Missouri Division of Senior and Disability Services: Summary of Year 2 National Core Indicators — Aging and Disabilities and Consumer Directed Services Workforce Survey Results

August 2, 2024

The State of Missouri Department of Health and Senior Services, Division of Senior and Disability Services (DSDS) administers and oversees Missouri services for seniors and individuals with disabilities. DSDS works with Medicaid providers to offer home and community-based services (HCBS) to aged and disabled (AD) participants via two different service delivery models, the agency-based model and the consumer directed services (CDS) model. One of DSDS's current priorities is working with providers to address the direct service workforce crisis; this is critical to enabling seniors and individuals with disabilities to access the services needed to remain in their homes and avoid or delay institutionalization.

In order to gather data on direct service workforce issues, DSDS recently began asking agency and CDS providers to participate in an annual direct service workforce survey. For agency providers, DSDS is utilizing the National Core Indicators — Aging and Disabilities (NCI-AD) State of the Workforce Survey (previously known as the NCI-AD Staff Stability Survey). For CDS providers, DSDS is utilizing a CDS Operational Survey via REDCap (a secure web application that has survey capabilities). In order to analyze the survey response data and summarize the results, DSDS contracted with Mercer Government Human Services Consulting (Mercer).

Background

The services that DSDS offers to older adults and individuals with disabilities include publicly funded services in Medicaid waivers and the Medicaid State Plan. Through these programs, DSDS authorizes and administers services to a large number of providers who deliver various types of HCBS. Over the past few years, providers have experienced workforce challenges including direct service worker (DSW) staffing shortages and difficulties attracting and retaining staff with the necessary skill sets and qualifications needed to deliver certain DSDS services. To collect data that provides more information on these issues, DSDS has asked providers to participate in an annual provider workforce survey process.

DSDS initially piloted the NCI-AD State of the Workforce Survey in late 2022. The survey was conducted for a second time in late 2023, and it collected data from HCBS providers that deliver agency-model

personal care services in community settings, in residential care facilities (RCFs), in assisted living facilities (ALFs), and agency-model adult day care services. Since this survey did not include CDS, DSDS conducted a separate survey via REDCap that was specific to CDS providers. This survey was initially administered in early 2023, and then conducted for a second time in early 2024. Both surveys covered various topics including, but not limited to general provider characteristics, DSW characteristics and workforce metrics, DSW wages and benefits, and other provider costs. The surveys included questions with yes/no responses, questions that required providers to select from pre-defined response options, and free response questions where providers submitted numerical or narrative responses.

Survey Administration

Prior to the issuance of the two surveys, DSDS engaged with various stakeholders including the Missouri Assisted Living Association, Missouri Council for Independent Living, Missouri Alliance for Home Care, and Missouri Council for In-Home Services. Specific to CDS, DSDS collected stakeholder feedback on the survey wording and the types of questions being asked and incorporated various updates in response to the feedback. DSDS discussed plans for the surveys during conferences, monthly stakeholder meetings, and during Missouri Medicaid Audit and Compliance (MMAC) provider update meetings. DSDS also issued various informational memorandums to alert agency and CDS providers about the upcoming surveys (INFO 08-23-01 on August 1, 2023, INFO 09-23-01 on September 6, 2023, INFO 12-23-01 on December 6, 2023, INFO 01-24-01 on January 2, 2024, and INFO 01-24-02 on January 16, 2024). DSDS monitored provider responses and sent multiple email reminders during the survey timeframes to encourage provider participation. In addition, DSDS offered a $2,000 incentive payment to providers who fully and accurately completed each survey. Key information on each survey is summarized in Table 1.

Table 1: Key Elements of Each Survey

Survey Name	Target Audience	# of Questions	Data Reporting Period in Survey	Survey Response Window	# of Responses	Total # of Providers
NCI-AD State of the Workforce Survey Year 2	Agency-model providers who deliver: • Personal care services in the community, in RCFs, or in ALFs • Adult day services	68	January 1, 2022–December 31, 2022 (CY 2022)	September 15, 2023–October 31, 2023	243	824
CDS Operational Survey Year 2	CDS personal care providers	33	July 1, 2023–December 31, 2023	January 2, 2024–February 29, 2024	402	940

Provider Payment Rates for Reference

While the Year 2 NCI-AD and CDS surveys collected information on expenditures that providers incurred to deliver personal care services, they did not collect data on agency or CDS personal care revenues. To provide some insight into the revenue side, Table 2 includes a summary of the rates that DSDS paid providers for agency-based and CDS personal care during the survey reporting periods.

Table 2: DSDS Personal Care Payment Rates During Survey Reporting Periods

Survey Reporting Period	Model Type	Service Name	Unit Definition	FY 2022 Rate	FY 2023 Rate	FY 2024 Rate
January 1, 2022– December 31, 2022	Agency	Personal Care/Attendant Care	15-minute	$5.28	$7.63	
		Personal Care — ALF/RCF	15-minute	$4.86	$7.07	
		Advanced Personal Care	15-minute	$5.99	$7.66	
		Advanced Personal Care — ALF/RCF	15-minute	$5.26	$7.09	
		Adult Day Care	15-minute	$2.44*	$3.12*	
July 1, 2023– December 31, 2023	CDS	CDS Personal Care — Independent Living Waiver	15-minute			$4.63
		CDS Personal Care — State Plan	15-minute			$5.23

* The Adult Day Care 15-minute rate is a group rate, whereas all other rates in the table are per individual rates based on a 1:1 staffing ratio.

Survey Analysis and Results

In December 2023 and March 2024, DSDS provided Mercer with two separate data extracts, one that contained the NCI-AD survey responses and one that contained CDS survey responses. After intaking and loading the data, Mercer's analysis approach included performing validation to assess data quality, conducting analysis on the responses to each question, and summarizing results. Since two cycles of survey data were now available, Mercer made year-over-year comparisons for certain data metrics and noted trends observed between the two time periods.

For certain questions, Mercer analyzed responses in total across all providers and also separately by provider size groupings. For the agency survey, provider size was based on the number of enrolled AD individuals as of December 31, 2022. For the CDS survey, provider size was based on the number of enrolled CDS participants as of December 31, 2023. Provider size was defined as follows:

Provider Size Category	Number of Individuals/Participants Enrolled with Provider
Small	1–10 people
Medium	11–50 people
Large	More than 50 people

NCI-AD Agency Model (CY 2022 Survey Reporting Period)

NCI-AD Agency Model Survey

Data Quality Assessment

In terms of the NCI-AD survey response rate, 243 providers voluntarily responded to the survey out of 824 DSDS agency providers who received the survey, resulting in a response rate of roughly 29%. The number of responding providers for Year 2 was slightly higher than Year 1. Of the 243 Year 2 responses, 45 were excluded due to one of the following reasons:

- Provider did not have any AD DSWs on payroll or they only used contract DSWs (15 providers)
- Provider could not limit their data to the AD population (29 providers)
- Provider left the majority of the questions blank (1 provider)

The survey analysis focused on the remaining 198 responses that were specific to the AD population and were fully complete.

Upon reviewing the results of the data validation checks, Mercer determined that the quality of the 198 survey responses was generally high. Most providers responded to all questions, and the reported values were typically reasonable. There was also high inter-relational validity across linked questions.

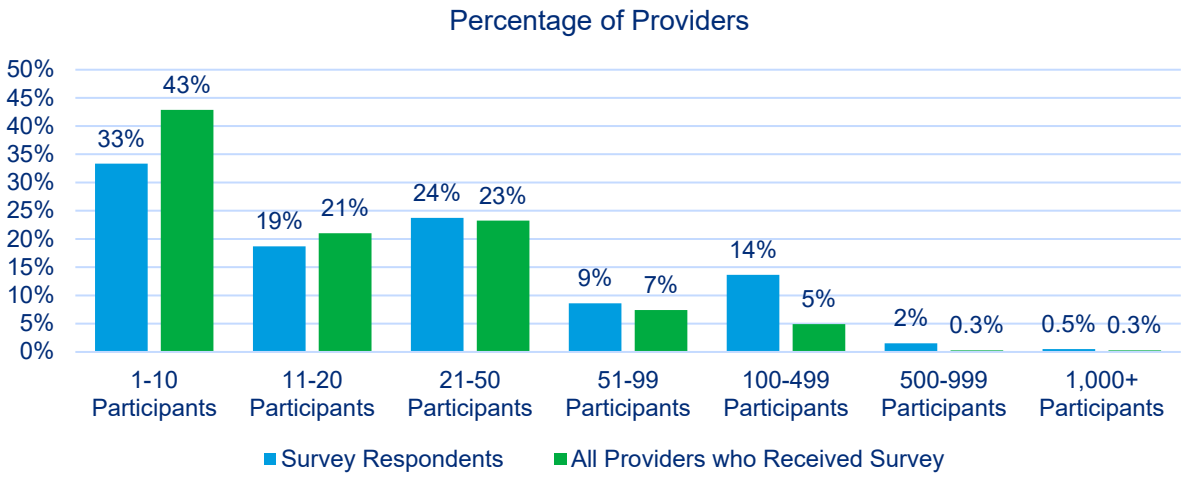
Mercer identified a few potential concerns within the response data including instances where a large number of providers left a certain question blank, a few questions where outlier values were reported that did not appear reasonable, and a few instances where it appeared that providers did not report on a consistent

NCI-AD Agency Model (CY 2022 Survey Reporting Period)

basis (e.g., some providers reported annual training hours for a single DSW, whereas others reported annual training hours across all DSWs). Given some questions either had a small response size or contained unreasonable outlier values, Mercer either did not include those questions in the analysis or caveated that the results should be reviewed with caution.

As shown in Figure 1, Mercer found that the size distribution of the 198 responding providers was somewhat similar to the size distribution of all DSDS providers who received the survey; this result was similar in Year 1. Note that a lower percentage of providers serving 1–10 participants responded to the survey compared to the percentage who received the survey, and a larger percentage of providers with 100–499 participants and 500–999 participants responded to the survey compared to the percentage who received the survey. Percentages for providers of other size ranges (i.e., those serving 11–20, 21-50, 51–99, and 1000+ participants) were relatively comparable. The vast majority of respondents (roughly 76%) provided services to 50 or fewer AD participants.

Figure 1: Size Distribution of Responding Providers



NCI-AD Agency Model (CY 2022 Survey Reporting Period)

DSW Characteristics

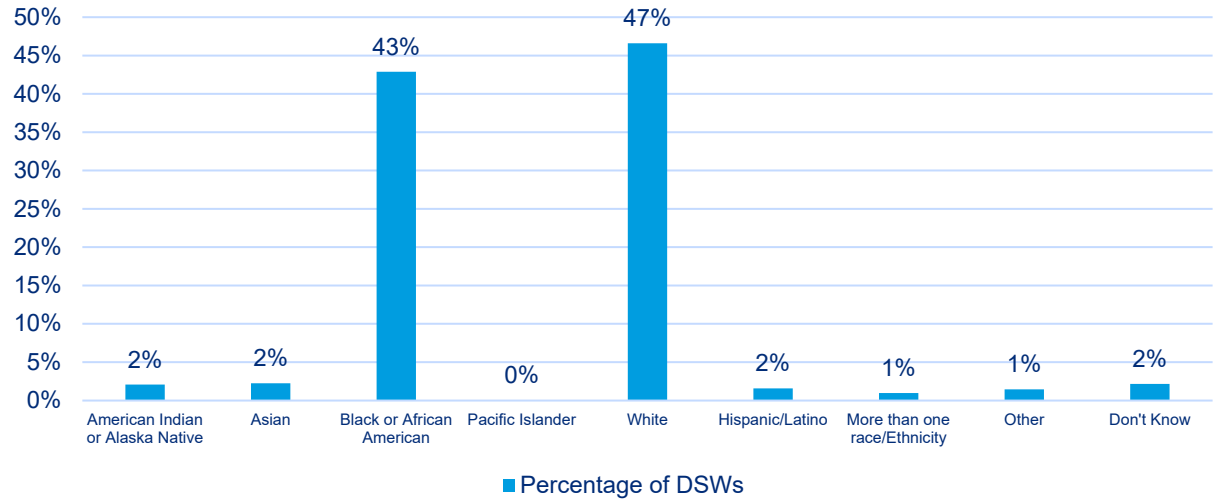
Across the responses, providers reported employing a total of 9,222 DSWs. On average, the ratio of DSWs to participants was roughly 1 DSW to 1.4 participants. This metric decreased from Year 1, when the ratio was 1 DSW to 1.8 participants; this decrease suggests that providers have moved closer to an overall 1:1 staffing ratio. Note that the staffing ratios did vary by provider size, as follows:

- Small providers: 1 DSW for every 1 participant
- Medium providers: 1 DSW for every 1.4 participants
- Large providers: 1 DSW for every 1.4 participants

Some medium and large providers reported high staffing ratios ranging from 1 DSW to 6 participants up to 1 DSW to 13 participants, which appear to be outliers and should be reviewed with caution.

Figure 2 shows that the vast majority of DSWs identified as either black (or African American) or white, which was similar to Year 1.

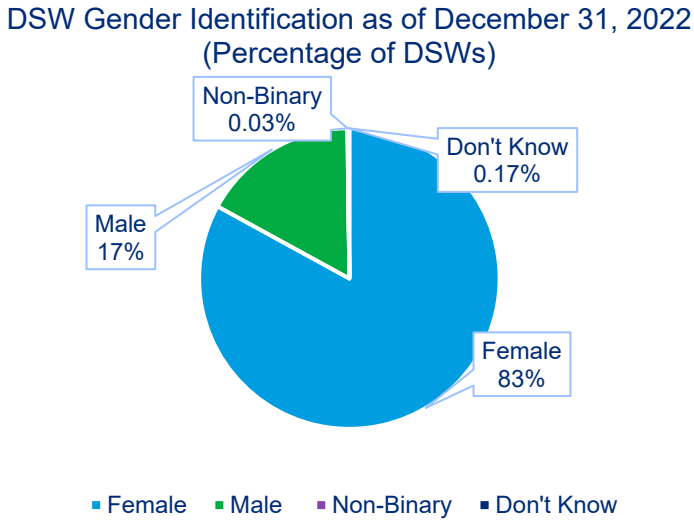
Figure 2: DSW Race/Ethnicity Identification

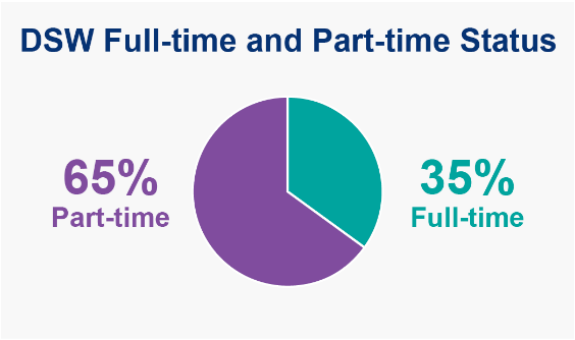


NCI-AD Agency Model (CY 2022 Survey Reporting Period)

Figure 3 shows that the majority of DSWs identified as female, which was similar to Year 1.

Figure 3: DSW Gender Identification

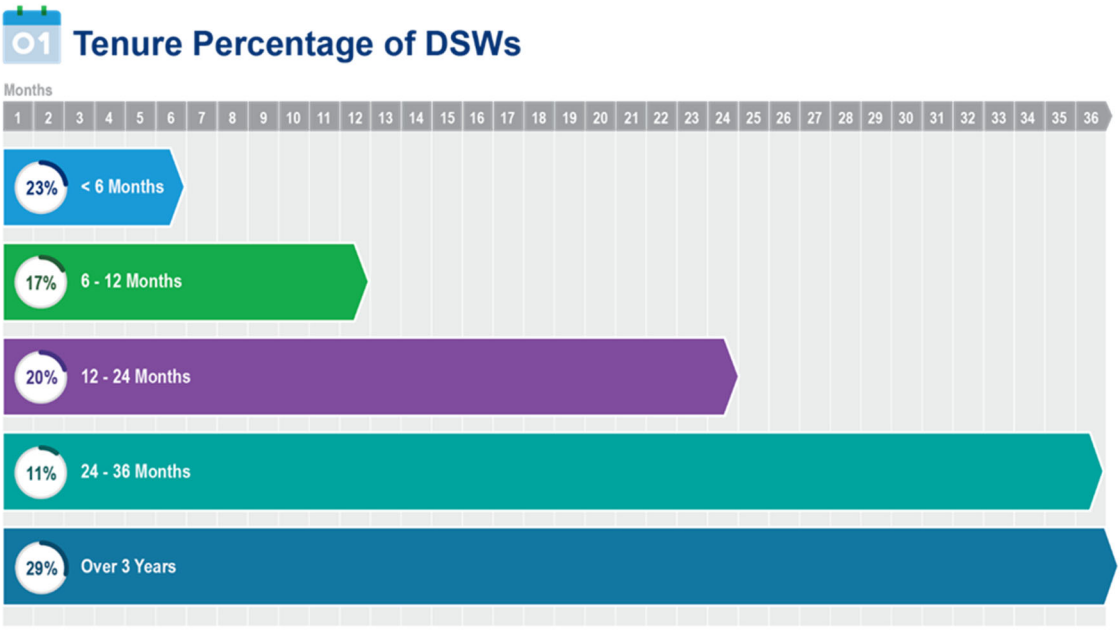




Mercer analyzed various DSW workforce metrics including full-time/part-time distribution, tenure lengths, turnover rates, and vacancy rates. About 50% of providers were able to distinguish between full-time and part-time DSW positions. For the providers who could differentiate DSW status, many of them (68%) tended to employ more part-time DSWs than full-time DSWs. On average, roughly 65% of DSWs had a part-time employment status (compared to 71% in Year 1).

NCI-AD Agency Model (CY 2022 Survey Reporting Period)

In terms of DSW tenure, Mercer observed that roughly 40% of DSWs had been employed for one year or less (compared to 45% in Year 1), while almost 30% had been employed for over three years (consistent with Year 1).



NCI-AD Agency Model (CY 2022 Survey Reporting Period)

Similar to Year 1, the median DSW turnover rate across providers was 33%. There were some providers with extremely high turnover rates (100%–330%) that pulled the average turnover rate up to 47%. As shown in Figure 4, median turnover rates varied by provider size with large providers having the highest turnover rate.

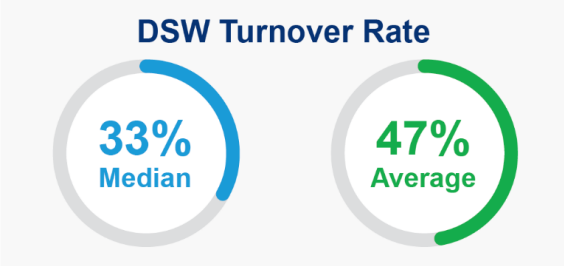
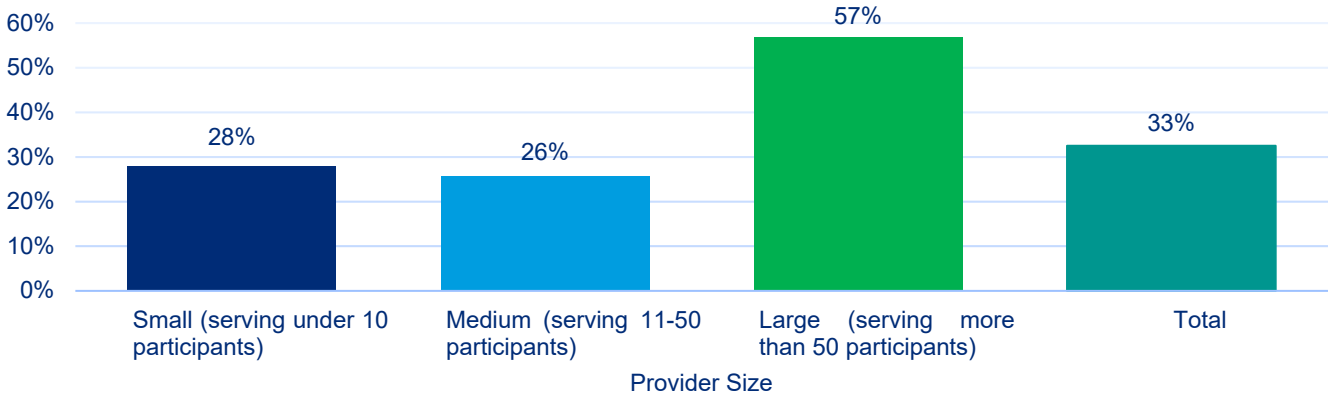
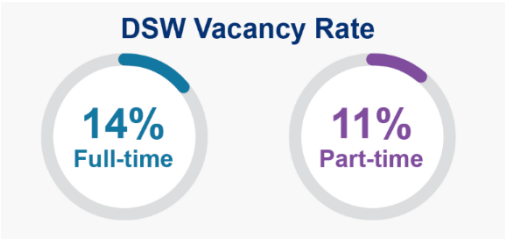


Figure 4: Median DSW Turnover Rate by Provider Size



Compared to CY 2022, 79% had less than one year of tenure with the agency (compared to 70% in Year 1). Compared to small and medium providers, large providers reported a higher percentage of departing DSWs with less than one year of tenure. The vast majority of departing DSWs left voluntarily (as opposed to being laid off or fired). Note that a higher percentage of large providers (compared to small and medium-sized providers) gave sign-on bonuses to DSWs, which could potentially be related to the higher turnover rate experienced by large providers.

In addition to losing DSWs during the year, providers also had vacant DSW positions that they were unable to fill. Providers showed an average full-time DSW vacancy rate of 14% and an average part-time DSW vacancy rate of 11% (a decrease compared to the 22% full-time and 17% part-time vacancy rates from Year 1). Due to DSW staffing issues, 53% of providers had to turn away or stop accepting new service referrals in 2022, a slight decrease from the 57% value in Year 1. The improvements in these metrics suggest that providers may have experienced fewer staffing challenges in CY 2022 compared to CY 2021.



NCI-AD Agency Model (CY 2022 Survey Reporting Period)

DSW Wages and Benefits

Wages

During the January 1, 2022–December 31, 2022 survey reporting period, providers reported DSW hourly wages ranging from $9.00 per hour to $18.65 per hour, with an average starting hourly wage of $12.73 per hour and an average hourly wage regardless of tenure of $13.19 per hour. The Year 2 DSW wage figures increased, on average, about $1.50 per hour compared to the wages reported in the Year 1 survey. Mercer observed 39 of 198 providers who reported either an average hourly starting wage or an average hourly wage regardless of tenure below the $11.15 minimum wage that was in place during 2022. Figure 5 shows a distribution of the average DSW wage reported by providers.

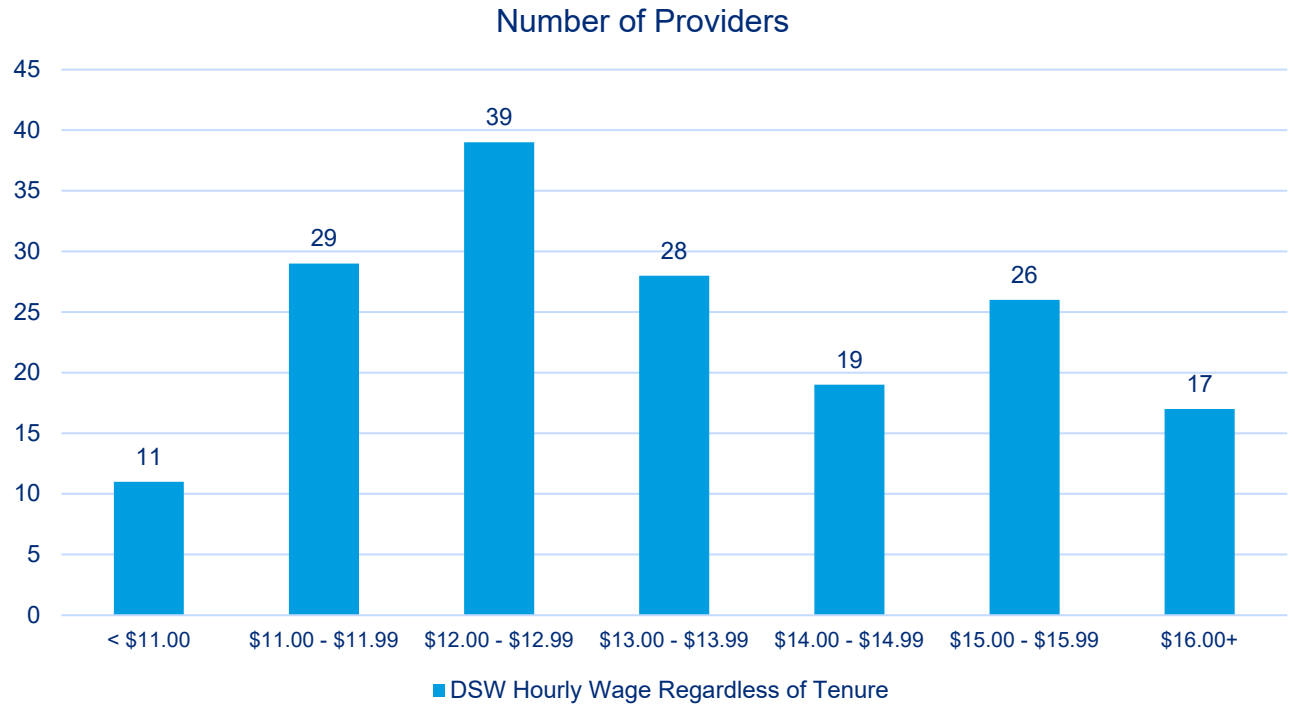
Range of Hourly Wages:
$9.00 to $18.65

Year 2 (CY 2022) Average Hourly Wage Regardless of Tenure:
$13.19

Year 1 (CY 2021) Average Hourly Wage Regardless of Tenure: $11.71

for DSWs across all service types

Figure 5: Year 2 (CY 2022) DSW Average Hourly Wage Regardless of Tenure



NCI-AD Agency Model (CY 2022 Survey Reporting Period)

There was some variation between Year 2 DSW starting wages and wages regardless of tenure, but the variation wasn't significant. The survey responses also showed little variation in wages across service types (i.e., personal care delivered in the community, personal care delivered in RCFs/ALFs, adult day services).

Table 3 shows that there was some variation in DSW wages based on provider size. Small providers were generally paying lower wages than medium-sized providers, and medium-sized providers were generally paying lower wages than large providers.

Table 3: Year 2 DSW Hourly Wage Regardless of Tenure

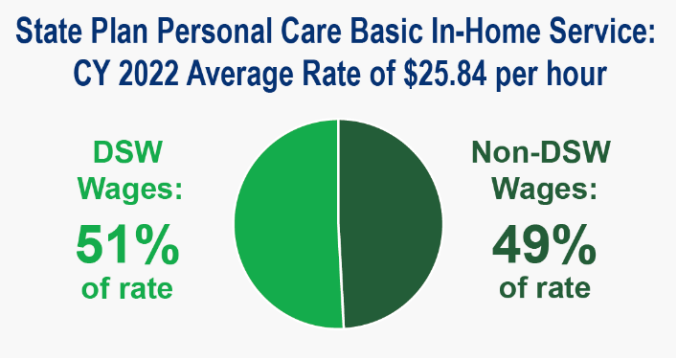
Provider Size	Average Hourly Wage
Small	$12.48
Medium	$13.14
Large	$14.18
All Providers	**$13.19**

When asked how DSW wages compare for basic and advanced personal care, 42% of providers who offer both basic and advanced personal care services indicated they pay higher wages to DSWs delivering advanced personal care. As shown in Table 4, on average, providers pay advanced personal care DSWs roughly $1.40 more per hour than basic personal care DSWs.

Table 4: Year 2 DSW Hourly Wages by Service Type

Service Type	Average Hourly Wage
Basic Personal Care	$13.03
Advanced Personal Care	$14.43
Across All Services/Settings	**$13.19**

During the January 1, 2022–December 31, 2022 period, NCI-AD providers were paid an average rate of $6.46 per 15-minute unit ($25.84 per hour) to deliver the State Plan Personal Care Basic In-Home service. Based on the $13.19 average DSW hourly wage reported in the survey, providers spent roughly 51% of their payment rate on DSW wages[1]. The remaining 49% was spent on non-wage cost components, which likely included DSW benefits and taxes, frontline supervisors, training materials, electronic visit verification (EVV), other service-related costs, and administration/overhead.



[1] The methodology used to calculate this percentage is different than the methodology used in the CMS Access Rule; this is because the NCI-AD survey did not collect data on all elements needed to replicate the CMS Access Rule calculation. Therefore, this percentage cannot be compared to the 80% because it was calculated on a different basis.

NCI-AD Agency Model (CY 2022 Survey Reporting Period)

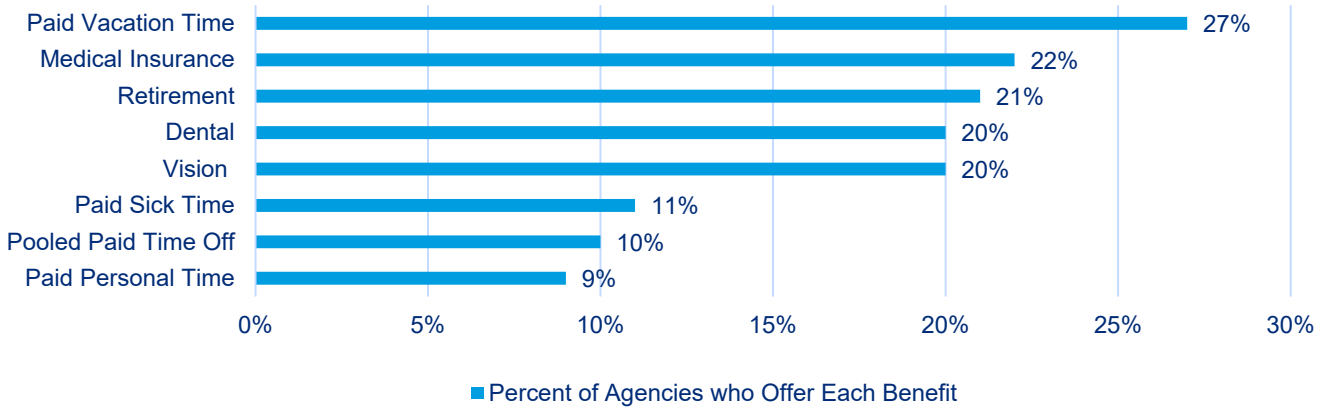
Bonuses

Similar to Year 1, about 29% of responding agencies indicated they provided a wage bonus to DSWs. This percentage varied by provider size with 26% of small providers, 27% of medium providers, and 38% of large providers indicating that they gave wage bonuses to DSWs. DSW overtime hours were minimal, representing 1% of total hours worked, which was lower than Year 1; this low overtime value could be driven by the high percentage of part-time DSWs.

Benefits

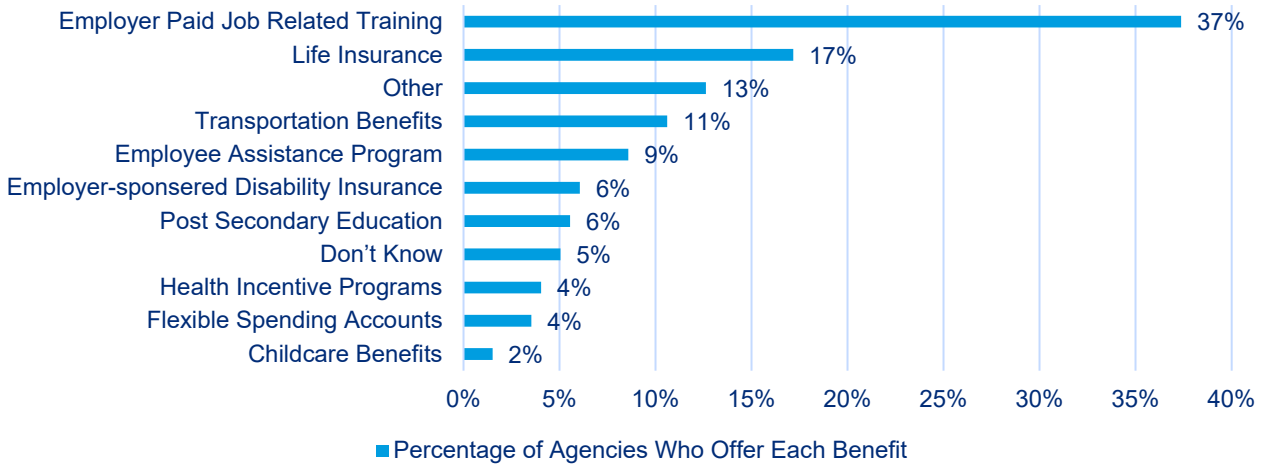
In terms of benefit offerings, results were similar to Year 1. Generally about 22% or fewer providers made benefits available to at least some DSWs (percentage varied by type of benefit). The one exception was paid vacation time, which roughly 27% of providers offered to at least some DSWs. Almost half of the providers required DSWs to be full-time to be eligible for the benefit, while other providers required DSWs to work a certain number of hours or have a minimum length of employment to be eligible to receive benefits. Figure 5 provides detail on the percentage of providers offering each type of benefit, and Figure 6 provides information on other benefits that providers indicated they offer to DSWs.

Figure 5: Benefits Offered to Some or All DSWs



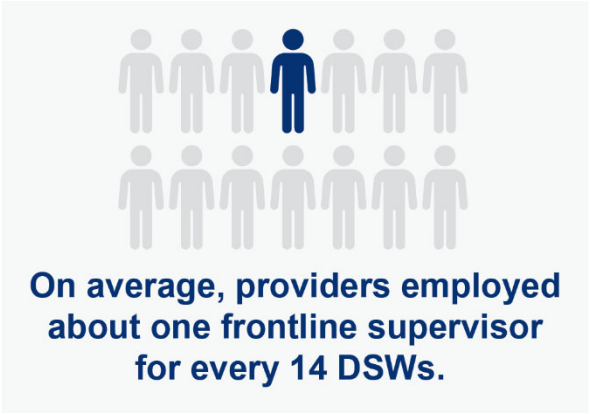
NCI-AD Agency Model (CY 2022 Survey Reporting Period)

Figure 6: Additional Benefits Offered to DSWs



Frontline Supervisors

The survey defined frontline supervisors as staff who supervise DSWs working with the AD population and often also engage in direct support as part of their duties. When responding to these questions, the survey requested that providers focus on frontline supervisors who spend more than half their time on supervisory tasks. The vast majority of responses indicated that frontline supervisors identified as female and as either black (or African American) or white; these results were similar to Year 1 and similar to the DSW responses to these questions.



On average, providers employed about one frontline supervisor for every 14 DSWs or a 1:14 ratio (versus the Year 1 ratio of one frontline supervisor for every 11 DSWs, 1:11). This varied widely, with some providers indicating they did not employ any frontline supervisors, while others reported employing one supervisor for 40 to 50 DSWs. Mercer observed significantly different ratios based on provider size:

- Small providers employed an average of one supervisor for every six DSWs (1:6)
- Medium providers employed an average of one supervisor for every nine DSWs (1:9)
- Large providers employed an average of one supervisor for every 20 DSWs (1:20)

NCI-AD Agency Model (CY 2022 Survey Reporting Period)

Providers reported frontline supervisor hourly wages ranging from $10.00 per hour to $40.00 per hour, with an average wage of almost $20.00 per hour. Note that medium-sized providers paid frontline supervisors the most at almost $21.00 per hour, while small providers paid about $19.00 per hour and large providers paid $19.12 per hour. Roughly 32% of providers indicated they paid additional pay/wages to frontline supervisors for overtime hours; this was a considerable increase over Year 1, when 16% of providers said they paid overtime hours to frontline supervisors.

Table 5: Hourly Wage Paid to Frontline Supervisors

Supervisor Average Hourly Wage by Provider Size	
Small	$18.98
Medium	$20.90
Large	$19.12
All Providers	**$19.88**

Electronic Visit Verification Costs

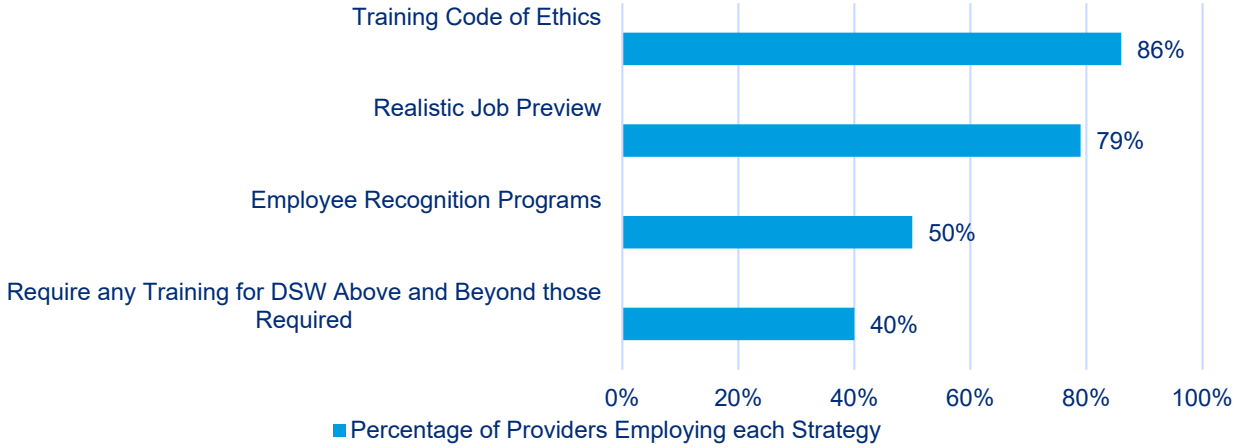
Providers reported a wide range of ongoing costs associated with software and devices needed to comply with Personal Care Electronic Visit Verification (EVV) requirements. For the annual CY 2022 survey reporting period, provider responses varied widely from $100.00 to over $1.2 million. Since a portion of EVV costs are typically linked to the number of EVV transactions, Mercer divided each provider's reported EVV cost by the number of enrolled participants to develop an average EVV cost per participant. The normalized median EVV cost value was $174 per participant per year, and almost half of the normalized EVV cost responses were between $98.00 and $360.00 per participant per year.

NCI-AD Agency Model (CY 2022 Survey Reporting Period)

DSW Recruitment and Retention Strategies

In an attempt to reduce DSW workforce challenges, providers utilized several different types of recruitment and retention strategies. Most agencies indicated using at least one recruitment or retention strategy, with the top four most popular strategies displayed in Figure 7.

Figure 7: Top Four Most Popular DSW Recruitment and Retention Strategies



Key Takeaways

The NCI-AD survey data highlighted various workforce challenges that DSDS agency providers continue to face including short DSW employment tenures and high DSW turnover rates. While the data showed that many agencies continued to have vacant DSW positions, the DSW vacancy rates have decreased from Year 1. Over 50% of providers had to turn away or stop accepting new service referrals due to staffing issues, which is similar to the Year 1 survey results. Providers indicated they were employing various workforce retention strategies, but given variation in turnover and vacancy rates, some agencies appear to have been more successful than others in attracting and retaining DSWs.

Wages and benefits are generally important factors in DSW recruitment and retention. The Year 2 survey responses showed significant variation in DSW hourly wages ranging from $9.00 to $18.65, with an average hourly wage of $13.19 per hour[2]. The Year 2 average wage was about $1.50 per hour higher than the Year 1 average wage of $11.71. Providers paid frontline supervisors wages ranging from $10.00 per hour to $40.00 per hour, with an average wage of $19.88 per hour. While some of the providers offered paid time off, health insurance, and/or retirement benefits to DSWs, this was not a consistent or widespread practice; it was most common for large providers to offer these benefits. Some

[2] Note that Agency Personal Care fee schedule rates were increased in July 2022 (halfway through the CY 2022 NCI-AD survey reporting period) to support a $15.00 DSW hourly wage.

NCI-AD Agency Model (CY 2022 Survey Reporting Period)

providers offered other benefits to DSWs such as bonuses, overtime pay, supplemental insurance, and mileage reimbursement.

Mercer observed various instances where the provider responses to a given survey question varied significantly based on the provider's size:

- The DSW turnover rate for large providers (those serving more than 50 people) was higher than the rate for small and medium-sized providers (those serving 10 or fewer people and those serving 11-50 people, respectively)
- Large providers had a greater portion of departing DSWs with less than one year of tenure than small or medium-sized providers
- Small providers had fewer participants per DSW than medium and large providers
- Small providers had fewer DSWs per supervisor than medium and large providers
- On average, small providers were paying lower DSW wages than medium-sized providers, and medium-sized providers were paying lower DSW wages than large providers
- Large providers were more likely to offer benefits to DSWs than small or medium-sized providers. This was true for most benefits mentioned in the survey (e.g., paid time off, medical/vision/dental insurance, employer-sponsored retirement plan, and various other benefits)

CDS Model (Jul 2023 – Dec 2023 Survey Reporting Period)

CDS Survey

Data Quality Assessment

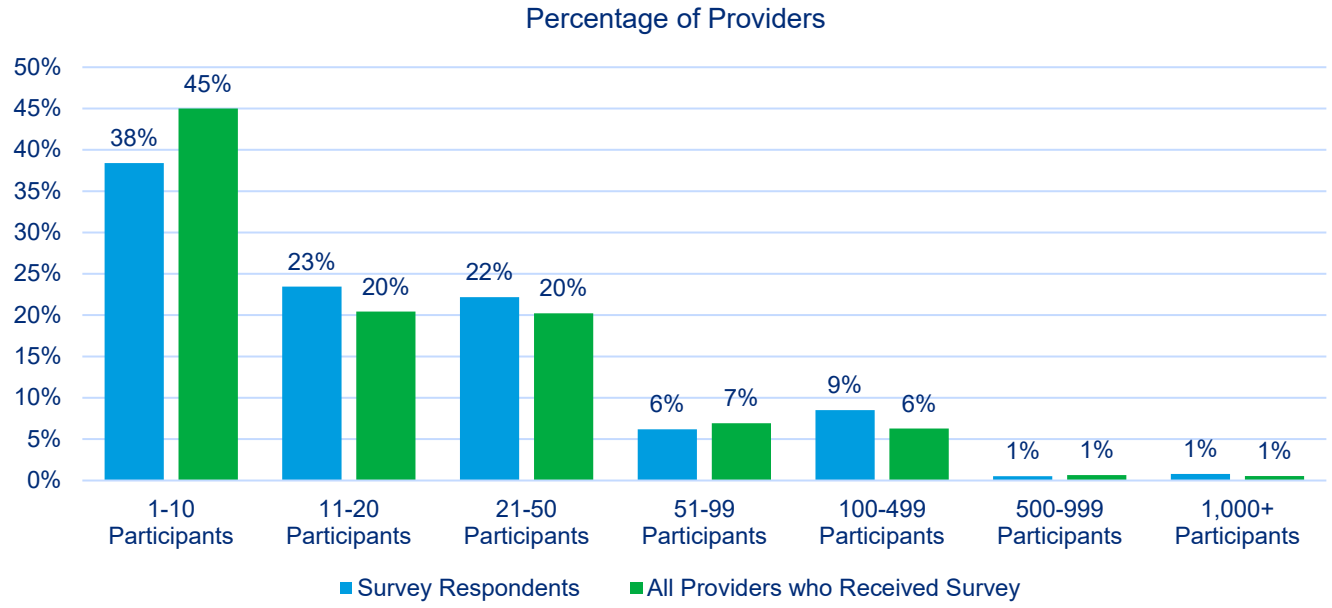
DSDS received 402 CDS survey responses from providers who either only provided support to DSDS CDS participants or who could report data specific to the personal care attendants (PCAs) who worked exclusively with DSDS CDS participants. Out of 940 total DSDS CDS providers, the survey response rate was roughly 43%. This was a slight increase from the 38% response rate in Year 1.

As shown in Figure 8, Mercer found that the size distribution (based on number of participants) of the survey respondents was relatively similar to the size distribution of all 940 CDS providers who received the survey. When comparing to Year 1, the percentage of responding CDS providers in most size

CDS Model (Jul 2023–Dec 2023 Survey Reporting Period)

categories was relatively consistent year over year; Year 2 showed a slight decrease in the percentage of responding providers with 1–10 participants and small increases in the percentage of responding providers with 11–50 participants. There was good representation in the survey responses across different population areas including providers operating in smaller areas (defined as having populations of less than 25,000 people) to providers operating in much larger areas with populations over 200,000 people.

Figure 8: Size Distribution of Responding Providers



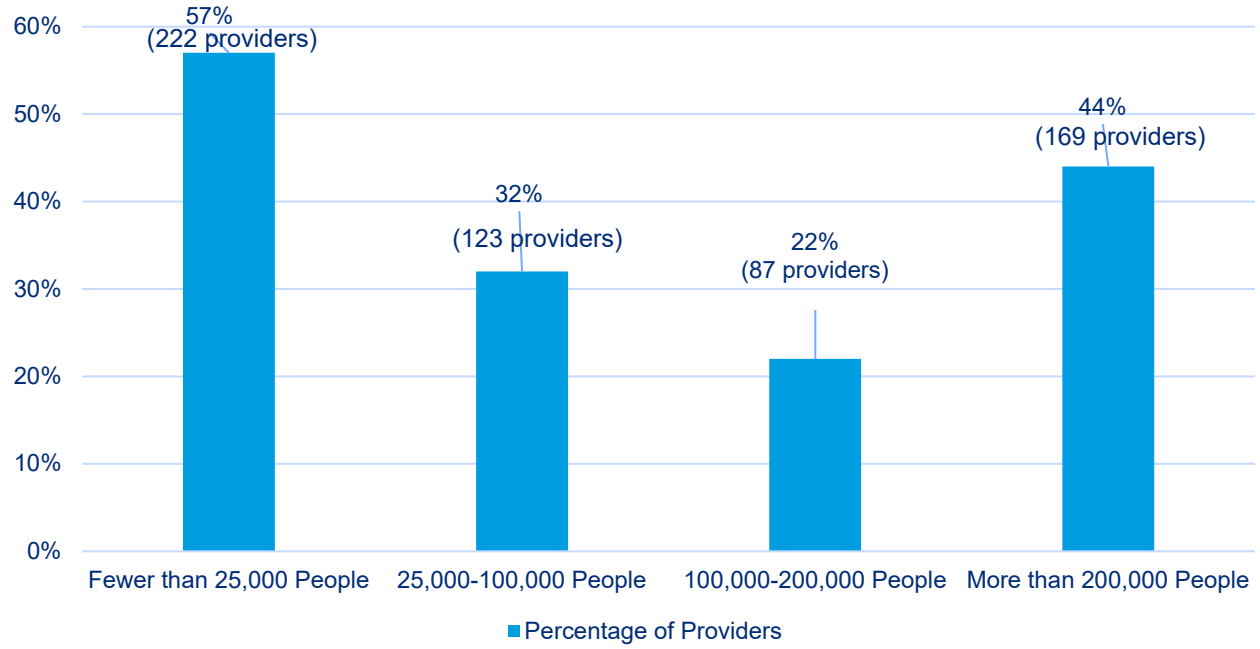
In terms of data quality, Mercer observed instances where providers failed validation checks on questions, failed multiple inter-relational validation checks, reported outlier values that did not appear reasonable, or did not report on a consistent basis (e.g., some providers reported training hours per PCA while others reported training hours across all PCAs). Upon reviewing the overall data validation results, Mercer determined that the reported hourly wage data was generally reasonable. Data quality issues were mainly observed in July 2023–December 2023 reported hours by detailed CDS task and July 2023–December 2023 reported costs by detailed CDS line item. The main concern in these two areas was the significant variation in responses across providers and the high number of outliers, which may suggest that some providers reported incorrectly. In order to limit the impact of data quality issues, Mercer excluded 14 survey responses prior to conducting statistical analysis on the remaining 388 responses. This is an improvement from Year 1, when Mercer excluded 36 responses due to data quality concerns.

CDS Model (Jul 2023–Dec 2023 Survey Reporting Period)

Area(s) Served

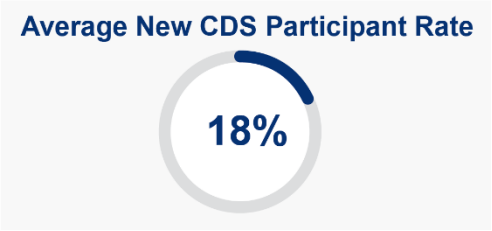
The survey requested information from providers on the population of the area(s) in which they administered CDS. The survey provided the following four response options: fewer than 25,000 people, 25,000–100,000 people, 100,000–200,000 people, more than 200,000 people. Providers were able to select all options that applied. Roughly 72% of the providers indicated they administer CDS in just one population area (compared to 87% in Year 1), while roughly 28% administer CDS in more than one area. As shown in Figure 9, all four population areas were represented in the survey responses. Compared to Year 1 of the survey, there was a sizeable increase in the Year 2 portion of respondents operating in areas with populations of less than 25,000 people.

Figure 9: Percentage of Providers who Delivered CDS in each Population Area
(categories not mutually exclusive)



Taking on New Participants

Between July 1, 2023 and December 31, 2023, providers took on differing numbers of new CDS participants. Note that this percentage varied significantly across providers, with some providers indicating they did not serve any new participants during the reporting timeframe and some providers indicating all the participants they served were new. Several of the providers who said all their participants were new also reported an average

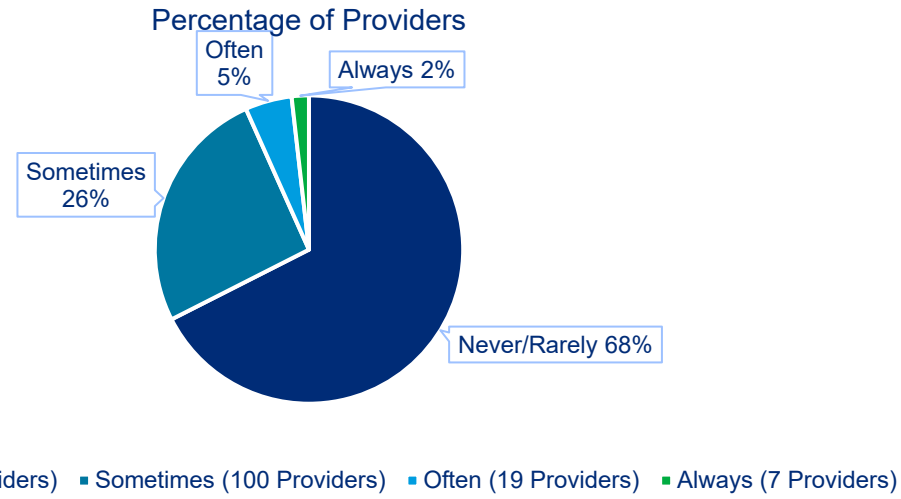


CDS Model (Jul 2023–Dec 2023 Survey Reporting Period)

PCA/participant relationship of over one year, which suggests the 100% new participant rates may not be accurate and should be reviewed with caution.

As shown in Figure 10, 68% of CDS providers indicated their CDS participants usually had a PCA in mind, which means the provider generally did not need to provide assistance with PCA matching. This was higher than the 50% value from Year 1, which may be due to the fact that the Year 2 response option was slightly broader than Year 1 (*never/rarely* needed to assist versus Year 1 language of *never*). For the other 32% of CDS providers, about 30% indicated they sometimes or often needed to pair the participant up with a PCA, and 2% said they always needed to find a PCA for the participant. In terms of the seven providers who responded with *always*, six of them reported that a portion of their PCAs was related to the participants they were serving, which raises questions about the accuracy of the *always* response. When looking at the results by provider size, 83% of small providers reported never/rarely having to pair a participant with a PCA versus 42% of large providers.

Figure 10: Frequency of Provider Needing to Pair Participant with a PCA



Impact of Staffing Issues on Services Delivered

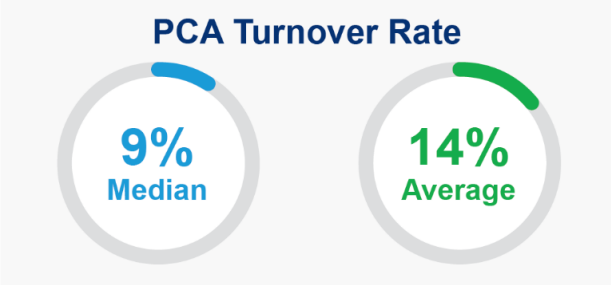
Over 65% of providers reported never having to turn down referrals. About 15% of providers had either one or two participants referred to them for whom they were unable to deliver services to due to staffing issues, and about 18% of providers had to turn down referrals for three or more participants. These values were somewhat consistent with Year 1, although the percentage of providers who did not need to turn down any referrals increased a bit in Year 2 (67% versus 63% in Year 1). Note that the percentage of providers who had to turn down at least some referrals varied significantly by provider size, with 26% of small providers and 31% of medium providers having to turn down at least some referrals compared to 58% of large providers.

CDS Model (Jul 2023–Dec 2023 Survey Reporting Period)

PCA Characteristics

Within the survey, PCAs were defined as participant-employed individuals providing direct services to participants. Providers reported PCA counts ranging from one PCA to 2,259 PCAs. Most providers reported about one PCA for every one participant, which was consistent across provider size and consistent with the Year 1 survey responses. There were some outlier providers whose data showed very low ratios (e.g., one provider indicated they had four PCAs serving 40 participants, which is one PCA for every 10 participants; another provider indicated they had two PCAs serving 22 participants).

Across all providers, the median percentage of new PCAs to total PCAs was about 17%. This is a slight increase from the Year 1 value of 14%. The new PCA rate ranged from 0% to 100%, meaning that some providers indicated no new PCAs started during the six-month reporting period, and a few providers indicated all PCAs were new. Several of the providers who said all their PCAs were new also reported an average PCA/participant relationship of over 1 year, which suggests the 100% new PCA rates may not be accurate and should be reviewed with caution.

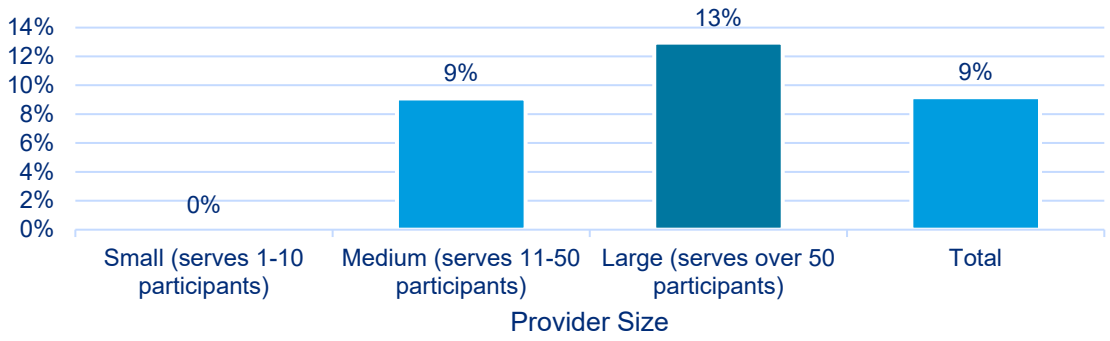


The PCA turnover rates varied across providers from 0% to 100%, with a 9% median turnover rate across all providers. There were some providers with high turnover rates (60% to 100%) that pulled the average turnover rate up to 14% (compared to the 9% median). The Year 2 median turnover rate of 9% is a slight increase over the 6% Year 1 value.

CDS Model (Jul 2023–Dec 2023 Survey Reporting Period)

As shown in Figure 11, large providers had a higher median turnover ratio than medium and small providers.

Figure 11: Median Turnover Rate by Provider Size



PCA Relationships with Participants

The survey also collected various types of information about the relationship between PCAs and the participants they serve. About 53% of PCAs were related to the participants they were serving, which was is consistent with Year 1. About 32% of PCAs lived with the participants they were serving; this is an increase from the Year 1 value of roughly 29%.

In terms of the average length of time that PCAs were providing care to participants, roughly 80% of participants had been receiving care from their current PCA for over a year. This is an increase from approximately 45% in the Year 1 survey; note that this was a free response question in Year 1, so the

CDS Model (Jul 2023–Dec 2023 Survey Reporting Period)

increase between Year 1 and Year 2 could be attributed to Year 1 data quality issues and should be reviewed with caution.

PCA Wages

PCA hourly wages reported in the survey for the July 1, 2023–December 31, 2023 reporting period ranged from $9.00 per hour to $40.00 per hour, with an average starting wage of $12.40 per hour and an average wage regardless of tenure of $13.37 per hour. The average Year 2 PCA wage regardless of tenure increased by almost $2.00 per hour compared to the average wage in the Year 1 survey. Table 6 shows that PCAs were receiving a relatively similar average hourly wage regardless of provider size.

Table 6: Year 2 PCA Hourly Wage Regardless of Tenure

Provider Size	Average Hourly Wage
Small (1-10 participants)	$13.47
Medium (11-50 participants)	$13.08
Large (51+ participants)	$13.81
Total	**$13.37**

Range of Hourly Wages:
$9.00 to $40.00

Year 2 (Jul-Dec 2023) Average Hourly Wage Regardless of Tenure:
$13.37

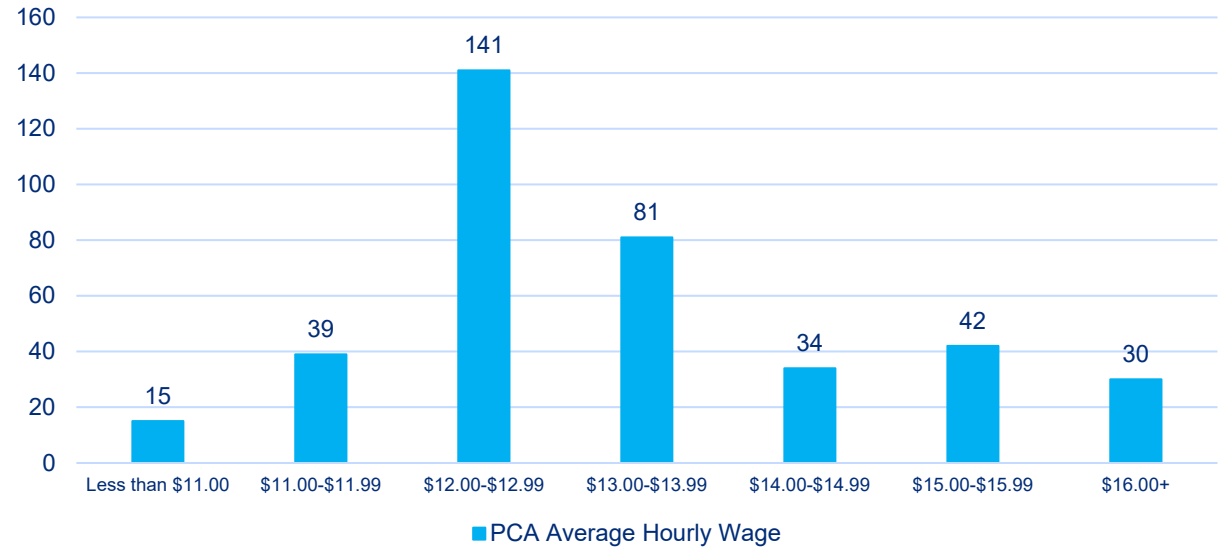
Year 1 (Jul-Dec 2022) Average Hourly Wage Regardless of Tenure: $11.45

for PCAs across all population areas

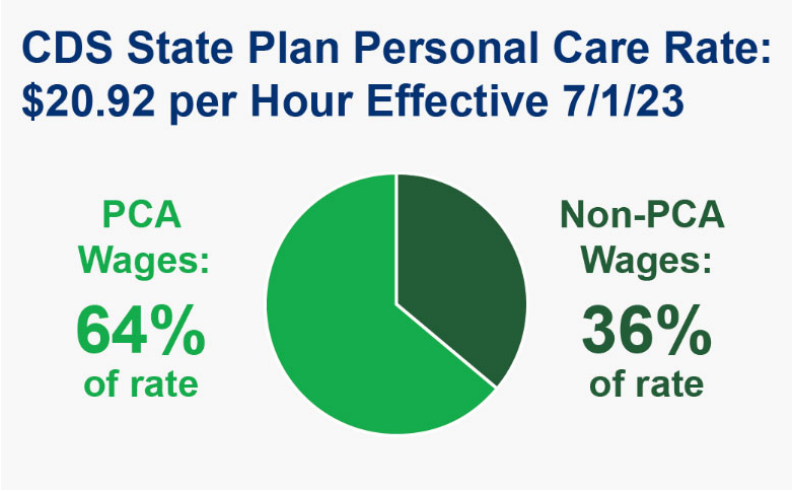
CDS Model (Jul 2023–Dec 2023 Survey Reporting Period)

Figure 12 shows the distribution of statewide average reported PCA wages regardless of tenure. Note that 54 of 382 providers reported a PCA average hourly wage regardless of tenure below the $12.00 Missouri minimum wage that was effective during the July 1, 2023–December 31, 2023 time period. In terms of providers size, 34% of small providers were paying an average PCA hourly wage above $15.00, compared to 25% of medium providers and 50% of large providers.

Figure 12: Provider Counts by PCA Average Hourly Wage



During the July 1, 2023–December 31, 2023 period, CDS providers were paid a rate of $5.23 per 15-minute unit ($20.92 per hour) to deliver the CDS State Plan Personal Care service. Based on the $13.37 average PCA hourly wage reported in the survey, providers spent roughly 64% of their payment rate on PCA wages (an increase from Year 1 when the PCA wage represented roughly 58% of the CDS State Plan Personal Care rate)[3]. The remaining 36% was spent on non-wage cost components, which likely included



[3] The methodology used to calculate this percentage is different than the methodology used in the CMS Access Rule; this is because the CDS survey did not collect data on all elements needed to replicate the CMS Access Rule calculation. Therefore, this percentage cannot be compared to the 80% because it was calculated on a different basis.

CDS Model (Jul 2023–Dec 2023 Survey Reporting Period)

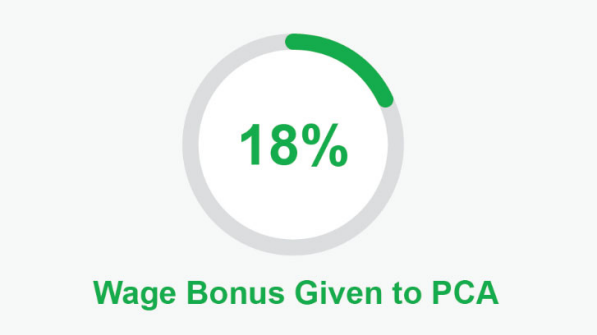
costs such as employer taxes (e.g., Federal Insurance Contributions Act [FICA], Federal Unemployment Tax Act [FUTA]/State Unemployment Tax Act [SUTA]), workers' compensation insurance, EVV, fiscal management services, other service-related costs, and administration/overhead.

In terms of how wages were initially set, the surveys included various responses including that wages were set equivalent to minimum wage, wages were set based on a certain dollar amount above minimum wage, wages were based on the PCA's level of experience, or wages were based on the level of care needed by the individual. In terms of PCA wage increases, responses indicated that increases were made based on various factors including:

- Using a set timeframe (e.g., every six months or annually)
- Triggered by minimum wage or HCBS rate increases
- Based on the PCA's performance
- Based on the PCA's increased tenure/experience

PCA Bonuses

About 18% of the survey responses (i.e., 71 surveys) indicated that bonuses were given to PCAs. This is an increase from the Year 1 value of 11%. Roughly 65% of the responses indicated the bonuses were a one-time special circumstance and about 44% indicated they were a routine business practice (responses were not mutually exclusive since both options could be selected). The average reported bonus ranged from $10.00 up to $2,000.00, with a median of $50.00.



PCA Hours Worked

Productivity

The survey asked CDS providers to report total PCA payroll hours, as well as the portion of PCA working hours spent delivering Medicaid reimbursable services, portion of hours spent on non-Medicaid reimbursable tasks (e.g., driving time to and from the participant's home), and portion of hours taken as paid time off. The vast majority of responses showed 100% PCA productivity, meaning that all PCA hours worked were Medicaid reimbursable. There were a few providers who reported very low PCA productivity rates (under 50%), which pulled the average down to 94%. It is unclear if these values were mis-reported, so the average value of 94% should be interpreted with caution.

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Overtime

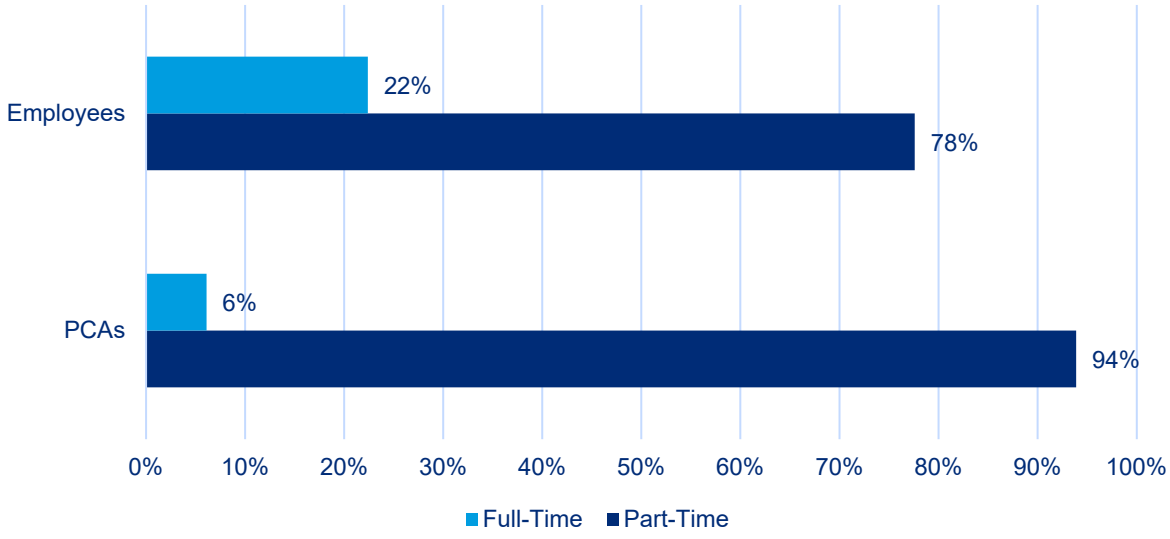
The majority of responses indicated overtime hours were not paid to CDS PCAs. Only 27 providers indicated that overtime hours were paid, and the number of overtime hours reported was minimal. The lack of overtime hours could be due to the fact that most PCAs were reported to have a part-time status; therefore, they would be working less than 40 hours per week.

Full-Time and Part-Time Status

While most survey questions were about PCAs, there were a few questions that asked providers to supply information related to their employees. PCAs were defined as: participant-employed individuals providing direct services to participants, while employees were defined as: individuals employed by the provider to assist in business functions outside of direct services.

Figure 13 shows that employees and PCAs typically had part-time status (part-time status defined as 35 hours or fewer per week). Full-time status was much more common for employees than for PCAs. While the percentage of employees who were full-time decreased from Year 1 to Year 2 (28% to 22%), the percentage of PCAs who were full-time (6%) was the same in both Year 1 and Year 2. There was variation in reported full-time and part-time percentages for PCAs by provider size. Small providers reported 11% of PCAs were full-time, medium providers reported 9% were full-time, and large providers reported 5% of their PCAs were full-time.

Figure 13: Employee and PCA Full-time and Part-Time Percentages



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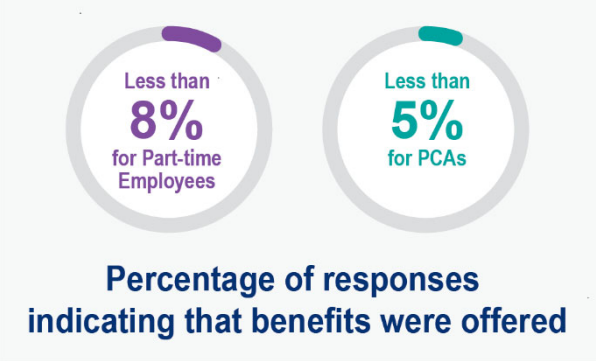
Benefits

Less than 15% of the responses indicated that health insurance, retirement, or life/disability insurance were offered to full-time employees, and less than 8% of the responses indicated that these benefits were offered to part-time employees. The numbers were even lower for PCAs, with less than 5% of the responses indicating that these benefits were offered to full-time or part-time PCAs. All of these results were similar to Year 1.



In terms of paid time off, 15% of providers reported paid time off hours for employees and 3% reported paid time off hours for PCAs. Given this low prevalence, minimal data on the number of paid time off days was available. These values are significantly lower than the Year 1 survey, but the Year 1 question was phrased differently (Year 1 asked if providers offered paid time off, versus Year 2, which asked providers to report the number of paid time off hours). As a result, direct comparisons cannot be made between the Year 1 and Year 2 results.

Consistent with Year 1, roughly 6% of providers indicated they offered mileage reimbursement to PCAs. It was more common for providers to offer this benefit to employees than PCAs, with over 14% of respondents indicating they offered this benefit to full-time and part-time employees.

Fewer than 6% of respondents indicated they offered other benefits to full-time and part-time PCAs. The percentage was slightly higher for employees, with roughly 8.5% of respondents offering other benefits to full-time employees and 8% offering other benefits to part-time employees.

Hours Spent on Other CDS Tasks

There was a wide range of time spent by providers on various CDS tasks listed in the survey. Table 7 provides key statistics on the time that providers spent on one-time CDS activities (activities were deemed *one-time* if they are only completed upon PCA hire or new consumer onboarding) and time spent on recurring tasks completed on an ongoing basis (e.g., monthly, quarterly, or annually). Given several reported outlier values and some unreasonable values, providers may have interpreted the tasks differently or may have reported incorrectly. To limit the impact of outliers, Mercer focused on the median reported value, as well as the 25th and 75th percentile values, but the results in Table 7 should still be reviewed with caution.

The Year 1 survey asked providers to report how much time was spent each month on these activities; the Year 2 survey requested hours spent on each activity during a six-month timeframe, which Mercer converted to a monthly value. In addition, the Year 2 survey contained more discrete tasks than Year 1. Given differences in the phrasing of these Year 1 and Year 2 survey questions, Mercer was unable to make comparisons across the Year 1 and Year 2 responses to these questions.

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Table 7: Provider Time Spent on CDS Tasks

Task	Measurement	25th Percentile	Median	75th Percentile
One-time Tasks				
Completing new PCA paperwork at time of hire	Hours per New PCA	0 hours	2 hours	6 hours
Setting up new consumers as employers, including all paperwork at signup and training	Hours per New Consumer	0 hours	2 hours	6 hours
Conducting training for new CDS consumers	Hours per New Consumer	2 hours	3 hours	5 hours
Ongoing Tasks				
Checking the Employee Disqualification List and List of Excluded Individuals/Entities for CDS PCAs	Per Month per PCA	1 Minute	3 Minutes	10 Minutes
Processing PCA Payroll	Per Month per PCA	4 Minutes	16 Minutes	58 Minutes
Performing Monthly Case Management Monitoring Tasks	Per Month per Consumer	6 Minutes	20 Minutes	1 Hour
Conducting annual face to face monitoring visits	Per Month per Consumer[4]	5 Minutes	10 Minutes	25 Minutes
Processing IRS, Department of Revenue, and Division of Employment Security Letters/changes/taxes	Per Month per PCA	2 Minutes	7 Minutes	20 Minutes
Gathering data for the MMAC Quarterly CDS Financial & Annual Service Report and the annual CDS Financial Audit	Per Month per Consumer[5]	2 Minutes	5 Minutes	20 Minutes
Reporting suspected fraud, neglect, abuse, and/or exploitation of the consumer, including providing documentation as requested	Per Month per Consumer	0 Minutes	0 Minutes	1 Minute
Certifying, Maintaining, or Correcting EVV records	Per Month per Consumer	4 Minutes	17 Minutes	1 Hour and 12 Minutes
Total Time Per Month for *Per PCA* Tasks[6]	**Per Month per PCA**	**7 minutes**	**26 minutes**	**1 Hour and 28 Minutes**
Total Time Per Month for *Per Consumer* Tasks[3]	**Per Month per Consumer**	**17 minutes**	**52 minutes**	**2 Hours and 58 Minutes**

[4] These values are presented on a *per month* basis to allow comparison to time spent on other tasks. Converting these values to an annual basis indicates that providers spent a median of two hours per consumer per year on face-to-face monitoring visits (25th percentile of one hour and 75th percentile of five hours).

[5] These values are presented on a *per month* basis to allow comparison to time spent on other tasks. Converting these values to a quarterly basis indicates that providers spent a median of 15 minutes per consumer per quarter on quarterly/annual MMAC reporting (25th percentile of six minutes and 75th percentile of one hour).

[6] Please note that a single provider does not represent the 25th percentile, median, or 75th percentile for all tasks; therefore, the totals in the table may differ significantly from the 25th percentile, median, and 75th percentile values across all respondents.

CDS Model (Jul 2023–Dec 2023 Survey Reporting Period)

Provider Costs Incurred to Delivery CDS

The Year 2 survey collected data on July 1, 2023–December 31, 2023 CDS costs that providers incurred for the various line items shown below. In order to gain an understanding of how much each provider was spending on PCA-related costs versus other CDS cost components, Mercer mapped the detailed line items into three major cost categories as shown in Table 8. The three categories included PCA-related expenditures, other service-related costs, and administration/overhead.

Table 8: Mapping Between Detailed Cost Line Items and Major Cost Categories

Detailed Line Item Cost	Major Cost Category Mapping
PCA Payroll	PCA-related expenditures
PCA Taxes (FICA/FUTA/SUTA)	
PCA Workers' Compensation Insurance	
Salaries, Benefits and Payroll Taxes of CDS Agency Employees Providing Direct Programmatic Assistance	Other service-related costs
EVV System Costs	
Non-Service Delivery Related Travel Costs	Administration/overhead
Salaries, Benefits and Payroll Taxes of CDS Agency Employees Providing Administrative Functions	
General and Professional Insurance and Financial Audit	
Administrative Building Occupancy (rent, mortgage, maintenance)	
Utilities, Equipment, Office Supplies, Postage, and Software other than EVV Related Items	
Other Costs Related to CDS Operations/Administration	

Mercer calculated the percentage of total costs attributed to each major cost category for each survey response. Note that some providers indicated they did not incur costs for certain line items, while other providers said they incurred significant costs for that same line item. Due to these inconsistencies and other data quality concerns related to the responses to this question, this data should be reviewed with caution.

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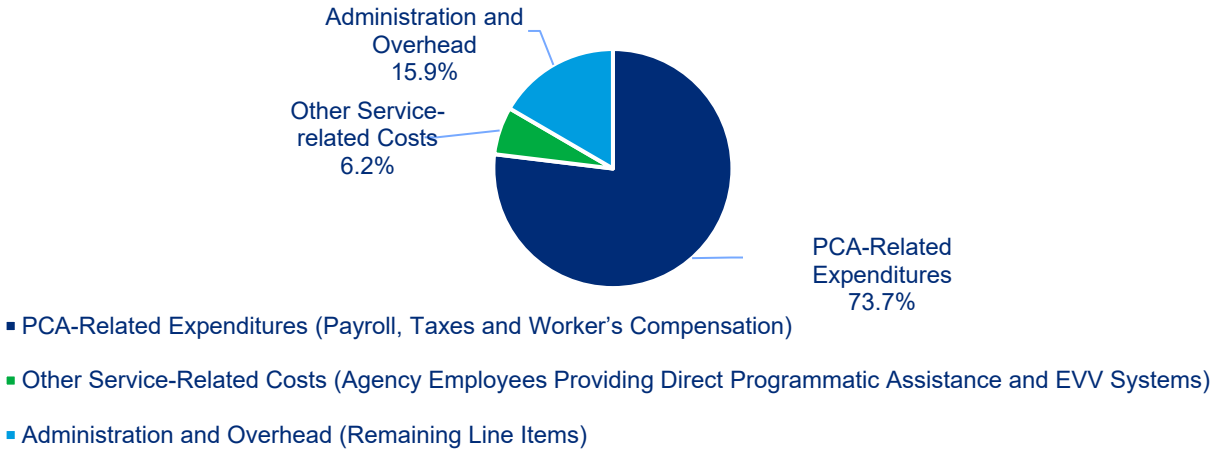
After calculating the cost distribution on each provider's reported values, Figure 14 shows the median cost percentage observed across providers. Roughly 74% of total CDS costs were attributed to PCAs, 6% of costs were attributed to other service-related costs, and 16% of costs were attributed to administration and overhead. Please note that a single provider does not represent the median value for all cost categories; therefore, percentages do not sum to exactly 100%.

Large and medium sized providers generally reported a larger portion of CDS costs spent on PCA-related expenditures, while small providers reported larger percentages spent on administrative expenditures. This is not unexpected given small providers are typically not able to take advantage of economies of scale that help medium and large providers reduce their administration/overhead cost percentage.

It is also important to note that the methodology used to calculate these percentages differs from the methodology used in the CMS Access Rule; this is because the CDS survey did not collect data on all elements needed to replicate the CMS Access Rule calculation. Therefore, the 74% cannot be compared to the 80% provision in the Access Rule because they were calculated differently.

Figure 14: Percent of Total CDS Costs by Major Cost Category[7]



Key Takeaways

Although the CDS survey response rate was relatively high and the survey respondent subset appeared to provide a good snapshot of the DSDS CDS provider universe, there were some concerns with data quality. While the reported hourly wage data was generally reasonable, there were other areas where quality issues were observed such as July-December 2023 hours by detailed CDS task and

[7] The methodology used to calculate these percentages differs from the methodology used in the CMS Access Rule; this is because the CDS survey did not collect data on all elements needed to replicate the CMS Access Rule calculation. Therefore, the 74% cannot be compared to the 80% provision in the Access Rule.

CDS Model (Jul 2023–Dec 2023 Survey Reporting Period)

July 2023–December 2023 costs by detailed CDS line item. The main concern with these two areas was the significant variation in responses across providers and the high number of outliers, which may suggest that some providers reported incorrectly. Based on these observations, Mercer recommends caution when reviewing certain data metrics highlighted in this paper.

A large portion of respondents indicated they only served DSDS CDS participants, only operated in one population area, and were serving 50 or fewer participants. In addition, most CDS providers reported a staffing ratio of one PCA for every one participant. Roughly two-thirds of CDS providers never had to turn down a new referral due to staffing issues and very few overtime hours were paid to PCAs. The lack of overtime hours could be due to the fact that most PCAs were reported to have a part-time status and therefore would be working less than 40 hours per week. The median PCA turnover rate was relatively low at roughly 9%. All of these results are similar to Year 1. Compared to the NCI-AD agency model survey data, the CDS survey data suggests that workforce and staffing challenges are less of an issue in the CDS model.

The survey responses showed DSW hourly wages ranging from $9.00 per hour to $40.00 per hour, with an average starting wage of $12.40 per hour and an average wage regardless of tenure of $13.37 per hour. The Year 2 average PCA hourly wage regardless of tenure was about $2.00 per hour higher than the Year 1 PCA average wage[8]. Although PCA wages did not vary significantly based on provider size, Mercer observed the highest PCA average hourly wage for large providers, followed by small providers, and then medium providers. Lastly, very few surveys indicated that wage bonuses, benefits, or paid time off were offered to PCAs.

Providers reported a wide range of time spent on various CDS tasks. It is unclear how much of this variation is due to errors in survey responses versus actual difference in provider operational processes, so the data below should be reviewed with caution.

In terms of CDS one-time tasks, providers spent:

- A median of two hours completing new PCA paperwork at time of hire
- A median of two hours setting up new consumers as employers
- A median of three hours conducting training for new CDS consumers.

In terms of recurring tasks (e.g., processing payroll, monthly case management monitoring tasks, EVV, etc.):

[8] Note that the CDS Personal Care fee schedule rates were increased effective July 1, 2023 to support a $16.10 DSW hourly wage.

CDS Survey (Jul 2023–Dec 2023 Survey Reporting Period)

- Providers reported spending a median[9] of 26 minutes per PCA per month on PCA-related tasks (including checking employee disqualification/exclusion lists, processing payroll, and processing IRS and other Federal PCA-related letters/requests)
- Providers reported spending a median[10] of 52 minutes per consumer per month on consumer tasks (including monthly case management monitoring; annual face-to-face monitoring visits; gathering data for MMAC-required financial reports; reporting suspected fraud, neglect, abuse and/or exploitation; certifying, maintaining, and correcting EVV records)
- When looking at all CDS tasks that providers complete, most CDS employee time was spent on performing monthly case management monitoring tasks; certifying, maintaining, or correcting EVV records; and processing PCA payroll.
- In general, providers spent a relatively small amount of time on the remaining CDS tasks.

Based on the survey responses, the majority of provider CDS costs were attributed to PCA-related expenditures. When looking at the median percentage across providers, roughly 74% of total CDS costs were attributed to PCAs, 6% of costs were attributed to other service-related costs, and 16% of costs were attributed to administration and overhead.

As mentioned in prior sections, there were instances where the provider responses to a given survey question varied based on the provider's size. Key observations in this area included:

- The PCA median turnover rate for large providers (13%) was higher than the median turnover rate for small (0%) and medium-sized providers (9%)
- The percentage of providers who had to turn down at least some referrals was lower for small and medium providers (26% for small and 31% for medium providers) than large providers (58%)
- There was variation in reported full-time and part-time percentages for PCAs by provider size. Small providers reported 11% of PCAs were full-time, medium providers reported 9% were full-time, and large providers reported 5% of their PCAs were full-time
- Large and medium sized providers generally reported a larger portion of CDS costs spent on PCA-related expenditures, while small providers reported larger percentages spent on administrative expenditures. This is not unexpected given small providers are typically not able to take advantage of economies of scale that help medium and large providers reduce their administration/overhead cost percentage.

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[9] Note that a single provider does not represent the median for each of the different tasks; therefore, adding the medians for the Table 8 PCA-related tasks and for the consumer-related tasks may produce a different result than calculating the median across all respondents.

[10] Note that a single provider does not represent the median for each of the different tasks; therefore, adding the medians for the Table 8 PCA-related tasks and for the consumer-related tasks may produce a different result than calculating the median across all respondents.

Next Steps

The information collected through the NCI-AD and CDS workforce surveys provides DSDS with a wealth of data to support various DSDS processes outlined below.

- DSDS intends to use this data to design future programmatic improvement initiatives that better support the direct service workforce and to enhance the provision of quality care.
- The survey data also provides insight into current agency and CDS provider cost components, which will help DSDS begin assessing potential impacts of the federal Access Rule[11] published in the Federal Register on May 10, 2024.
  - The Access Rule includes a provision that at least 80% of Medicaid payments for personal care, homemaker, and home health aide waiver services be spent on direct care staff compensation. States must begin reporting this information to CMS in 2028 and must demonstrate they meet the 80% requirement starting in 2030. As DSDS gains a better understanding of this provision and all other Access Rule requirements, DSDS plans to refine future NCI-AD and CDS surveys in order to collect data needed to meet the new requirements.
- Lastly, it is DSDS' and Mercer's intent to utilize provider survey data as one of the data sources for DSDS rate studies (use of the survey data as a data source requires data quality and sufficient participation rates). DSDS views the last two years of NCI-AD and CDS workforce surveys as a key component of the rate study stakeholder input process.

To continue to increase survey responsiveness and improve survey data quality in future years, DSDS anticipates that additional stakeholdering activities may be needed. In terms of rate study next steps, CMS requires states to formally review rates for 1915(c) waiver services at least once every five years. DSDS completed its last formal, comprehensive rate study in January 2020 and recently kicked off a new study with a goal to finalize the rate study by January 2025. In addition to the provider input collected through the workforce surveys, DSDS and Mercer anticipate engaging stakeholders via two webinars later this year. The webinars will be used to share information on the rate study process, summarize the data and assumptions being considered, and collect stakeholder feedback. Please refer to two rate study related informational memorandums that DSDS recently published on June 3, 2024 (INFO 06-24-01) and on July 9, 2024 (INFO 07-24-02), which are both available at the following link: https://health.mo.gov/seniors/hcbs/infomemos.php. More information will be shared as it becomes available.

[11] https://www.federalregister.gov/documents/2024/05/10/2024-08363/medicaid-program-ensuring-access-to-medicaid-services