

NATIONAL CORE INDICATORS—AGING AND DISABILITIES

# NCI-AD State of the Workforce 2021 Pilot Report

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# Introduction

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## Background

The service systems providing long-term services and supports (LTSS) to older adults and people with disabilities are currently struggling with challenges recruiting and retaining Direct Support Workers (DSWs). Without an adequate workforce providing support, people receiving services from these systems do not have the quality or continuity of supports they need to live and thrive in their homes. However, to date there is a gap in uniform data collection on the DSW workforce within states and across the nation.

In 2022, NCI-AD launched a pilot to test the NCI-AD State of the Workforce Survey (SotW), which is administered to provider agencies employing direct support workers (DSW) within the aging and disabilities LTSS sector. This survey aims to collect crucial indicators of stability and quality of the workforce such as turnover, length of employment, vacancy rates, and more. In addition, the survey collects data to describe the workforce and workforce circumstances, such as demographic information, information on the types of supports provided, wages, benefits, etc. Information collected through this effort is critical to understanding the true scope of the workforce crisis and to provide better a context to support state efforts to recruit and retain DSWs.

The project is a collaborative effort between ADvancing States, Human Services Research Institute (HSRI), and participating states. Lessons learned from the pilot will be applied to launch a survey available to all states in 2023.

## What is NCI-AD

The National Core Indicators—Aging and Disabilities™ (NCI-AD™) initiative stemmed from a desire of state aging and disability staff for quantifiable data on the experiences of people receiving state LTSS and whether those services and systems were helping them achieve valued outcomes. This effort grew out of the National Core Indicators—Intellectual and Developmental Disabilities (NCI-IDD) initiative established in 1997.



## State of the Workforce Survey (SotW)

The State of the Workforce Survey (SotW), first launched by NCI for Intellectual and Developmental Disabilities (NCI-IDD) in 2014, helps states examine the workforce supporting adults receiving state developmental disability (DD) system services; identify challenges faced by that workforce; examine the demographics and characteristics of the workforce; measure improvements made through policy or programmatic changes; identify areas for further investigation; and compare their state's data to those of other states and the NCI-IDD average.

The NCI-AD State of the Workforce Survey was based on the NCI-IDD State of the Workforce survey and was piloted with five participating states: Missouri, Washington, Colorado, Wisconsin, and Indiana. The goal of the pilot was to assess the feasibility of collecting this information and to finetune the survey instrument. A first of its kind for the aging and disabilities field, this new effort collects and aggregates statewide information about demographics, wages, benefits, and turnover of the direct service workforce—as reported by the agencies that employ them.

The American Rescue Plan Act (ARPA) funding allowed many states to focus on and fund initiatives related to workforce. Examples of states' direct service workforce initiatives include public awareness and marketing campaigns to attract new workers, employee training, workforce wellness programs or plans, internship opportunities, environmental scans, employee transportation assistance and mentoring/peer support programs. States agencies also used the funding to participate in the SotW pilot and survey to gather needed data. Some states utilized incentive payments to provider groups, to reimburse for their time, and efforts in providing feedback on pilot survey tool development.

Beginning in April 2022, pilot states took part in monthly meetings with the NCI-AD National Team. These meetings first helped define the parameters of the survey population, review the proposed survey tool for feasibility of data collection, and provided a forum to share best practices. Data collection launched in September 2022 and ended November 2022.

NCI-AD SotW respondents are provider agencies of publicly funded LTSS, including residential, in-home and non-residential supports. The sample frame includes provider



agencies employing DSWs funded through a variety of LTSS publicly funded program sources, including Medicaid (both managed care and fee-for-service), state-funded programs and/or Older Americans Act programs.

The survey is administered via email and web-link. Pilot states were responsible for collecting reliable email addresses that the NCI National Team then uploaded into the data collection platform. Using the portal, states can email a survey invitation with a unique link so that each provider agency can access the survey online. The state manages the survey response, corrects inaccurate contact information, and ensures agencies respond—though they cannot see the actual survey data or individual responses. States were provided their data at the close of the survey period.

## How the data can be used

When launched to all states in summer 2023, the NCI-AD SotW data will be used by participating states to understand the landscape of their workforce (including turnover, retention, wages, and benefit). Demographic information will be useful in identifying and addressing potential disparities in workforce composition and compensation.

The NCI-AD State of the Workforce Survey collects agency-reported data about the status of direct service workers (DSWs) including information about demographics, wages, benefits, and turnover of the direct service workforce, hired by agencies. Agencies receive the survey through an email invitation (agency email addresses are collected and provided to NCI by the State), and agencies respond directly online. The data are de-identified and aggregated to the state level for reporting.

Once launched, participating states will be able to use the State of the Workforce data in a number of ways, including:

- Workforce initiatives
- Government partnerships
- Context for NCI-AD outcomes data
- Analyses of change over time in workforce characteristics

- Budget projections
- Policy planning
- Stakeholder engagement
- Quality assurance



# Process

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States participating in the pilot included: Colorado, Indiana, Missouri, Washington and Wisconsin. Each state nominated staff to serve as subject matter experts and comprise a Steering Committee. This committee met as a group monthly to gather and address questions, work through nuances of the survey tool design and provider groups included, as well as to plan and strategize with the pilot group. Throughout the pilot, there was some staff turnover, and both the National team and pilot states took time to help onboard and orient new steering committee members. State staff participation was crucial to the conversation and peer learning involvement of the meetings.

## Scope and Terminology

One of the first tasks faced by the steering committee was to determine the scope of the survey, and to determine which DSW type (or what tasks the worker would have to do to be considered a DSW) for the purposes of the survey. Grouping by task rather than job title became a necessity because the work and workforce is not defined in a consistent manner between states. The steering committee determined that "Direct Service Worker" or "DSW" was the term that resonated most clearly between states and with the tasks associated with the work. For clarity of administration, potential for variability of wage and benefit information, amongst other rationale, the workgroup also decided to exclude DSWs who exclusively supported people who were self-directing their supports, clinical staff, and nursing facilities. (We acknowledge the importance of these delivery systems to HCBS, and are working with partner agencies to define and develop a SoTW survey to address the workforce of DSWs who exclusively support people who are self-directing their supports).

## Incentives and Eligibility

Several pilot states determined that an incentive payment would be provided to the eligible agencies who completed the pilot survey, to compensate them for their time in gathering information, completing the survey, and providing feedback on the pilot administration. State



incentive payments to providers varied from \$200 - \$1,000 and states had different methods to determine the providers that were eligible for the incentive.

## Sampling

Once the taxonomy, definitions, scope, and other parameters were defined by the workgroup, states needed to gather respondent lists with up-to-date provider e-mail addresses in order to implement the survey. States approached this task through different methods. Several states provided outreach and education, communications strategies, and public information to provider groups, advisory bodies, and other relevant stakeholder groups. One state looked at recent Medicaid billing records and contacted those providers, another two states used a data repository with contact information completed when providers enrolled into Medicaid. A state with managed care service delivery utilized the managed care entity's relationship with and data on provider networks to identify providers as well as their e-mail address. One state issued a series of electronic messages to announce the pilot and solicit contact information from providers in a survey format, which was then exported into e-mail lists. See [Table 1](#) for information on state sampling.

## Survey Rollout

The NCI-AD State of the Workforce Survey was modeled on the NCI-IDD State of the Workforce Survey (previously "Staff Stability Survey"), administered by HSRI and the National Association of State Directors of Developmental Disabilities Services (NASDDDS) (<https://legacy.nationalcoreindicators.org/staff-stability-survey/>). The NCI-IDD State of the Workforce survey served as the foundation for the State of the Workforce Survey-AD. A National team member served on both the IDD initiative and AD initiative and updated the tool in several iterations based on steering committee feedback. The tool was further refined after the pilot based on feedback from both the steering committee and providers who completed the survey that it was lengthy and complex. The tool will be further refined in coming years based on state feedback.

States rolled out the survey in different phases of late summer and early fall of 2022, ending data collection at the end of October 2022. Most states kept the survey open for eight to





twelve weeks. Based on feedback from participating states, the data submission deadline was extended through November 2022 to encourage additional provider participation.

Throughout data collection, states continued to meet as a steering committee group, and provided communications and information/education sessions to stakeholder groups. The National team sent a weekly snapshot report of number of surveys completed by state in order to monitor progress.

A document listing frequently asked questions (FAQs) was developed based on lessons learned and pilot state input. See [Appendix A](#).



# Analysis

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## Methodology

The NCI-AD team examined the NCI-AD pilot data and individual state samples to understand the following:

- 1) Whether the samples and resulting data could be considered representative of state provider agencies and the state DSW workforce
- 2) Whether the survey questions functioned as expected
- 3) Whether respondents understood questions and whether the questions were relevant to provider agencies and DSWs supporting the AD population

To answer these questions, the team employed various methodologies.

To understand the representativeness and accuracy of the sample frames, we surveyed the pilot states to understand what types of services were included in their lists of eligible provider agencies, how they had gathered their lists of eligible providers and where they experienced challenges. We also asked the states to verify selected survey data points through comparisons with data from available alternative sources and to comment on items that did not correspond to expectations.

To understand how the survey questions functioned and whether respondents understood the questions and whether the questions were relevant to provider agencies and DSWs supporting the AD population, we examined the rate of missingness for selected questions. We examined the responses to free-text questions for evidence of challenges encountered in interpreting and responding to the questions. We also conducted outlier analysis to identify anomalies in the data.



## Representativeness of sample and data

### ► Who is eligible for the survey?

During the survey development process, the steering committee and the NCI-AD team endeavored to define the population of providers to include in the sample frame and to define the boundaries of the workforce being studied.

### ► What kinds of providers are included?

Creating the list of providers to be invited to respond to the survey (sample frame) was a critical step in survey development as it would determine which providers the data would represent. The steering committee started from the sample frame used by the NCI-IDD State of the Workforce survey and refined the definition to broadly fit the services provided to the AD population. The committee aimed to keep the definition as consistent as possible with that used for the NCI-IDD survey to maximize the comparability of the two surveys.

Of note, the pilot states provided input, determining that “nursing home” facilities would be excluded from this survey because of the administrative burden associated with data collection in both institutional and non-institutional settings, and the potential that wage and benefit data may not be comparable between institutional and non-intuitional settings. The NCI National team will determine with states if nursing home facilities will be included in future survey iterations. **Figure 1** shows the types of providers states were instructed to include.



**Figure 1.** Types of supports to include in the NCI-AD State of the Workforce Pilot

Residential Supports	In-Home Supports	Non-Residential Supports
<p>Residential supports are provided to a person in a home or apartment that is owned or operated by your agency.</p> <p>This includes residential services delivered to people who DO NOT live in their family's home or their own private home/apartment which they rent or own. Residential supports include:</p> <ul style="list-style-type: none"> <li>● 24-hour supports such as Assisted Living</li> <li>● Host home or foster home services</li> <li>● Residential Respite</li> </ul> <p>If the service recipient holds a lease with your provider agency, this is considered a residential support or service.</p> <p>Please do not include Nursing Homes in your responses.</p>	<p>In-home supports are provided to a person in a home or apartment that is not owned or operated by your agency. This includes:</p> <ul style="list-style-type: none"> <li>● Supports provided to a person in their own private home or apartment, or a private home/apartment they live in with their family (only if their home or apartment is not owned or operated by your agency)</li> <li>● Respite services provided to a person in their own private home or apartment, or a private home/apartment they live in with their family (only if their home or apartment is not owned or operated by your agency)</li> <li>● This category can include homemaker/personal care services or companionship services</li> </ul>	<p>Non-residential supports are provided in a day service, community program, or work setting. This includes:</p> <ul style="list-style-type: none"> <li>● Adult day services</li> <li>● Community supports such as supports provided to assist a person to participate in community activities</li> <li>● Skills training or skills development to support a person to self-sustain in the community</li> </ul>

## ■ What is the workforce we are aiming to assess?

Along with the definition of the sample frame, the steering committee worked to define the workforce to be assessed. The committee hoped to define a workforce that was as similar as possible to the NCI-IDD State of the Workforce Survey's definition of the DSP workforce to

evaluate possible differences in wages, benefits, turnover rates, etc. between the workforce supporting the AD population and that supporting the IDD population. Some existing surveys addressing the workforce supporting the AD population limit their definition of the workforce to those supporting people where they live. The steering committee determined that the definition of DSW for the pilot would expand beyond in-home and residential supports to include workers supporting the AD population in community activities and day services. **Figure 2** demonstrates the definition of Direct Support Worker developed for the purposes of the NCI-AD State of the Workforce Pilot:

**Figure 2.** Definition of **Direct Service Workers (DSWs)** provided to respondents in survey tool

For the purposes of this survey, **Direct Service Workers (DSWs)** are paid workers whose primary job responsibility is to provide direct care and support to **“The AD population:”** older adults and/or individuals with physical disabilities who access publicly funded services in Medicaid waivers, Medicaid state plan programs, and/or state-funded programs, and/or older adults served by Older Americans Act programs.

DSWs’ primary responsibilities are some or all the following **direct care and support tasks**:

- Support clients to maintain independence
- Provide personal assistance with Activities of Daily Living (ADLs): personal hygiene, grooming, dressing, toileting, transferring (mobility), and eating Basic clinical tasks such as monitoring vital signs, helping with prescribed exercises, or administering medications
- Assistance with housekeeping, grocery shopping and cooking, accompany clients to doctor appointments or other errands
- Companionship
- Support in community engagement activities
- Support in day centers or other day activities
- Respite support



These workers are also commonly known as Direct Service Workers (DSWs) and other names include Home Health Aides (HHAs), Personal Care Attendants (PCAs), Personal Care Workers (PCWs), Certified Nursing Assistants (CNAs), Companions and/or Homemakers.

DSWs are workers **for whom your agency defines wages and benefits directly**. Workers hired through a temporary personnel agency, contract, or 1099 arrangement should not be included in your responses. Workers for whom your agency serves solely as a fiscal intermediary or employer of record should not be included in your responses.



**Include** these workers in your responses about DSWs:

- Paid staff whose primary job responsibility is to provide support to the AD population in the form of the above listed direct care and support tasks
- DSWs for whom your agency defines wages and benefits directly **Note:** Please do not include DSWs who are exclusively supporting people who are self-directing their services)
- Certified Nursing Assistants (CNAs) if the nursing care they provide is basic such as monitoring vital signs, applying or changing bandages, cleaning wounds, keeping records of health, helping with prescribed exercises or administering medications
- Any paid staff who spend at least 50% of their hours doing direct care and support tasks. Their primary job responsibility and more than 50% of their hours are spent doing direct care and support work.
- Any paid staff with some supervisory responsibilities—but **only** if more than 50% of their hours are spent doing direct care and support tasks.
- **Regarding host/foster/family home arrangements:** respond only about DSWs who are employed and work in addition to the primary shared living/foster care provider



**Do not include** these workers in your responses about DSWs:

- Clinically licensed staff (therapists, registered nurses, licensed practical nurses (LPNs), social workers, psychologists, etc.) **Note:** *Please include CNAs if the nursing care they provide is basic such as monitoring vital signs, applying or changing bandages, cleaning wounds, keeping records of health, helping with prescribed exercises or administering medications*



- Behavior specialists, behavior technicians or behavior clinicians (BCBA)
- DSWs that exclusively work in nursing homes
- Those who **only** provide transportation, home modifications, and/or meal delivery
- Contract or 1099 workers
- On-call or PRN workers (there is one survey question that addresses this workforce)
- Staff hired through a temporary personnel agency
- DSWs who are exclusively supporting people who are self-directing their services
- Primary host/foster/family home providers (Please respond only about DSWs who are employed and work in addition to the primary shared living/foster care provider)
- Admin staff or supervisory staff, unless they spend 50% or more of their time doing direct support work

**Regarding host/foster/family home arrangements:** Please respond only about DSWs who are employed and work in addition to the primary shared living/foster care provider.

**Regarding Fiscal Intermediaries or Employers of Record for DSWs working for people who are self-directing their own services:** If your agency functions solely as a fiscal intermediary or employer of record, please do not respond to this survey; instead, email your Staff Stability State Contact listed above.

If your agency functions as a fiscal intermediary/employer of record **and also** provides direct support, please respond only about the DSWs employed by your agency; *do not include* DSWs hired and managed by people/families who are self-directing in your responses.



## State samples

In order to understand whether the data gathered in the pilot survey were representative of the total eligible provider population in each state, it was important to examine the sampling procedures used by each state.

States were instructed to compile a list of all providers in the state providing the targeted service types (residential, in-home and/or non-residential) to the “AD population.”

See **Table 1** for information on state sampling.

**Table 1.** Information on state samples

State	From what universe did state pull provider names? [ex: Any provider that provided one or more services under X waiver]	How did state access email addresses for the providers?	Of the providers that were pulled to participate, how did state determine whether providers were eligible for the survey? [For example, how did state determine whether to include them in your list of providers sent to HSRI?]
CO	Agencies that provide services for the Elderly Blind and Disabled (EBD), Community Mental Health Supports Waiver (CMHS), Complementary and Integrative Health Waiver (CIH), and Brain Injury (BI) waivers: Adult Day Services, Day treatment, Alternative Care, Facility Respite–In Home, Homemaker, Personal Care, Life Skills Training, IHSS, Supported Living Program, Peer Mentorship CO also included agencies that provide Basic and extended CNA care through Long Term Home Health.	CO sent a request to the data team to provide a list of agencies that provided services within the past 30 days, following the given criteria. The data team looked at who billed the given services within the past 30 days to compile a list of qualifying agencies. The list of agencies was then used to obtain email addresses from the interChange, a data system that maintains up-to-date information on state contractors.	CO went through the list received from the data team, and followed guidance for compiling the list for NCI-AD including guidance on the format of the list, removing duplicates, etc. For example, only one email address was included per agency. In addition, bounced emails were investigated to determine accuracy.





<b>MO</b>	Any state plan agency model provider or aged and disabled waiver provider or adult day care waiver provider.	Provider data base where information is collected during provider enrollment.	All of the providers were eligible. We did however have providers that were duplicative. For example, they deliver both state plan and waiver services so they may have appeared on the list more than once. Our guidance sent out directed providers to only fill the survey out one time as our incentive payment only allowed for one payment to the provider.
<b>IN</b>	FSSA targeted Aging & Disability Waiver providers who were/are licensed to provide adult day, adult family care, assisted living, and/or home health services.	In July 2022, FSSA issued a series of mass electronic communications to announce the Survey pilot and solicit contact information from interested provider agencies/ organizations via an electronic form (hosted on SurveyMonkey.com) or via a dedicated FSSA email account. The mass electronic communications reached a broader audience than the targeted providers in an effort to maximize interest/ participation in the survey pilot.	FSSA obtained contact information (i.e., agency/organization name, contact name, email address, phone) from potential participants and forwarded the email addresses to HSRI to upload to the Verity Analytics survey platform and generate the invitations with unique survey links. FSSA opted to verify providers' eligibility after the post-survey launch due to timing constraints. To verify survey eligibility, FSSA queried an internal database (i.e., Indiana Care Management for Social Services (CaMSS)); the eligibility criterion was an active Medicaid provider ID. FSSA contacted those provider agencies/ organizations that were found to be ineligible and removed them from the Verity Analytics survey platform. Following the initial survey launch, FSSA first verified potential participants' eligibility in CaMSS before manually adding eligible participants' email addresses to the Verity Analytics platform and generating survey invitations.

<b>WI</b>	WI pulled the agencies based on a question WI added to the NCI-IDD SoTW survey. In addition, WI consulted with managed care organizations.	Through managed care organizations.	WI sent MCOs a list of criteria for inclusion in the survey and depended on them to respond accordingly.
<b>WA</b>	The providers were obtained from an Agency Contract Database with parameters to select any "current" residential, agency provider or ADH contracted provider	Using the same Agency Contract Database from which the provider names were pulled. This database also includes email addresses	The database allows for filtering of search criteria to meet survey requirements.

The process by which states produced their lists leaves questions about whether the lists are comprehensive of all eligible provider agencies in the state and what the total population or eligible providers is. Additionally, the IN sample was self-selected while other states attempted to gather a comprehensive list of eligible provider agencies. The margin of error is calculated using the total population number. That is, in order to know how representative the data are, we need to know the total number of agencies in the state that are eligible for the survey. For some states (IN, MO, WI), we do not have this information and therefore the margin of error should be viewed with caution.

The difficulty some states faced in determining the total eligible provider population may indicate the need for more intensive technical assistance or work on data infrastructure.

### **D** Ineligibility

Ineligibility was determined based on the screening questions at the beginning of the survey. Respondent agencies were identified as ineligible if they reported that they:

- Only used contract DSWs and/or 1099 DSWs and have no DSWs on regular payroll.
- Had no DSWs providing support to the AD population on payroll on Dec. 31, 2021
- Was not in operation for at least 6 continuous months in 2021
- Provided neither residential, in-home nor non-residential supports

States could also delete agencies from the list if they were determined to be ineligible, or they could ask HSRI to mark an agency as “ineligible” without deleting them completely. **Table 2** below demonstrates those agencies that began the survey but were identified as ineligible based on the above criteria. Those respondents were asked not to proceed beyond the screening questions.

**Table 2.** Reasons for respondent ineligibility

State	Had no DSWs providing support to AD population on payroll Dec. 31, 2021	Only used contract DSWs and/or 1099 DSWs and have no DSWs on regular payroll	Was not in operation for at least 6 continuous months in 2021	Provided neither residential, in-home nor non-residential supports	Total
CO	22	14	5	3	44
IN	2	1	0	0	3
MO	5	0	3	2	10
WA	10	12	4	3	29
WI	56	68	6	5	133

The number of ineligible respondents (and the percentage of the total number of agencies in the sample frame who were identified as ineligible) can potentially indicate the accuracy of the state’s list of eligible providers. However, only those agencies that started the survey could be identified as ineligible; it is unknown how many non-responders were, in fact, ineligible. Therefore, non-responders are all counted among the list of eligible agencies for the purposes of calculating a response rate.

Large numbers of ineligible respondents may indicate a need to further refine or clarify the state’s list of eligible providers. For example, 56 agencies from Wisconsin reported not having any DSWs on payroll as of Dec. 31, 2021. This may indicate that their list was not focused on those agencies providing DSW supports to the AD population or that external

sources used to accumulate the lists (MCOs, for example) may not have accurate information on the provider agencies.

## Response rates

Using the total number of agencies in each state’s list as the total population, a response rate and margin of error were calculated upon survey completion.

**Table 3.** Response rates

State	Total number of agencies in the sample frame	Number of Completed Surveys	Number of Ineligible Respondents	Ineligible respondents as a % of the total number in the sample frame	Total agencies in portal minus ineligible agencies	Response rate	Margin of Error
CO	447	123	44	9.8%	403	30.5%	7.4%
IN	228 <sup>1</sup>	90	3	1.3%	225	40.0%	8.0% <sup>2</sup>
MO	1169	222	10	0.9%	1159	19.2%	5.9% <sup>3</sup>
WA	3185	35	29	0.9%	3156	1.1%	16.5%
WI	2432	275	133	5.5%	2299	12.0%	5.6 <sup>4</sup>

The response rate varied significantly by state. States were encouraged to aim for a margin of error of at most 5%. Though no states reached that goal, Missouri and Wisconsin came within one percentage point. It is worth noting that Missouri and Wisconsin provided payment incentives to providers who responded.

<sup>1</sup> This does not represent the total population of eligible providers in the state. See Table 1 for more information.

<sup>2</sup> Because the total population of eligible providers is not known, an MoE should be viewed with caution.

<sup>3</sup> Because the total population of eligible providers is not known, an MoE should be viewed with caution.

<sup>4</sup> Because the total population of eligible providers is not known, an MoE should be viewed with caution.

States reported several challenges in reaching the goal of 5% margin of error. These included:

- 1) Provider unfamiliarity with the survey
- 2) Limited time frame of survey administration
- 3) Length of survey
- 4) Provider unfamiliarity with terminology
- 5) Lack of time in provider schedule to complete the survey

## ► Incentives

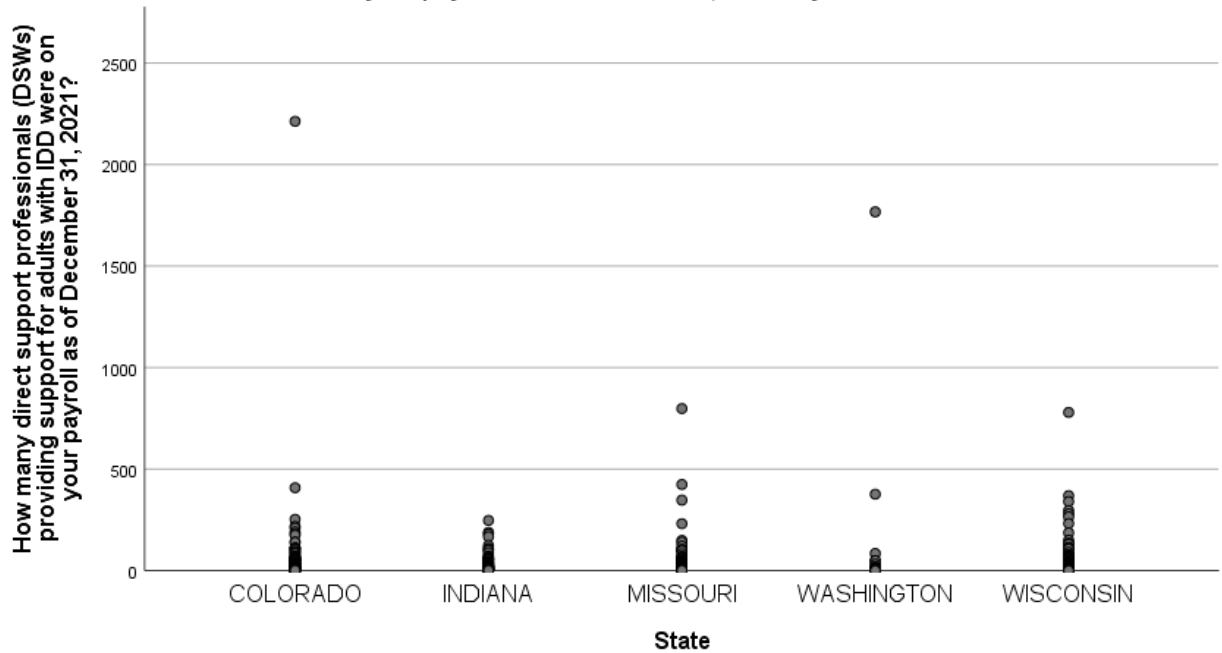
Indiana, Missouri and Wisconsin all offered financial incentives to provider agencies that responded to the survey. Though the amounts and eligibility for incentives differed between states, it appears that the incentive may have had a positive impact on responses in Missouri and Wisconsin. Although this cannot be tested with the pilot data, it is important to note that this may compromise cross-state comparisons. The survey questions are objective, fact-based questions, so there is little possibility that the incentive affected how people responded. But it may have affected who responded. Agencies may have responded to the survey in WI to receive the incentive, while in CO (where there was no incentive) a similar agency would not have responded. This is important to keep in mind while examining the data.

## Data

### ► Outliers

**Number of DSWs:** For the most part, the number of DSWs on payroll Dec. 31, 2021, reported by the responding agencies ranged between 1 and 798. Two states had about one outlier that lay far outside most responses regarding the number of DSPs. These were brought to the state to understand whether these data were accurate. States agreed that these were most likely errors (see below section on “State responses on data points”).

Simple Scatter of How many direct support professionals (DSWs) providing support for adults with IDD were on your payroll as of December 31, 2021? by State



**Average wage:** Two weeks into survey administration, it was brought to our attention that the data system was only capturing round numbers, and not decimals. We rapidly fixed the error, but data entered before that time could not be corrected.

Upon analyzing the data on average hourly wage for all DSWs, we noted that some of the reported wages that were well above the expected range. Outlier analysis suggested that some agencies reported annual rather than monthly wages and may have included employees other than DSWs in their averages. Implausible outliers were excluded from analysis. These data points were excluded from our wage analysis.

Similarly, there were four (4) responses of \$0.00.

There were similar outlying wages in all of the questions regarding wage. In future iterations of the survey tool, it may be important to clarify that the reported data should be hourly wages and represented with dollars and cents. In addition, it will be important to specify in the survey tool that responses of 0.00 are not accepted.

### Average hourly wage data above expected range (/hour):

45210.00

1750.00

1749.00

1515.00

1358.00

1350.00

1300.00

1154.00

1115.00

1100.00

1084.00

300.00

70.00

40.00

36.00

### ► Missing data

We examined each question to identify patterns in missing data. Looking at patterns in missing data could tell us whether certain questions were more confusing/unclear than others, whether people did not have the data needed to fill out the question or whether certain questions did not apply to a particular respondent population.

Denominators of question-specific missing rates only included agencies eligible to respond to the question.

Most questions had very low rates of missing data (<6%). Given the small sample size from Washington, even one missing response amounts to 3% missing data. This was taken into consideration in our assessment of missing values.

Data fields on numbers of separated DSWs, tenure (length of employment) of currently employed DSWs and tenure of separated DSWs had slightly higher rates of missing values, indicating that these data may be less readily available to the person responding to the survey.

Missing data on length of employment of DSWs employed as of Dec. 31, 2021, ranged from 0.45% to 8.57%.

**Table 4.** Missing data on length of employment of DSWs who separated in 2021

State	Percent missing data
COLORADO	16.7%
INDIANA	10.2%
MISSOURI	19.0%
WASHINGTON	53.1%
WISCONSIN	25.8%
Overall missingness	21.6%

Average wage data and starting wage data also had slightly higher rates missing data. (Reported data that were outside expected ranges (i.e., <\$5/hour or >\$30/hour) are considered "missing." See "Outliers" section for more info).



**Table 5.** Missing data on average hourly wage for all DSWs supporting the AD population

State	Percent missing data
COLORADO	9.8%
INDIANA	6.7%
MISSOURI	10.8%
WASHINGTON	20.0%
WISCONSIN	9.5%
Overall missingness	10.1%

Average starting wage data for all DSWs supporting the AD population had similar rates of missing data, as did the average/starting wage data for the different service types.

**Table 6.** Missing data on wage questions

State	Average starting wage data for all DSWs supporting the AD population	Average starting wage data for all DSWs supporting the AD population: RESIDENTIAL	Average hourly wage for all DSWs supporting the AD population: RESIDENTIAL	Average starting wage data for all DSWs supporting the AD population: IN-HOME	Average hourly wage for all DSWs supporting the AD population: IN-HOME	Average starting wage data for all DSWs supporting the AD population: NON-RES	Average hourly wage for all DSWs supporting the AD population: NON-RES
CO	6.5%	36.6%	26.8%	10.3%	16.1%	16.7%	11.1%
IN	5.6%	25.0%	29.2%	0.0%	2.9%	9.5%	14.3%
MO	9.5%	24.7%	22.1%	5.3%	6.6%	33.3%	29.6%
WA	20.0%	31.3%	40.6%	40.0%	40.0%	62.5%	62.5%
WI	9.1%	18.4%	18.8%	9.2%	11.5%	18.6%	17.1%
Overall missingness	8.9%	23.1%	22.8%	7.4%	10.1%	24.0%	22.2%

The question regarding overtime/regular hours paid in 2021 had several inconsistent responses. Nine (9) agencies responded that the overtime hours they paid were more than the regular hours they paid. 22 agencies were missing the number of regular hours. Fifty-

four (54) agencies had fewer than 52 regular hours paid in 2021. These inconsistencies indicate that this question may not be functioning as expected and suggest the need for additional explanatory text for these questions.

The questions regarding recruitment and retention strategies also had a higher rate of missing data.

**Table 7.** Missing data on recruitment and retention strategies

State	Percent missing data
COLORADO	8.9%
INDIANA	2.2%
MISSOURI	6.3%
WASHINGTON	22.9%
WISCONSIN	8.0%
Overall missingness	7.7%

## States' validation of preliminary results

To understand whether the sample was representative of the population of eligible agencies in the state and whether the data broadly reflected the states' expectations, we ran some data points and asked states to verify with existing data (if possible) and to comment on items that did not correspond to expectations.

We sent states the following data to review:

- 1) Number of DSWs on payroll as of Jan. 1, 2021
- 2) Number of DSWs on payroll as of Dec. 31, 2021
- 3) Numbers of enrolled in or approved for residential, in-home, and/or non-residential services from your agency on Jan. 1, 2021
- 4) Numbers of enrolled in or approved for residential, in-home, and/or non-residential services from your agency on Dec. 31, 2021
- 5) DSW demographics (race/ethnicity and gender)



- 6) Types of services provided (residential, in-home, non-residential)
- 7) Numbers of DSWs employed as of Dec. 31, 2021, and number of DSWs who separated in 2021
  - a. Used to calculate turnover ratio
- 8) Wages (Average starting wage and average hourly wage for all DSWs) for overall, residential services, in-home services and/or non-residential services
- 9) Full time and part time vacancy rates

We asked states to review using the following questions as guides:

- a. Is the total number of agencies in the sample frame comprehensive of all provider agencies in your state that are eligible for the survey?
- b. Do these data points seem accurate and representative of the DSW workforce working in provider agencies eligible for the survey throughout the state?
- c. Are there any other data sources that you could use to verify the data? Do the data look in line with those other data sources?
- d. What sticks out at you? What do you want to investigate more? What gives you pause, and doesn't correspond to your assumptions?
- e. Based on these data, do you believe that the sample responding to the survey was representative of the provider base and DSW workforce in your state?

State representatives had various responses.

1. Regarding whether the sample frame consisted of all provider agencies in the state that are eligible for the survey, some states noted that yes, their lists were inclusive of all eligible providers, while other states noted that their lists were not comprehensive. For one state, access to contact information was the primary barrier to sending the invitation to all eligible providers. For another state, stateside IT systems did not allow them to filter by the survey's eligibility criteria, so they were unable to ascertain the total number of eligible providers.
2. States noted that the data looked in line with expectations, with some exceptions. One state noted that they could not comment on accuracy without anything to compare with.

Two of four responding states noted that they had possible data sources that they could refer to for comparison. These included wage attestation forms, the NCI-IDD State of the Workforce Survey results, surveys used for rate setting purposes, and encounter and claims data.

3. When asked what stuck out to them, pilot states noted both data-related and survey-administration points of interest. Related to data, states reported a few data points that were outside of expectations. Regarding survey administration, states noted that it was evident to them that providers may not have understood survey questions, and many providers did not seem to have the requested data available. Additionally, one state noted that they had underestimated the state-side amount of staff time and resources needed to recruit providers, collect contact information, respond to questions, and administer the survey.
4. Of the four responding states, two believed that the pilot survey data were representative of the provider base and DSW workforce in the state. Two did not.

State comments on the data reinforce the notion that work needs to be done to ensure that the sample frame (list of all eligible provider agencies in the state) is accurate and comprehensive. Further, there is work to be done to ensure that the survey definitions are clear, and the questions are easy to understand. The data entry portal can also be revised to include additional data validations, data logic, etc.

To ensure that all eligible provider agencies are able to participate in the survey, it may be necessary to design more clear, concise, understandable definitions and directions in the survey tool. This also may entail more public engagement and awareness building before the survey is rolled out to potential respondents to ensure that they know the goals of the survey and its eligibility criteria.

## Respondent comments

At the end of the survey, respondents are asked to provide comments on the survey and the survey taking experience. The comments varied from disclosing personal stories to noting the utility of the survey and the topics covered. Here are some themes that emerged:



## ► Time and resources needed to complete the survey

Respondents noted that the survey was long and time consuming. Some noted that it incurred extra cost because they had to engage accountants and/or their external payroll entity. Similarly, respondents noted that the survey used complicated language that could be simplified or explained more concisely to facilitate comprehension. Respondents noted that the terminology needed to be made more universal to accommodate people in different states.

Some respondents noted having to complete the survey several times, either because they had already completed the NCI-IDD State of the Workforce Survey for the DSPs supporting adults receiving support from the DD system, or because they had more than one home/site for which they had to enter data. Some respondents who were responding for a specific home/site noted that the main office maintained many of the relevant records, and it was difficult for them to respond regarding their specific home/site. One respondent noted: "It took longer, because I had to find the appropriate reports to obtain some of the information/if no reports. It took longer to manually to get the information." Another respondent noted: "It required a significant amount of time-consuming data from multiple departments to obtain all the information requested, taking away from their specific daily assignments."

## ► Difficulty identifying the target population of DSWs

Relatedly, some respondents noted difficulty separating information for providers serving specific populations. One respondent noted: "We run an agency that serves IDD And AD it is hard to separate DSP workers as they cross between homes serving IDD and AD regularly as our homes service all groups." A respondent noted difficulty separating out full time vs. part time DSWs.

## ► Difficult questions

Some respondents noted particular questions that they found difficult. One respondent found the questions that asked respondents to separate out full time and part time DSWs difficult. Another respondent found the questions about overtime/regular hours paid in a

year difficult to answer. Another respondent found the questions referring the particular number of DSWs employed on a particular date difficult to assess.

## ► Survey interface

Regarding the format of the survey, several respondents noted that navigating the survey was difficult and would have preferred a progress bar or menu option to navigate without pushing “previous” or “next.”

## ► Appreciation

Some respondents noted that the survey informed them of some new strategies related to recruitment and retention and some of the COVID related relief funds that they had not been aware of previously. In addition, some felt that the survey provided a comprehensive view of the challenges faced by DSWs and providers. Other providers noted that they appreciated the opportunity to provide feedback.

## Lessons learned

1. Related to gathering the list of provider agencies, the difficulty some states faced in determining the total eligible provider population **may indicate the need for more intensive TA or work on data infrastructure**. This was also indicated by the number of respondents who self-identified as ineligible for various reasons.
2. States’ difficulty in achieving a robust response rate points to a need for improved communications to increase provider awareness of the survey.
3. Additionally, it may be necessary to increase the survey timeframe to allow for more time to gather data. The survey tool may require editing and revising to cut down the length to encourage provider participation. Similarly, work can be done to ensure providers understand the terminology, which may vary across states. More clear definitions can be provided, and states may work to create glossaries or guides to send along with the

survey. Finally, states might consider providing financial support to providers to complete the survey tool.

4. Analysis of the data indicated a few points of potential confusion.
  - a. To reduce the presence of outliers, for the data points that ask respondents to report the number of DSWs on payroll, it may be necessary to clarify that the response should only include DSWs on payroll who support the AD population in the participating state.
  - b. The questions that asked about wages may need clarity to indicate that respondents should report hourly wages (with dollars and cents) and should only reflect wages of DSWs. Additionally, it should be clear that no responses of \$0.00 will be accepted, and data validation should be added to the online tool to prohibit a response of \$0.00.
  - c. Analysis of missing data indicated questions for which the information may not have been readily accessible or understandable to many providers:
    - i. Points with high rates of missing data:
      1. Tenure of separated DSWs
      2. Wage data—average and starting
      3. Overtime and regular hours in the past year
      4. Recruitment and retention strategies
    - ii. It is possible that the reduced length of the survey tool may allow for more time to gather these responses.
    - iii. It may be important to reinforce the importance of these data points, particularly wage, when speaking with providers about the survey



5. State feedback on data indicated that generally, the data were in line with state expectations. State comments on the data reinforce the notion that work needs to be done to ensure that the sample frame (list of all eligible provider agencies in the state) is accurate and comprehensive. Further, prior to launching the survey, there is work to be done to ensure that the survey definitions are clear, and the questions are easy to understand. The data entry portal can also be revised to ensure that respondents are less likely to enter out-of-range numbers by adding data validations, data logic, etc. To ensure that all eligible provider agencies are able to participate in the survey, it may be necessary to design more clear, concise, understandable definitions and directions in the survey tool. This also may entail more public engagement and awareness building before the survey is rolled out to potential respondents to ensure that they know the goals of the survey and who is eligible.
6. Respondent comments indicated several areas for improvement:
  - a. The survey should be shortened to maintain provider attention
  - b. Respondents had to consult (and often pay) their external payroll/accounting departments to gather the data. Providers may need additional support to complete the survey, though the shortened tool may minimize this need.
  - c. Respondents identified questions that were particularly difficult, including those requiring identifying DSWs who only worked with the AD population, separating full/part time DSWs, separating out overtime hours.
  - d. Comments indicated an overall need for clarity in question text and descriptions.



# Conclusion

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## Moving Forward

The NCI-AD State of the Workforce effort can reliably collect data from provider agencies on the DSW workforce supporting the AD population. There are, however, adjustments to process and the survey tool that can be made to facilitate an increased response rate and fewer data inconsistencies.

- States should develop more targeted methods to accumulate their lists of eligible provider agencies. This may include data collection and maintenance infrastructure, out-reach to provider agencies or other means to narrow down the lists. National NCI team will continue to provide targeted TA support to states.
- Screening questions within the survey to determine eligibility for the survey are important and should be expanded. The NCI-AD State of the Workforce eligibility criteria require detailed and timely information that the state may not have.
- States should also engage in outreach to ensure providers are aware of the survey, understand its importance, and know the meaning of specific terms in the survey.
- The survey tool should be shortened, and clarifications added to definitions and questions to ensure comprehension across states.
- The data entry portal can be adapted to prevent the entry of out-of-range numbers, to minimize outliers.
- States may consider providing financial support to providers to complete the survey.



# Appendix A

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## Frequently Asked Questions

**Q: What is the purpose of the State of the Workforce- AD project?**

A: The purpose of the SotW AD project is to gain valuable insight on the stability and quality of the direct support Worker (DSW) staff in your state. The effort grew out of a desire from states and increased federal interest in the need for a reliable tool to capture state and national level data regarding the quality and stability of the workforce supporting older adults and people with physical disabilities.

**Q: Is filling out the survey mandatory?**

A: No! However, many states are offering financial incentives to providers that complete the survey.

**Q: Why is the survey so long?**

A: We know that a survey this long can be tedious and sometimes take multiple hours. However, all of the data that you enter will help national and state governments gain a better understanding of the direct care workforce in your state and provide insight on national trends.

**Q: What is the point of filling out the survey?**

A: The public health emergency has not made the workforce crisis—or its causes—disappear, but instead made it a bigger problem. This survey is designed to look at state and national trends in wages, tenure, quality, and stability in the direct care workforce.

**Q: Is there consideration for a shorter survey?**

A: We are always looking for ways to improve our survey tool. Several states have made comment about the length of the survey. We are taking this critique under advisement as we review the survey tool and make edits, as necessary.

**Q: Can survey questions be worded so providers see the benefits in taking the survey?**

A: We attempted to word our current questions to show providers the benefits of taking the survey. If you would like further information on the benefits of filling out this survey both at

a state, and national level, contact [State NCI-AD Person Here] or look at [www.nci-ad.org](http://www.nci-ad.org) for more information.

**Q: What information will I be asked to provide by the survey?**

**A:** Below is a list of the broad categories of information we are looking for with the SotW-AD survey.

- Demographics of your DSW workforce
- Information on providers providing supports in the state, such as size, number of people served, etc.
- DSW turnover rates
- Length of DSW employment
- Vacancy rates
- Hourly wages
- Benefits
- Recruitment and retention strategies
- And more ...

**Q: What providers are eligible to take this survey?**

**A:** Providers are eligible to take this survey if they employ at least one (1) direct service worker on payroll. They are not eligible if those DSW's are paid contractors and are being paid with 1099 forms. Additional eligibility requirements can vary depending on the populations that states wish to gather information about. For example, some states may only be looking at providers who serve specific Medicaid waiver programs, etc.

**Q: How do I know if I am eligible to take this survey?**

**A:** If you have received an email from the portal and still aren't sure if you are eligible, the first few questions of the survey are designed to tell providers whether or not they are eligible. If all else fails, fill out the first few questions!

**Q: Why was my agency selected to participate?**

**A:** Your agency has been selected because you have been found to meet the following criteria

- Have DSWs on payroll

- Directly supports clients in the aging and physical disability population on select Medicaid waivers

**Q: What is the portal?**

**A:** The “portal” is the online platform that you will be using to fill out the survey. It holds all of the data that is collected throughout the states and serves as a hub for survey administrators to gather data.

**Q: If a provider wants to submit multiple surveys via the same email address, would we need unique entity names to import into the portal?**

**A:** Yes! If a provider wants to submit multiple surveys via the same email address, there will need to be additional entries made in the portal.

**Q: How do I use the portal?**

**A:** If selected as a provider in your state you will receive an email, within this email is a link to access the portal. Click this link and create an account. Then, begin filling out the survey with the data from your agency.

**Q: I never got an email with a survey link; what do I do?**

**A:** If you never received an email linking you to the survey but believe that you are eligible, please email [State NCI-AD Person Here] who can assist you further.

**Q: The survey is long and intimidating; can I get a copy of it before filling it all out in the portal?**

**A:** Yes! Please send a message to your state contact and they can send you a PDF version of the survey. That way you can go through the survey in sections and then input all the data into the portal

**Q: Do I have to fill out the whole survey at one time? Or can I start and stop?**

**A:** You can stop and re-start. Just make sure to save your work!

**Q: What agencies and programs will my state be surveying?**

**A:** The agencies and programs that will be surveyed differ by state. If you have a question about which programs will be surveyed in your state, please reach out to [State NCI-AD Person Here]

**Q: Why are we not surveying providers working with clients who are choosing to self-direct their care?**

A: When a consumer chooses to self-direct their care, they get to set the rate of pay for their care. We did not want this information to skew the results of data on wages, turnover rates, etc. However, we will be developing and launching a State of the Workforce Survey, to provide a better understanding of recruitment and retention of DSWs working with those who chose to self-direct their care.

**Q: How can states use State of the Workforce-Aging and Disability for performance measurement and quality improvement?**

A: Once launched, participating states will be able to use SotW-AD in several ways, including, but not limited to:

- Workforce initiatives
- Government partnerships
- Context for NCI-AD outcomes data
- Baseline data for future analysis
- Budget projections
- Policy planning
- Stakeholder engagement
- Quality assurance
- And more ...

**Q: There was an error while completing the survey.**

A: It is recommended that the browser to use while completing the survey is Google Chrome. If you use that browser and continue to get the error message please contact [State NCI-AD Person Here] for further assistance. If problems persist, please contact Megan Vilwock at [email address]. Megan is IT at National Core Indicators and will be able to assist you further.

**Q: I made an error; will I be able to go back in to the survey and fix it?**

**A:** In order to go back and make changes to the survey after it is submitted, please contact [State NCI-AD Person Here] or Dorothy Hiersteiner [email address] for further assistance.

**Q: My agency has completed the survey, but we continue to receive notification emails. How do we stop receiving further emails?**

**A:** When your survey is complete the agency will receive a confirmation email. If your agency did not receive this confirmation email, please continue to the link, and ensure that all prompted questions have been completed and the survey has been submitted. If your survey was completed correctly and you are still receiving these emails please contact [State NCI-AD Person Here].

**Q: I received the email to complete the survey, but my co-worker is a better fit to complete it? Can I forward the email to them?**

**A:** Yes! If your co-worker uses the link provided in the email it will track the survey as completed for your agency. If you would like to change the email address receiving notifications regarding the survey, please contact [State NCI-AD Person Here]

**Q: Can my agency have a copy of our responses from the survey?**

**A:** When an agency has completed the survey you will be receive a prompt to ask if your agency would like to download and print their responses. The agency will NOT be able to retrieve the responses after this prompt.