), and Adult Day Programs (1.5).

The finding that people in more integrated settings have more interaction with people without disabilities is consistent with other research. However, these scores are still significantly lower than in previous studies in other states, and indicate a level of segregation in the community-based settings[11].

---

[11] Center for Outcome Analysis. (2017). Service Excellence Summary: Baseline Data Summary for Briefing.

Community Integration and Engagement: Integrative Activities Scale

Participants described the number of times they did each of a list of activities in the past four weeks. Activities included visits with friends, relatives, or neighbors, and trips to a grocery store, restaurant, place of worship, mall, or sports event. Participants also shared the average group size with which they did this activity, and how often trips of each type typically included interaction with community members not in the "disability system."

Table 16: Average monthly outings by outing type

Outing type	Number of survey participants	Average number of outings
Visit with close friends, relatives or neighbors	1,629	9.6
Go to a grocery store	1,425	4.0
Go to a restaurant	1,608	3.7
Go to a place of worship	832	3.6
Go to a shopping center, mall or other retail store to shop	1,671	3.6
Go to bars, taverns, night clubs, etc.	189	2.2
Go to a movie	820	1.7
Go to a park or playground	932	4.9
Go to a theater or cultural event (including local school & club events)	393	1.7
Go to a library	646	3.3
Go to a sports event	451	2.1
Go to a health or exercise club, spa, or center	466	6.1
Use public transportation (May be marked "N/A")	564	15.0
Other 1	664	5.6
Other 2	196	5.9
Other 3	43	7.9
Other 4	13	9.4
All outings	**1,969**	**31.9**

Participants averaged 32 outings per month, which is lower than the general population (46 outings outside the house per month not counting work[12]).

The most commonly reported activities were shopping (1,671 participants), visiting friends, relatives, or neighbors (1,629 participants), and going to a restaurant (1,608 participants).

Nearly three out of four participants reported five or more different types of outings in the previous month. On average, participants reported visiting friends, relatives, or neighbors 9.6 times in the previous four weeks, going to a health or exercise club 6.1 times and going to a park or playground 4.9 times. The "other" categories were added to capture common outing types that may be unique to Minnesota. Common responses may be used to suggest new outing types or be integrated into existing categories

---

[12] Center for Outcome Analysis. (2017). Service Excellence Summary: Baseline Data Summary for Briefing.

during follow up analysis. Frequent responses included participating in sports or physical activities, bingo or other games, and attending group activities such as self-help or arts and crafts groups.

Table 17: Average group size by outing type

Outing type	Number of participants reporting group size	Average group size
Visit with close friends, relatives or neighbors	1,568	4
Go to a grocery store	1,395	3
Go to a restaurant	1,565	4
Go to a place of worship	806	3
Go to a shopping center, mall or other retail store to shop	1,624	3
Go to bars, taverns, night clubs, etc.	184	3
Go to a movie	787	3
Go to a park or playground	903	4
Go to a theater or cultural event (including local school & club events)	376	4
Go to a library	628	3
Go to a sports event	436	4
Go to a health or exercise club, spa, or center	447	3
Use public transportation (May be marked "N/A")	544	3
Other 1	642	4
Other 2	189	4
Other 3	41	5
Other 4	13	4
All outing types	**1,951**	**3**

In general, participants reported small to medium group sizes for their outings, with an average group size of 3, the average group size for most outing types.

The largest average group sizes for the primary categories were groups of 4 to sporting events and cultural events. The average group sizes for the “other” outing types ranged from 4 to 5. These outings included a variety of outing types including: participating in sports or physical activities, bingo or other games, and attending group activities such as self-help or arts and crafts groups. Many of these outings will be reclassified, either into existing categories or as new categories, for the Phase 2 analysis.

It is important to note that research suggests large group sizes (five or more people) can be stigmatizing. However, this group size does not differentiate between a group of people with disabilities or a mixed group. When estimating group size, many participants said things like “me and my family” or “me and my friends” for these group outings.

Table 18: Interactions by outing type

Outing type	Number of participants	Average integration level
Visit with close friends, relatives or neighbors	1,592	2.7
Go to a grocery store	1,404	2.5
Go to a restaurant	1,576	2.5
Go to a place of worship	815	3.3
Go to a shopping center, mall or other retail store to shop	1,642	2.5
Go to bars, taverns, night clubs, etc.	188	3.1
Go to a movie	798	2.1
Go to a park or playground	910	2.3
Go to a theater or cultural event (including local school & club events)	385	2.6
Go to a library	634	2.3
Go to a sports event	438	2.9
Go to a health or exercise club, spa, or center	453	2.7
Use public transportation (May be marked "N/A")	555	2.7
Other 1	649	3.1
Other 2	194	3.1
Other 3	43	3.0
Other 4	13	3.5
All outing types	**1,936**	**2.5**

Average values for community interaction raged from “A little” (2 on the scale) to “Some” (3 on the scale), with an overall average of 2.5. The types of activities with the most interaction included going to a place of worship (3.3), going to bars (3.1), and going to sports events (2.9). “Other” activities will be recoded and analyzed during follow up analysis.

The activities with the lowest interaction were going to the movies (a score of 2.1), going to libraries (2.3), and parks (2.3).

Table 19: Outing interactions score (Minnesota baseline study)

Study	Participants with an outing interactions score	Outing interactions score
Minnesota baseline	631	45.5

Outing interactions is a measure based on the number of outings and the average interaction rating for those values, converted to a score of 100. A higher score indicates more interaction with community members across outing types. The score is converted to a 100-point scale based on the individual’s average interaction rating for each outing type. Scores are not calculated for individuals with fewer than eight outings. The 100-point scale is used for ease of interpretation by calculating the average interaction rating.

The average score of 45.5 may show people are not interacting much with other community members during their outings.

Decision Control Inventory

Individuals reported who made decisions around food, clothes, sleep, recreation, choice of support agencies, and more. This measure helps delineate paid (staff) versus unpaid (relatives, friends, advocates) people's roles in decision-making. For example, individuals reported whether paid staff, unpaid allies, or they themselves decided what they could do with their relaxation time. If necessary, interviewers ask clarifying questions to determine if the people making decisions are paid staff or unpaid allies. Unpaid allies include relatives, friends, and advocates. Public guardians are considered paid staff.

Table 20: Decision Control Inventory scores (all items)

Decision Control Inventory item	Number of participants reporting rating	Average rating	Don't know (n)
What foods to buy for the home when shopping	1,928	2.9	34
What to have for breakfast	1,915	3.9	39
What to have for dinner	1,927	3.0	28
Choosing restaurants when eating out	1,823	3.9	117
What clothes to buy in store	1,933	4.3	20
What clothes to wear on weekdays	1,941	4.5	12
What clothes to wear on weekends	1,941	4.5	13
Time and frequency of bathing or showering	1,928	4.1	23
When to go to bed on weekdays	1,931	4.4	16
When to go to bed on weekends	1,932	4.5	14
When to get up on weekends	1,925	4.5	18
Taking naps in evenings and on weekends	1,889	4.7	47
Choice of places to go	1,887	3.6	53
What to do with relaxation time, such as choosing TV, music, hobbies, outings, etc.	1,916	4.6	20
Visiting with friends outside the person's residence	1,747	4.1	182
Choosing to decline to take part in group activities	1,817	4.5	101
Who goes with you on trips, errands, outings	1,854	3.1	78
Who you hang out with in and out of the home	1,831	4.3	98
Choice of Case Manager	1,547	1.8	386
Choice of agency's support persons/staff (N/A if family)	1,706	1.6	208
Choice of support personnel: option to hire and fire support personnel	1,687	1.5	231
What to do with personal funds	1,869	4.0	52
How to spend residential funds	685	2.2	955
How to spend day activity funds	563	2.8	1041
Choice of house or apartment	1,814	3.6	110
Choice of people to live with	1,788	2.2	136
Choice of furnishings and decorations in the home	1,865	3.8	60

Decision Control Inventory item	Number of participants reporting rating	Average rating	Don't know (n)
Type of work or day program	947	2.4	240
Amount of time spent working or at day program	1,046	2.0	268
Type of transportation to and from day program or job	1,178	1.5	273
Express affection, including sexual	1,773	4.5	145
"Minor vices" - use of tobacco, alcohol, caffeine, explicit magazines, etc.	1,773	4.4	136
Whether to have pet(s) in the home	1,737	2.7	177
When, where, and how to worship	1,790	4.7	118

Decision Control Inventory (DCI) scores below 3 indicate that decisions in that area are mostly made by paid staff, and scores above 3 indicate decisions are mostly made by the person and unpaid allies. A score of 3 indicates the decision is equally shared.

The results show most decisions (62 percent) are made by the person or unpaid allies.

Participants had the most decision-making control around how and with whom they spend their free time (4.6); what they wear (4.5); their sleeping schedules (4.5 to 4.7); and their worship behaviors (4.7). The fact that some of these items score near 5.0 indicates all or nearly all of the decisions are made by the person or their allies. Eight items had scores greater than 4.5 (halfway between “mostly unpaid” and “all unpaid”).

Paid staff had more decision-making power in areas that are related to service provision, finances, and staffing. For example, participants’ DCI scores for choice of case manager, support staff, and support personnel were low, ranging from 1.5 to 1.8. Similarly, their DCI scores for spending residential or day activity funds ranged from 2.2 to 2.8; their scores for deciding type of job or day program, number of hours, and how they get there were 1.5-2.4; and their DCI for choosing who to live with was scored 2.2.

There were high numbers of “don’t know” responses for decisions related to money and service provision, including decisions around residential funds (955), day activity funds (1,041), and choice of case manager (365). It is important to note items with high frequencies of ‘don’t know’ responses as areas for possible follow up.

Table 21: Decision Control Inventory module score

Study	Participants with Decision Control Inventory score	Baseline Decision Control Inventory score
Minnesota baseline	1,942	66.2

The DCI scores for individual items are interesting, but these measures can also be converted to a 100-point scale to measure overall power and control. A higher score on the overall DCI scale indicates a higher level of control. A very low score indicates possible oppression or domination. Previous studies have demonstrated that all the items on this scare are related to the underlying concept of freedom to make choices without being controlled by providers.[13]

The score is converted to a 100-point scale based on the individual's average interaction rating for each item. Scores are not calculated for individuals who responded to fewer than 25 items. Individual scores are averaged for a community score on a scale of 0 to 100. The score is converted to a 100-point scale for ease of interpretation and to be consistent with previous studies.

Minnesota's average baseline score is 66.2 out of 100, which indicates participants and their unpaid allies have a moderate amount of decision making power.

Quality of Life inventory

Individuals reported whether their quality of life is good or bad in 14 different areas, including health, happiness, comfort, and overall quality of life. This measure captures the person's perspective about their quality of life. For example, individuals reported whether their privacy was good, bad, or somewhere in between.

Table 22: Quality of Life ratings (all items)

Item	Number of survey participants responding	Average rating	Don't Know (n)
Health	1,897	3.9	28
Running my own life, making choices	1,803	3.8	108
Family relationships	1,815	4.1	99
Relationships with friends	1,806	4.1	109
Getting out and getting around	1,838	3.9	66
What I do all day	1,860	4.0	45
Food	1,868	4.1	43
Happiness	1,877	4.1	31
Comfort	1,859	4.1	41
Safety	1,874	4.2	32
Treatment by staff/attendants	1,840	4.2	61
Health care	1,854	4.3	42
Privacy	1,838	4.2	55
Overall quality of life	1,851	4.1	44

This table shows participants' average scores for 14 questions about how they rate their quality of life in different areas on a scale of 1 (very bad) to 5 (very good). On average, participants said their quality of life was good in most areas (4 on the scale). The highest scores were in health care (4.3), safety (4.2), treatment by staff (4.2), and privacy (4.2).

When asked about perceived quality in life, some participants did not know or were unable to answer about: relationships with friends (109 unable to answer); running own life and making choices (108);

---

[13] Center for Outcome Analysis. (2017). Service Excellence Summary: Baseline Data Summary for Briefing.

family relationships (99); getting out and getting around (66); privacy (53); and overall quality of life (41). It is important to note items with high frequencies of ‘don’t know’ responses as areas for possible follow up.

In nearly all surveys (86 percent), each item was answered by the participant, either by themselves or with support from staff or an ally. This is important because the scores capture the person’s own perspective rather than how someone else perceives their quality of life. In eight percent of the surveys, all 14 questions were answered by someone other than the participant, indicating these surveys were completed by proxy with little to no input from the participant. Follow up analysis may include an exploration of the differences between surveys conducted with the individual and surveys conducted by proxy.

Table 23: Quality of Life module score

Study	Participants with a Quality of Life score	Baseline Quality of Life score
Minnesota Baseline	1,904	76.6

Converting the individual quality of life items into a score out of 100 is helpful for understanding the overall results. A higher score indicates a higher overall quality of life. The score is converted to a 100-point scale based on the individual’s average rating for each quality of life item. Scores are not calculated for individuals who responded to fewer than five items. The score is converted to a 100-point scale for ease of interpretation.

People who reported lower quality of life in the different areas received lower scores. These factors added to an individual’s score on a scale of 0 to 100.

Minnesota’s baseline score is 76.6. This is an important score to watch during follow-up surveys.

Closest Relationships Inventory

Survey interviewers asked participants about their closest relationships. This included the type of relationship—relative, staff, housemate, co-worker, etc. A “close relationship” was anyone the person defined that way. Participants were asked about their five closest relationships; if the participant did not have any close relationships, it was noted as well.

Table 24: Number of close relationships reported (all participants)

Number of relationships reported	Number of survey participants responding	Unweighted percent of survey participants
1	96	5.0%
2	127	6.7%
3	227	11.9%
4	238	12.5%
5	1,171	61.6%
No close relationships	43	2.3%
Totals	**1,902**	**100%**

Nearly all of the participants could name at least one close relationship, with over half of participants listing five close relationships (62 percent). Only 43 participants said they did not have any close relationships. The remainder of the missing relationships are due to participants ending the survey before the closest relationships module. Those individuals were not included when calculating total possible relationships.

Table 25: Average number of relationships and total relationships reported (all participants)

Participants reporting relationships	Participants with no relationships	Average number of relationships reported	Total number of relationships reported	Possible relationships
1,859	43	4.2	7,838	9,510

After removing individuals who did not complete the module, the survey had a possible 9,510 relationships. Participants could think of 7,838 relationships; 82 percent of the possible relationships. On average, participants named 4.2 close relationships.
Another notable finding is the high number of people who could name at least one close relationship. Only 43 people could not name a single person.

Table 26: Closest relationships and relationship types (all participants)

Relationship Type	Number reporting closest relationship type	Unweighted percent
Co-worker or schoolmate	193	1.7%
Housemate (not family or significant other)	322	4.9%
Merchant	20	0.1%
Neighbor	82	0.6%
Other paid staff (case manager, nurse, etc.)	687	3.2%
Relative (includes spouse)	3,661	51.8%
Staff of day program, school, or job	480	4.5%
Staff of home	1,422	18.2%
Unpaid friend, not relative	2,947	15.0%
No relationship type listed	29	0.4%

Relatives were the most commonly reported relationship type (52 percent), followed by staff of any type (26 percent), and unpaid friends (15 percent). A relationship type was not provided for 29 of the relationships.

Participants reported a significantly high number of relationships with people who are neither paid nor relatives (22 percent). In comparison, two previous studies found that between 0 and 15 percent of relationships are unpaid friends.[14] This may be because we specifically asked about unpaid friends, which was not true in the previous studies. Another factor is the inclusion of people who are living in the community, a difference from previous studies.

---

[14] Center for Outcome Analysis. (2017). Service Excellence Summary: Baseline Data Summary for Briefing.

Assistive technology

We also asked participants about assistive technology to learn how it helps those who use it, and why others do not use it. This information will help the State be more effective in connecting people to resources that meet their needs. Because these questions are new to this survey tool, no comparison data exist from previous COA studies.

Table 27: Participants who use assistive technology

Response	Number of participants	Unweighted percent
No	786	41.0%
No, but I need help doing certain tasks and would like to use assistive technology	37	1.9%
Yes, I have used it in the past	21	1.1%
Yes, I use it now	1,071	55.9%
Total	**1,915**	**100.0%**

More than half of the people use assistive technology and 1.9% of the people who are not currently using it would like to do so.

Table 28: How much difference has assistive technology made in increasing your independence, productivity, and community integration?

Response	Number of participants	Unweighted percent
A lot	661	62.1%
Some	208	19.5%
A little	116	10.9%
None	80	7.5%
Total	**1,065**	**100.0%**

Of the people who are using assistive technology, most (62 percent) said it has increased their independence, productivity, and community integration a lot. Only 8 percent of people said it did not have an impact on independence, productivity, and community integration.

Table 29: How much has your use of assistive technology decreased your need for help from another person?

Response	Number of participants	Unweighted percent
A lot	371	34.9%
Some	253	23.8%
A little	201	18.9%
None	238	22.4%
Total	**1,063**	**100.0%**

Of the people who are using assistive technology, 59 percent said it decreases their need for help from another person some or a lot. However, 22 percent said that the assistive technology does not decrease their need for help at all.

Reasons people said they do not use assistive technology included: their provider or guardian did not support them using assistive technology; they could not afford it; they lacked knowledge or training about how to use the technology; and they lacked knowledge about the availability of assistive technology. A few people mentioned that they do not want to use assistive technology.

Limitations

Given the size and the scope of this survey, there are several data issues that need to be highlighted. Some of these issues are system-level issues that cannot be truly mitigated, other issues can be dealt with in future analyses and further inspection of the collected data.

Weighting Data

Data listed in this report are a preliminary analysis and have not been weighted for non-response bias or other factors such. The results should be viewed as a high-level analysis that will be refined in subsequent reports. Future analyses will further uncover the appropriateness of weighting data by region, setting, and/or disability type. However, given the size of the survey sample, it is anticipated calculating weighted outcomes will not drastically change any of the initial results listed in this report.

Comparability

The results reported in this report are not generalizable to all Minnesotans with disabilities. The results are limited to specific settings and only reflect the experiences of the survey participants.

The baseline survey findings included in this report need to be interpreted in context. Most significantly, these findings can be applied to only the people living and working in the eight settings that made up the survey sample. This means the findings do not speak to all people with disabilities in Minnesota.

Quality of life can be measured in many of ways, and this survey is one way to quantify it. While this survey provides good measures of general quality of life, it is limited to specific categories.

Survey Completion

The majority (95%) of participants completed every module. However, the baseline survey results do include partially completed surveys. The most common difficulties around completing the survey were due to communicative or cognitive disabilities. In many cases when participants were bored, distracted, sleepy, or otherwise non-responsive, interviewers did not complete the survey. When one section of questions seemed to cause anxiety for the participant, interviewers used their own discretion to move to the next part of the survey to minimize harm. Given that only 5% of participants did not complete every survey module, the impact to overall outcomes is nominal.

Non-response and declining to participate

A person’s choice to participate in the survey may be associated with quality of life. People (or guardians on their behalf) frequently declined to take the survey because of reasons related to the person’s disability, including individuals who are non-verbal. Some guardians declined because they were either very happy or very unhappy with the services and did not see the value in participating. Sometimes, guardians declined taking the survey on behalf of a participant and it was difficult to know if this was the participant's wish. The vendor worked to explain that the survey was designed to be completed by people with different communication styles.

Some guardians declined on behalf of potential participants because of their level of cognition, their state of health, or their level of focus and attention. The vendor worked to address the above barriers to participation, including offering the option of a by-proxy interview to the guardian in which the guardian or person of the guardian's choice completed the survey on the participant's behalf.

Analysis did not show substantially different participation rates when comparing guardian consents with participant consents and outcomes by setting where similar, which indicates non-response bias may be nominal. However, there are many reasons for non-participation and the true reason for each individual who declined will never be completely known. Future analyses will continue to uncover any affects related to non-response bias (if any).

Self-reported data and proxies

Interviewers recorded participants' perceptions of their lives. This means self-reported data reflect the point of view of the individual being interviewed. Gathering data directly from individuals opens the door for self-reported data errors. For example, one individual said they worked 40 hours per week in two different setting (totaling an 80 hour work week). Another person reported earning $10,800 per week. While obviously inaccurate responses were omitted, results include other data that may not be exact or as accurate as administrative data.

Interviewers indicated that in many cases, someone other than the participant was involved in answering the survey questions. This included the use of proxies and of support staff or guardians clarifying responses as communication challenges arose. In terms of proxy interviews, 138 (7%) surveys were completed by another person other than the participant. Given this small number, proxy interviews did not have a significant effect on survey outcomes.

Some interviewers observed staff or guardians correcting or disagreeing with a participant's response, though staff or guardians rarely explicitly tried to influence answers. Participants with different communication styles may have answered questions through a support person, and interviewers worked to make participants the center of the conversation by asking them to nod to confirm the support persons' answers or by advocating whenever possible for participants to answer themselves.

Where more analysis is needed

Due to the depth and complexity of this dataset, there are future analyses that will be conducted to address the limitations listed above:

- Weighting – the determination on whether weighting outcome data is appropriate for this dataset has not yet been made. From a design perspective, weighting was not included in the random-sample survey design therefore, weighting data seems not to be necessary at this point. However, data from this survey could potentially be weighted in several ways. Future analysis will look to see if weighting by geography, demographics, or setting have any significant impact to the outcomes reported in this document.

Experiences from the field

The Olmstead Quality of Life Survey connected with 2,005 people with disabilities in a unique study. For many participants, the survey's accessibility, person-centeredness, and depth made it the first time they spoke at length about their quality of life.

Interviewers were asked to reflect on the survey process by filling out an optional post-survey debrief form. Roughly half of the interviews posted such a form. These post-survey observations recorded participants' demeanor, actions, and statements during the interviews. Themes from these forms illustrate how participating in the survey affected both participants and interviewers.

Participating in the survey affected many participants as it guided them through reflecting on the services they are or are not receiving. Participants who are happy with their current situation often experienced joy from completing the survey. Some also experienced satisfaction through interacting with interviewers or through the act of completing the survey itself. Others experienced sadness and expressed disappointment or frustration with their situation. Interviewers used their discretion in skipping sections that seemed to negatively affect participants, as in one case when the participant cried while reflecting on their unsatisfying living situation. This flexibility was part of the study's person-centered approach.

Interviewers were impacted as well, often empathizing with participants. Interviewers reported feelings ranging from happiness and care for the people they had interviewed to concern for their wellbeing. Some interviewers reflected on participants' actions and how it made them feel. They also recorded their enjoyment of meeting and going through the interview process with the participants. In some debrief forms, interviewers addressed what they thought was abuse or neglect, which was also reported through mandated channels.

The survey vendor intentionally hired many people with disabilities or with experience with this population as interviewers. Interviewers understood this community and field of work from their personal and professional lives. This led to increased trust from providers and other staff, whose support was key to obtaining survey responses.

Considerations for future work

Minnesota's Olmstead Plan envisions a state where people with disabilities live, learn, work, and enjoy life in the most integrated setting. To achieve this vision, systemic change is required in how state agencies make policies and interact with each other. Through the course of the Olmstead Quality of Life Survey, several policy and process issues were discovered. While these issues are not directly related to the survey outcomes, they still have a bearing on the successful, and full, implementation of the Olmstead Plan.

The items listed below are system-level issues that may need to be addressed to achieve the vision outlined in the Olmstead Plan. These items are not recommendations—they are simply issues that were uncovered during the survey implementation period and appear to be directly affected by the aims of the Olmstead Plan. These items are included in this report so that they are documented and can be referenced for future discussions.

Data quality

The success of this survey hinged on accurate records and accurate guardian contact information. While the clear majority of data received from state agencies was up-to-date, there were some issues to note:

- Guardian contact information is difficult to obtain and often outdated. Due to privacy protections, there is no central repository for guardian contact information. This leaves contact information held mostly by providers and case managers. Moreover, there is no strict requirement that guardians keep their contact information updated. This leaves a system where guardians can be unreachable or very difficult to contact.
- A number of the individuals interviewed in this survey receive services from more than one state agency. Through the course of collecting the individual-level data to develop the survey sample, several barriers were encountered:
    - State agencies have their own data systems, making it difficult to match records or resolve inconsistencies without detailed interagency agreements. While these separate systems protect data, they may hinder program efficiency and choice by making individuals interact with multiple agencies that operate under varying rules.
    - The vendor received excellent support from state agencies through the course of survey implementation. However, the difficulty in initially obtaining sample data and the isolated nature of data systems suggest that to truly achieve a person-centered approach, the State should remove walls between data systems and agencies to create a more integrated system of service.
- Definition of settings
    - The definition of the settings studied in this survey can be classified as political, meaning they are a mix of services classified in a particular way and are subject to change given certain rule or funding alterations. If changes do occur and services are re-classified, repeating the Quality of Life Survey will be difficult.

Next steps

This is the first phase of the baseline survey analysis. The second phase of analysis will provide outcomes by geography, setting, and disability type. The second phase will also attempt to account for any non-response bias that may be present. The Phase 2 analysis report will be released in 2018.

Bibliography

Center for Outcome Analysis. (2017). *Service Excellence Summary: Baseline Data Summary for Briefing.*

Minnesota Department of Human Services. (2017, 10 11). *Jensen Settlement*. Retrieved from Department of Human Services: https://mn.gov/dhs/general-public/featured-programs-initiatives/jensen-settlement/

Olmstead Subcabinet. (2017). *Putting the Promise of Olmstead into Practice: Minnesota's Olmstead Plan.* Retrieved from Putting the Promise of Olmstead into Practice: Minnesota's Olmstead Plan: https://www.dhs.state.mn.us/main/idcplg?IdcService=GET_FILE&RevisionSelectionMethod=LatestReleased&Rendition=Primary&allowInterrupt=1&noSaveAs=1&dDocName=dhs-292991

The Improve Group. (2014). *Minnesota's Olmstead Plan Quality of Life Survey Pilot Study Report.*

The Improve Group. (2016). *Quality of Life Survey Administration Plan.*

U.S. Department of Justice Civil Rights Division. (2011, June 22). *Statement of the Department of Justice on Enforcement of the Integration Mandate of Title II of the Americans with Disabilities Act and Olmstead v. L.C.* Retrieved from ADA.gov: https://www.ada.gov/olmstead/q&a_olmstead.htm

U.S. Department of Justice Civil Rights Division. (n.d.). *Olmstead: Community Integration for Everyone*. Retrieved from ADA.gov: https://www.ada.gov/olmstead/olmstead_about.htm

State of Minnesota

ADDENDUM:

Olmstead Plan Quality of Life Survey Baseline Report

Supplemental analysis on weighting and service setting

Purpose

When the Preliminary Olmstead Plan Quality of Life Baseline Report was first submitted to the Olmstead Subcabinet, the discussion that followed uncovered a need to conduct additional analyses. This addendum addresses the questions raised in those discussions and looks at three items: 1) explore the effect weighting by different variables has on survey outcomes; 2) make recommendations on the appropriateness of weighting by specific variables in future Quality of Life Survey analyses; and 3) group survey outcomes by day and residential services.

This exploration of weighting could be important from the perspective of the Olmstead Subcabinet in the development and implementation of the Minnesota Olmstead Plan. The Minnesota Olmstead Plan requires, among other things that people with disabilities will have the opportunity for increased social inclusion/integration in the years to come. The very general perspective of the Olmstead Subcabinet's oversight demands a simple "Yes or No" answer, year by year.

This means that one step in our analysis of change must be for all people. However, people in different service settings have varying response rates. For a group that responded at a low rate, their responses can be given greater "weight" for the overall analysis – to make sure that their experiences are represented properly and proportionately in the final results.

In this Addendum, we show how we have explored all the possible weightings of this kind. We will see that the results support strong confidence that our large statewide sample is valid for multiple kinds of analysis – it does support overall analyses of change, as well as analyses of change within each subgroup.

Overview on the approach and criteria for weighting outcome scores

Weighting survey data based upon specific participant variables such as gender, age, and race are common practices in survey research. The two most common types of weighting approaches are design rates and non-response rates. Design weights are normally applied when over- or under-sampling of a population is necessary. Non-response weighting is used when individuals with certain characteristics are not as likely to respond to a survey. The general point of weighting survey data is to make the results of the analysis more representative of the overall population that could have participated in the survey.

Due to the random sample design of this survey, the large number of participants, and the generally representative nature of the survey participants to the eligible population, design weights are not necessary in this instance. However, non-response is always a concern in survey research. Therefore, to analyze the effect of weighting, non-response weighting is the approach taken in this analysis. The analysis takes a univariate approach, which means weights are applied to using one variable and comparing results to unweighted outcomes.

Several variables were identified as candidates to explore. These variables are: 1) service setting, 2) primary diagnosis, 3) guardianship status, 4) race, 5) age, 6) gender, and 7) geographic region. The weighting is calculated by comparing the proportion of the characteristic in the sample to the overall proportion of the eligible survey population.

- When weighting survey data, it is important to set the boundaries of what defines a significant impact when weights are applied. In this analysis, changes of +/- 5 points in module scores (QOL, DCI, outing interactions, average outings) will be considered significant.

Weighting Results

Service Setting

The overlap between settings (individuals receiving services in more than one setting) is significant. Of the eligible population 8% indicated more than one residential setting. This situation makes weighting by service setting very difficult because there is no clear indicator of what setting is having the most impact on quality of life. One way to deal with this issue is to remove participants from the weighting calculation that have more than one residential setting. However, doing this removes all individuals receiving services in Boarding Care, most people in Board and Lodging and Supervised Living Facilities, essentially making the weighting exercise meaningless.

To explore the effect of weighting by service setting and deal with the overlap issue, individuals receiving services in more than one residential service setting were removed from the calculation. The results of which are illustrated in Table 1. When looking at this Table there are several things to note:

- The eligible population of the survey was based on authorized lines of services rather than paid services, this means that some individuals may not be receiving services at all. The difference between authorized services and paid services accounts for much of the overlap between settings.
- The difference between authorized and paid services may also account for some of the gaps between the eligible population and survey participants. A portion of the eligible population was eliminated before sampling because of lack of contact information. In addition, many potential participants were screened out during outreach (at least 10% were screened out because they were not receiving services at the setting).
- Higher eligible population proportions in day and residential services are related to: participants being removed from the survey results due to multiple settings and people with two types of services being more likely to receive at least one they were authorized for.

The resulting weighting calculation included hefty weights for some settings. Even with these heavy weights, the results to not shift survey outcome scores in any practical sense, as seen in Tables 2 and 3.

Table 1: Eligible population and survey participation by service setting (individuals removed with multiple residential services)

Service setting	Eligible population (%)	Survey Participants (%)
Day and Residential services	19.8%	42.3%
Adult Foster Care	23.0%	31.0%
Boarding Care	1.6%	-
Board and Lodging	28.5%	0.5%
Center Based Employment	4.8%	5.2%
Day Training and Habilitation	6.0%	6.4%
ICF/DD	4.1%	5.1%
Nursing Facilities and Customized Living	10.9%	9.9%
Supervised Living Facilities	0.8%	0.1%
Total	**100.0%**	**100.0%**

Table 2: Average monthly outings weighted by service setting

	Number of responses	Average monthly outings (unweighted)	Weighted monthly outings
Statewide	1,969	31.9	30.8

Table 3: Outing interactions score weighted by service setting

	Number of responses	Unweighted score	Weighted score
Outing interactions	631	45.5	44.2
Decision Control Inventory	1,942	66.2	66.7
Quality of Life	1,904	76.6	75.3

Primary Diagnosis

When looking at participation by primary diagnosis, there are clear differences in survey response rates. This is especially notable among people with intellectual or developmental disabilities. However, some of this difference can be explained by the number of people with two primary diagnoses (one from a Developmental Disabilities screening and one from a Long-Term Care screening). The primary diagnosis distinction is used for billing and program eligibility purposes and does not necessarily reflect the way the person experiences the world. This is reinforced by the two primary diagnoses issue, as well as the fact that most people in the survey have multiple diagnoses and needs that impact their quality of life.

When weights are applied based on primary diagnosis, there are no significant effects on module outcome scores, as represented in Tables 8 and 9.

Table 4: Average monthly outings weighted by primary diagnosis

	Number of responses	Average monthly outings (unweighted)	Weighted monthly outings
Statewide	1,969	31.9	30.9

Table 5: Outing interactions score weighted by primary diagnosis

	Number of responses	Unweighted score	Weighted score
Outing interactions	631	45.5	45.4
Decision Control Inventory	1,942	66.2	66.7
Quality of Life	1,904	76.6	75.6

Guardianship Status

Guardianship status data was missing for nearly one-third of the whole population from which the survey sample was drawn. Table 6 illustrates the presence of guardianship status for individuals receiving services through the Minnesota Department of Human Services (DHS). Minnesota Department of Employment and Economic Development (DEED) participants are not included in this information, as DEED did not provide guardianship status for this survey. However, most individuals receiving DEED services that could have been included in this survey have no guardian. Given the vast amounts of missing data, no acceptable weighting calculation could be made for guardianship status.

Table 6: Guardianship status in sample data (DHS data only)

Guardianship Status	Frequency	Percent
Missing	12,590	33.5%
No guardian	11,242	29.9%
Guardian present	13,776	36.6%
Total	37,608	100%

Race

When individual responses are weighted by race and calculated into outcome scores, there are no significant impacts to any survey module. Race is typically a variable that requires a weighting calculation. However, given the large number of survey respondents and the general demographics of the eligible survey population, weighting by race has no practical impact on outcome scores, as illustrated in Tables 8 and 9.

Table 7: Eligible population and survey participation by race

Participant race	Eligible population (%)	Survey Participants (%)
Asian	1.5%	1.5%
Black	6.1%	4.3%
Native American	2.1%	2.5%
White	78.5%	85.9%
Two or more	0.3%	0.2%
Other or unknown	11.5%	5.5%
Total	**100.0%**	**100.0%**

Table 8: Average monthly outings weighted by race

	Number of responses	Average monthly outings	Weighted monthly outings
Statewide	1,969	31.9	32.0

Table 9: Outing interactions score weighted by race

	Number of responses	Unweighted score	Weighted score
Outing interactions	631	45.5	45.4
Decision Control Inventory	1,942	66.2	66.1
Quality of Life	1,904	76.6	76.5

Age

When participant characteristics are broken down by age, with one exception, survey participants very much reflect the eligible population, as represented in Table 10. Individuals 65 years of age or older are under-represented in survey participants. However, weighting for age does not meaningfully change the overall outcome scores, as illustrated in Tables 11 and 12.

Table 10: Eligible population and survey participation by age

Participant age	Eligible population (%)	Survey Participants (%)
Under 18	0.3%	0.5%
18 to 24	6.9%	7.3%
25 to 34	19.3%	19.4%
35 to 44	17.6%	17.0%
45 to 54	20.6%	19.9%
55 to 64	23.7%	23.2%
65+	19.7%	12.7%
Total	**100.0%**	**100.0%**

Table 11: Average monthly outings weighted by age

	Number of responses	Average monthly outings	Weighted monthly outings
Statewide	1,969	31.9	31.3

Table 12: Outing interactions score weighted by age

	Number of responses	Unweighted score	Weighted score
Outing interactions	631	45.5	45.2
Decision Control Inventory	1,942	66.2	66.0
Quality of Life	1,904	76.6	76.6

Gender

Table 13 shows that both male and female survey participants were over-represented when compared to the eligible population. The primary reason for this difference is that survey participants have lower numbers of missing, unknown, or not reported gender data.

Table 13: Eligible population and survey participation by gender

Participant gender	Eligible population (%)	Survey Participants (%)
Female	38.8%	43.1%
Male	51.3%	54.9%
Unknown (not reported)	9.9%	2.0%
Total	**100.0%**	**100.0%**

Tables 14 and 15 compare weighted scores by gender with unweighted scores. The shift in scores are insignificant and in the case of the quality of life score, there is no change at all.

Table 14: Average monthly outings weighted by gender

	Number of responses	Average monthly outings	Weighted monthly outings
Statewide	1,969	31.9	31.8

Table 15: Outing interactions score weighted by gender

	Number of responses	Unweighted score	Weighted score
Outing interactions	631	45.5	45.4
Decision Control Inventory	1,942	66.2	65.7
Quality of Life	1,904	76.6	76.6

Geographic region

Table 16 compares the percentage of eligible participants living in a region of the state versus the percentage of participants that took the survey. There are regional differences in response. The metro area had a lower response rate and greater Minnesota had higher response rates. The lower metro area rates were driven by one suburban metro county having particularly low response rates.

Table 16: Eligible population and survey participation by geographic region

Region of service	Eligible population (%)	Survey Participants (%)
Central	12.3%	15.8%
Metro	45.0%	34.2%
Northeast	11.5%	11.5%
Northwest	9.2%	13.0%
Southeast	9.5%	12.1%
Southwest	12.1%	13.5%
Total	**100%**	**100.0%**

Tables 17 and 18 show weighted survey outcomes by region, which can correct for the higher and lower response rates by geography. The results show that weighted scores by geographic region do not vary significantly from the unweighted scores.

Table 17: Average monthly outings weighted by geographic region

	Number of participants	Average monthly outings	Weighted monthly outings
Statewide	1,969	31.9	31.5

Table 18: Outing interactions score weighted by geographic region

	Number of participants	Unweighted score	Weighted score
Outing interactions	631	45.5	44.4
Decision Control Inventory	1,942	66.2	66.6
Quality of Life	1,904	76.6	76.3

Weighting recommendations and future analyses

Of the seven variables considered for weighting, not one was close to shifting scores to the 5-point +/- significance threshold. There are several reasons for this. First, the number of survey participants (2,005) is large enough compared to the eligible population that weighting by individual variables makes no difference. Also, the number of survey participants is generally representative of the population eligible for this survey. With that said, weighting survey data should always be consideration. Table 19 compares the weighting results described earlier and makes recommendations as to the appropriateness of weighting by that variable for future analyses on the Olmstead Plan's Quality of Life Survey data.

Table 19: Comparison of weighting approaches

Variable	Data completeness	Impact on results	+/- 5 point change?	Discussion
Service Setting	Complete, but significant overlap between settings	Quality of life module score dropped by 1.3 points, others shifted less than one point	NO	Not appropriate for this survey due to the overlap between setting
Primary Diagnosis	25% missing or multiple (DD and LTC diagnosis provided)	Less than one point for all module scores	NO	Not appropriate for this survey. Primary diagnosis is a category used for billing and eligibility, which is not necessarily reflective of how an individual experiences the world.
Guardianship Status	More than 30% missing in DHS data; not provided in DEED data	Not tested – too much missing data	NO	Should be explored when data completeness can be improved
Race	~5% missing	Less than one point for all module scores	NO	Appropriate weighting measure, but not impactful in this instance
Age	Complete	Less than one point for all module scores	NO	Appropriate weighting measure, but not impactful in this instance
Gender	~5% missing	Less than one point for all module scores	NO	Appropriate weighting measure, but not impactful in this instance
Geographic region	Complete	Less than one point for all module scores	NO	Appropriate weighting measure, but not impactful in this instance

Given the minimal differences univariate weighting had on the outcome scores, there really isn't a reason to consider this type of weighting for future analyses. Nevertheless, now that weighting factors have been calculated for the sample and the subgroups, they can be tested in future analysis to make sure they do not change the conclusions.

In follow-up surveys, there will continue to be a need to account for non-response bias. The best approach will be to look for interaction between and among variables through regression models. For example, instead of looking at age or gender in isolation, regression modeling will look at the mix of age group and gender to see if there are any effects on outcome scores. This is a sophisticated approach and will provide a higher level of precision, as well as deeper understanding of outcomes.

As the planning for the follow-up Quality of Life survey and subsequent analysis gets started in 2018, so too will the development of a regression model(s) that will attempt to further understand the differences between survey participants and those not participating.

Outcomes by day and residential services

Overview

A main strength of the Olmstead Quality Life Survey design is the ability to compare outcomes between different service settings. However, the settings from which the survey sample was drawn are often overlapping. This means that one person can represent multiple settings, making it difficult to attribute quality of life to any one individual setting. An additional complication regarding setting is the definition of the setting itself. The service components or cluster of services that make up the administrative definition of a particular setting can and do change. While this does not mean much for the quality of the data or high-level quality of life outcomes, it can affect the analysis of outcomes by setting. Outcomes by setting could change depending on how one defines a setting and reassigns participant data.

To address these issues, outcome data were grouped by day services and residential services. Grouping outcomes in this manner is an attempt to control for the potentially complicating factors of how service settings are currently defined.

Explanation of analysis

- Day services include Day Training and Habilitation and Center Based Employment.
- Residential services include Adult Foster Care, Boarding Care, Board and Lodging, Intermediate Care Facilities for Persons with Developmental Disabilities (ICF/DD), Nursing Facilities and Customized Living, and Supervised Living Facilities.
- Slightly fewer than half of people receive more than one service (816 of the 2,005 respondents).
- This analysis does not look at the interaction between the two (e.g. is quality of life different for people who receive just day/residential services versus for people who receive both).

Results

Most participants were authorized for services in one or two settings as of July 1, 2016 (54 percent and 44 percent, respectively). However, a small number of participants had authorized lines of services in three or more residential settings. Most participants who were authorized for two lines of service were authorized for services in a day setting and a residential setting. As a result, there is significant overlap between the residential settings and Day Training and Habilitation.

Table 20: Number of participants by service type (day or residential)

Service type	Number of participants
Day Services Only	212
Residential Services Only	977
Day and Residential services	816

Community Integration and Engagement: Time, Money, and Integration During the Day

Participants described their hours worked, earnings, and integration over the previous week. The hours estimate included how many hours during the week the person worked, on average, in each kind of setting listed. These settings included self-employment, regular competitive employment, supported employment, and unpaid activities like school or volunteering. Earnings included how much money the person earned from each of these activities. Integration was a rating from 1 (completely segregated and never in the presence of people without disabilities) to 5 (completely integrated and nearly always in a situation where people without disabilities might be present). Interviewers were to ask the person first, then whoever knows the person best, such as a guardian, close friend, or staff.[15]

On average, the participants receiving services in day settings spent more time in day activities, earned slightly less per week, and reported slightly lower integration levels than people receiving services in residential settings.

Table 21: Average day activity hours by service setting (all activities)

Service setting	Number of participants reporting hours	Average weekly hours (all activities)
Day Services	944	27.1
Residential Services	1,369	24.5
Statewide average		**24.7**

Note: Participants could report hours in more than one-day activity. Since participants can and do experience multiple settings within a day, the total does not equal the number of participants in each setting due to overlap.

---

[15] Module descriptions come from "Service Excellence Summary: Baseline Data Summary for Briefing," Center for Outcomes Analysis, May 2017

Table 30: Average weekly earnings by setting

Service setting	Number of participants reporting earnings	Average weekly earnings (all activities)
Day Services	509	$71.74
Residential Services	693	$73.47
Statewide average	**816**	**$80.60**

Notes: Participants could report earnings in more than one-day activity. Due to overlap between settings, the total does not equal the number of participants in each setting.

Table 23: Average integration level in day activities by service setting

Service setting	Number of participants reporting integration levels	Average integration level (all activities)
Day Services	973	2.0
Residential Services	1,127	2.1
All service settings	**1,608**	**2.1**

Note: Participants could report integration levels in more than one-day activity. Due to overlap between settings, the total does not equal the number of participants in each setting.

Table 24: Day activity hours, earnings, and integration by service setting (Day Services)

Day activity type	Number of survey participants reporting hours	Average weekly hours	Average weekly earnings	Average integration level
Self-Employed	0	0	$45.00	2.3
Competitive Employment	53	17.4	$147.88	4.3
Supported Employment	127	18.4	$124.46	3.3
Enclave or Job Crew	211	19.4	$72.18	2.2
Sheltered Employment or Workshop	333	22.3	$39.44	1.4
Pre-vocational or Vocational Rehabilitation	5	15.2	$40.00	1.6
Day Training and Habilitation	145	21.4	$29.07	1.4
Other Job	18	20.7	$115.51	2.2

Day activity type	Number of survey participants reporting hours	Average weekly hours	Average weekly earnings	Average integration level
Private School	-	-	-	-
Public School	-	-	-	-
Adult Education	8	16	-	1.6
Other School	14	6.1	-	2.0
Adult Day Program	314	20.8	-	1.5
Volunteer Work	69	2.9	-	3.4
Other Day Activities	70	5.4	-	2.2

Note: Participants could report hours in more than one-day activity. Since participants can and do experience multiple settings within a day, the total does not equal the number of participants in each setting due to overlap.

Table 25: Day activity hours, earnings, and integration by service setting (Residential Services)

Day activity type	Number of survey participants reporting hours	Average weekly hours	Average weekly earnings	Average integration level
Self-Employed	1	1	$222.02	3.9
Competitive Employment	116	17.9	$131.10	4.0
Supported Employment	159	16.8	$115.43	3.2
Enclave or Job Crew	251	19.0	$76.09	2.2
Sheltered Employment or Workshop	431	21.5	$40.12	1.5
Pre-vocational or Vocational Rehabilitation	20	16.7	$70.01	1.8
Day Training and Habilitation	178	20.9	$29.69	1.4
Other Job	18	15.4	$46.45	2.4
Private School	-	-	-	-
Public School	10	25.8	-	2.3
Adult Education	27	13.0	-	2.4
Other School	23	8.5	-	2.2

Day activity type	Number of survey participants reporting hours	Average weekly hours	Average weekly earnings	Average integration level
Adult Day Program	437	19.9	-	1.5
Volunteer Work	119	4.8		3.4
Other Day Activities	115	6.0		2.4

Note: Participants could report hours in more than one-day activity. Since participants can and do experience multiple settings within a day, the total does not equal the number of participants in each setting due to overlap.

Community Integration and Engagement: Integrative Activities Scale

Participants described the number of times they did each of a list of activities in the past four weeks. Activities included visits with friends, relatives, or neighbors, and trips to a grocery store, restaurant, place of worship, mall, or sports event. Participants also shared the average group size with which they did this activity, and how often trips of each type typically included interaction with community members not in the “disability system.”

Participants receiving day services reported a higher average number of weekly outings than participants receiving residential services (35.3 compared to 30.4.). Participants receiving day services also reported slightly larger group sizes and slightly higher outing interactions scores. However, these differences are not large enough to be of practical significance.

The outing interactions score is a measure based on the individual’s average interaction rating for each outing type, converted to a score of 100 for ease of interpretation. Scores are not calculated for individuals with fewer than eight outings. A higher score indicates more interaction with community members during outings, while a lower score indicates fewer interactions with community members.

Table 31: Average number of monthly outings by service setting

Service setting	Number of participants	Average monthly outings
Day Services	1,003	35.3
Residential Services	1,762	30.4
All service settings	**1,969**	**31.9**

Note: Due to overlap between service types, the total does not equal the number of participants in each setting.

Table 32: Average group size by service setting (all outings)

Service setting	Number of participants	Average group size
Day Services	996	3.4
Residential Services	1,744	3.3
All settings	**1,951**	**3.3**

Note: Due to overlap between service types, the total does not equal the number of participants in each setting.

Table 33: Outing interactions score by service setting

Service setting	Number of participants	Average outing interactions score
Day Services	404	45.4
Residential Services	541	44.9
All settings	**631**	**45.5**

Note: Due to overlap between service types, the total does not equal the number of participants in each setting.

Decision Control Inventory

Individuals reported who made decisions for them about food, clothes, sleep, recreation, choice of support agencies, and more. This helps delineate people in paid (staff) versus unpaid (relatives, friends, advocates) roles in decision-making. For example, individuals reported whether paid staff, unpaid allies, or they themselves decided what they could do with their relaxation time.

Decisions most often made by paid staff received lower scores. These factors added to an individual's score on a scale of 0 to 100. Low individual scores could indicate situations of oppression, while high individual scores could offer lessons for living situations with the most freedom. Individual scores are averaged for a community score on a scale of 0 to 100.

Table 34: Decision Control Inventory (DCI) scores by service setting

Service setting	Number of participants	Average DCI score
Day Services	986	65.8
Residential Services	1,733	63.8
All service settings	**1,942**	**66.2**

Note: Due to overlap between settings, the total does not equal the number of participants in each setting.

The DCI is one of the areas where we would expect to see differences between settings as we would expect greater levels of autonomy in settings where people live independently as opposed to settings designed for people who need more significant supports.

On average, DCI scores were slightly higher among participants who receive services in day settings than participants who receive services in residential settings. However, these differences are not large enough to be of practical significance.

Quality of Life inventory

Individuals reported whether their quality of life is good or bad in 14 different areas, including health, happiness, comfort, and overall quality of life. This measure captures the person's perspective about their quality of life. For example, individuals reported whether their privacy was good, bad, or somewhere in between.

People who reported lower quality of life in the different areas received lower scores. These factors added to an individual's score on a scale of 0 to 100.

Table 35: Quality of Life scores by service setting

Service setting	Number of participants	Average Quality of Life score
Day Services	967	78.9
Residential Services	1,695	76.2
All service settings	**1,904**	**76.6**

Note: Due to overlap between services, the total does not equal the number of participants in each setting.

Converting the individual quality of life items into a score out of 100 is helpful for understanding the overall results. The score is converted to a 100-point scale based on the individual's average rating for each quality of life item. Scores are not calculated for individuals who responded to fewer than five items. The score is converted to a 100-point scale for ease of interpretation, with a higher score indicating a higher overall quality of life.

Participants receiving day services reported slightly higher quality of life scores than participants receiving services in residential settings. However, this difference is not large enough to be of practical significance.

Closest Relationships Inventory

Survey interviewers asked participants about their closest relationships. This included the type of relationship—relative, staff, housemate, co-worker, etc. A "close relationship" was anyone the person defined that way. Participants were asked about their five closest relationships; if they did not have five close relationships, that was noted as well.

On average, participants receiving day services reported slightly more relationships than participants receiving residential services. Participants receiving residential services reported slightly fewer relationships with relatives and slightly more relationships with unpaid friends. However, these differences are minor.

Table 36: Number of close relationships reported by service setting

Service setting	Number of participants	Average number of relationships	Total relationships reported (n)	Possible relationships (n)
Day Services	1,028	4.0	4,091	5.140
Residential Services	1,793	3.9	6,940	8,965
All service settings	**1,859**	**4.2**	**7,838**	**9,510**

Note: Due to overlap between settings, the total does not equal the number of participants in each setting.

Table 37: Closest relationship type by service setting

	Number of relationships	Co-worker or school mate	House mate	Merchant	Neighbor	Other paid staff	Rela tive	Staff of day program, school, or job	Staff of home	Unpaid friend
Day Services	4,076	2%	5%	<1%	<1%	3%	53%	6%	18%	12%
Residential Services	6.913	2%	5%	<1%	1%	3%	50%	4%	20%	15%
All Service Settings	**9,650**	**2%**	**5%**	**<1%**	**1%**	**3%**	**52%**	**5%**	**18%**	**15%**

Note: Due to overlap between services, the total does not equal the number of relationships reported in each service type.

Assistive technology

We also asked participants about assistive technology to learn how it helps those who use it, and why others do not use it. This information will help the State be more effective in connecting people to resources that meet their needs. Because these questions are new to this survey tool, no comparison data exist from previous Center for Outcome Analysis studies.

Table 38: Percent of participants who use assistive technology by service setting

Service Setting	Number of participants	No	No, but I would like to	Yes, I used it in the past	Yes, I use it now
Day Services	1,028	46%	2%	1%	52%
Residential Services	1,709	41%	2%	1%	56%
All service settings	**1,915**	**41%**	**2%**	**1%**	**56%**

Note: Due to overlap between services, the total does not equal the number of participants in each service.

More than half of participants said they currently use assistive technology, with more participants receiving residential services than participants in day services reporting they use assistive technology.

Table 39: Response to survey question: "How much difference has assistive technology made in increasing your independence, productivity, and community integration?"

Service Setting	Participants (n)	A lot	Some	A little	None
Day Services	503	59%	21%	11%	8%
Residential Services	953	62%	19%	11%	8%
All respondents	**1,063**	**61%**	**19%**	**12%**	**8%**

Note: Due to overlap between settings, the total does not equal the number of participants in each setting.

Regardless of service type, most participants who use assistive technology said the technology they use helps them be more independent, more productive, and increases their integration into the community.

Table 40: Response to survey question: "How much has your use of assistive technology decreased your need for help from another person?"

Service Setting	Number of participants	A lot	Some	A little	None
Day Services	500	31%	26%	20%	23%
Residential Services	951	35%	24%	19%	23%
All service settings	**1,065**	**32%**	**25%**	**20%**	**23%**

Note: Due to overlap between settings, the total does not equal the number of participants in each setting.

The amount assistive technology helps varies by service type; however, more than half of participants in both day and residential settings who use assistive technology said it decreases their need for help from another person some or a lot.

Conclusion

This addendum is meant to further the analysis of the Olmstead Plan's Quality of Life Survey baseline data. From this work several things have been determined:

- Univariate weighting has no practical impact on final survey outcomes.
- While some variables could be appropriate weights, the number of survey participants is large and representative enough to the overall population that including weights does not add much value.
- Regression modeling should be developed for analysis of the Quality of Life follow-up survey to measure interaction between/among variables and further explore survey non-response.
- Defining services setting by Day Services and Residential Services provides another lens with which to view outcome data. Combining service settings into day and residential allows the

possibility of taking a global look at quality of life in a manner that has less setting overlap and thus, a clearer picture of the impact a general setting may have.

- Overall, individuals in residential service settings have slightly lower quality of life scores than individuals in Day Services settings.

Appendix A: Survey results by region

Section overview

The section outlines survey results by geography. Using the State of Minnesota's planning areas, survey participants were categorized into six regions, determined by the county in which they received services. These regions by county are defined here:

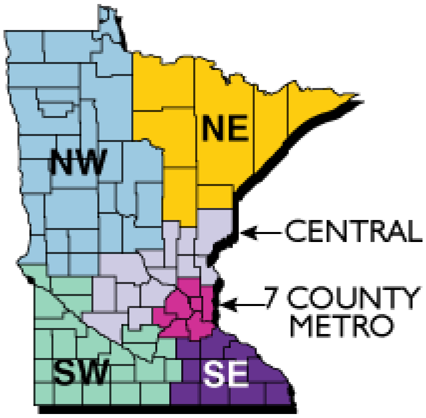

Table 1: Minnesota counties by survey region

Region	County
Central	Benton County, Chisago County, Isanti County, Kanabec County, Kandiyohi County, McLeod County, Meeker County, Mille Lacs County, Pine County, Renville County, Sherburne County, Stearns County, Wright County
Northeast	Aitkin County, Carlton County, Cook County, Itasca County, Koochiching County, Lake County, St. Louis County
Northwest	Becker County, Beltrami County, Cass County, Clay County, Clearwater County, Crow Wing County, Douglas County, Grant County, Hubbard County, Kittson County, Lake of the Woods County, Mahnomen County, Marshall County, Morrison County, Norman County, Otter Tail County, Pennington County, Polk County, Pope County, Red Lake County, Roseau County, Stevens County, Todd County, Traverse County, Wadena County, Wilkin County
Southeast	Dodge County, Fillmore County, Freeborn County, Goodhue County, Houston County, Mower County, Olmsted County, Rice County, Steele County, Wabasha County, Winona County
Southwest	Big Stone County, Blue Earth County, Brown County, Chippewa County, Cottonwood County, Faribault County, Jackson County, Lac qui Parle County, Le Sueur County, Lincoln County, Lyon County, Martin County, Murray County, Nicollet County, Nobles County, Pipestone County, Redwood County, Rock County, Sibley County, Swift County, Waseca County, Watonwan County, Yellow Medicine County
Metro	Anoka County, Carver County, Dakota County, Hennepin County, Ramsey County, Scott County, Washington County

Community Integration and Engagement: Time, Money, and Integration During the Day

Participants described their hours worked, earnings, and integration over the previous week. The hours estimate included how many hours during the week the person worked, on average, in each kind of setting listed. These settings included self-employment, regular competitive employment, supported employment, and unpaid activities like school or volunteering. Earnings included how much money the person earned from each of these activities. Integration was rated from 1 (completely segregated and never in the presence of people without disabilities) to 5 (completely integrated and nearly always in a situation where people without disabilities might be present). Interviewers were to ask the person first, then whoever knows the person best, such as a guardian, close friend, or staff.[16] Tables 34-39 show the average hours, earnings, and integration levels in each day activity by region.

Table 2: Average day activity hours by region

Region	Number of participants reporting hours	Average day activity hours (all activities)
Central	255	24.1
Metro	513	24.7
Northeast	178	23.7
Northwest	194	25.6
Southeast	208	25.0
Southwest	217	25.5
Statewide	**1,565**	**24.7**

Note: Participants could report hours in more than one day activity type.

On average, participants in northwest and southwest Minnesota spent more time per week in day activities (25.6 hours and 25.5 hours, respectively) than participants in other parts of the state. In the metro area, participants spent less time in paid activities, but more time than average on other day activities.

Table 3: Average weekly earnings by region

Region	Number of participants reporting earnings	Average weekly earnings (all paid activities)
Central	151	$95.32
Metro	199	$117.63
Northeast	107	$81.31
Northwest	129	$44.77
Southeast	93	$73.51
Southwest	137	$63.77
Statewide	**816**	**$83.15**

Note: Participants could report earnings in more than one day activity type.

---

[16] Module descriptions come from “Service Excellence Summary: Baseline Data Summary for Briefing,” Center for Outcomes Analysis, May 2017

Average weekly earnings were highest in the metro area ($118), where people earned close to 1.5 times the statewide average. People in central Minnesota earned the next highest amount, averaging $95 per week. People in northwest and southwest Minnesota had far lower average weekly earnings ($45 and $64, respectively).

Table 4: Average integration level in all day activities by region

Region	Number of participants reporting integration levels	Average integration level in all day activities
Central	264	2.4
Metro	534	2.1
Northeast	179	2.1
Northwest	198	2.4
Southeast	212	2.0
Southwest	221	1.8
Statewide	**1,608**	**2.1**

Note: Participants could report integration levels in more than one day activity type.

The highest average integration level in day activities was found in the northwest and central regions (2.4 for both), while it was lowest in the southwest region (1.8). The integration levels for employment settings were lowest in the southeast and southwest regions (1.9 and 1.7, respectively).

Table 5: Day activity hours, earnings, and integration by region (Central)

Day activity type	Number of survey participants reporting hours	Average weekly hours	Average weekly earnings	Average integration level
Self-Employed	-	-	-	-
Competitive Employment	30	16.8	$162.13	4.3
Supported Employment	31	19.8	$130.05	3.0
Enclave or Job Crew	66	19.8	$75.27	2.0
Sheltered Employment or Workshop	90	23.3	$51.06	1.7
Pre-vocational or Vocational Rehabilitation	7	20.4	$85.67	2.7
Day Training and Habilitation	18	23.7	$79.35	1.9
Other Job	-	-	-	-
Private School	-	-	-	-
Public School	1	7.0	-	3.8
Adult Education	4	16.5	-	2.7
Other School	6	12.3	-	1.9
Adult Day Program	40	21.4	-	3.5
Volunteer Work	21	7.1	-	2.1
Other Day Activities	17	3.1	-	4.3

Note: Participants could report hours, earnings, and integration levels in more than one day activity.

Table 6: Day activity hours, earnings, and integration by region (Metro Area)

Day activity type	Number of survey participants reporting hours	Average weekly hours	Average weekly earnings	Average integration level
Self-Employed	1	1.0	$222.02	3.2
Competitive Employment	49	19.0	$171.44	3.8
Supported Employment	76	17.6	$185.95	3.5
Enclave or Job Crew	72	15.8	$62.99	2.3
Sheltered Employment or Workshop	107	20.8	$53.82	1.4
Pre-vocational or Vocational Rehabilitation	9	15.4	$22.50	1.2
Day Training and Habilitation	45	20.2	$49.08	1.6
Other Job	7	13.1	$47.42	2.0
Private School	-	-	-	-
Public School	1	24.0	-	1.0
Adult Education	16	14.8	-	2.3
Other School	12	5.9	-	2.1
Adult Day Program	241	21.3	-	1.4
Volunteer Work	47	4.1	-	3.4
Other Day Activities	57	6.5	-	2.3

Note: Participants could report hours, earnings, and integration levels in more than one day activity.

Table 7: Day activity hours, earnings, and integration by region (Northeast Minnesota)

Day activity type	Number of survey participants reporting hours	Average weekly hours	Average weekly earnings	Average integration level
Self-Employed	-	-	-	-
Competitive Employment	19	16.7	$102.07	4.3
Supported Employment	30	14.2	$ 97.41	3.4
Enclave or Job Crew	20	17.7	$84.31	2.3
Sheltered Employment or Workshop	60	18.8	$49.27	1.6
Pre-vocational or Vocational Rehabilitation	3	9.3	$120.00	1.3
Day Training and Habilitation	10	21.3	$18.86	1.5
Other Job	13	18.1	$121.29	2.2
Private School	-	-	-	-
Public School	2	22.0	-	1.0
Adult Education	2	2.0	-	1.0
Other School	1	1.0	-	2.5
Adult Day Program	68	19.4	-	1.4
Volunteer Work	19	4.6	-	3.3
Other Day Activities	14	6.2	-	2.1

Note: Participants could report hours, earnings, and integration levels in more than one day activity.

Table 8: Day activity hours, earnings, and integration by region (Northwest Minnesota)

Day activity type	Number of survey participants reporting hours	Average weekly hours	Average weekly earnings	Average integration level
Self-Employed	-	-	-	-
Competitive Employment	18	19.9	$91.82	4.3
Supported Employment	20	20.6	$68.01	2.9
Enclave or Job Crew	31	23.0	$51.99	2.6
Sheltered Employment or Workshop	86	23.8	$28.80	1.7
Pre-vocational or Vocational Rehabilitation	2	18.0	$23.09	2.5
Day Training and Habilitation	13	18.2	$11.59	2.2
Other Job	4	23.5	$17.03	1.8
Private School	-	-	-	-
Public School	2	30.0	-	3.5
Adult Education	2	3.5	-	2.0
Other School	4	8.0	-	1.3
Adult Day Program	41	20.3	-	2.1
Volunteer Work	21	3.5	-	3.4
Other Day Activities	14	6.8	-	3.0

Note: Participants could report hours, earnings, and integration levels in more than one day activity.

Table 9: Day activity hours, earnings, and integration by region (Southeast Minnesota)

Day activity type	Number of survey participants reporting hours	Average weekly hours	Average weekly earnings	Average integration level
Self-Employed	-	-	-	-
Competitive Employment	14	22.9	$182.21	4.5
Supported Employment	28	16.2	$74.34	2.9
Enclave or Job Crew	46	19.7	$96.38	2.3
Sheltered Employment or Workshop	61	21.0	$43.90	1.4
Pre-vocational or Vocational Rehabilitation	-	-	-	-
Day Training and Habilitation	52	20.1	$31.41	1.2
Other Job	1	2.0	$9.00	4.0
Private School	-	-	-	-
Public School	2	29.0	-	2.5
Adult Education	4	10.8	-	1.5
Other School	4	11.5	-	2.8
Adult Day Program	58	15.0	-	1.6
Volunteer Work	17	2.9	-	3.6
Other Day Activities	19	5.8	-	2.8

Note: Participants could report hours, earnings, and integration levels in more than one day activity.

Table 10: Day activity hours, earnings, and integration by region (Southwest Minnesota)

Day activity type	Number of survey participants reporting hours	Average weekly hours	Average weekly earnings	Average integration level
Self-Employed	-	-	-	-
Competitive Employment	15	15.7	$104.07	3.7
Supported Employment	10	19.9	$148.86	3.7
Enclave or Job Crew	60	19.5	$80.81	1.9
Sheltered Employment or Workshop	79	21.1	$30.75	1.4
Pre-vocational or Vocational Rehabilitation	-	-	-	-
Day Training and Habilitation	60	21.9	$12.40	1.2
Other Job	2	20.0	$109.75	4.0
Private School	-	-	-	-
Public School	2	32.5	-	3.0
Adult Education	-	-	-	-
Other School	3	6.0	-	2.7
Adult Day Program	42	17.6	-	1.3
Volunteer Work	13	3.9	-	3.5
Other Day Activities	8	6.6	-	1.9

Note: Participants could report hours, earnings, and integration levels in more than one day activity.

Community Integration and Engagement: Integrative Activities Scale

Participants described the number of times they did each of a list of activities in the past four weeks. Activities included visits with friends, relatives, or neighbors, and trips to a grocery store, restaurant, place of worship, mall, or sports event. Participants also shared the average group size with which they did this activity, and how often trips of each type typically included interaction with community members not in the “disability system.”

Table 11: Total outings by region

Region	Number of participants	Average monthly outings
Central	1,629	33.7
Metro	1,425	29.8
Northeast	1,608	29.7
Northwest	832	34.5
Southeast	1,671	33.3
Southwest	189	33.4
Statewide	**1,969**	**31.9**

By region, participants in northwest Minnesota averaged the most outings, at 1.25 per day. Participants reported slightly over a single outing per day in northeast Minnesota and the metro area.

Table 12: Average group size by region (all outings)

Region	Number of participants	Average group size
Central	311	3.4
Metro	652	3.1
Northeast	227	3.4
Northwest	259	3.4
Southeast	238	3.3
Southwest	264	3.3
Statewide	**1,951**	**3.3**

Participants' average group size for outings was not significantly different across regions. The group sizes averaged slightly smaller in the metro area (3.1) and slightly larger than average in the central, northeast, and northwest regions (3.4)

Table 13: Outing interactions score by region

Region	Number of participants	Average outing interactions score
Central	97	46.5
Metro	206	39.1
Northeast	69	38.3
Northwest	102	54.0
Southeast	67	53.8
Southwest	90	48.4
Statewide	**631**	**45.5**

The outing interactions score is a measure based on the individual's average interaction rating for each outing type, converted to a score of 100 for ease of interpretation. Scores are not calculated for individuals with fewer than eight outings. A higher score indicates more interaction with community members during outings, while a lower score indicates fewer interactions with community members.

By region, outing interactions scores are lowest in northeast Minnesota (38.3) and the metro area (39.1), indicating little interaction with other community members compared to the rest of the state. The highest scores are in northwest and southeast Minnesota (54.0 and 53.8, respectively), indicating more interaction for people in these regions.

Decision Control Inventory

Individuals reported who made decisions around food, clothes, sleep, recreation, choice of support agencies, and more. This measure helps delineate paid (staff) versus unpaid (relatives, friends, advocates) people's roles in decision-making. For example, individuals reported whether paid staff, unpaid allies, or they themselves decided what they could do with their relaxation time.

Decisions most often made by paid staff received lower scores. These factors added to an individual's score on a scale of 0 to 100. Low individual scores could indicate situations of oppression, while high individual scores could offer lessons for living situations with the most freedom. Individual scores are averaged for a community score on a scale of 0 to 100.

Table 14: Decision Control Inventory (DCI) scores by region

Region	Number of participants	Average DCI score
Central	314	65.3
Metro	656	68.7
Northeast	224	67.0
Northwest	260	61.3
Southeast	225	66.3
Southwest	263	65.1
Statewide	**1,942**	**66.2**

The Decision Control Inventory (DCI) score is calculated taking the average scores for individual items and converting them to a 100-point scale to measure overall power and control. A higher score on the overall DCI scale indicates a higher level of control. A very low score indicates possible oppression or domination.

By region, DCI scores are higher than average in the metro area (68.7) and lower than average in northwest Minnesota (61.3). The scores indicate that, regardless of region, participants reported a moderate level of decision-making power.

Quality of Life Inventory

Individuals reported whether their quality of life is good or bad in 14 different areas, including health, happiness, comfort, and overall quality of life. For example, individuals reported whether their privacy was good, bad, or somewhere in between.

People who reported lower quality of life in the different areas received lower scores. These factors added to an individual's score on a scale of 0 to 100. A higher score indicates a higher overall quality of life.

Table 15: Quality of Life module scores by region

Region	Number of participants	Average Quality of Life score
Central	309	76.2
Metro	643	75.0
Northeast	220	77.7
Northwest	248	78.7
Southeast	221	78.5
Southwest	263	76.6
Statewide	**1,904**	**76.6**

Converting the individual quality of life items into a score out of 100 is helpful for understanding the overall results. By region, quality of life scores were slightly lower in the metro area (75.0 compared to 76.6 statewide). Scores were higher in northwest and southeast Minnesota (78.7 and 78.5, respectively).

The scores typically were clustered around the average, indicating there are not any huge regional variations for this score.

Closest Relationships Inventory

Survey interviewers asked participants about their closest relationships. This included the type of relationship—relative, staff, housemate, co-worker, etc. A “close relationship” was anyone the person defined that way. Participants were asked about their five closest relationships; if they did not have five close relationships, that was noted as well.

Table 16: Total number of relationships reported by region

Region	Number of participants	Average number of relationships reported	Total relationships reported (n)	Possible relationships
Central	298	4.1	1,221	1,520
Metro	618	3.9	2,542	3,155
Northeast	212	3.3	833	1,115
Northwest	247	4.3	1,059	1,250
Southeast	226	4.4	985	1,155
Southwest	258	4.6	1,198	1,370
Statewide	**1,859**	**4.2**	**7,838**	**9,510**

When comparing by region, participants in the southwest region noted the highest number of close relationships, with an average of 4.6 out of 5 possible, which is nearly 90 percent of possible relationships (1,198 out of 1,370). People in the northeast region reported the fewest relationships. At more than 3 out of 5 (3.3), they were still lower than other regions.

Table 17: Closest relationship type by region

Region	Number of relationships	Co-worker or schoolmate	Housemate	Merchant	Neighbor	Other staff	Relative	Staff of day program, school, or job	Staff of home	Unpaid friend
Central	1,214	4%	4%	0%	0%	3%	54%	2%	18%	15%
Metro	2,536	1%	6%	0%	1%	2%	55%	5%	15%	16%
Northeast	829	1%	4%	0%	1%	3%	50%	5%	17%	18%
Northwest	1,053	2%	5%	0%	1%	2%	48%	4%	23%	15%
Southeast	984	2%	4%	0%	1%	7%	48%	5%	20%	14%
Southwest	1,193	2%	6%	0%	0%	4%	50%	6%	21%	12%
Statewide	**7,809**	**2%**	**5%**	**0%**	**1%**	**3%**	**52%**	**5%**	**18%**	**15%**

Across regions, participants reported notably high numbers of relationships with unpaid friends (12 to 18 percent). Within regions, people in southwest, southeast, and northwest Minnesota reported more relationships with staff than in the rest of the state (29 percent northwest Minnesota and 31 percent in both southeast and southwest Minnesota).

Assistive technology

We also asked participants about assistive technology to learn how it helps those who use it, and why others do not use it. This information will help the State be more effective in connecting people to resources that meet their needs. Because these questions are new to this survey tool, no comparison data exist from previous Center for Outcome Analysis studies.

Table 18: Assistive technology use by region

Region	Number of participants	No	No, but I would like to	Yes, I used it in the past	Yes, I use it now
Central	309	44%	1%	1%	54%
Metro	634	37%	3%	1%	59%
Northeast	224	48%	5%	1%	46%
Northwest	254	41%	0%	2%	57%
Southeast	230	42%	1%	1%	56%
Southwest	264	42%	0%	1%	57%
Statewide	**1,915**	**41%**	**2%**	**1%**	**56%**

In all regions except northeast Minnesota, more than half of participants said they currently use assistive technology. Of the participants from northeast Minnesota, 46 percent currently use assistive technology, and 48 percent have never used assistive technology.

Table 41: How much difference has assistive technology made in increasing your independence, productivity, and community integration? (by disability type)

Region	Number of participants	A lot	Some	A little	None
Central	166	58%	24%	9%	8%
Metro	376	61%	22%	8%	9%
Northeast	103	62%	17%	12%	10%
Northwest	144	56%	20%	16%	8%
Southeast	129	75%	11%	10%	4%
Southwest	147	63%	18%	16%	3%
All respondents	**1,063**	**61%**	**19%**	**12%**	**8%**

Regardless of region, most participants who use assistive technology said the technology they use helps them be more independent, more productive, and increases their integration into the community. Assistive technology has had the greatest impact on participants in southeast Minnesota where 75 percent of participants said the assistive technology they use has helped “a lot.” Ten percent of participants in northeast Minnesota said using assistive technology has had no impact on their independence, productivity, and community integration.

Table 19: How much has your use of assistive technology decreased your need for help from another person?

Region	Number of participants	A lot	Some	A little	None
Central	167	39%	25%	14%	22%
Metro	374	37%	26%	15%	22%
Northeast	102	27%	21%	24%	28%
Northwest	143	35%	24%	24%	17%
Southeast	129	34%	22%	17%	26%
Southwest	148	30%	20%	28%	22%
All settings	**1,065**	**32%**	**25%**	**20%**	**23%**

More participants in central Minnesota and the metro area said using assistive technology decreases their need for help from another person some or a lot (64 percent in both), while fewer than half of participants in northeast and southwest Minnesota said the same (48 percent and 49 percent, respectively). Notably, 28 percent of participants in northeast Minnesota said using assistive technology has had no impact on the amount of help they need from another person.

Appendix B: Survey Results by Service Setting

Section overview

The settings from which the survey sample was drawn are often overlapping, which means that one person can represent multiple settings. This makes it difficult to attribute quality of life to any one setting. Moreover, the definitions of these settings change and some setting classifications shifted while this survey was being implemented. While this does not mean much to the quality of the data or high-level quality of life outcomes, it does affect the outcomes by setting. Depending on how one defines a setting and reassigns participant data, outcomes by setting could change.

Table 1: Number of authorized lines of service

Number of settings	Number of participants	Percent of participants
One	1,089	54.3%
Two	888	44.3%
Three	26	1.3%
Four	2	<1%

Most participants were authorized for services in one or two settings as of July 1, 2016 (54 percent and 44 percent, respectively). However, a small number of participants had authorized lines of services in two or more residential settings. Most participants who were authorized for two lines of service were authorized for services in a day setting and a residential setting. As a result, there is significant overlap between the residential settings and Day Training and Habilitation.

Community Integration and Engagement: Time, Money, and Integration During the Day

Participants described their hours worked, earnings, and integration over the previous week. The hours estimate included how many hours during the week the person worked, on average, in each kind of setting listed. These settings included self-employment, regular competitive employment, supported employment, and unpaid activities like school or volunteering. Earnings included how much money the person earned from each of these activities. Integration was rated from 1 (completely segregated and never in the presence of people without disabilities) to 5 (completely integrated and nearly always in a situation where people without disabilities might be present). Interviewers were to ask the person first, then whoever knows the person best, such as a guardian, close friend, or staff.[17] Tables 54-62 show the average hours, earnings, and integration levels in each day activity by service setting.

---

[17] Module descriptions come from “Service Excellence Summary: Baseline Data Summary for Briefing,” Center for Outcomes Analysis, May 2017

Table 2: Average day activity hours by service setting (all activities)

Service setting	Number of participants reporting hours	Average weekly hours (all activities)
Adult Foster Care	1206	25.1
Boarding Care	3	10.7
Board and Lodging	40	18.1
Center Based Employment	81	24.9
Day Training & Habilitation	863	27.3
Intermediate Care Facilities for Persons with Developmental Disabilities	87	26.9
Nursing Facilities and Customized Living	99	15.0
Supervised Living Facilities	9	21.9
All Settings	**1,565**	**24.7**

Note: Participants could report hours in more than one day activity. Since participants can and do experience multiple settings within a day, the total does not equal the number of participants in each setting due to overlap.

On average, participants receiving services in Intermediate Care Facilities for Persons with Developmental Disabilities and Day Training and Habilitation reported more weekly hours in day activities than participants in other settings (26.9 and 27.3 hours, respectively). Participants receiving services in Boarding Care, Board and Lodging, and Nursing Facilities and Customized Living reported the lowest work hours and the lowest overall hours.

Table 3: Average weekly earnings by setting

Service setting	Number of participants reporting earnings	Average weekly earnings (all activities)
Adult Foster Care	643	$75.90
Boarding Care	2	$228.00
Board and Lodging	18	$86.28
Center Based Employment	65	$182.15
Day Training & Habilitation	444	$59.06
Intermediate Care Facilities for Persons with Developmental Disabilities	25	$34.54
Nursing Facilities and Customized Living	29	$115.60
Supervised Living Facilities	9	$143.06
All service settings	**816**	**$83.15**

Notes: Participants could report earnings in more than one day activity. Due to overlap between settings, the total does not equal the number of participants in each setting.

By setting, the highest average weekly earnings were for people receiving services in Boarding Care ($228 per week) and Center Based Employment ($182 per week), which is an employment setting and typically includes higher paying jobs like job crew, enclave, or vocational rehabilitation. Lowest weekly earnings were in Intermediate Care Facilities for Persons with Developmental Disabilities and Day Training and Habilitation. In these settings, people were more likely to report being paid piecework for some or all of their tasks.

Table 4: Average integration level in day activities by service setting

Service setting	Number of participants reporting integration levels	Average integration level (all activities)
Adult Foster Care	1,238	2.1
Boarding Care	3	1.3
Board and Lodging	40	2.5
Center Based Employment	85	3.2
Day Training & Habilitation	888	1.9
Intermediate Care Facilities for Persons with Developmental Disabilities	87	1.5
Nursing Facilities and Customized Living	100	2.7
Supervised Living Facilities	9	2.7
All service settings	**1,608**	**2.1**

Note: Participants could report integration levels in more than one day activity. Due to overlap between settings, the total does not equal the number of participants in each setting.

Participants receiving services in Center Based Employment reported the highest average integration level, at 3.2, well above the average for all participants. Participants receiving services in Boarding Care and Intermediate Care Facilities for Persons with Developmental Disabilities reported low average integration scores (1.3 and 1.5, respectively) that are closer to complete segregation.

Table 5: Day activity hours, earnings, and integration by service setting (Adult Foster Care)

Day activity type	Number of survey participants reporting hours	Average weekly hours	Average weekly earnings	Average integration level
Self-Employed	-	-	-	-
Competitive Employment	100	18.3	$125.03	3.9
Supported Employment	148	16.7	$117.46	3.2
Enclave or Job Crew	238	19.3	$77.99	2.2
Sheltered Employment or Workshop	399	21.4	$39.83	1.5
Pre-vocational or Vocational Rehabilitation	16	16.9	$70.01	1.8
Day Training and Habilitation	158	20.8	$31.05	1.4
Other Job	16	15.6	$49.04	2.4
Private School	-	-	-	-
Public School	9	26.0	-	2.4
Adult Education	19	14.4	-	2.3
Other School	18	8.8	-	1.9
Adult Day Program	385	19.9	-	1.5
Volunteer Work	101	4.4	-	3.4
Other Day Activities	86	5.2	-	2.4

Note: Participants could report hours, earnings, and integration levels in more than one day activity.

Table 6: Day activity hours, earnings, and integration by service setting (Boarding Care)

Day activity type	Number of survey participants reporting hours	Average weekly hours	Average weekly earnings	Average integration level
Self-Employed	-	-	-	-
Competitive Employment	-	-	-	-
Supported Employment	-	-	-	-
Enclave or Job Crew	2	10.0	$228.00	1.0
Sheltered Employment or Workshop	-	-	-	-
Pre-vocational or Vocational Rehabilitation	-	-	-	-
Day Training and Habilitation	-	-	-	-
Other Job	-	-	-	-
Private School	-	-	-	-
Public School	-	-	-	-
Adult Education	-	-	-	-
Other School	-	-	-	-
Adult Day Program	-	-	-	-
Volunteer Work	1	10.0	-	1.0
Other Day Activities	1	2.0	-	3.0

Note: Participants could report hours, earnings, and integration levels in more than one day activity.

Table 7: Day activity hours, earnings, and integration by service setting (Boarding Care)

Day activity type	Number of survey participants reporting hours	Average weekly hours	Average weekly earnings	Average integration level
Self-Employed	-	-	-	-
Competitive Employment	-	-	-	-
Supported Employment	-	-	-	-
Enclave or Job Crew	2	10.0	$228.00	1.0
Sheltered Employment or Workshop	-	-	-	-
Pre-vocational or Vocational Rehabilitation	-	-	-	-
Day Training and Habilitation	-	-	-	-
Other Job	-	-	-	-
Private School	-	-	-	-
Public School	-	-	-	-
Adult Education	-	-	-	-
Other School	-	-	-	-
Adult Day Program	-	-	-	-
Volunteer Work	1	10.0	-	1.0
Other Day Activities	1	2.0	-	3.0

Note: Participants could report hours, earnings, and integration levels in more than one day activity.

Table 8: Day activity hours, earnings, and integration by service setting (Board and Lodging)

Day activity type	Number of survey participants reporting hours	Average weekly hours	Average weekly earnings	Average integration level
Self-Employed	-	-	-	-
Competitive Employment	6	15.5	$61.25	4.5
Supported Employment	3	22.7	$47.17	2.7
Enclave or Job Crew	6	13.5	$151.40	1.5
Sheltered Employment or Workshop	13	21.7	$65.27	1.5
Pre-vocational or Vocational Rehabilitation	-	-	-	-
Day Training and Habilitation	-	-	-	-
Other Job	1	2.0	$18.00	4.0
Private School	-	-	-	-
Public School	-	-	-	-
Adult Education	1	7.0	-	3.0
Other School	2	4.0	-	5.0
Adult Day Program	8	15.0	-	1.9
Volunteer Work	3	5.3	-	3.0
Other Day Activities	6	7.8	-	3.3

Note: Participants could report hours, earnings, and integration levels in more than one day activity.

Table 9: Day activity hours, earnings, and integration by service setting (Center Based Employment)

Day activity type	Number of survey participants reporting hours	Average weekly hours	Average weekly earnings	Average integration level
Self-Employed	-	-	-	-
Competitive Employment	23	22.1	$130.90	4.6
Supported Employment	24	23.5	$117.14	4.0
Enclave or Job Crew	11	18.9	$74.54	2.3
Sheltered Employment or Workshop	17	25.4	$38.73	2.0
Pre-vocational or Vocational Rehabilitation	-	-	$70.64	-
Day Training and Habilitation	2	30.0	$29.50	1.0
Other Job	9	20.7	$46.45	2.0
Private School	-	-	-	-
Public School	-	-	-	-
Adult Education	-	-	-	3.0
Other School	4	5.3	-	2.0
Adult Day Program	1	1.0	-	3.3
Volunteer Work	9	2.7	-	2.0
Other Day Activities	2	6.0	-	2.0

Note: Participants could report hours, earnings, and integration levels in more than one day activity.

Table 10: Day activity hours, earnings, and integration by service setting (Day Training and Habilitation)

Day activity type	Number of survey participants reporting hours	Average weekly hours	Average weekly earnings	Average integration level
Self-Employed	-	-	-	-
Competitive Employment	30	13.8	$95.68	4.0
Supported Employment	103	17.3	$96.49	3.1
Enclave or Job Crew	200	19.4	$71.27	2.2
Sheltered Employment or Workshop	316	22.1	$34.51	1.4
Pre-vocational or Vocational Rehabilitation	5	15.2	$40.00	1.6
Day Training and Habilitation	143	21.2	$28.18	1.4
Other Job	9	20.8	$57.43	2.4
Private School	-	-	-	-
Public School	-	-	-	-
Adult Education	8	16.0	-	1.4
Other School	10	6.5	-	1.6
Adult Day Program	313	20.9	-	1.5
Volunteer Work	60	3.0	-	3.4
Other Day Activities	68	5.3	-	2.2

Note: Participants could report hours, earnings, and integration levels in more than one day activity.

Table 11: Day activity hours, earnings, and integration by service setting (Intermediate Care Facilities for Persons with Developmental Disabilities)

Day activity type	Number of survey participants reporting hours	Average weekly hours	Average weekly earnings	Average integration level
Self-Employed	-	-	-	-
Competitive Employment	2	11.5	$75.00	4.0
Supported Employment	8	18.9	$107.50	2.5
Enclave or Job Crew	9	11.7	$14.56	1.8
Sheltered Employment or Workshop	24	24.6	$17.43	1.4
Pre-vocational or Vocational Rehabilitation	1	3.0	-	1.0
Day Training and Habilitation	22	21.5	$17.94	1.3
Other Job	1	25.0	-	1.0
Private School	-	-	-	-
Public School	1	24.0	-	1.0
Adult Education	4	9.3	-	1.5
Other School	1	1.0	-	1.0
Adult Day Program	35	25.5	-	1.3
Volunteer Work	2	1.5	-	2.5
Other Day Activities	6	3.0	-	2.0

Note: Participants could report hours, earnings, and integration levels in more than one day activity.

Table 12: Day activity hours, earnings, and integration by service setting (Nursing Facilities and Customized Living)

Day activity type	Number of survey participants reporting hours	Average weekly hours	Average weekly earnings	Average integration level
Self-Employed	1	1.0	$21.55	4.5
Competitive Employment	15	15.9	$192.71	4.3
Supported Employment	4	17.8	$143.75	2.8
Enclave or Job Crew	5	17.8	$61.25	2.4
Sheltered Employment or Workshop	16	18.8	$62.63	1.8
Pre-vocational or Vocational Rehabilitation	3	20.3	-	2.0
Day Training and Habilitation	-	-	-	-
Other Job	-	-	-	1.0
Private School	-	-	-	-
Public School	-	-	-	-
Adult Education	4	10.3	-	3.8
Other School	5	7.4	-	3.8
Adult Day Program	29	12.3	-	1.8
Volunteer Work	18	7.1	-	3.5
Other Day Activities	23	9.5	-	2.8

Note: Participants could report hours, earnings, and integration levels in more than one day activity.

Table 13: Day activity hours, earnings, and integration by service setting (Supervised Living Facilities)

Day activity type	Number of survey participants reporting hours	Average weekly hours	Average weekly earnings	Average integration level
Self-Employed	-	-	-	-
Competitive Employment	4	22.8	$162.50	3.8
Supported Employment	1	25.0	$225.00	3.0
Enclave or Job Crew	1	6.0	$182.50	1.0
Sheltered Employment or Workshop	2	21.5	$23.75	1.3
Pre-vocational or Vocational Rehabilitation	-	-	-	-
Day Training and Habilitation	-	-	-	-
Other Job	-	-	-	-
Private School	-	-	-	-
Public School	-	-	-	-
Adult Education	-	-	-	-
Other School	-	-	-	-
Adult Day Program	1	30.0	-	1.0
Volunteer Work	-	-	-	-
Other Day Activities	1	2.0	-	3.0

Note: Participants could report hours, earnings, and integration levels in more than one day activity.

Community Integration and Engagement: Integrative Activities Scale

Participants described the number of times they did each of a list of activities in the previous four weeks. Activities included visits with friends, relatives, or neighbors, and trips to a grocery store, restaurant, place of worship, mall, or sports event. Participants also shared the average group size with which they did this activity, and how often trips of each type typically included interaction with community members not in the "disability system."

Table 14: Average number of monthly outings by service setting

Service setting	Number of participants	Average monthly outings
Adult Foster Care	1,441	31.3
Boarding Care	7	33.3
Board and Lodging	70	24.5
Center Based Employment	90	43.5
Day Training & Habilitation	913	34.5
Intermediate Care Facilities for Persons with Developmental Disabilities	103	22.4
Nursing Facilities and Customized Living	256	27.6
Supervised Living Facilities	11	35.7
All service settings	**1,969**	**31.9**

Note: Due to overlap between settings, the total does not equal the number of participants in each setting.

Participants receiving services in Center Based Employment reported the highest total outings. This average, 43.5 outings, is approaching the national average for the general population (46 outings). Participants receiving services in Supervised Living Facilities also reported a high number of total outings (35.7).

Participants receiving services in Intermediate Care Facilities for Persons with Developmental Disabilities and Board and Lodging settings averaged less than one outing a day (22.4 and 24.5, respectively). Participants receiving services in Adult Foster Care and Nursing Facilities and Customized Living report getting out about once a day.

Table 15: Average group size by service setting (all outings)

Service setting	Number of participants	Average group size
Adult Foster Care	1,431	3.3
Boarding Care	7	2.8
Board and Lodging	69	3.3
Center Based Employment	90	2.3
Day Training & Habilitation	906	3.5
Intermediate Care Facilities for Persons with Developmental Disabilities	98	3.5
Nursing Facilities and Customized Living	252	3.1
Supervised Living Facilities	11	2.4
All settings	**1,951**	**3.3**

Note: Due to overlap between settings, the total does not equal the number of participants in each setting.

Participants in Day Training and Habilitation and Intermediate Care Facilities for Persons with Developmental Disabilities reported the largest average group sizes, at 3.5 each. By setting, the smallest group outing sizes were in Center Based Employment and Supervised Living Facilities (2.3 and 2.4, respectively).

Table 16: Outing interactions score by service setting

Service setting	Number of participants	Average outing interactions score
Adult Foster Care	488	45.0
Boarding Care	1	75.0
Board and Lodging	10	27.8
Center Based Employment	35	51.8
Day Training & Habilitation	369	44.8
Intermediate Care Facilities for Persons with Developmental Disabilities	21	41.2
Nursing Facilities and Customized Living	35	45.9
Supervised Living Facilities	6	34.7
All settings	**631**	**45.5**

Note: Due to overlap between settings, the total does not equal the number of participants in each setting.

The outing interactions score is a measure based on the individual’s average interaction rating for each outing type, converted to a score of 100 for ease of interpretation. Scores are not calculated for individuals with fewer than eight outings. A higher score indicates more interaction with community members during outings, while a lower score indicates fewer interactions with community members.

The score is highest for those in Center Based Employment (51.8) and lowest for people in Board and Lodging and for Supervised Living Facilities (27.8 and 34.7, respectively).

Caution should be used when interpreting the outing interactions score for Boarding Care because only one person in that setting had enough outings to calculate a score. The low number of people with enough outings in that setting is in itself an interesting result.

Decision Control Inventory

Individuals reported who made decisions around food, clothes, sleep, recreation, choice of support agencies, and more. This measure helps delineate paid (staff) versus unpaid (relatives, friends, advocates) people’s roles in decision-making. For example, individuals reported whether paid staff, unpaid allies, or they themselves decided what they could do with their relaxation time.

Decisions most often made by paid staff received lower scores. These factors added to an individual’s score on a scale of 0 to 100. Low individual scores could indicate situations of oppression, while high individual scores could offer lessons as living situations with the most freedom. Individual scores are averaged for a community score on a scale of 0 to 100.

Table 17: Decision Control Inventory (DCI) scores by service setting

Service setting	Number of participants	Average DCI score
Adult Foster Care	1,417	63.0
Boarding Care	7	79.1
Board and Lodging	71	68.2
Center Based Employment	90	89.3
Day Training & Habilitation	896	63.5
Intermediate Care Facilities for Persons with Developmental Disabilities	100	55.5
Nursing facilities and Customized Living	257	72.3
Supervised Living Facilities	11	69.7
All service settings	**1,942**	**66.2**

Note: Due to overlap between settings, the total does not equal the number of participants in each setting.

The Decision Control Inventory (DCI) score is calculated taking the average scores for individual items and converting them to a 100-point scale to measure overall power and control. A higher score on the overall DCI scale indicates a higher level of control. A very low score indicates possible oppression or domination. The DCI is one of the area where we would expect to see differences between settings as we would expect greater levels of autonomy in settings where people live independently as opposed to settings designed for people who need more significant supports.

By setting, DCI scores are much higher in Center Based Employment (89.3) and Boarding Care (79.1). It is important to note that participants who receive services in Center Based Employment were only included in the sample if they live alone or with family. People in Nursing Facilities and Customized Living also reported higher levels of autonomy (72.3) than survey participants in general.

Lower levels of autonomy were seen in people in Adult Foster Care, Day Training and Habilitation, and Intermediate Care Facilities for Persons with Developmental Disabilities (63.0, 63.5, and 55.5, respectively.)

Quality of Life Inventory

Individuals reported whether their quality of life is good or bad in 14 different areas, including health, happiness, comfort, and overall quality of life. For example, individuals reported whether their privacy was good, bad, or somewhere in between.

People who reported lower quality of life in the different areas received lower scores. These factors added to an individual's score on a scale of 0 to 100.

Table 18: Quality of Life scores by service setting

Service setting	Number of participants	Average Quality of Life score
Adult Foster Care	1,387	77.1
Boarding Care	7	72.0
Board and Lodging	71	71.5
Center Based Employment	91	77.6
Day Training & Habilitation	876	79.0
Intermediate Care Facilities for Persons with Developmental Disabilities	90	77.0
Nursing Facilities and Customized Living	255	70.6
Supervised Living Facilities	11	67.4
All service settings	**1,904**	**76.6**

Note: Due to overlap between settings, the total does not equal the number of participants in each setting.

Converting the individual Quality of Life items into a score out of 100 is helpful for understanding the overall results. The score is converted to a 100-point scale based on the individual's average rating for each quality of life item. Scores are not calculated for individuals who responded to fewer than five items. The score is converted to a 100-point scale for ease of interpretation, with a higher score indicating a higher overall quality of life.

Participants receiving services in Day Training and Habilitation reported the highest Quality of Life scores (79.0), followed by those in Center Based Employment (77.6). Participants living in Supervised Living Facilities, Boarding Care, and Board and Lodging had the lowest quality of life scores, ranging from 67.4 in Supervised Living Facilities to 72.0 in Boarding Care.

Closest Relationships Inventory

Survey interviewers asked participants about their closest relationships. This included the type of relationship—relative, staff, housemate, co-worker, etc. A “close relationship” was anyone the person defined that way. Participants were asked about their five closest relationships; if they did not have five close relationships, that was noted as well.

Table 19: Number of close relationships reported by service setting

Service setting	Number of participants	Average number of relationships	Total relationships reported (n)	Possible relationships (n)
Adult Foster Care	1,359	4.2	5,752	6,560
Boarding Care	7	3.9	27	30
Board and Lodging	69	4.0	274	345
Center Based Employment	88	4.1	366	380
Day Training & Habilitation	865	4.3	3,725	4,235
Intermediate Care Facilities for Persons with Developmental Disabilities	91	4.2	380	495
Nursing Facilities and Customized Living	243	3.9	957	1,215
Supervised Living Facilities	11	4.1	10	50
All service settings	**1,859**	**4.2**	**7,838**	**9,510**

Note: Due to overlap between settings, the total does not equal the number of participants in each setting.

On average, respondents reported slightly more than four close relationships (4.2), with no significant differences between settings.

Participants receiving services in Day Training and Habilitation reported the most possible relationships (3,725 out of 4,235 or an average of 4.3 each). This setting was followed by people in Intermediate Care Facilities for Persons with Developmental Disabilities, who listed an average of 4.2 relationships (380 out of 495 possible) and Adult Foster Care, also with an average of 4.2 (5,752 out of 6,560).

The settings with the fewest close relationships reported were Boarding Care and Nursing Facilities and Customized Living, with an average of 3.9 each.

Table 20: Closest relationship type by service setting

	Number of relationships	Co-worker or schoolmate	Housemate	Merchant	Neighbor	Other paid staff	Relative	Staff of day program, school, or job	Staff of home	Unpaid friend
Adult Foster Care	5,729	2%	6%	0%	0%	3%	50%	5%	21%	13%
Boarding Care	26	0%	0%	0%	0%	8%	46%	0%	0%	46%
Board and Lodging	273	0%	6%	0%	0%	6%	55%	2%	11%	19%
Center Based Employment	367	4%	1%	0%	1%	4%	59%	3%	2%	25%
Day Training & Habilitation	3,709	2%	6%	0%	0%	3%	52%	6%	19%	11%
Intermediate Care Facilities for Persons with Developmental Disabilities	379	2%	6%	0%	0%	2%	39%	5%	32%	13%
Nursing Facilities and Customized Living	954	0%	3%	0%	1%	4%	57%	1%	10%	23%
Supervised Living Facilities	45	2%	9%	0%	0%	7%	40%	0%	22%	20%
All Service Settings	**9,650**	**2%**	**5%**	**<1%**	**1%**	**3%**	**52%**	**5%**	**18%**	**15%**

Note: Due to overlap between settings, the total does not equal the number of participants in each setting.

Overall, participants reported that most of their close relationships are with relatives or unpaid friends, although the responses varied by service setting. Participants receiving services in Boarding Care, Center Based Employment, and Nursing Homes and Customized Living reported the most non-staff relationships 92 percent, 90 percent, and 85 percent, respectively), while participants receiving services in Intermediate Care Facilities for Persons with Developmental Disabilities reported the fewest non-staff relationships (61 percent).

Participants receiving services in Intermediate Care Facilities for Persons with Developmental Disabilities reported that 39 percent of their close relationships were with staff, most of which were with the staff of their home (32 percent). Participants in Supervised Living Facilities, Adult Foster Care, and Day Training and Habilitation also reported that more than one-quarter of their close relationships are with staff. Participants receiving services in Boarding Care, Center Based Employment, and Nursing Homes and Customized Living reported the fewest relationships with staff (8 percent, 10 percent, and 15 percent, respectively).

Participants receiving services in Boarding Care reported than nearly half of their close relationships are with non-relative, unpaid friends (46 percent). Participants receiving services in Day Training and Habilitation, Adult Foster Care, and Intermediate Care Facilities for Persons with Developmental Disabilities reported the fewest relationships with non-relative, unpaid friends (11 percent, 13 percent, and 13 percent, respectively).

Assistive technology

We also asked participants about assistive technology to learn how it helps those who use it, and why others do not use it. This information will help the State be more effective in connecting people to resources that meet their needs. Because these questions are new to this survey tool, no comparison data exist from previous Center for Outcome Analysis studies.

Table 21: Percent of participants who use assistive technology by service setting

Service Setting	Number of participants	No	No, but I would like to	Yes, I used it in the past	Yes, I use it now
Adult Foster Care	1,402	43%	2%	1%	54%
Boarding Care	7	43%	0%	0%	57%
Board and Lodging	71	38%	6%	3%	54%
Center Based Employment	90	43%	1%	2%	53%
Day Training and Habilitation	889	46%	2%	1%	52%
Intermediate Care Facilities for Persons with Developmental Disabilities	93	44%	1%	0%	55%
Nursing Facilities and Customized Living	252	23%	3%	2%	72%
Supervised Living Facilities	11	36%	0%	0%	64%
All service settings	**1,915**	**41%**	**2%**	**1%**	**56%**

Note: Due to overlap between settings, the total does not equal the number of participants in each setting.

More than half of participants said they currently use assistive technology. Nearly three-quarters (72 percent) of participants who receive services in Nursing Facilities and Customized Living said they use assistive technology.

Table 22: How much difference has assistive technology made in increasing your independence, productivity, and community integration?

Service Setting	Participants (n)	A lot	Some	A little	None
Adult Foster Care	750	61%	19%	12%	8%
Boarding Care	4	25%	25%	25%	25%
Board and Lodging	38	66%	13%	16%	5%
Center Based Employment	48	63%	23%	13%	2%
Day Training and Habilitation	455	59%	21%	11%	9%
Intermediate Care Facilities for Persons with Developmental Disabilities	49	57%	24%	12%	6%
Nursing Facilities and Customized Living	182	70%	16%	6%	8%
Supervised Living Facilities	7	43%	43%	14%	0%
All respondents	**1,063**	**61%**	**19%**	**12%**	**8%**

Note: Due to overlap between settings, the total does not equal the number of participants in each setting.

Regardless of setting, most participants who use assistive technology said the technology they use helps them be more independent, more productive, and increases their integration into the community. Assistive technology has had the greatest impact on participants who receive services in Nursing Facilities and Customized Living, where 70 percent of participants said the assistive technology they use has helped a lot. In most settings, fewer than 10 percent of participants said using assistive technology has had no impact on their independence, productivity, and community integration.

Table 23: How much has your use of assistive technology decreased your need for help from another person?

Service Setting	Number of participants	A lot	Some	A little	None
Adult Foster Care	747	32%	25%	20%	23%
Boarding Care	4	50%	0%	25%	25%
Board and Lodging	38	39%	11%	26%	24%
Center Based Employment	48	46%	21%	21%	13%
Day Training and Habilitation	452	29%	27%	20%	24%
Intermediate Care Facilities for Persons with Developmental Disabilities	50	40%	22%	8%	30%
Nursing Facilities and Customized Living	182	46%	19%	16%	19%
Supervised Living Facilities	7	43%	29%	14%	14%
All service settings	**1,065**	**32%**	**25%**	**20%**	**23%**

Note: Due to overlap between settings, the total does not equal the number of participants in each setting.

The amount assistive technology helps participants varies by setting. But in all settings, at least half of participants, and two-thirds of participants who receive services in Center Based Employment and

Nursing Facilities and use assistive technology, said it decreases their need for help from another person some or a lot. About one-quarter of participants said assistive technology has not changed their need for help from another person, including 30 percent of participants who receive services in Intermediate Care Facilities for Persons with Developmental Disabilities.

Appendix C: Survey Results by Disability Type

Section overview

Disability type was analyzed using the participants' primary and secondary diagnoses from screening documents, indicators of a diagnosis being present, and needs related to vision and hearing. Based on the diagnosis and needs data, participants were included in one or more disability types. Because an individual may have multiple diagnoses or needs, there is significant overlap between disability types. The disability types used in this analysis are:

- Intellectual/developmental disabilities
- Mental health needs/dual diagnosis (mental health diagnosis and chemical dependency)
- Deaf or hard of hearing
- Blind or visually impaired
- Brain injury

Community Integration and Engagement: Time, Money, and Integration During the Day

Participants described their hours worked, earnings, and integration over the previous week. The hours estimate included how many hours during the week the person worked, on average, in each kind of setting listed. These settings included self-employment, regular competitive employment, supported employment, and unpaid activities like school or volunteering. Earnings included how much money the person earned from each of these activities. Integration was rated from 1 (completely segregated and never in the presence of people without disabilities) to 5 (completely integrated and nearly always in a situation where people without disabilities might be present). Interviewers were to ask the person first, then whoever knows the person best, such as a guardian, close friend, or staff.[18] Tables 76-81 show the average hours, earnings, and integration levels in each day activity by disability type.

Table 1: Average day activity hours by disability type

Disability type	Number of participants reporting hours	Average weekly hours (all activities)
Blind	179	26.2
Deaf	98	24.1
Intellectual or Developmental Disability	1,199	26.4
Mental Health/Dual Diagnosis	173	20.3
Physical Disability	378	23.5
Brain Injury	55	19.6
All disability types	**1,565**	**24.7**

Note: Participants could report hours in more than one day activity. Due to overlap between primary and secondary diagnoses, the total does not equal the number of participants in each disability type.

---

[18] Module descriptions come from "Service Excellence Summary: Baseline Data Summary for Briefing," Center for Outcomes Analysis, May 2017

Participants who are blind and participants with intellectual or developmental disabilities spent more time than average in day activities (26.2 hours and 26.4 hours, respectively), including higher than average work and day activity hours. Participants with mental health/dual diagnosis and participants with brain injury reported the fewest day activity hours, including fewer hours in work, school, and other day activities than participants with other disability types.

Table 2. Weekly earnings by diagnosis

Disability type	Number of participants reporting earnings	Average weekly earnings (all paid activities)
Blind	62	$54.13
Deaf	49	$67.53
Intellectual or Developmental Disability	612	$73.43
Mental Health/Dual Diagnosis	104	$93.63
Physical Disability	134	$56.08
Brain Injury	31	$70.27
All disability types	**816**	**$83.15**

Note: Participants could report earnings in more than one day activity. Due to overlap between disability types, the total does not equal the number of participants in each disability type.

Participants with mental health/dual diagnosis and people with intellectual or developmental disabilities reported the highest average weekly earnings ($94 and $73, respectively). The high number of participants with intellectual or developmental disabilities that reported wage earnings (612) is notable. Participants who are blind and participants with physical disabilities reported the lowest weekly earnings ($54 and $56, respectively).

Table 3. Average integration level in day activities by disability type

Disability type	Number of participants reporting integration levels	Average integration level (all activities)
Blind	182	1.8
Deaf	100	1.9
Intellectual or Developmental Disability	1,231	2.0
Mental Health/Dual Diagnosis	178	2.5
Physical Disability	389	2.0
Brain Injury	55	2.1
All disability types	**1,608**	**2.1**

Note: Participants could report integration levels in more than one day activity. Due to overlap between disability types, the total does not equal the number of participants in each disability type.

Overall, integration was low across day activities for all participants regardless of disability type. It was its highest (an average score of 2.5) for participants with mental health/dual diagnoses, and lowest (1.8) for participants who are blind. It is notable that while there is variation in integration level across state regions and different service settings, the results are similar across disability types.

Table 4: Day activity hours, earnings, and integration by disability type (Blind)

Day activity type	Number of survey participants reporting hours	Average weekly hours	Average weekly earnings	Average integration level
Self-Employed	-	-	-	-
Competitive Employment	3	21.0	$100.00	4.0
Supported Employment	16	17.7	$109.85	3.3
Enclave or Job Crew	24	17.2	$48.55	2.5
Sheltered Employment or Workshop	61	23.7	$31.36	1.4
Pre-vocational or Vocational Rehabilitation	-	-	-	-
Day Training and Habilitation	29	18.4	$16.95	1.4
Other Job	5	19.4	$72.00	2.0
Private School	-	-	-	-
Public School	1	30.0	-	3.0
Adult Education	4	6.8	-	2.5
Other School	2	8.5	-	1.3
Adult Day Program	79	20.9	-	1.4
Volunteer Work	12	4.3	-	3.5
Other Day Activities	14	5.8	-	1.9

Note: Participants could report hours, earnings, and integration levels in more than one day activity.

Table 5: Day activity hours, earnings, and integration by disability type (Deaf)

Day activity type	Number of survey participants reporting hours	Average weekly hours	Average weekly earnings	Average integration level
Self-Employed	-	-	-	-
Competitive Employment	3	23.0	$118.75	4.3
Supported Employment	15	14.6	$103.22	3.6
Enclave or Job Crew	14	13.1	$56.44	2.1
Sheltered Employment or Workshop	34	22.4	$35.31	1.5
Pre-vocational or Vocational Rehabilitation	2	12.5	$22.50	1.0
Day Training and Habilitation	15	22.5	$36.20	1.4
Other Job	3	11.0	$118.17	2.7
Private School	-	-	-	-
Public School	1	30.0	-	3.0
Adult Education	1	2.0	-	1.0
Other School	-	-	-	-
Adult Day Program	34	18.1	-	1.4
Volunteer Work	5	5.8	-	4.3
Other Day Activities	16	5.3	-	2.1

Note: Participants could report hours, earnings, and integration levels in more than one day activity.

Table 6: Day activity hours, earnings, and integration by disability type (Intellectual or Developmental Disabilities)

Day activity type	Number of survey participants reporting hours	Average weekly hours	Average weekly earnings	Average integration level
Self-Employed	-	-	-	-
Competitive Employment	71	18.0	$125.30	4.0
Supported Employment	150	17.1	$121.26	3.2
Enclave or Job Crew	248	19.3	$74.05	2.2
Sheltered Employment or Workshop	402	22.0	$38.54	1.5
Pre-vocational or Vocational Rehabilitation	15	17.0	$62.18	1.9
Day Training and Habilitation	180	21.5	$28.57	1.4
Other Job	18	20.7	$99.22	2.2
Private School	-	-	-	-
Public School	8	25.5	-	2.5
Adult Education	21	13.9	-	1.9
Other School	20	9.0	-	1.8
Adult Day Program	397	21.2	-	1.5
Volunteer Work	92	3.7	-	3.4
Other Day Activities	93	5.4	-	2.3

Note: Participants could report hours, earnings, and integration levels in more than one day activity.

Table 7: Day activity hours, earnings, and integration by disability type (Mental Health/Dual Diagnosis)

Day activity type	Number of survey participants reporting hours	Average weekly hours	Average weekly earnings	Average integration level
Self-Employed	-	-	-	-
Competitive Employment	32	19.5	$122.69	3.9
Supported Employment	20	17.1	$132.03	3.2
Enclave or Job Crew	22	16.4	$93.74	1.7
Sheltered Employment or Workshop	55	20.5	$55.84	1.7
Pre-vocational or Vocational Rehabilitation	4	29.3	$152.00	2.0
Day Training and Habilitation	8	18.8	$61.42	2.1
Other Job	1	8.0	$56.00	1.5
Private School	-	-	-	-
Public School	1	40.0	-	2.0
Adult Education	4	11.8	-	3.8
Other School	7	5.9	-	3.3
Adult Day Program	42	14.9	-	1.9
Volunteer Work	20	5.8	-	3.5
Other Day Activities	11	3.4	-	2.8

Note: Participants could report hours, earnings, and integration levels in more than one day activity.

Table 8: Day activity hours, earnings, and integration by disability type (Physical disabilities)

Day activity type	Number of survey participants reporting hours	Average weekly hours	Average weekly earnings	Average integration level
Self-Employed	1	1.0	$29.36	3.6
Competitive Employment	27	15.2	$173.98	3.9
Supported Employment	19	17.1	$101.45	2.7
Enclave or Job Crew	35	17.7	$37.14	2.5
Sheltered Employment or Workshop	103	21.6	$25.66	1.6
Pre-vocational or Vocational Rehabilitation	9	13.0	$48.33	2.0
Day Training and Habilitation	61	20.0	$17.54	1.3
Other Job	9	13.6	$42.17	2.8
Private School	-	-	-	-
Public School	3	24.7	-	2.7
Adult Education	6	18.3	-	2.7
Other School	5	12.4	-	2.2
Adult Day Program	154	20.5	-	1.5
Volunteer Work	36	5.8	-	3.4
Other Day Activities	43	8.0	-	2.4

Note: Participants could report hours, earnings, and integration levels in more than one day activity.

Table 9: Day activity hours, earnings, and integration by disability type (Brain Injury)

Day activity type	Number of survey participants reporting hours	Average weekly hours	Average weekly earnings	Average integration level
Self-Employed	-	-	-	-
Competitive Employment	6	16.7	$113.70	3.0
Supported Employment	6	18.7	$116.92	2.6
Enclave or Job Crew	12	14.8	$78.05	1.8
Sheltered Employment or Workshop	12	18.7	$20.61	2.1
Pre-vocational or Vocational Rehabilitation	2	23.5	-	1.5
Day Training and Habilitation	6	23.0	$2.75	1.7
Other Job	1	2.0	$15.00	1.0
Private School	-	-	-	-
Public School	-	-	-	-
Adult Education	1	3.0	-	3.0
Other School	1	10.0	-	4.0
Adult Day Program	17	14.3	-	1.3
Volunteer Work	4	5.5	-	2.6
Other Day Activities	5	9.4	-	2.6

Note: Participants could report hours, earnings, and integration levels in more than one day activity.

Community Integration and Engagement: Integrative Activities Scale

Participants described the number of times they did each of a list of activities in the previous four weeks. Activities included visits with friends, relatives, or neighbors, and trips to a grocery store, restaurant, place of worship, mall, or sports event. Participants also shared the average group size with which they did this activity, and how often trips of each type typically included interaction with community members not in the "disability system."

Table 10. Average monthly outings by disability type (all outings)

Disability type	Number of participants	Average number of outings
Blind	203	27.1
Deaf	112	31.9
Intellectual or Developmental Disability	1,349	33.5
Mental Health/Dual Diagnosis	264	29.9
Physical Disability	582	25.5
Brain Injury	82	25.1
All disability types	**1,969**	**31.9**

Note: Due to overlap between disability types, the total does not equal the number of participants in each disability type.

On average, participants with intellectual or developmental disabilities and participants who are deaf reported slightly more than one outing per day (33.5 monthly outings and 31.9 monthly outings, respectively). Participants with physical disabilities and participants with brain injury reported the fewest monthly outings (25.5 outings and 25.1 outings, respectively).

Table 11. Average group size by disability type (all outings)

Disability type	Number of participants	Average group size
Blind	200	3.4
Deaf	112	3.4
Intellectual or Developmental Disability	1,337	3.4
Mental Health/Dual Diagnosis	261	3.0
Physical Disability	574	3.3
Brain Injury	81	3.1
All disability types	**1,951**	**3.3**

Note: Due to overlap between disability types, the total does not equal the number of participants in each disability type.

People who are blind, deaf, or have intellectual or developmental disabilities reported the largest average group sizes for outings (3.4 each). People with a mental health/dual diagnosis or brain injury diagnosis reported the smallest average group sizes (3.0 and 3.1, respectively).

Table 12. Outing interactions score by disability type

Disability type	Number of participants	Average outing interactions score
Blind	63	42.9
Deaf	40	44.9
Intellectual or Developmental Disability	508	45.6
Mental Health/Dual Diagnosis	57	44.8
Physical Disability	121	45.7
Brain Injury	15	36.7
All disability types	**631**	**45.5**

Note: Due to overlap between disability types, the total does not equal the number of participants in each disability type.

The outing interactions score is a measure based on the individual's average interaction rating for each outing type, converted to a score of 100 for ease of interpretation. Scores are not calculated for individuals with fewer than eight outings. A higher score indicates more interaction with community members during outings, while a lower score indicates fewer interactions with community members.

Outing interactions scores by diagnosis are generally close to the statewide average. The low outing interaction score for people diagnosed with brain injury (36.7) should be noted.

Decision Control Inventory

Individuals reported who made decisions around food, clothes, sleep, recreation, choice of support agencies, and more. This measure helps delineate paid (staff) versus unpaid (relatives, friends, advocates) people's roles in decision-making. For example, individuals reported whether paid staff, unpaid allies, or they themselves decided what they could do with their relaxation time.

Decisions most often made by paid staff received lower scores. These factors added to an individual's score on a scale of 0 to 100. Low individual scores could indicate situations of oppression, while high individual scores could offer lessons as living situations with the most freedom. Individual scores are averaged for a community score on a scale of 0 to 100.

Table 13. Decision Control Inventory (DCI) scores by disability type

Disability type	Number of participants	Average DCI score
Blind	200	59.8
Deaf	110	63.2
Intellectual or Developmental Disability	1,324	63.7
Mental Health/Dual Diagnosis	265	69.2
Physical Disability	566	64.1
Brain Injury	82	65.6
All disability types	**1,942**	**66.2**

Note: Due to overlap between disability types, the total does not equal the number of participants in each disability type.

The Decision Control Inventory (DCI) score is calculated using the average score for individual items converted to a 100-point scale to measure overall power and control. A higher score on the overall DCI scale indicates a higher level of control. A very low score indicates possible oppression or domination.

By diagnosis, people with mental health/dual diagnoses had by far the highest average DCI scores (69.2) compared to participants overall. People who are blind had the lowest average scores (59.8) followed by people who are deaf (63.2) and people with intellectual or developmental disabilities (63.7). The DCI scores indicate participants have a moderate amount of decision making power.

Quality of Life inventory

Individuals reported whether their quality of life is good or bad in 14 different areas, including health, happiness, comfort, and overall quality of life. For example, individuals reported whether their privacy was good, bad, or somewhere in between.

People who reported lower quality of life in the different areas received lower scores. These factors added to an individual's score on a scale of 0 to 100.

Table 14. Quality of Life scores by disability type

Disability type	Number of participants	Average Quality of Life score
Blind	190	76.2
Deaf	108	78.8
Intellectual or Developmental Disability	1,291	78.7
Mental Health/Dual Diagnosis	259	72.8
Physical Disability	555	74.5
Brain Injury	82	69.1
All disability types	**1,904**	**76.6**

Note: Due to overlap between disability types, the total does not equal the number of participants in each disability type.

Converting the individual Quality of Life items into a score out of 100 is helpful for understanding the overall results. The score is converted to a 100-point scale based on the individual's average rating for each quality of life item. Scores are not calculated for individuals who responded to fewer than five items. The score is converted to a 100-point scale for ease of interpretation, with a higher score indicating a higher overall quality of life.

The highest average Quality of Life scores were reported by participants who are deaf or hard of hearing (78.8). The lowest scores were recorded for individuals with brain injury (69.1). Overall scores indicate that, on average, participants reported their quality of life in the areas measured is "good."

Closest Relationships Inventory

Survey interviewers asked participants about their closest relationships. This included the type of relationship—relative, staff, housemate, co-worker, etc. A "close relationship" was anyone the person defined that way. Participants were asked about their five closest relationships; if they did not have five close relationships, that was noted as well.

Table 15: Number of close relationships reported by disability type

Disability type	Number of participants	Average number of relationships reported	Total relationships reported (n)	Possible relationships (n)
Blind	192	4.2	815	965
Deaf	105	4.3	454	540
Intellectual or Developmental Disability	1,274	4.3	5,484	6,475
Mental Health/Dual Diagnosis	243	4.1	997	1,260
Physical Disability	545	4.1	2,231	2,775
Brain Injury	81	3.8	313	415
All disability types	**1,859**	**4.2**	**7,838**	**9,510**

Note: Due to overlap between disability types, the total does not equal the number of participants in each disability type.

When comparing the total number of relationships reported across disability types, there are no significant differences. Participants with brain injury reported slightly fewer close relationships than participants with other disability types (3.8 relationships).

Table 16: Closest relationship types by disability type

Disability type	Number of relationships	Co-worker or schoolmate	Housemate	Mercha nt	Neighbor	Other paid	Relative	Staff of day program, school, or job	Staff of home	Unpaid friend
Blind	812	2%	5%	0%	0%	3%	50%	7%	21%	12%
Deaf	454	2%	7%	0%	0%	3%	47%	7%	21%	14%
Developmental Disability	5,484	3%	5%	0%	0%	3%	51%	6%	21%	12%
Mental Health/Dual Diagnosis	997	3%	3%	0%	1%	5%	49%	3%	15%	22%
Physical Disability	2,231	2%	3%	0%	1%	4%	52%	4%	19%	15%
Brain Injury	313	1%	3%	0%	1%	3%	60%	3%	16%	15%
All disability types	**9,650**	**2%**	**5%**	**<1%**	**1%**	**3%**	**52%**	**5%**	**18%**	**15%**

Note: Due to overlap between disability types, the total does not equal the number of participants in each disability type.

Overall, participants reported that most of their close relationships are with relatives or unpaid friends, with little variation by disability type. Participants with brain injuries and participants with a mental health/dual diagnosis reported the most non-staff relationships (79 percent and 77 percent, respectively), while participants who are blind reported the fewest non-staff relationships (69 percent).

Participants who are blind reported that 31 percent of their close relationships were with staff, most of which were with the staff of their home (21 percent). Participants who are deaf, participants with developmental disabilities, and participants with physical disabilities also reported that more than one-quarter of their close relationships are with staff.

Participants with mental health/dual diagnoses reported than nearly one-quarter of their close relationships are with non-relative, unpaid friends (22 percent). Participants who are blind and participants with developmental disabilities reported the fewest relationships with non-relative, unpaid friends (12 percent each).

Assistive Technology

We also asked participants about assistive technology to learn how it helps those who use it, and why others do not use it. This information will help the State be more effective in connecting people to resources that meet their needs. Because these questions are new to this survey tool, no comparison data exist from previous COA studies.

Table 17: Assistive technology use by disability type

Disability type	Number of participants	No	No, but I would like to	Yes, I used it in the past	Yes, I use it now
Blind	198	35%	0%	1%	64%
Deaf	108	37%	0%	0%	63%
Developmental Disabilities	1,307	44%	2%	1%	53%
Mental Health/Dual Diagnosis	256	46%	2%	1%	51%
Physical	561	22%	2%	2%	75%
Brain Injury	83	30%	4%	2%	64%
All disability types	**1,915**	**41%**	**2%**	**1%**	**56%**

Note: Due to overlap between disability types, the total does not equal the number of participants in each disability type.

More than half of participants said they currently use assistive technology. This includes three-quarters of participants with physical disabilities and close to two-thirds of participants with brain injuries, who are blind, and who are deaf (64 percent, 64 percent, and 63 percent, respectively).

Table 18: How much difference has assistive technology made in increasing your independence, productivity, and community integration? (by disability type)

Disability type	Number of participants	A lot	Some	A little	None
Blind	124	69%	12%	9%	10%
Deaf	67	67%	16%	10%	6%
Developmental Disabilities	688	60%	20%	12%	8%
Mental Health/Dual Diagnosis	130	58%	26%	9%	6%
Physical	413	68%	16%	10%	6%
Brain Injury	53	55%	25%	15%	6%
All disability types	**1,063**	**61%**	**19%**	**12%**	**8%**

Note: Due to overlap between disability types, the total does not equal the number of participants in each disability type.

Regardless of disability type, most participants who use assistive technology said the technology they use helps them be more independent, more productive, and increases their integration into the community. More than two-thirds of participants who are blind, deaf, and participants with physical disabilities said assistive technology has helped "a lot" (69 percent, 67 percent, and 68 percent, respectively).

Table 19: How much has your use of assistive technology decreased your need for help from another person?

Disability type	Number of participants	A lot	Some	A little	None
Blind	124	37%	23%	19%	22%
Deaf	67	39%	21%	19%	21%
Developmental Disabilities	686	30%	25%	20%	25%
Mental Health/Dual Diagnosis	130	28%	26%	23%	23%
Physical	415	41%	23%	17%	19%
Brain Injury	53	43%	19%	17%	21%
All disability types	**1,065**	**32%**	**25%**	**20%**	**23%**

Note: Due to overlap between disability types, the total does not equal the number of participants in each disability type.

More than half of participants who use assistive technology said it decreases their need for help from another person some or a lot. More than 40 percent of participants with physical disabilities and participants with brain injuries reporting that assistive technology decreases their need for help "a lot" (41 percent and 43 percent, respectively). One-quarter of participants with developmental disabilities said assistive technology has not changed their need for help from another person.