



National Core Indicators® Aging and Disabilities (NCI-AD)

# STATE OF THE WORKFORCE IN 2022

## SURVEY REPORT

# Introduction

We are thrilled to release the first National Core Indicators® Aging and Disabilities (NCI®-AD) State of the Workforce in 2022 Survey Report. NCI-AD is a collaboration between the ADvancing States, the Human Services Research Institute, and participating state aging and physical disability service systems.

The NCI-AD State of the Workforce Survey collects comprehensive data on provider agencies and the Direct Support Worker (DSW) workforce providing supports to the Aging and Disability population (AD population). The AD population is defined as **older adults and/or individuals with physical disabilities who access publicly funded services in Medicaid waiver programs, Medicaid state plan programs, and/or state-funded programs, and/or older adults served by Older Americans Act programs.**

The goal of the survey and the resulting data is to help states describe their workforce, examine workforce challenges, identify areas for further investigation, benchmark their workforce data, measure improvements made through policy or programmatic changes, and compare their state data to those of other states.

Provider agencies can compare their data to the state averages and examine where they might make changes to improve the stability of their workforce.

These data come at a critical time; after the COVID pandemic, state human service systems are struggling to find and sustain a workforce to support people to live and thrive in their homes and in the community. States have made large investments in workforce interventions and initiatives and need data to examine whether money has made its way into the hands of the workers through wages, and ultimately how those investments affected outcomes such as turnover and tenure. Additionally, state systems need information to understand who is in the workforce and how those workers can be supported to continue in DSW work.

The release of the NCI-AD State of the Workforce in 2022 Survey data marks a new opportunity for state aging and disabilities agencies, advocates, and researchers to work together to determine the best strategies to address the DSW workforce crisis.

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## CONTACT

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# Executive Summary

A total of 2 states (Colorado and Missouri) participated in the **2022 NCI-AD State of the Workforce Survey**. All told, the responses from **378 provider agencies are included in this report**. The data presented in this report refer to the period between Jan. 1 and Dec. 31, 2022. See Appendix B for each state’s method for identifying eligible provider agencies (sampling method).

## Demographics of DSWs

In Colorado (CO) and Missouri (MO), agencies reported the following average racial/ethnic breakdown of their DSW workforce. Here is a sample of those data (more detail is available in Table 9):

	CO	MO
<b>Black or African American</b>	13.1%	51.7%
<b>White</b>	31.6%	37.6%
<b>Hispanic/Latinx</b>	18.0%	0.7%
<b>Asian</b>	8.0%	1.3%

Responding agencies in Colorado and Missouri also reported the following average breakdown of gender identity of their DSW workforce.

	CO	MO
<b>Male</b>	16.3%	13.4%
<b>Female</b>	73.2%	84.3%
<b>Non-Binary</b>	0.1%	0.1%
<b>Don’t know</b>	10.4%	2.3%

## Agency type

Responding agencies were overwhelmingly private for-profit agencies (82.9% in CO and 80.1% in MO). About one in ten responding

agencies were private non-profit agencies (14.0% in MO and 12.0% in CO).

## Tenure (Length of Employment) of DSWs

Of the DSWs employed by respondents as of Dec. 31, 2022, in both states, about a third of DSWs had been employed for three years or more (30.7% in CO and 31.9% in MO). In both states, about two-fifths of DSWs employed by respondents as of December 31, 2022, had been employed for a year or less (39.4% in CO and 37.4% in MO).

In both states, of the DSWs who left (separated from) employment between Jan. 1, 2022 and Dec. 31, 2022, over half had been employed for 12 months or fewer (56.2% in CO and 58.2% in MO).

Of those who separated from employment in 2022, 79.3% of DSWs at responding agencies in CO and 78.3% at responding agencies in MO did so voluntarily.

Almost half of all responding agencies (42.4% in CO and 51.4% in MO) reported having turned away or stopped accepting new service referrals in 2022 due to DSW staffing issues.

## Turnover

The turnover ratio<sup>1</sup> for DSWs in 2022 ranged from 49.4% in Colorado to 48.2% in Missouri.

## Vacancy Rates

Of agencies that distinguish between full-time and part-time DSW positions, (57.3% in CO and 52.5% in MO), MO agencies, on average, rely on a larger proportion of part-time workers than CO agencies (62.8% of DSWs at responding agencies in MO that distinguish

<sup>1</sup> The turnover ratio in this report is a point-in-time indicator. The denominator (total number of employed DSWs at each agency) is taken from a specific point in time: Dec. 31, 2022. We are calling it a *Turnover Ratio* to better distinguish it from calculations that use different denominators.

(62.8% of DSWs at responding agencies in MO that distinguish between full-time and part-time were part-time, compared to 48.6% in CO).

Among responding provider agencies who distinguish between full-time and part-time DSW positions, vacancy rates<sup>2</sup> for full-time positions were 7.4% in CO and 9.0% in MO. Vacancy rates for part-time positions were 6.2% in CO and 9.8% in MO.

## Services and Wages

Of the responding agencies:

- 45.9% in CO and 35.5% in MO provided residential supports — such as community-based group homes and supported living services.
- 63.2% in CO and 74.7% in MO provided in-home supports — such as homemaker/personal care services, in-home habilitation, and in-home respite.
- 19.5% in CO and 25.3% in MO provided non-residential supports — such as day supports, community support programs, community-based employment supports, facility-based employment supports, or out-of-home habilitation.

## Wages

Across all service types, the median hourly wage in 2022 was \$16.17 in CO and \$13.00 in MO. The majority of provider agencies in CO (75.2%) and MO (67.1%) paid a wage between \$0.50 above to 40% above the statewide minimum wage.

The median hourly starting wage across all service types was \$16.00 in CO and \$12.08 in MO in 2022.

Median hourly wages varied by setting type.

	<b>DSWs providing residential supports</b>	<b>DSWs providing in-home supports</b>	<b>DSWs providing non-residential supports</b>	<b>All DSWs, regardless of setting</b>
<b>CO</b>	16.56	16.00	17.25	16.17
<b>MO</b>	13.00	13.00	14.00	13.00

## Benefits

In CO, a majority, 63.2%, of responding agencies offer some form of paid time off to DSWs. Fewer than half of responding agencies in MO, 40.2%, offer paid time off to some or all DSWs.

Among the responding agencies, 38.4% in CO and 25.8% in MO offered health insurance to some or all DSWs. In CO, 30.9% offered dental coverage to some or all DSWs, while in MO 23.7% offered dental coverage to some or all DSWs.

## Recruitment and Retention

Slightly more than three-quarters (75.4% in CO and 80.0% in MO) of respondents reported offering a realistic job preview to candidates, and 47.2% in CO and 29.9% in MO reported offering a pay incentive or referral bonus program.

## Frontline Supervisors

Across participating states, there was an average ratio of 15 DSWs to 1 frontline supervisor in CO and 11 DSWs to 1 frontline supervisor in MO.

<sup>2</sup> These are point-in-time vacancy rates, not averages across the year.

# Table of Contents

What is the National Core Indicators-Aging and Disabilities State of the Workforce Survey?.....	1
How is the survey administered? .....	1
Understanding Key Terms.....	3
Characteristics of Responding Agencies .....	5
Supports Provided and Number of the AD Population Receiving Services as of December 31, 2022 .....	9
Turnover Ratio.....	11
Tenure (Length of Employment) of DSWs.....	13
Separations.....	14
Full-time and Part-time Workforce .....	14
Vacancy Rates.....	16
Hourly Wages .....	17
Bonuses.....	20
Benefits.....	21
Recruitment and Retention.....	25
Frontline Supervisors .....	26
Appendix A: What states can do with their data? .....	27
Appendix B: Sampling Methods as Reported by States.....	28
Appendix C: Comparable Wage Tables .....	29
Appendix D: Living Wage Table by State.....	31
Appendix E: Additional Data Points.....	32
Appendix F: Instructions Provided to Survey Respondents.....	33

# What is the National Core Indicators-Aging and Disabilities (NCI-AD) State of the Workforce Survey?

Using the NCI-AD State of the Workforce Survey, NCI-AD works with member states to collect comprehensive data on the workforce of Direct Support Workers (DSWs) who provide direct care and support to **“The AD population:” older adults and/or individuals with physical disabilities who access publicly funded services in Medicaid waiver programs, Medicaid state plan programs, and/or state-funded programs, and/or older adults served by Older Americans Act programs.**

## HOW IS THE SURVEY ADMINISTERED?

NCI-AD member states that choose to participate in the State of the Workforce Survey provide a list of all provider agencies in the state that provide direct support to the AD population. This list includes the name of the agency and email contact at the agency.

This list is uploaded to an online portal — the State of the Workforce Portal. Using the portal, the state can email a survey invitation with a unique link so that each agency can access the survey online. The state manages the survey response and corrects inaccurate contact information.

## FOR THE PURPOSES OF THIS SURVEY, WHAT IS A DSW?

This survey asks about people employed as **Direct Support Workers (DSWs)**. This includes all paid workers whose primary job responsibility is direct support and for whom the responding agency defines wages and benefits directly.

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

- Help them maintain independence
- Provide personal assistance with activities of daily living (ADLs) such as 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
- Accompanying 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 considered DSWs and are included in the data provided for this survey:

- 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 the responding agency defines wages and benefits directly Note: DSWs who are exclusively supporting people who are self-directing their services are not included in this report.
- 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: DSWs are those workers providing direct support who are employed and work in addition to the primary shared living/foster care provider

The following types of workers are not considered DSWs and are not included in this report:

- Clinically licensed staff (therapists, registered nurses, licensed practical nurses (LPNs), social workers, psychologists, etc.)  
**Note:** *CNAs are included 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
- Admin staff or supervisory staff, unless they spend 50% or more of their time doing direct support work

**Agencies providing host/foster/family home arrangements** did not include the primary care providers in their definition of a DSW; their data are not included in this report. However, workers who were employed by these agencies in addition to the primary care provider were counted as DSWs and their data are included in this report.

## UNDERSTANDING KEY TERMS

In this report, you'll see the following statistics. These brief explanations are intended to help you interpret them:

What is a **MEAN**? The mean (also known as arithmetic average) is the sum of all data entries divided by the number of entries. For example, to calculate the mean points per game by a basketball player, one adds up all the points made and divides the result by the number of games played.

What is a **MEDIAN**? The median is the value that separates the upper half of a dataset from the lower half. It can be thought of as the "middle" value. Compared to the mean, the median is less influenced by outliers (extreme values that lie far outside the pattern established by the rest of the data). Because of this, the median is sometimes a better measure of a "typical" value.

What is **STANDARD DEVIATION**? Standard deviation is a measure of how widely the data points spread. A low standard deviation indicates that the data points tend to be close to the mean; a high standard deviation indicates that the data points are more spread out.

What is **MARGIN OF ERROR**? Margin of error is used to demonstrate the relative confidence one can have that the data will accurately represent the total population. For example, if the final sample from State A has a margin of error of 5% (and a 95% confidence level), you can say that 95% of the time, the statistics from the sample are within 5 percentage points of the statistics for the total population in the state. A bigger margin of error means the results are less certain.



## RESPONSE RATES

See [Appendix B](#) for more information on each state’s sample.

### Number of Responses and Response Rates

A total of 378 surveys were included in this report. However, not every respondent answered every question, so we provide a ‘Number of Responses’ (N) figure for each state on each question.

If no questions were answered, surveys were considered invalid; however, they were still included in the denominator when calculating the response rate.

Surveys were deleted from the dataset, considered ineligible for analysis, and excluded from the denominator when calculating the response rate if:

- The provider agency reported that it did not provide any of the targeted service types.
- The provider agency reported that it did not employ DSWs.
- The provider agency had not been in operation for six continuous months in 2022.
- The provider agency indicated that it only uses contract DSWs and/or 1099 DSWs (and therefore does not have any DSWs on payroll).

	Valid responses	Total pop <sup>3</sup>	Response rate	Margin of error <sup>4,5,6</sup>
<b>Colorado</b>	133	481	27.7%	7.24%
<b>Missouri</b>	245	801	30.6%	5.22%

<sup>3</sup> Total number of providers in the state minus those reported not to provide any of the requisite service types and/or reported not employing any DSWs. If a provider did not answer any questions in the survey, left blank the question about number of DSWs, or left blank the question about types of services provided, the provider was assumed to be eligible and thus included in the “total population” (and the denominator when calculating the response rate).

<sup>4</sup> Margin of error for sample based on valid responses and “total population.”

<sup>5</sup> Assuming 50% response distribution.

<sup>6</sup> Calculated using <http://www.raosoft.com/samplesize.html>

## CHARACTERISTICS OF RESPONDING AGENCIES

Table 1. Does your agency ONLY support the AD population?

	Yes	No	N
Colorado	68.2%	31.8%	132
Missouri	71.0%	29.0%	245

Table 2. If your agency also provides supports to other populations, can you isolate out and report separately on the wage information, vacancy rates, benefits of DSWs who work exclusively with the AD population?

	Yes	No	N
Colorado	35.7%	64.3%	42
Missouri	58.6%	41.4%	70

## NUMBERS OF DSWs ON PAYROLL BETWEEN JAN. 1, 2022 AND DEC. 31, 2022

Table 3. How many DSWs providing support for the AD population were on your payroll as of Jan. 1, 2022?

	0-20 DSWs <sup>7</sup>	21-40 DSWs	41-60 DSWs	61+ DSWs	Mean # of DSWs	Std. deviation	Median # of DSWs	N
Colorado	54.9%	18.8%	9.8%	16.5%	35.81	54.440	17.00	133
Missouri	63.9%	16.8%	7.8%	11.5%	38.41	109.972	14.00	244

Table 4. How many DSWs providing support for adults with IDD were on your payroll as of Dec. 31, 2022?

	1-20 D s	21-40 D s	41-60 DSWs	61+ D s	Mean of DSWs	Std. deviation	Median # of DSWs	N
Colorad	54.1%	16.5%	9.0%	20.3%	42.32	64.416	19.00	133
Missour	63.3%	18.4%	7.3%	11.0%	43.17	148.427	14.00	245

<sup>7</sup> Table includes 11 cases that indicated that they had 0 DSWs on payroll on January 1, 2022.

**Figure 1. Spread of agency size on Dec. 31, 2022 (based on number of DSWs). Each circle represents one responding agency. Provider agencies in Colorado, for example, are, as a whole, smaller, whereas Missouri has a broader range of agency sizes.**

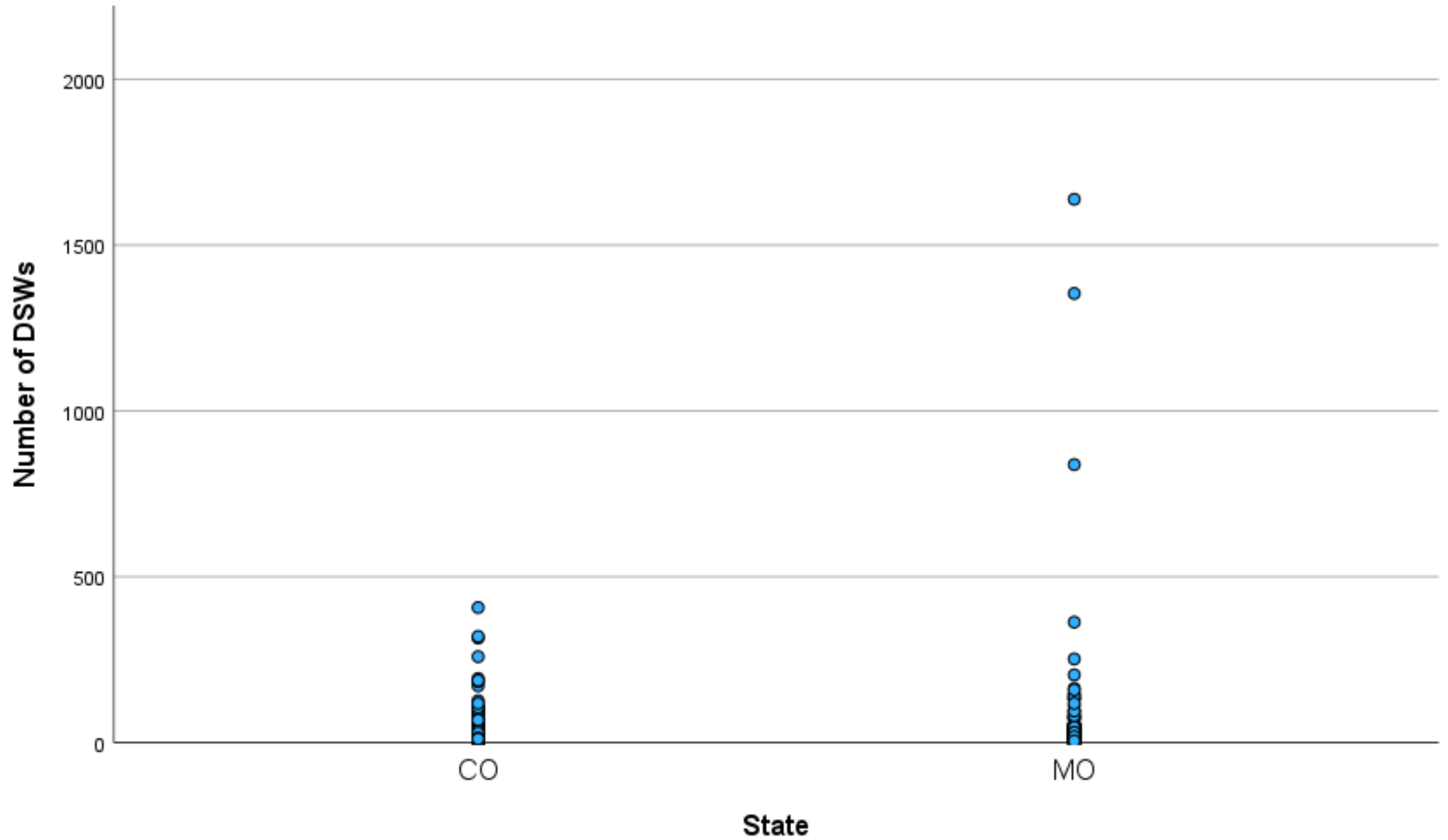


Table 5. Percentage of agencies that reported changes over 10% in number of DSWs on payroll from Jan. 1, 2022 to Dec. 31, 2022

	Number of DSWs increased more than 10% from Jan to Dec 2022	Number of DSWs stayed within + or - 10% of same from Jan to Dec 2022	Number of DSWs decreased more than 10% from Jan to Dec 2022	N
Colorado	39.8%	41.4%	18.8%	133
Missouri	46.3%	24.6%	29.1%	244

Table 6. How many members of the AD population were enrolled in or approved for residential, in-home, and/or non-residential services from your agency on **Jan. 1, 2022?** (Percentage of responding agencies with adults enrolled in or approved for residential, in-home and/or non-residential services<sup>8</sup>...)

	0 adults	1-10 adults	11-20 adults	21-50 adults	51-99 adults	100-499 adults	500-999 adults	1000+ adults	Mean # of adults w/ IDD <sup>9</sup>	Std. deviation	Median # of adults w/ IDD <sup>9</sup>	N
Colorado	9.3%	23.3%	18.6%	20.9%	14.7%	13.2%	0,0%	0,0%	47.58	68.189	18.00	129
Missouri	3.4%	26.5%	22.7%	22.7%	9.2%	13.4%	1.7%	0.4%	61.98	152.858	20.00	238

Table 7. How many members of the AD population were enrolled in or approved for residential, in-home, and/or non-residential services from your agency on **Dec. 31, 2022?** (Percentage of responding agencies with adults enrolled in or approved for residential, in-home and/or non-residential services...)

	0 adults <sup>10</sup>	1-10 adults	11-20 adults	21-50 adults	51-99 adults	100-499 adults	500-999 adults	1000+ adults	Mean # of adults w/ IDD	Std. deviation	Median # of adults w/IDD <sup>11</sup>	N
Colorado	6.9%	22.3%	16.9%	23.1%	16.2%	13.8%	0.8%		53.73	87.922	23.50	130
Missouri	3.4%	27.8%	19.8%	24.9%	9.3%	12.7%	1.7%	0.4%	63.37	172.095	19.00	237

<sup>8</sup> Table includes 20 agencies that reported serving 0 adults with IDD on Jan. 1, 2022.

<sup>9</sup> Enrolled in or approved for residential, in-home, and/or non-residential services.

<sup>10</sup> 17 agencies reported providing supports to 0 adults on December 31 2022. Those agencies are included in this table.

<sup>11</sup> Enrolled in or approved for residential, in-home, and/or non-residential services.

Table 8. Percentage of agencies that reported changes of more than 10% in number of adults with IDD enrolled or approved for<sup>12</sup> services **between Jan. 1, 2022 and Dec. 31, 2022**<sup>13</sup>

	Number <sup>14</sup> increased by more than 10% from Jan to Dec 2022	Number stayed within 10% above or below between Jan to Dec 2022	Number decreased by more than 10% from Jan to Dec 2022	N
<b>Colorado</b>	31.0%	49.6%	19.4%	129
<b>Missouri</b>	25.8%	45.3%	28.8%	236

## DSW DEMOGRAPHICS

Table 9. Within all reporting agencies in the state, the average percent of DSWs on the payroll as of Dec. 31, 2022 identifying as each race/ethnicity

	American Indian or Alaska Native	Asian <sup>15</sup>	Black or African American	Pacific Islander <sup>16</sup>	White	Hispanic/Latinx <sup>17</sup>	More than one race/ethnicity	Other	Don't know	N
<b>Colorado</b>	0.4%	8.0%	13.1%	0.5%	31.6%	18.0%	1.9%	1.6%	24.9%	128
<b>Missouri</b>	0.6%	1.3%	51.7%	0.0%	37.6%	0.7%	0.9%	0.7%	6.5%	234

Table 10. Of all reporting agencies in the state, the average percent of DSWs on the payroll as of Dec. 31, 2022 identifying as each gender identity

	Male	Female	Non-binary	Don't Know	N
<b>Colorado</b>	16.3%	73.2%	0.1%	10.4%	129
<b>Missouri</b>	13.4%	84.3%	0.1%	2.3%	234

<sup>12</sup> This wording aims to capture people who were enrolled or approved for services but who may not have been receiving services due to COVID-19 protocols.

<sup>13</sup> Table includes 5 agencies that reported serving 0 adults from the AD population on Jan. 1, 2022, and also reported serving 0 adults from the AD population on Dec 31, 2022.

<sup>14</sup> Number of adults with IDD enrolled in or approved for services.

<sup>15</sup> Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, or Other Asian.

<sup>16</sup> Native Hawaiian, Guamanian or Chamorro, Samoan, or Other Pacific Islander.

<sup>17</sup> Mexican, Mexican American, Chicano, Puerto Rican, Cuban, or Other Spanish/Hispanic/Latinx.

## SUPPORTS PROVIDED AND NUMBER OF THE AD POPULATION RECEIVING SERVICES AS OF DECEMBER 31, 2022

**Residential Supports** are supports provided to a person in a home or apartment that is owned or operated by the agency. **Note:** Residential supports include 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. If the service recipient holds a lease with the provider agency, this is considered a residential support or service. Nursing homes are not included. Residential supports include:

- *24-hour supports such as Assisted Living.*
- *Host home or foster home services.*
- *Residential respite.*

**In-home Supports** are supports provided to a person in a home or apartment that is not owned or operated by the agency. This includes:

- *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 the agency).*
- *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 the agency).*
- *This category can include homemaker/personal care services or companionship services.*

• **Non-residential Supports** are supports provided in a day program, community program, or work setting. This includes:

- *Adult day services.*
- *Community supports such as supports provided to assist a person to participate in community activities.*
- *Skills training or skills development to support a person to self-sustain in the community.*

Table 11. Number of service types provided — residential, in-home, and/or non-residential

	1 Type	2 Types	All 3 Types	N
<b>Colorado</b>	75.8%	18.9%	5.3%	132
<b>Missouri</b>	71.4%	21.6%	6.9%	245

Notes: Missing data for a service type was treated as 'Does not provide this type' for this calculation. Agencies that did not report providing at least one of the three service types were excluded from this table (1 case)

Table 12. Does your agency provide residential supports, in-home supports and/or non-residential supports to adults with IDD as of Dec. 31, 2022? (Categories are not mutually exclusive)

	Provides Residential Supports	Provides In-home Supports	Provides Non-residential Supports	N
<b>Colorado</b>	45.9%	63.2%	19.5%	133
<b>Missouri</b>	35.5%	74.7%	25.3%	245

Notes: Missing data for a service type was treated as 'Does not provide this type' for this calculation. Agencies that did not report providing at least one of the three service types were excluded from this table (1 case)

Table 13. Percentage of agencies that turned away or stopped accepting new service referrals in 2022 due to DSW staffing issues

	Percent	N
<b>Colorado</b>	42.4%	132
<b>Missouri</b>	51.4%	243

Table 14. Agency type

	Private for-profit agency	Private non-profit agency	State/county government	Other government	N
<b>Colorado</b>	82.9%	14.0%	3.1%	0.8%	129
<b>Missouri</b>	80.1%	12.0%	7.1%	0.8%	241

## TURNOVER RATIO

Each agency's turnover ratio is calculated as:

*(Total separated DSWs in past year) divided by (Total DSWs on payroll as of December 31, 2022).*

The state turnover ratio is an average of the turnover ratios of agencies in each state.

The turnover ratio in this report is a point-in-time indicator. The denominator (Total DSWs on payroll at each agency) is taken from a specific point in time: Dec. 31, 2022. It differs from turnover rate calculations that use the average number of people employed at each agency across 12 months as the denominator.

Some agencies reported turnover ratios that exceed 100%. This means that the number of DSWs that separated from the agency payroll in 2022 was greater than the number of DSWs employed as of Dec. 31, 2022.

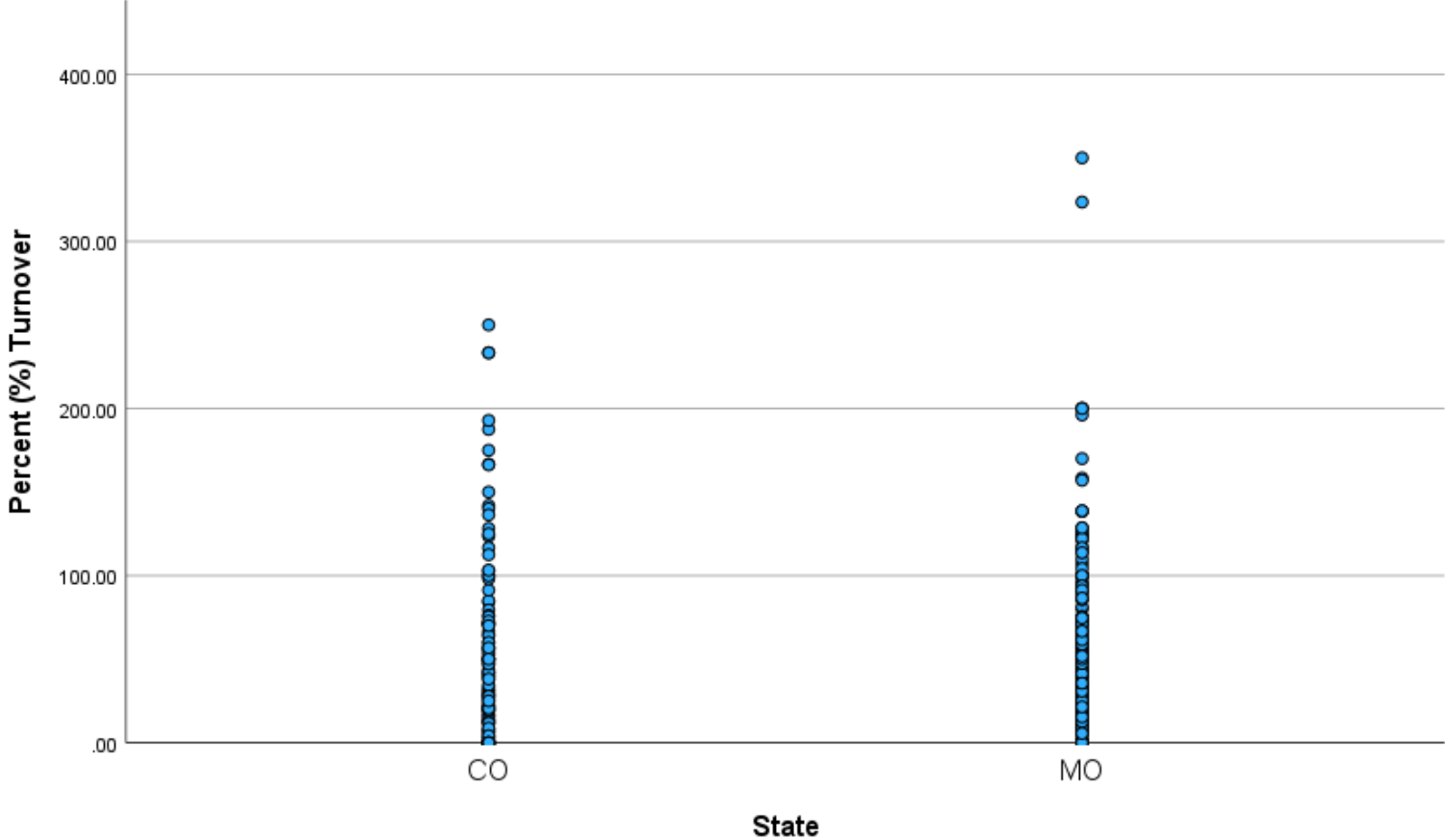
Table 15. Turnover Ratios<sup>18</sup> for DSWs in 2022 (as of Dec. 31, 2022).

	Mean	Median	Std. Deviation	Minimum	Maximum	N
<b>Colorado</b>	49.4%	31.8%	55.1%	0.0%	250.0%	127
<b>Missouri</b>	48.2%	33.3%	51.6%	0.0%	350.0%	234

<sup>18</sup> This is called a *Turnover Ratio* to better distinguish it from calculations that use different denominators. Agencies were included if they reported the length of tenure of all DSWs reported employed as of Dec. 31, 2022 (or left it blank). Agencies were included if they reported the length of tenure of all DSWs reported to have separated in 2022 (or left it blank).



Figure 2. Spread of agency turnover ratios in each state in 2022



## TENURE (LENGTH OF EMPLOYMENT) OF DSWs

To calculate tenure, the number of DSWs employed in each agency for less than 6 months is divided by the total number of DSWs employed as of Dec. 31, 2022. This created an agency-wide percentage of DSWs employed less than 6 months. We then calculated the average agency percentage for each state.

The same was done for DSWs employed between 6-12 months, those employed for 12+ months, etc.

Table 16. *Tenure Among DSWs Employed as of Dec. 31, 2022<sup>19</sup> (Range of data is bolded)*  
**Percentage of agencies' DSWs who have been on the payroll...**

	<b>Less than 6 months</b>	<b>6-12 months</b>	<b>12-24 months</b>	<b>24-36 months</b>	<b>36+ months</b>	<b>DSWs on payroll statewide<sup>20</sup></b>	<b>N</b>
<b>Colorado</b>	22.3%	17.1%	18.6%	11.3%	30.7%	5251	130
<b>Missouri</b>	18.4%	19.0%	16.8%	14.0%	31.9%	10330	235

Table 17. *Tenure Among Separated DSW Employees (Left Between Jan. 1, 2022 and Dec. 31, 2022)<sup>21</sup> (Range of data is bolded)*  
**Percentage of DSWs who separated between 1/1/22 and 12/31/22 who were on the payroll...**

	<b>Less than 6 months</b>	<b>6-12 months</b>	<b>12-24 months</b>	<b>24-36 months</b>	<b>36+ months</b>	<b># separated DSWs statewide<sup>22</sup></b>	<b># of agencies w/ data on tenure of separated DSWs</b>	<b>% of agencies reporting at least 1 DSW separation in 2022</b>	<b># of agencies with data on number of separations<sup>23</sup></b>
<b>Colorado</b>	35.0%	21.2%	9.5%	7.0%	5.7%	2150	125	78.7%	127
<b>Missouri</b>	37.8%	20.4%	10.5%	5.7%	7.9%	5478	232	82.5%	234

<sup>19</sup> This table only includes agencies that provided information on both the total number of DSWs employed as of Dec. 31, 2022 and the tenure of those DSWs. State tenure rates are an average of all cases in the state.

<sup>20</sup> Only includes the number of DSWs reported by respondents that also reported the tenure of those DSWs.

<sup>21</sup> This table only includes agencies that provided information on both the total number of separated DSWs and the tenure of those separated DSWs. State tenure rates are an average of all cases in the state. Tenure calculations do not include cases with 0 separations in the denominator.

<sup>22</sup> Only includes the number of separated DSWs reported by respondents that also reported the tenure of those DSWs.

<sup>23</sup> Unlike the columns regarding tenure of separated DSWs, this column includes agencies that only reported number of separated DSWs but did not include tenure of those DSWs. If the agency left blank the question about number of separated DSWs, they were not included in this total.

## SEPARATIONS

Table 18. *Circumstances Under Which Separation Occurred (for Separated DSW Employees that Left Between Jan. 1, 2022 and Dec. 31, 2022)*  
*Percentage of total separations between 1/1/22 and 12/31/22:*

	Voluntary separation	Employment was terminated <sup>24</sup>	Laid off <sup>25</sup>	Don't know	N <sup>26</sup>
<b>Colorado</b>	79.3%	11.2%	2.0%	7.5%	97
<b>Missouri</b>	78.3%	11.7%	5.6%	4.4%	191

## FULL-TIME AND PART-TIME WORKFORCE

Table 19. *The percentage of responding agencies that distinguish between full- and part-time DSWs*

	Distinguish between full- and part-time DSWs	N
<b>Colorado</b>	57.3%	131
<b>Missouri</b>	52.5%	236

Table 20. *Average percentage of agency DSWs that are **full-time and part-time***<sup>27</sup>

	Mean percentage that are full-time	Mean percentage that are part-time	N
<b>Colorado</b>	51.4%	48.6%	75
<b>Missouri</b>	37.2%	62.8%	123

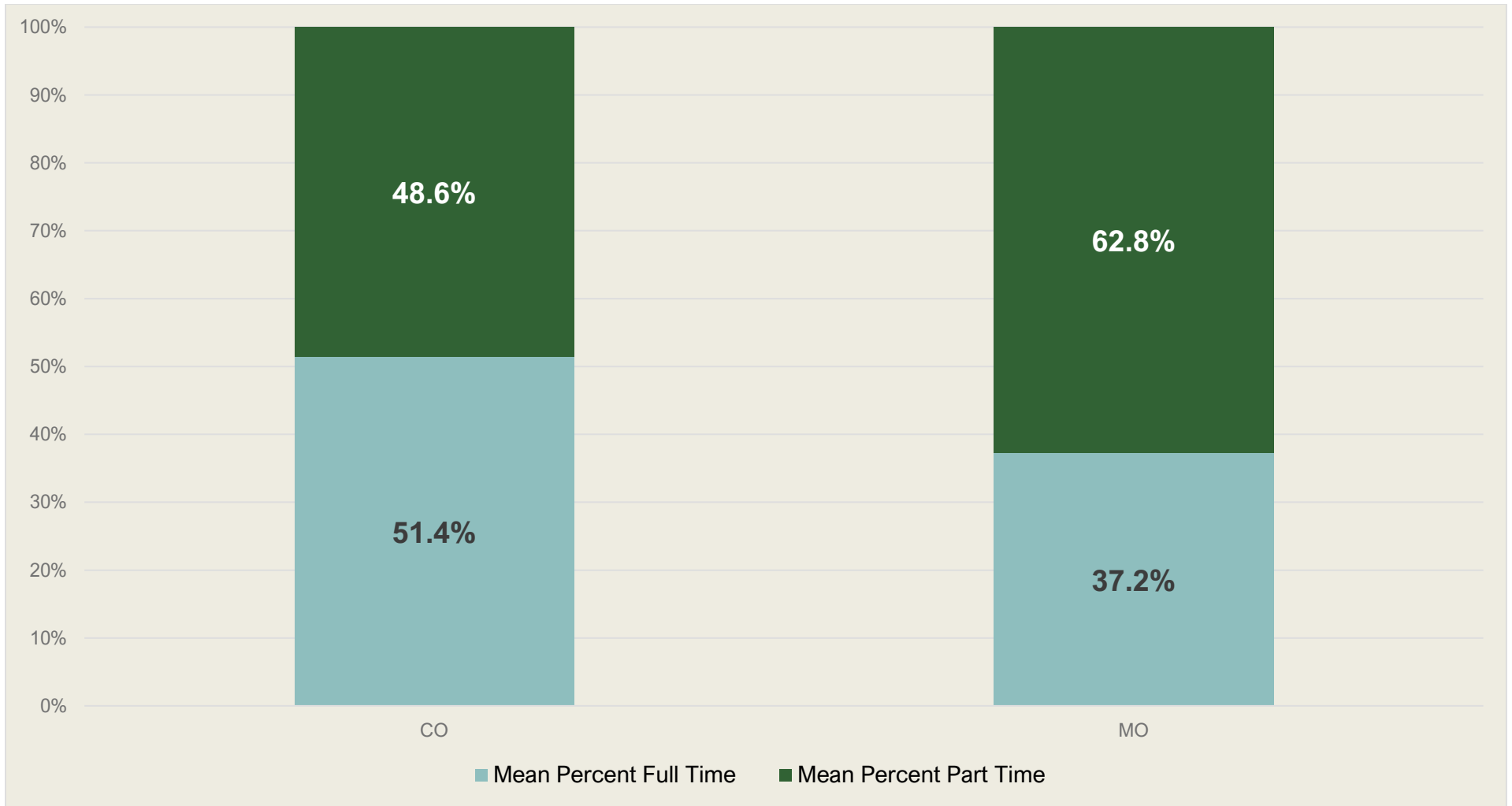
<sup>24</sup> Due to performance issues or violation of agency policy.

<sup>25</sup> DSWs were terminated because their position was eliminated.

<sup>26</sup> Does not include agencies that noted "0" DSW separations in 2022 or agencies that did not provide data on reasons for separation.

<sup>27</sup> Only includes agencies that reported differentiating between full- and part-time DSWs and agencies that reported number of full-time and number of part-time DSWs (or reported "0").

**Figure 3. Average Percentage of Agency Workforce That Is Full-/Part-Time**



<sup>28</sup> Includes agencies that reported differentiating between full- and part-time DSWs and agencies that reported number of full-time and number of part-time DSWs (or reported “0”).

## VACANCY RATES

Agency vacancy rates are calculated as follows:

Vacant full-time or part-time direct support positions ***divided by*** total number of full-time or part-time direct support positions as of Dec. 31, 2022.

Agencies with no available full-time or part-time positions (filled and/or vacant) were assigned a vacancy rate of 0%.

Table 21. Average full-time and part-time DSW vacancy rates (as of Dec. 31, 2022) <sup>29</sup>

	Full-time vacancy rate	Full-time vacancy rate N	Part-time vacancy rate	Part-time vacancy rate N
<b>Colorado</b>	7.4%	75	6.2%	73
<b>Missouri</b>	9.0%	123	9.8%	121

<sup>29</sup> The table on vacancy rates includes only those provider agencies that indicated they differentiated between full-time and part-time employees. This is a point-in-time vacancy rate, not cumulative or an average across the year. Vacancy rates are calculated as follows: Vacant full-time or part-time positions divided by total number of full-time or part-time direct support positions as of Dec. 31, 2022. If an agency did not have full-time or part-time positions, they were considered to have 0% vacancy rate and were included in the denominator.

## HOURLY WAGES<sup>30</sup>

These tables do not take into consideration the size of each agency when determining the average wage in the state, and each agency's average wage contributes equally to the state average. This set of wage tables demonstrates the average starting wage (average hourly wage paid to new DSWs), the median starting wage, as well as the minimum and maximum starting hourly wages paid by provider agencies. The tables also demonstrate the average wage (the average hourly wage paid to all DSWs regardless of how long they've been working), median wage and the minimum and maximum hourly wages paid by provider agencies.

Table 22. Average Hourly Wage<sup>31</sup> - All DSWs<sup>32</sup>

	State Min. Wage <sup>33</sup>	Average Hourly Wage	Std. Deviation	Median Hourly Wage	Minimum Average Hourly Wage	Maximum Average Hourly Wage	N
<b>Colorado</b>	12.56	16.69	1.80	16.17	14.00	23.00	117
<b>Missouri</b>	11.15	13.21	1.96	13.00	9.50	20.00	222

Table 23. Percentage of Respondents Paying an Average Hourly Wage Above or Below the State Minimum Wage<sup>34,35</sup>

	State Min. Wage <sup>36</sup>	More than 50¢ below <sup>37</sup>	Within 50¢ of the state min. wage	Up to 20% above	21%-40% above	41%-60% above	61%-80% above	81%-100% above	More than 100% above	N
<b>Colorado</b>	12.56	0.0%	0.0%	23.9%	51.3%	18.8%	5.1%	0.9%	0.0%	117
<b>Missouri</b>	11.15	5.9%	14.9%	40.5%	26.6%	9.5%	2.7%	0.0%	0.0%	222

<sup>30</sup> For all wage tables, we deleted all values of \$0, <\$5 and greater than or equal to \$30.

<sup>31</sup> For all wage tables, values of \$0, <\$5 and >= \$30 were excluded. If agency only offers one type of service and didn't provide an overall average wage, the average wage reported for that one service replaced the missing overall average wage.

<sup>32</sup> Overtime wages and wage bonuses not included. Does not include DSWs hired through a temp agency, contract DSWs, 1099 DSWs, On-Call or PRN DSWs or primary host-home/foster-care providers. Refers to the period of Jan. 1, 2022, to Dec. 31, 2022.

<sup>33</sup> <https://www.dol.gov/whd/state/stateMinWageHis.htm>

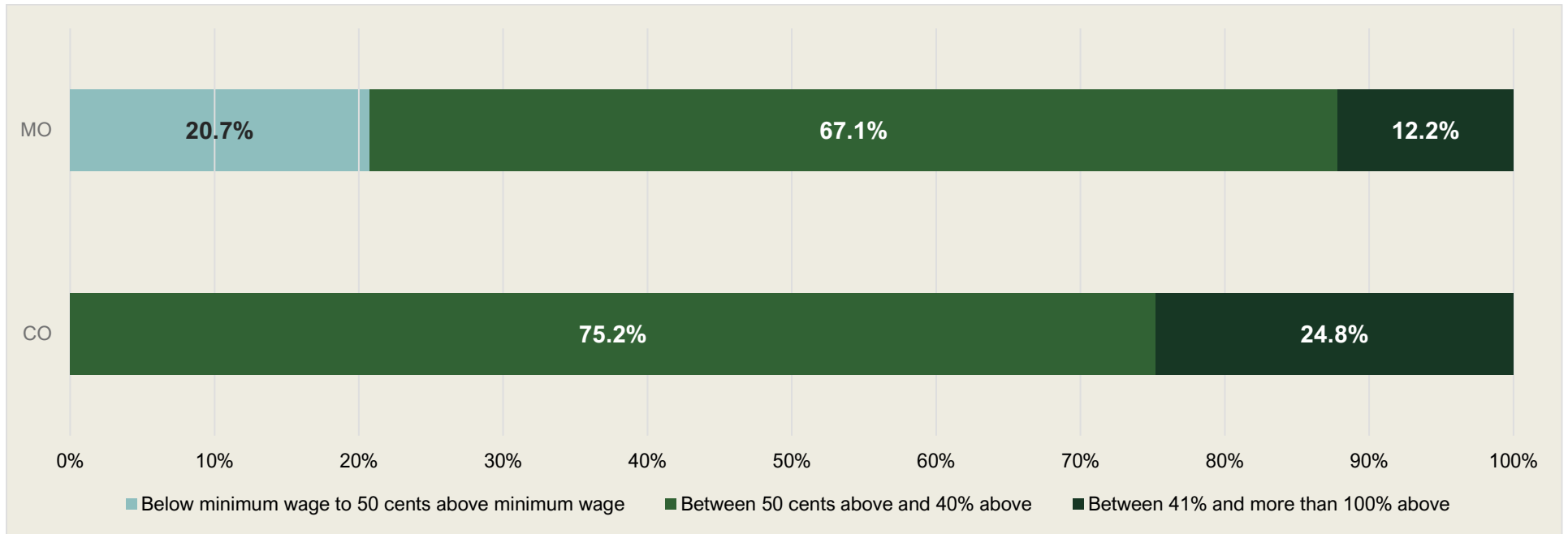
<sup>34</sup> For all wage tables, values of \$0, <\$5 and greater than or equal to \$30 were deleted. If agency only offers one type of service and didn't provide an overall average wage, the average wage reported for that one service replaced the missing overall average wage.

<sup>35</sup> Overtime wages and wage bonuses not included. Does not include DSWs hired through a temp agency, contract DSWs, 1099 DSWs, On-Call or PRN DSWs or primary host-home/foster-care providers. Refers to the period of Jan 1, 2022 to Dec 31, 2022.

<sup>36</sup> <https://www.dol.gov/whd/state/stateMinWageHis.htm>

<sup>37</sup> More information is needed to examine why agencies may have reported paying more than 50 cents below the minimum wage. Possible explanations could be recent changes in minimum wage laws, different minimum wages across the state.

**Figure 4. Relationship Between State Minimum Wage and Average Hourly Wages Reported by Provider Agencies** <sup>38</sup>



**Table 24. Average Starting Hourly Wage<sup>39</sup> Paid by Responding Agencies – All DSWs**

	Average Starting Hourly Wage	Std. Deviation	Median Starting Hourly Wage	Minimum Average Starting Hourly Wage	Maximum Average Starting Hourly Wage	N
<b>Colorado</b>	16.17	1.59	16.00	12.72	23.00	120
<b>Missouri</b>	12.76	1.84	12.08	9.00	20.00	224

<sup>38</sup> For all wage tables, values of \$0, <\$5 and greater than or equal to \$30 were deleted. NEW for 2022: if agency only offers one type of service and didn't provide an overall average wage, the average wage reported for that one service replaced the missing overall average wage.

<sup>39</sup> For all wage tables, values of \$0, <\$5 and greater than or equal to \$30 were deleted. If agency only offers one type of service and didn't provide an overall starting wage, the starting wage reported for that one service replaced the missing overall starting wage. Overtime wages and wage bonuses not included. Does not include DSWs hired through a temp agency, contract DSWs, 1099 DSWs, On-Call or PRN DSWs or primary host-home/foster-care providers. Refers to the period of Jan. 1, 2022 to Dec. 31, 2022.

Table 25. Wages<sup>40</sup> Paid by Responding Agencies – DSWs Providing Residential Supports

	Avg. Starting Hourly Wage	Std. Deviation	Median Starting Hourly Wage	Min. Avg. Starting Hourly Wage	Max. Avg. Starting Hourly Wage	N	Avg. Hourly Wage	Std. Deviation	Median Hourly Wage	Min. Avg. Hourly Wage (\$)	Max. Avg. Hourly Wage (\$)	N
<b>Colorado</b>	16.25	1.65	16.00	13.00	21.00	50	17.16	2.11	16.56	14.75	23.18	48
<b>Missouri</b>	12.88	1.63	12.50	10.30	18.00	70	13.46	1.82	13.00	10.30	20.00	70

Table 26. Wages<sup>41</sup> Paid by Responding Agencies – DSWs Providing In-Home Supports

	Avg. Starting Hourly Wage	Std. Deviation	Median Starting Hourly Wage	Min. Avg. Starting Hourly Wage	Max. Avg. Starting Hourly Wage	N	Avg. Hourly Wage	Std. Deviation	Median Hourly Wage	Min. Avg. Hourly Wage (\$)	Max. Avg. Hourly Wage (\$)	N
<b>Colorado</b>	16.01	1.24	16.00	12.72	20.00	72	16.31	1.28	16.00	14.00	21.00	69
<b>Missouri</b>	12.63	1.68	12.15	9.50	18.00	163	12.92	1.70	13.00	9.50	18.62	160

Table 27. Wages<sup>42</sup> Paid by Responding Agencies – DSWs Providing Non-Residential Supports

	Avg. Starting Hourly Wage	Std. Deviation	Median Starting Hourly Wage	Min. Avg. Starting Hourly Wage	Max. Avg. Starting Hourly Wage	N	Avg. Hourly Wage	Std. Deviation	Median Hourly Wage	Min. Avg. Hourly Wage (\$)	Max. Avg. Hourly Wage (\$)	N
<b>Colorado</b>	16.46	1.89	16.00	15.00	23.00	19	17.82	2.68	17.25	15.00	23.00	18
<b>Missouri</b>	13.34	1.97	13.00	10.30	18.00	45	13.87	2.05	14.00	11.00	18.62	44

<sup>40</sup> For all wage tables, values of \$0, <\$5 and greater than or equal to \$30 were deleted. Does not include DSWs hired through a temp agency, contract DSWs, 1099 DSWs, On-Call or PRN DSWs or primary host-home/foster-care providers. Refers to the period of Jan. 1, 2022, to Dec. 31, 2022.

<sup>41</sup> For all wage tables, values of \$0, <\$5 and greater than or equal to \$30 were deleted. Overtime wages and wage bonuses not included. Does not include DSWs hired through a temp agency, contract DSWs, 1099 DSWs, On-Call or PRN DSWs or primary host-home/foster-care providers. Refers to the period of Jan. 1, 2022 to Dec. 31, 2022.

<sup>42</sup> For all wage tables, values of \$0, <\$5 and greater than or equal to \$30 were deleted. Overtime wages and wage bonuses not included. Does not include DSWs hired through a temp agency, contract DSWs, 1099 DSWs, On-Call or PRN DSWs or primary host-home/foster-care providers. Refers to the period of Jan. 1, 2022, to Dec. 31, 2022.



Table 28. Agency uses different pay scales for full-time DSWs and part-time DSWs<sup>43,44</sup>

	Percent	N
<b>Colorado</b>	8.3%	72
<b>Missouri</b>	11.7%	120

Table 29. Agency uses different pay scales for DSWs who can communicate in languages other than English<sup>45</sup>

	Percent	N
<b>Colorado</b>	3.9%	127
<b>Missouri</b>	8.6%	232

## BONUSES

Table 30. Percentage of responding agencies that gave bonuses to DSWs between Jan. 1, 2022 and Dec. 31, 2022  
A bonus is wage compensation supplemental to salary or wages. Bonuses are typically given at intervals less frequent than payroll.

	Percent	N
<b>Colorado</b>	30.2%	126
<b>Missouri</b>	30.2%	232

<sup>43</sup> In other words, starting wages and/or raise calculations differ for part-time DSWs versus full-time DSWs.

<sup>44</sup> Only reported for those agencies that reported differentiating between full- and part- time DSWs.

<sup>45</sup> In other words, starting wages and/or raise calculations differ for DSWs who can communicate in different languages.

## BENEFITS

### Paid time off

Agencies offer and track paid time off in two distinct methods:

- One method is offering a bank of hours from which employees can take paid time off, with no further delineation of the purpose or the type of time off. We refer to this method as **Pooled Paid Time Off**.
- The second method, which is more traditionally used by the Department of Labor, is to offer and track paid time off in **three distinct types: paid vacation time, paid sick time, and paid personal time**.

Both methods are means for providing paid time off to DSWs when they need it.

Additionally, some states have statute requiring all employers to offer and track paid sick time. Therefore, it is possible for an agency to use pooled paid time off for vacation and personal time while also offering sick time as a discrete benefit. Therefore, interpretations of these data on benefits should be made with caution, and with the consideration of supplemental information on existing state statutes regarding time off requirements.

Table 31. Agency provides any paid time off to DSWs

	Percent	N
Colorado	63.2%	125
Missouri	40.2%	234

Table 32. Offer Pooled Paid Time Off<sup>46</sup> (and Requirements for Eligibility)

	Offer pooled PTO to some or all DSWs	N	Must be full time	Must work a minimum amount of time in a defined period <sup>47</sup>	Must be employed a minimum length of time	All DSWs are eligible	N (Subset offering this benefit)
Colorado	26.3%	80	42.9%	38.1%	38.1%	33.3%	21
Missouri	30.5%	95	44.8%	48.3%	62.1%	17.2%	29

<sup>46</sup> "Pooled Paid time off" is defined as a bank of hours in which the employer pools sick days, vacation days, and personal days together and the agency doesn't distinguish between category of time off.;

<sup>47</sup> For example, must work 35 hours/week, 18 days/month, etc.

Table 33. Offer Paid Sick Time<sup>48</sup> (and Requirements for Eligibility)

	Offer paid sick time to some or all DSWs	N	Must be full time <sup>49</sup>	Must work a minimum amount of time in a defined period <sup>50</sup>	Must be employed a minimum length of time	All DSWs are eligible	N (Subset offering this benefit)
<b>Colorado</b>	84.1%	69	13.8%	22.4%	13.8%	58.6%	58
<b>Missouri</b>	33.3%	81	51.9%	44.4%	51.9%	11.1%	27

Table 34. Offer Paid Vacation Time<sup>51</sup> (and Requirements for Eligibility)

	Offer paid vacation time to some or all DSWs	N	Must be full time <sup>52</sup>	Must work a minimum amount of time in a defined period <sup>53</sup>	Must be employed a minimum length of time	All DSWs are eligible	N (Subset offering this benefit)
<b>Colorado</b>	64.3%	70	57.5%	42.5%	45.0%	10.0%	40
<b>Missouri</b>	82.4%	85	55.6%	51.9%	55.6%	3.7%	27

Table 35. Offer Paid Personal Time<sup>54</sup> (and Requirements for Eligibility)

	Offer paid personal time to some or all DSWs	N	Must be full time <sup>55</sup>	Must work a minimum amount of time in a defined period <sup>56</sup>	Must be employed a minimum length of time	All DSWs are eligible	N (Subset offering this benefit)
<b>Colorado</b>	23.1%	65	23.1%	53.8%	30.8%	30.8%	13
<b>Missouri</b>	28.0%	82	72.7%	54.5%	63.6%	9.1%	11

<sup>48</sup> Included in this calculation are agencies that reported either 1) Not providing ‘pooled paid time off,’ or 2) Providing ‘pooled paid time off,’ but not all DSWs are eligible.

<sup>49</sup> There are 5 cases that provide paid sick time and did not report that they distinguish between full- and part-time DSWs but chose this option. They are included.

<sup>50</sup> For example, must work 35 hours/week, 18 days/month, etc.

<sup>51</sup> Included in this calculation are agencies that reported either 1) Not providing ‘pooled paid time off,’ or 2) Providing ‘pooled paid time off,’ but not all DSWs are eligible.

<sup>52</sup> There are 13 cases that provide paid vacation time and did not report that they distinguish between full- and part-time DSWs but chose this option. They are included.

<sup>53</sup> For example, must work 35 hours/week, 18 days/month, etc.

<sup>54</sup> Included in this calculation are agencies that reported either 1) Not providing ‘pooled paid time off,’ or 2) Providing ‘pooled paid time off,’ but not all DSWs are eligible; Data with Ns of three (3) or fewer have been suppressed.

<sup>55</sup> There are 3 cases that provide paid personal time and did not report that they distinguish between full- and part-time DSWs but chose this option. They are included.

<sup>56</sup> For example, must work 35 hours/week, 18 days/month, etc.

Table 36. Offer Health Insurance (and Requirements for Eligibility)

	Offer health insurance to some or all DSWs	N	Must be full time <sup>57</sup>	Must work a minimum amount of time in a defined period <sup>58</sup>	Must be employed a minimum length of time	All DSWs are eligible	N (Subset offering this benefit)
Colorado	38.4%	125	56.3%	50.0%	27.1%	8.3%	48
Missouri	25.8%	233	60.0%	51.7%	38.3%	8.3%	60

Table 37. Offer Dental Insurance/Vision Coverage<sup>59</sup> to some or all DSWs

	Offer dental coverage	N	Offer vision coverage	N
Colorado	30.9%	123	26.4%	125
Missouri	23.7%	232	23.2%	233

Table 38. Offer employer-sponsored retirement plan (401K, 403b or other plan) (and Requirements for Eligibility)

	Offer retirement plan to some or all DSWs	N	Must be full time <sup>60</sup>	Must work a minimum amount of time in a defined period <sup>61</sup>	Must be employed a minimum length of time	All DSWs are eligible	N (Subset offering this benefit)
Colorado	29.6%	125	13.5%	45.9%	51.4%	24.3%	37
Missouri	22.7%	233	30.2%	41.5%	52.8%	26.4%	53

Table 39. Offer Other Types of Benefits (categories are not mutually exclusive)

	Post-secondary education support*	Employer-paid job-related training	Employer-sponsored disability insurance	Flexible spending account	Health incentive programs	Life insurance	N
Colorado	14.9%	50.0%	10.6%	19.1%	10.6%	30.9%	94
Missouri	10.4%	58.4%	10.4%	5.8%	7.1%	31.2%	154

\*Paid time off, reimbursement or other support

<sup>57</sup> There are 13 cases that provide paid personal time and did not report that they distinguish between full- and part-time DSWs but chose this option. They are included.

<sup>58</sup> For example, must work 35 hours/week, 18 days/month, etc.

<sup>59</sup> If the coverage was included in health insurance coverage, respondents were instructed to indicate that “yes,” the coverage was offered.

<sup>60</sup> There are 6 cases that provide retirement plans and did not report that they distinguish between full- and part-time DSWs but chose this option. They are included.

<sup>61</sup> For example, must work 35 hours/week, 18 days/month, etc.

Table 40. Offer Other Types of Benefits Continued (categories are not mutually exclusive)

	Transportation Benefits <sup>62</sup>	Childcare	Employee Assistance Program	Don't Know	Other	N
<b>Colorado</b>	7.4%	5.3%	13.8%	16.0%	18.1%	94
<b>Missouri</b>	13.6%	1.9%	14.9%	7.8%	20.1%	154

<sup>62</sup> Such as bus pass, parking, carpooling.

## RECRUITMENT AND RETENTION

Table 41. Agency provides a pay incentive or referral bonus programs for current DSW staff to bring in new recruits

	Percent	N
<b>Colorado</b>	47.2%	130
<b>Missouri</b>	29.9%	174

Table 42. Additional Recruitment and Retention Strategies

	Realistic job preview	Sign on bonus	Engage with high schools and/or local colleges/universities <sup>63</sup>	Apprenticeship programs	Training on a Code of Ethics	N
<b>Colorado</b>	75.4%	13.2%	21.9%	9.6%	78.9%	114
<b>Missouri</b>	80.0%	17.3%	29.3%	12.9%	88.4%	225

Table 43. Additional Recruitment and Retention Strategies

	DSW ladder to retain highly skilled workers in DSW roles	Support staff to get credentialed through a state or nationally recognized professional organization <sup>64</sup>	Bonuses, stipends or raises provided to DSWs as they complete key stages of a credentialing process	Employee engagement surveys <sup>65</sup>	Employee recognition programs	DSWs included in agency governance	Training for DSWs <sup>66</sup>	N
<b>Colorado</b>	15.8%	30.7%	28.9%	40.4%	46.5%	14.0%	39.5%	114
<b>Missouri</b>	13.8%	27.1%	20.0%	27.1%	52.0%	5.8%	39.6%	225

<sup>63</sup> For recruitment purposes.

<sup>64</sup> Support may take the form of financial support to cover the cost of the credential, paying the DSW for the time needed to complete the credential, or other financial support.

<sup>65</sup> Or other efforts aimed at assessing DSW satisfaction and experience.

<sup>66</sup> This refers to trainings above and beyond those trainings required by state regulation.

## FRONTLINE SUPERVISORS

Frontline supervisors (FLS) are the first line of management in human service organizations. These are staff who supervise DSWs working with adults with IDD and often also engage in direct support as part of their duties.

Table 44. Average DSW to Frontline Supervisor ratio<sup>67</sup>

	Average number of DSWs per 1 frontline supervisor. <sup>68</sup>	N
<b>Colorado</b>	15	109
<b>Missouri</b>	11	208

Table 45. Of all reporting agencies in the state, the average percent of Frontline Supervisors<sup>69</sup> identifying as each race/ethnicity.

	American Indian or Alaska Native	Asian <sup>70</sup>	Black or African American	Pacific Islander <sup>71</sup>	White	Hispanic/Latino <sup>72</sup>	More than one race/ethnicity	Other	Don't know	N
<b>Colorado</b>	0.0%	10.1%	13.9%	0.0%	43.9%	13.5%	0.5%	0.5%	17.5%	104
<b>Missouri</b>	1.0%	1.0%	46.5%	0.0%	43.6%	1.1%	1.8%	1.5%	3.6%	206

Table 46. Of all reporting agencies in the state, the average percent of Frontline Supervisors<sup>73</sup> identifying as each gender identity

	Male	Female	Non-Binary	Don't Know	N
<b>Colorado</b>	18.3%	77.9%	0.0%	3.8%	106
<b>Missouri</b>	10.9%	88.1%	0.0%	1.0%	206

<sup>67</sup> Calculated as Total number of DSWs on payroll as of Dec. 31, 2022, DIVIDED BY Total number of Frontline Supervisors on payroll as of Dec. 31, 2022. The ratio was calculated for each provider and then the state average was calculated.

<sup>68</sup> Agencies that reported having 0 Frontline Supervisors or left the question blank are excluded from the denominator. 9 agencies reported that the number of FLS was greater than or equal to the number of DSWs on payroll as of Dec. 31, 2022. They are included. Agencies with more than a 99:1 DSW to FLS ratio were excluded.

<sup>69</sup> Agencies that reported 0 Frontline Supervisors were not included in this table

<sup>70</sup> Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, or Other Asian

<sup>71</sup> Native Hawaiian, Guamanian or Chamorro, Samoan, or Other Pacific Islander

<sup>72</sup> Mexican, Mexican American, Chicano, Puerto Rican, Cuban, or Other Spanish/Hispanic/Latinx.

<sup>73</sup> Agencies that reported 0 Frontline Supervisors were not included in this table.

## Appendix A: What states can do with their data?

The NCI-AD State of the Workforce Survey provides state agencies with comprehensive data on the current status of the Direct Support Workforce supporting the population receiving publicly funded long-term services and supports from the Aging and Physical disabilities systems. With participation that reaches the confidence levels of 95% or higher, and Margin of Error rates at or below 5%, states can reasonably rely on the data to guide discussions and decisions on activities to address both the opportunities and challenges revealed by the data.

Some potential opportunities for using the data are listed below:

State agencies can take a lead role in organizing learning collaborative workgroups. These workgroups can then examine statewide data to identify patterns and trends that suggest potential areas for change. States may choose to use quality tools such as fishbone diagrams, affinity diagrams, '5 Whys' tools, process maps, or other similar tools for this data investigation.

For example, if service providers with fewer than 20 employees have higher vacancy rates, the use of one of these quality tools may identify a specific type of improvement opportunity.

States participating in the NCI-AD State of the Workforce Survey over multiple years are able to compare DSW workforce data across time to see if quality improvement efforts have a positive impact on DSW workforce stability.

State agencies can work with service provider trade associations to analyze trends by size of the agency or type of service provided (residential, in-home, and/or non-residential). Comparison of wage and benefit similarities and differences can provide insight into potential factors that may impact turnover.

State agencies can facilitate improvement projects focused specifically on the termination rates of DSWs. The goal of these projects is to identify possible state or local agency policies that may be contributing to higher-than-average rates of termination when compared to other states.

State agencies and providers can find patterns of turnover among agencies with similar characteristics. The state can then form work teams to identify and test strategies for improvements.

States can cultivate innovation incubators with service providers interested in trying new or innovative strategies, based on analysis of the data in the survey.

The State of the Workforce Survey results offer states opportunities to identify variations between their own state data and that of other similarly structured states.

For example, states with similar size, structure, and regulatory environments may see variations in benefit or wage offerings in other states, or variations in turnover for full- or part-time positions. Identifying such variations may offer insight on specific areas to explore.



## Appendix B: Sampling Methods as Reported by States

### HOW STATES COMPILED THEIR SAMPLE

**Colorado** pulled provider data and email contact information from the billing records in the Medicaid Management Information Systems (MMIS). This system handles claims and maintains all provider information. All agencies that billed services defined by the survey parameters, within the past 6 months, were included in the sample. The contact information in billing records is provided by the agencies. Additional investigation was completed to identify the contact person at each agency for undeliverable or survey emails with no responses.

**Missouri** received a point-in-time list of all providers that met the survey parameters from the Division of Missouri Medicaid Audit and Compliance. This division is responsible for receiving and updating all provider contact information. The state used the primary email address to invite survey participants. Memorandums notified providers of the specific email address on file and further instructed providers to contact the survey team if they did not receive an invite due to inaccurate contact information.

# Appendix C: Comparable Wage Tables

From the Bureau of Labor Statistics Occupational Employment Statistics, May 2022.

## RESIDENTIAL ADVISORS

*Coordinate activities in resident facilities in secondary and college dormitories, group homes, or similar establishments. Order supplies and determine need for maintenance, repairs, and furnishings. May maintain household records and assign rooms. May assist residents with problem solving or refer them to counseling resources.*

**Mean Hourly Wage Estimate: \$18.04**

Percentile	10%	25%	50% (Median)	75%	90%
Hourly Wage	\$ 12.30	\$ 14.33	\$ 17.17	\$ 20.88	\$ 24.75

<http://www.bls.gov/oes/current/oes399041.htm>

## HOME HEALTH AND PERSONAL CARE AIDES

*Home Health Aides: Provide routine individualized healthcare such as changing bandages and dressing wounds, and applying topical medications to the elderly, convalescents, or persons with disabilities at the patient's home or in a care facility. Monitor or report changes in health status. May also provide personal care such as bathing, dressing, and grooming of patient.*

*Personal Care Aides: Assist the elderly, convalescents, or persons with disabilities with daily living activities at the person's home or in a care facility. Duties performed at a place of residence may include keeping house (making beds, doing laundry, washing dishes) and preparing meals. May provide assistance at non-residential care facilities. May advise families, the elderly, convalescents, and persons with disabilities regarding such things as nutrition, cleanliness, and household activities.*

**Mean Hourly Wage Estimate: \$14.87**

Percentile	10%	25%	50% (Median)	75%	90%
Hourly Wage	\$ 10.82	\$ 13.03	\$ 14.51	\$ 16.40	\$ 18.44

<https://www.bls.gov/oes/current/oes311120.htm>

## PSYCHIATRIC AIDES

*Assist mentally impaired or emotionally disturbed patients, working under direction of nursing and medical staff. May assist with daily living activities, lead patients in educational and recreational activities, or accompany patients to and from examinations and treatments. May restrain violent patients. Includes psychiatric orderlies.*

**Mean Hourly Wage Estimate: \$18.57**

Percentile	10%	25%	50% (Median)	75%	90%
Hourly Wage	\$ 12.45	\$ 14.31	\$ 17.86	\$ 22.27	\$ 25.03

<https://www.bls.gov/oes/current/oes311133.htm>

## NURSING ASSISTANTS

*Provide or assist with basic care or support under the direction of onsite licensed nursing staff. Perform duties such as monitoring of health status, feeding, bathing, dressing, grooming, toileting, or ambulation of patients in a health or nursing facility. May include medication administration and other health-related tasks. Includes nursing care attendants, nursing aides, and nursing attendants.*

### Mean Hourly Wage Estimate: \$17.41

Percentile	10%	25%	50% (Median)	75%	90%
Hourly Wage	\$ 13.48	\$ 14.79	\$ 17.19	\$ 18.87	\$ 22.09

<https://www.bls.gov/oes/current/oes311131.htm>

## Appendix D: Living Wage Table by State

The living wage shown is the hourly rate that an individual in a household must earn to support themselves and their family. The assumption is the sole provider is working full-time (2080 hours per year). Figures are in dollars (\$) and were retrieved from: <http://livingwage.mit.edu>

	<b>1 adult</b>	<b>1 adult and 1 child</b>	<b>2 adults (one working) and 2 children</b>	<b>2 working adults and 2 children</b>
<b>Colorado</b>	19.22	40.21	42.43	28.37
<b>Missouri</b>	15.77	32.67	37.40	22.89

## Appendix E: Additional Data Points

There are additional data points collected in the NCI-AD State of the Workforce Survey in 2022 that were not documented in this report. We encourage states to examine their state data on the following points:

- Regular hours paid and overtime hours paid to DSWs in 2022.
- Whether Frontline Supervisors received overtime pay.

# Appendix F: Instructions Provided to Survey Respondents

## The 2022 National Core Indicators®-Aging and Disabilities State of the Workforce Survey

### Before You Start

Your agency has been asked to complete this survey because your agency provides direct care and support to older adults and individuals with physical disabilities.

We are interested in learning about the workforce of Direct Service Workers (DSWs) in your state.

DSWs are paid staff whose primary job responsibility is to provide care and support to **“The AD population:”** older adults and/or individuals with physical disabilities who access publicly funded services in Medicaid waiver programs, Medicaid state plan programs, and/or state-funded programs, and/or older adults served by Older Americans Act programs.

You may want to have organizational staff in your Human Resources or Payroll departments complete this survey. You may also need information from program directors, so please review the survey questions and seek additional input as needed.

The goal of the survey and the resulting data is to help state governments understand DSW workforce challenges, identify areas for policy or program change or innovation, measure the impact of policy or programs, and compare state data to those of other states and the NCI-AD average. The information in this survey will also be used as evidence to support efforts to create change.

This survey is being administered by National Core Indicators Aging and Disabilities (NCI-AD) on behalf of your state; state policymakers and advocates will use the data to guide decisions. This survey will take approximately 1 hour to complete, and you may leave and come back to it if needed. Once you hit “SUBMIT” at the end, you cannot re-enter the survey.

### Directions

#### Overview

The survey asks for information on DSWs supporting the AD population who were on your agency’s payroll for any period of time from January 1, 2022 to December 31, 2022 and for whom your agency defined or currently defines wages and benefits. (For more information on who is considered a DSW, see **“Types of Workers to Consider,”** below.)

We are collecting information on:

- Their date of hire
- Whether they are currently on staff or if they left/were terminated from the agency during 2022
- Their length of employment
- Whether they work full-time or part-time
- Hours and wages
- Benefits, such as paid time off, health insurance, etc.

You may want to have organizational staff in your Human Resources or Payroll departments complete this survey. You may also need information from program directors, so please review the survey questions and seek additional input as needed.

## Important Definitions

### Types of workers to consider

Most of the questions on this survey are about workers who are employed as **Direct Service Workers (DSWs)**. DSWs are also commonly known as Home Health Aides (HHAs), Personal Care Attendants (PCAs), Personal Care Workers (PCWs), Certified Nursing Assistants (CNAs), Nursing Assistants, Companions and/or Homemakers.


For the purposes of this survey, 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 waiver programs, 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

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 State of the Workforce 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.

## TYPES OF SUPPORTS

The survey asks about the following supports provided by the DSWs in your agency

Residential Supports	In-Home Supports	Non-Residential Supports
<p><b>Provided to a person in a home or apartment that is owned or operated by your agency.</b> 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. Please do not include Nursing Homes in your responses.</p>	<p><b>Provided to a person in a home or apartment that is not owned or operated by your agency.</b> 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><b>Provided in a day service, community program, or work setting.</b> 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>





Visit: [nci-ad.org](https://www.nci-ad.org)

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