Guidehouse

South Dakota Long-Term Services and Supports Rate Study – Assisted Living Facilities

Presented to:

South Dakota Department of Human Services Division of Long-Term Services and Supports

Presented by:

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Executive Summary

In this report, Guidehouse presents the results of our 2023 rate study for Assisted Living Services on behalf of South Dakota Department of Human Services, Medicaid, and State Long Term Services and Supports (LTSS). The comprehensive rate study involved the tasks described under South Dakota's Codified Laws (SDCL) for Rate Setting for Community-Based Health and Human Services[1]. One of the major goals of the rate study was to develop a payment methodology that would be transparent and representative of the current costs to providers related to delivering quality services.

Stakeholder Engagement

At the inauguration of the rate study, Guidehouse discussed the goals and background context of the rate study with stakeholders, providing detailed information on the history of the current reimbursement system. We also explained the need to revise the current payment methodology, identify current and anticipated provider costs, and account for changes in wages and inflation due to the changing labor market. Guidehouse conducted stakeholder engagement meetings in an effort devised to inform, test, correct, and validate the provider cost and service delivery assumptions used in the development of benchmark rates for the proposed revisions to the in-home payment system.

Data and Methods

The rate study process drew on a wide array of data sources to develop rate assumptions and benchmark rate recommendations for each of the individual waiver services. Guidehouse relied on objective, publicly available data sources, standard administrative cost reporting, as well as additional provider-reported costs specifically collected via a Provider Survey. Guidehouse conducted the survey to achieve the following goals:

- Collect data from LTSS service providers to identify actual costs and wages;
- Seek input on data not available through other sources;
- Receive uniform inputs across all providers to develop standardized rate model components where appropriate;
- Develop rate model inputs that are reflective of actual service delivery;
- Solicit general feedback from providers to understand service "pain-points" that could be addressed in rate updates.

The objectives of the study were to ensure appropriate and transparent rate methodology using more current labor assumptions as well as taking into account publicly available information that could enhance provider reported information and allow for the development of rates that could be sustainable into the future.

For each service, multiple data sources and calculations were used to define key cost assumptions. Cost assumptions for base wages, benefits, and staffing patterns were obtained from the Provider Survey and indirect costs including administrative and program support cost

[1] South Dakota Legislature, Rate Setting for Community-Based Health and Human Services (Chapter 28-22) Available online: Codified Law 28-22 | South Dakota Legislature (sdlegislature.gov)

factors were based on a combination of cost reports, survey data and national trends. Guidehouse researched additional data points such as inflationary metrics and supplemental pay estimates that were obtained from the industry data collected by the federal Bureau of Labor Statistics (BLS).

Rate Model Recommendations

The approach used to establish the Department's benchmark rates is an "independent rate build-up" methodology commonly applied by states for setting rates for HCBS populations. It is an approach recognized as compliant with specific CMS regulations and guidelines and congruent with Medicaid rate setting principles more generally.

In alignment with this independent rate build-up approach, the study identified appropriate cost assumptions for each value component used in the rate models, allowing rates to be built from the bottom up and calculated according to the relevant unit of service. This modular approach requires a comprehensive analysis of the types of costs incurred by delivering a service and then representing these costs through a reasonable standard cost assumption, which serve as "building blocks" added together to form a cost-based rate for the service as a whole.

These rate recommendations include:

- **Baseline Wage Assumptions** – Adjusting wage assumptions based on the full time equivalent (FTE) average wage included in the provider cost and wage survey while accounting for additional inflation to adjust wages to time of rate implementation. Certified Medical Assistant was the most frequently reported job type for assisted living providers.
- **Other Wage Adjustments** – Updated other wage assumptions, including supplemental pay based on 2018-2023 Bureau of Labor Statistics (BLS) Employer Costs for Employee Compensation (ECEC) data and inflation metrics based on the SFY 2023 BLS Current Employment Statistics (CES) metric. Employee related expense (ERE) percentages were calculated based on a combination of survey information and information reported in the Medical Expenditure Panel Survey (MEPS).
- **Indirect Costs (Administrative and Program Support Costs)** – A combination of provider cost survey, cost reports and national trends were leveraged to determine **25%** for an administrative add-on with an additional **10.1%** for program support for residential services, which totals **35.1%** for indirect costs for these services.
- **Re-distribution of Tiers** – Guidehouse evaluated the current distribution of participants within the three-tier structure for residential services by observing the resource utilization group score (RUG) to Tier mapping. The recommendation is to change the mapping for specific RUGs to shift a portion of participants into higher tiers.
- **Occupancy Adjustment** – Multiple sources were leveraged to determine a fair and reasonable occupancy adjuster to account for situations where facilities are unable to bill for a residents' bed day but are unable to fill that bed resulting in lost revenue. The provider survey, workgroup feedback and industry standards were evaluated to determine an occupancy adjuster of **95 percent**. This adjustment is in addition to the

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current bed hold policy the State currently has in place.

Fiscal Impact Analysis

Based on the benchmark rates developed from the service rate models, Guidehouse conducted a fiscal impact analysis to support the proposed benchmark rate recommendations.

This analysis indicated that if the proposed benchmark rates were implemented based on utilization from SFY 2023 the system would require an additional **$4.47 million**—which includes not just State but also federal dollars—to reimburse providers at the benchmark rates recommended by Guidehouse. This dollar increase is a **24.8 percent** increase from the current rates in effect as of July 1st, 2023. However, when considering the FMAP the State share would be **$1.99 million**. These dollar estimates include the funds required for LTSS under DHS. Table 1 reflects the overall fiscal impact for DHS based on the proposed benchmark rates.

Table 1: Overall Fiscal Impact- Federal and State Share

Service	Utilization Paid at SFY24 Rates	Utilization Paid at Benchmark Rates	Change	Difference
Total	**$18,009,649**	**$22,478,661**	**24.8%**	**$4,469,012**
Assisted Living	$16,761,469	$20,996,901	25.3%	$4,235,432
Assisted Living – State Funded	$1,248,180	$1,481,760	18.7%	$233,580

Table 2 reflects the fiscal impact for the State share portion only while considering that the Assisted Living Non-Waiver is 100 percent State funded. The combination of the non-waiver and waiver assisted living results in an overall impact of **$1.99 million**.

Table 2: Overall Fiscal Impact-State Share

Service	Utilization Paid at SFY24 Rates	Utilization Paid at Benchmark Rates	Change	Difference
Total	**$8,195,809**	**$10,184,975**	**24.3%**	**$1,989,166**
Assisted Living Facilities	$6,947,629	$8,703,215	29.6%	$1,755,587
Assisted Living Facilities – Non-Waiver	$1,248,180	$1,481,760	18.4%	$233,580

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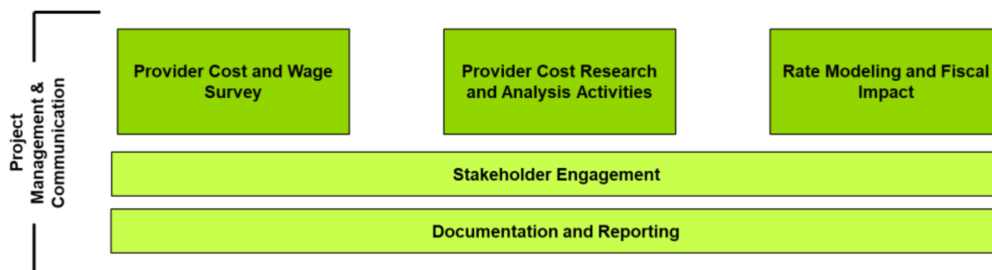
Introduction and Background

Guidehouse contracted with South Dakota's Department of Human Services (DHS) Division of Long-Term Services and Supports (LTSS) to conduct a comprehensive rate study for Medicaid and State LTSS services as described under Rate-Setting for Community-Based Health and Human Services in South Dakota's Codified Law (SDCL) Chapter 28-22[2]. As depicted in Figure 1 below, the engagement scope included the following study elements:

- Provider Cost and Wage Survey: Gathering data from providers for rate review and rebasing efforts.
- Additional Cost Research and Analysis: Performing research on other state, regional, and national data sources to inform rate development.
- Rate Modeling and Fiscal Impact: Developing rate models through research and cost analysis on the current model and alternative models for in-home services and assessing the fiscal impact of transitioning to new service rates.
- Stakeholder Engagement: Facilitating engagement with stakeholders including provider representatives, legislature representatives, and State staff to solicit feedback throughout the rate development process.

Figure 1: Overview of Project Initiatives



The study utilized a multitude of data sources, survey data collection, and avenues for stakeholder feedback to develop rate structure recommendations more responsive to desired and lasting service delivery changes as well as future planning and budgeting needs, as further described in this report. Findings and recommendations from the rate study are compared to existing provider rates to anticipate and analyze the potential implications of implementing Guidehouse's proposed reimbursement benchmarks and rate adjustments.

[2] South Dakota Legislature, Rate Setting for Community-Based Health and Human Services (Chapter 28-22) Available online: Codified Law 28-22 | South Dakota Legislature (sdlegislature.gov)

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Stakeholder Engagement

To support the development of cost-based rates for the State's LTSS, DHS worked with Guidehouse, providers, and other stakeholders throughout the rate development process. DHS convened a rate study Advisory Workgroup that met five times throughout the process to support the rate study. Table 3 describes the composition of this group, the respective roles, and discussion topics.

Table 3: Rate Workgroup Composition and Roles

<table>
<tr><th>Advisory Workgroup</th></tr>
<tr><td>Composition:
Membership representative of associations and providers directly impacted by rate changes
Provider representatives who reflect the full range of services included within the rate study scope
Members have a strong understanding of provider finances, reporting capabilities, and service costs</td></tr>
<tr><td>Role:
Provide subject matter expertise on provider survey and rate methodology development
Review and validate rate model factors and assumptions, including wages, benefits, administration, program support and staffing
Provide insight into how current services are delivered
Provide recommendations for consideration in the Final Report</td></tr>
<tr><td>Discussion Topics:
Provider Survey design, administration, and results
Peer state selection for comparison
Rate build-up approach and rate components
Benchmark wages and adjustments, including supplemental pay and inflation factor
Staffing levels and supervision ratios
Final rate models, current service utilization landscape, and fiscal impact of proposed rates
Considerations for implementation and future analysis</td></tr>
</table>

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D. Data Sources

D.1. Overview of Data Sources

Cost assumptions developed throughout the rate study relied on a wide variety of data sources. Guidehouse drew from both DHS provider data as well as national and regional standards to arrive at cost assumptions. Our approach for this study was to establish assumptions based on provider-reported and State-recommended data when available and appropriate, as well as extensive industry data that reflect wider labor markets for similar populations.

Guidehouse conducted a cost and wage survey to obtain the cost of delivering services from providers including employee salaries and wages, provider fringe benefits, and additional service-specific costs. The cost and wage survey, in particular, provided valuable and detailed information on baseline hourly wages, wage growth rate, provider staffing patterns, and provider fringe benefits, as well as staff productivity for all programs included in the rate study. Guidehouse also analyzed trends in the detailed claims data for services that were in scope for this specific rate study from each of the programs to determine the fiscal impact of implementing the new benchmark rates resulting from the rate rebasing process.

Although a majority of cost assumptions used for rate development were derived from provider-reported survey data and provider cost reports, publicly available sources were required for supplemental, administrative, and program support cost data and for benchmarking purposes to establish a comprehensive rate for some services.

We describe the key features of the provider cost and wage survey as well as the other sources used in the rate development process in the section below.

D.2. Provider Cost & Wage Survey

Guidehouse prepared multiple detailed Provider Cost and Wage Surveys (“Survey”) based on the landscape of long-term services and supports provided in South Dakota. The aim of the survey was to collect provider cost data across multiple services and programs that would serve as the basis for the rate studies. Additionally, Guidehouse aimed to utilize the survey to:

- Capture provider cost data to provide cost foundation for rate studies;
- Receive uniform inputs across all providers to develop standardized rate model components;
- Measure changes in direct care worker wages over time;
- Establish baseline cost assumptions for comparing and standardizing services operating in different programs and with different State Plan and/or waiver authorities;
- Determine cost basis for evaluating rate equity for services;
- Gather needed data to understand billable vs. non-billable time and staffing patterns per service;

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- Investigate differences in costs among frontier/rural/suburban areas;
- Understand occupancy patterns of residential services.

D.2.1. Survey Design and Development

Guidehouse designed this survey with input from DHS staff and Advisory Workgroup members, as well as drawing on knowledge gained from conducting similar surveys in other states. Guidehouse and the Department worked with the Advisory Workgroup to develop, review, update and release the survey. The survey was designed in Microsoft Excel. It included six (6) sections or worksheets on topics outlined in Table 4 below. During the Advisory Workgroup meeting in June 2023, Guidehouse provided an overview of the survey including the objectives, topics, and questions on each worksheet within the survey document and solicited feedback from stakeholders. With the aim of collecting annual wage, benefit, and service delivery data from the fourth quarter of Fiscal Year 2023, Guidehouse collected information on the survey components highlighted in Table 4.

Table 4: Provider Cost and Wage Survey Organization and Data Elements

Survey Topics	Survey Data Points and Metrics	Example Rate Study Data Point(s)
Organizational Information	Provider identification, contact information, and organizational details	-
Services	Services delivered and the staff providing the service	Staff that are responsible for delivering the service
Wages	Job types, staff types, hourly wages, supplemental pay, and training time	Baseline wages for rate build-up, training assumptions
Service Delivery and Staffing Patterns	Billable vs. Non-Billable time, supervisor and staffing patterns, transportation, occupancy metrics, and number of members served	Billable time adjustment, staffing ratio
Provider Benefits	Benefits that organizations offer full-time and part-time employees who deliver services – health, vision and dental insurance, retirement,	Benefits package or Employee Related Expenses (ERE)

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Survey Topics	Survey Data Points and Metrics	Example Rate Study Data Point(s)
	unemployment benefits and workers' compensation, holiday, sick time, and paid time off	
Additional Information	Clarifying comments in addition to the information covered in other worksheets or sections	-

D.2.2. Survey Administration and Support

The survey was released via e-mail on July 17, 2023, to the entire provider community in scope for the rate study. To conduct a successful and accurate survey, Guidehouse facilitated a live provider training webinar available to all providers on July 20, 2023, following the release of the survey. In the training session, Guidehouse introduced the survey, provided an overview of the survey tool and each worksheet tab, and addressed provider questions. A link to the recording of the webinar was shared with providers.

Additionally, Guidehouse offered ongoing support and resources in helping providers to complete the survey, through a dedicated electronic e-mail inbox which providers could access to receive answers to their specific questions as well as a live technical assistance webinar held a few weeks prior to the survey deadline. Providers were allowed two weeks to complete the survey, with a final survey deadline of July 31, 2023.

D.2.3. Provider Cost and Wage Survey Participation

In total, Guidehouse received survey submissions from 46 of 105 assisted living providers eligible to complete the survey. This response rate demonstrates **43.8 percent** of all providers. When evaluating by amount of MMIS Medicaid claims represented, **52.0 percent** of total assisted living expenditures are represented in the survey responses. According to leading experience management firm, Qualtrics, typical survey response rates fall between 20-30 percent, though response rates depend heavily on survey design, medium, and population size[3]. Table 5 includes a detailed view of the survey response rates by providers and provider expenditure perspectives in comparison to Medicaid claims data. This data does not represent all utilization that is present within the non-waiver.

[3] Qualtrics, Survey Distribution Methods, How to Increase Survey Response Rates Available online: https://www.qualtrics.com/experience-management/research/tools-increase-response-rate/

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Table 5: Assisted Living Survey Response Rates

Service	Percent of Providers Responding	Percent of Expenditures
Assisted Living	43.8%	52.0%

D.2.4. Provider Cost and Wage Survey Review and Validation

After receiving the survey responses, Guidehouse compiled responses and conducted the following quality checks to prepare the data for analysis:

- **Completeness:** Checked the completion status in all worksheets within individual survey workbooks to determine whether follow up was required to resolve any issues and missing data. Guidehouse followed up with providers individually within a week of receiving the survey responses if clarification or correction was required.
- **Outliers:** Reviewed quantitative data points (e.g., wages, productivity, benefits, number of clients and caseloads, staffing patterns) reported across all organizations to identify potential outliers. If any outlier data points were excluded or assumptions were made for rate model inputs, the assumptions were reviewed with the Department and the Advisory Workgroup and are documented as such in this report. Additionally, Guidehouse performed outreach to individual providers to confirm submissions and accepted amendments to data provided.

It is important to note cost survey processes are not subject to auditing processes, as an established administrative cost reporting process would be. Providers' self-reported data were not audited for accuracy, although outliers were examined and excluded when warranted, and additional quality control checks were conducted to ensure data completeness. The absence of an additional auditing requirement is ultimately a strength rather than a weakness of the cost survey approach, as it allows providers to report their most up-to-date labor costs, a key concern for rate development at a moment of heightened inflation.

The survey data reported by providers was utilized to develop several key rate components including baseline hourly wages, Employee Related Expenses (ERE), and administrative and program support cost factors. Section F further outlines how the survey data was utilized for rate setting purposes.

D.3. Provider Cost Reports

Data from the fiscal year fiscal year 2022 (7/1/2021-6/30/2022) South Dakota Long Term Services and Supports Provider Cost Reports ("Cost Reports") were used to inform the rate methodology determination process and the rate models. The 2022 cost reports were used to account for the most recently available administrative and program support costs in calculating

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the Administrative and Program Support cost factors. Table 6 below captures the cost report components that were used in rate modeling.

Table 6: FY2022 Cost Report Components Used in Rate Modeling

Rate Component	FY2022 Cost Report Item
Administrative Cost Factor	2110 Administrative Personnel Salaries 2140 Clerical Personnel Salaries
	2500 Administrative / Financial Professional Fees
	Other Administrative Components: • 3520 Dues/Memberships/Subscriptions/Trainings
Program Support Cost Factor	2100 Support Staff
	Other Program Support Components: • 2600: Supplies • 3100: Occupancy related • 3275: Professional Liability Insurance • 3300: Travel and Transportation

D.4. Claims Data

Guidehouse developed a detailed claims data request to be able to analyze the Medicaid claims utilization for 3 State Fiscal Years (SFY 2021-SFY 2023). This request included all detailed claims for the assisted living procedure code.

We requested key fields such as provider detail, payment information, service identifying fields and units of measure. After reviewing claims information, we recognized that the MMIS claims data was only accounting for the Medicaid portion of the services provided and was not inclusive of the Long-Term Services and Supports State-funded services. Therefore, additional data summaries were requested to account for these services to ensure the entire mix of services was being accurately accounted for. Analyzing these trends is an important consideration to determine fiscal impact accurately when the new benchmark rates are applied. We want to ensure we are capturing a normal utilization year to properly project overall fiscal impact. The claims data was also leveraged to understand the mix of the population within each of the three tiers.

D.5. Other Data Sources

Cost assumptions developed throughout the study rely on a wide variety of data sources. The objectives of the rate study aim to establish benchmark rates based on a combination of publicly available resources as well as understanding the necessary cost requirements required to promote access to quality services going forward. As will be detailed in greater depth in the

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sections that follow, Guidehouse's provider cost and wage survey furnished the majority of our rate assumptions on employee wages, provider fringe benefit offerings, staff productivity, staff-to-client ratios, and transportation requirements for the array of services.

While cost surveys are a rich and valuable source of information on provider costs, these tools cannot validate in themselves whether the costs reported are reasonable or adequate in the face of future service delivery challenges. Considering the possibility that historical costs may not be truly representative of the resources required to provide services in the near future or are not comparable to or competitive with the industry as a whole, Guidehouse evaluates cost survey data against external data benchmarks whenever feasible. As a result, the cost assumptions used by Guidehouse frequently draw on national and regional standards, at least for comparison purposes, that reflect wider labor markets as well as median costs typical of broader industries, to benchmark South Dakota reported information from the provider cost and wage survey. Table 7 summarizes some of the additional public data sets used to inform cost assumptions used in Guidehouse's benchmark rate recommendations.

Table 7: Other Data Sources

Bureau of Labor Statistics, Occupational Employment and Wage Statistics (BLS OEWS)	Federal wage data available annually by state, intra-state regions, and metropolitan statistical areas (MSA). Used for wage geographic and industry wage comparisons and establishing benchmark wage assumptions for most wages.
Bureau of Labor Statistics, Costs for Employee Compensation Survey (CECS)	Federal data on employee benefits cost, analyzing groups of benefit costs including insurance, retirement benefits, paid time off, and other forms of non-salary compensation. Used for reference in establishing benchmark ERE assumptions.
Bureau of Labor Statistics, Provider Price Index (PPI)	Federal index of inflation across multiple industries for Medicaid populations. Updated monthly and includes data series for Home Health Care Services, Nursing Care Facilities, Residential Developmental Disability Homes, Assisted Living Facilities for the Elderly, Other Residential Care Facilities, Services for the Elderly and Persons with Disabilities, and Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly were used for reference to understand annual inflation for provider costs and for recommendations on recurring rate update.

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Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey-Insurance Component (MEPS-IC)	Federal data on health insurance costs, including South Dakota-specific data regarding multiple aspects of health insurance (employer offer, employee take-up, premium and deductible levels, etc.) Used for reference in estimating health care costs for benchmark ERE assumptions.
Other State Medicaid Fee Schedules and Reimbursement Methodologies	Data from other states on reimbursement levels for cognate services as well as overall service design. Used for peer state comparison and well as development of best-practice recommendations for improving supported employment service delivery.
Internal Revenue Service	The Internal Revenue Service is the revenue service for the United States federal government, which is responsible for collecting taxes and administering the Internal Revenue Code, the main body of the federal statutory tax law.

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E. Peer State Comparisons

E.1. Overview

Guidehouse's recommendations for the current study are comprised of existing approaches used in other states, and Guidehouse's experience conducting similar studies and analyses in these states. Guidehouse gathered peer state data sources to assist the development of the rate build-up methodologies for comparable in-home services included in the rate study. Peer state service rates were also used to compare and validate final rate pricing across similar services where applicable. It is helpful to compare South Dakota's waiver rates to similar waiver rates in other states to understand whether current rates represent an outlier, or whether differences can be explained by distinctive service definitions or economic conditions in the State.

Guidehouse appreciates that South Dakota is unique among other states geographically, demographically, and culturally. Therefore, we were selective in identifying these peer states and the services within the states. We not only identified comparable states but then reviewed each service definition prior to comparison to help confirm the applicability and adequacy of comparison. These services also do not normally have an equivalent Medicare or commercial benchmark to use as a fair comparison, which in turn makes finding a Medicaid equivalent even more important.

With the initial review of the peer state comparison, there was not an immediately clear pattern of systematic underfunding across most of the programs. Rather, the apparent overall trend is that South Dakota's rates usually fall at the lower end in comparison to other state rates.

E.2. Peer State Comparison Approach

First, Guidehouse identified states that seemed similar to South Dakota by demographics, geography, Medicaid program design, and scope of services offered for this specific population. As seen in the map shown in Figure 2, Guidehouse researched the initial peer states marked in light green.

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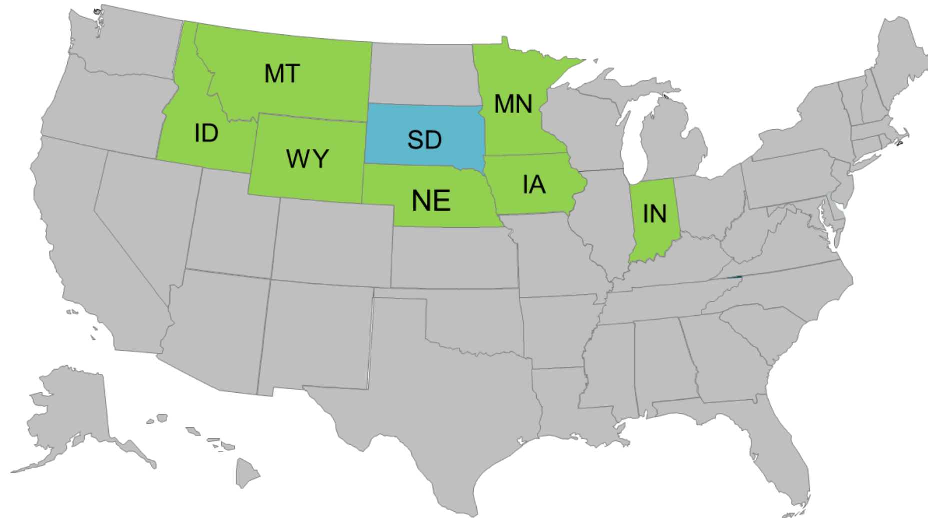
Figure 2: Peer States for Rate Comparison



E.3. Peer State Comparison Results

When evaluating assisted living facilities, 2 peer states' assisted living programs operated via acuity-based tier structures comparable to those of South Dakota. Of those states, South Dakota's rate fell below its 2 peers. While Montana's rates in particular were much higher than South Dakota's, its tiers are based on population-specific attributes like Traumatic Brain Injuries or significant behavioral health needs. Indiana's tiers, however, were structured more similarly to South Dakota's, and its rates were only marginally higher than South Dakota's. Wyoming also uses 2 tiers for its assisted living rates, but its "Tier 1" only applies to individuals receiving services in a Memory Care Unit. All other care for individuals in assisted living facilities are reimbursed at a standard rate. This standard rate is only marginally higher than South Dakota's base rate. Wyoming's Tier 1 rate for Memory Care Units is only marginally higher than South Dakota's Tier 1 rate. Lastly, Nebraska's assisted living program has 4 reimbursement rates based on type of occupancy and rural/urban settings. Rural facilities with multiple occupancy rooms receive the lowest rate of $44.05 while urban single-occupancy facilities receive the highest rate at $71.41. Nebraska's urban single-occupancy rate is its only rate higher than South Dakota's base rate. Minnesota was the most unique with 13 case mix groups that each are allotted a maximum total rate for a patient but these tiers do not determine the reimbursement rate for an individual service item. Minnesota's rates are set via determining the services to be delivered, their intended quantities, and adding their rates to arrive at a piecewise determined total rate. Table 8 displays South Dakota's current rate structure compared to the peer states.

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Table 8: Peer State Rates

State	Assisted Living – Base Tier	Assisted Living – Tier 1	Assisted Living – Tier 2
South Dakota	$67.56	$79.71	$92.55
Idaho	Determined per participant	Determined per participant	Determined per participant
Indiana	$72.52	$80.52	$93.20
Iowa	Determined per participant	Determined per participant	Determined per participant
Montana	$104.31	$141.00	$166.27
Minnesota (13 tiers)	Determined per participant	Determined per participant	Determined per participant
Nebraska	$60.56 - Rural Single $44.05 - Rural Multiple	$71.41 - Urban Single $52.77 - Urban Multiple	-
Wyoming	$70.44	$82.49	-
Average – All Peer States	**$88.42**	**$101.34**	**$129.74**
South Dakota Comparison to Peer State Average	**-30.87%**	**-27.13%**	**-40.18%**
South Dakota Comparison to Highest Peer State Rate	**-54.40%**	**-76.89%**	**-79.65%**

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F. Rate Methodologies and Components

F.1. Service Array

Assisted Living Services are reimbursed based on their per diem reimbursement rate that can be found on the State fee schedules. The tier structure that guides different per diem rates based on participant acuity is driven by State policies, assessment, and the InterRAI assessment system using the Home Care Assessment tool.

F.2. Rate Build Up Approach

Guidehouse employed an independent rate build-up approach to develop payment rates for covered services. The independent rate build-up strategy allows for fully transparent models that take into account the numerous cost components that need to be considered when building a rate. The foundation of the independent rate build-up is direct care worker wages and benefits, which comprise the largest percentage of costs for these services while also considering the service design and additional overhead costs that are necessary to be able to provide the service. This approach:

- Uses a variety of data sources to establish rates for services that are:

  > *"…consistent with efficiency, economy, and quality of care and are sufficient to enlist enough providers so that care and services are available under the plan at least to the extent that care and services are available to the general population in the geographic area."*
  >
  > *-1902(a)30(A) of the Social Security Act (SSA)*

- Relies primarily on credible data sources and reported cost data (i.e., costs are not audited, nor are rates compared to costs after a reporting period and adjusted to reflect those costs)
- Makes additional rate adjustments to reflect State-specific policy goals – for example, incenting specific kinds of services

The rate build-up approach is commonly used by states for setting rates and is an approach recognized as compliant with CMS regulations and guidelines. This approach also yields a transparent rate methodology, allowing DHS to clearly delineate the components that contribute to rates and make adjustments as needed.

The values for each component of the rate models were calculated, and rates were built from the bottom up for each of the services included in the rate study. Guidehouse determined each cost component associated with the direct care provided for a service (for example, direct service professional wages and benefits), identified the corresponding payment amount(s), and added on payment amounts reflecting administration and program support costs required to deliver the service.

Many of the service rate benchmarks we propose follow a series of general assumptions for the components of each rate, adjusted according to the specific context and goals for providing each service. This rate build-up approach is based on a core set of wage assumptions for direct

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care staff, supplemented by estimates of the cost of other supporting staff, activities and materials needed to support direct care provision. In this section of the report, we describe in detail the methodology for calculating various components used in the rate models. In addition, we describe the data sources used to determine the component. The section is divided into the following areas:

- Staff Wages
- Employment Related Expenditures (ERE)
- Supervision
- Administrative Expenses
- Program Support Expenses
- Occupancy Adjusters
- Staffing Ratios

F.2. General Cost Assumptions

The methodology for developing a rate for a unit of service – or a rate model – varies across types of services but generally includes certain key components. A rate model starts with the wage for the primary staff person providing a service—for example, a Certified Medication Assistant, Caregiver, or Case Manager, depending on the service—and then building upon that wage with fixed or variable cost factors to account for additional program support costs.

Typical components of a rate methodology or rate model include:

- Direct Care Compensation Costs
  - Staff Wage Costs
  - Employment Related Expenditures (ERE)
  - Supervision Costs
- Administrative Expenses
- Program Support Expenses
- Staffing Ratios
- Occupancy Adjusters
- Staffing Ratios

Together, these components sum to a unit rate designed to reimburse a provider organization for all inputs required for quality service delivery. This approach is often called an “independent rate build-up” approach because it involves several distinct rate components whose costs are captured independently through a variety of potential data sources. These costs are essentially “stacked” together into a collective cost per unit that defines the rate needed for cost coverage. Figure 3 illustrates the “building block” structure of Guidehouse’s rate development methodology. Although individual rates may incorporate different building blocks, each rate model follows a similar process for identifying the component blocks for inclusion, based on the service requirements and specific adjustments needed to align overall costs with the appropriate billing logic and units of service.

Figure 3: Overview of Rate Components

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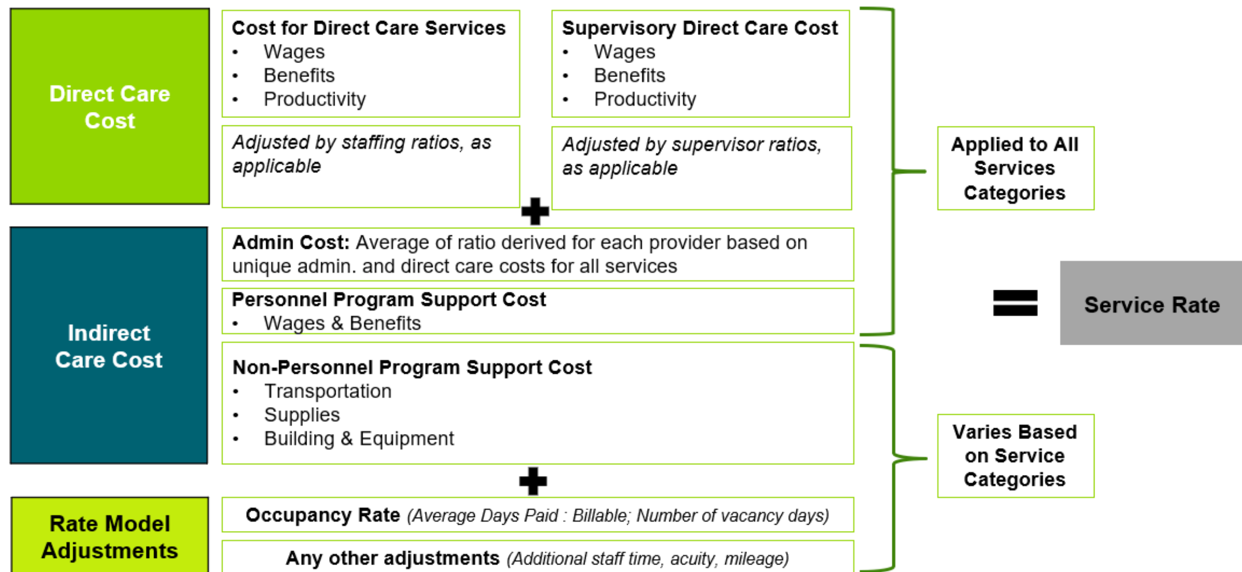

This figure represents various costs that can be considered when developing a rate. The different cost components schematized here are discussed in further detail in the following sub-sections of the report.

F.2.1. Staff Wages

Wages for direct care staff are the largest driver in the final rate and are therefore a critical element to derive from the provider cost and wage survey. It is key to align the appropriate staff type with their corresponding wage to feed into the rate models for services. To best understand the landscape of wages in South Dakota, Guidehouse used information from the provider cost and wage survey reported by providers that deliver these services as well as industry-wide data sources.

As part of the cost and wage survey, each responding provider reported average hourly or “baseline” wages in addition to overtime, shift differential and other forms of supplemental pay for the survey time period of April 2023- June 2023. To account for rapidly changing wage increases the survey also asked if providers had increased their wages since the end of the survey time period, and if so, by how much to help estimate the impact of wage growth. The staff types with the highest number of Full-Time Equivalents (FTE) reported in the survey were Certified Medication Assistant, accounting for 40 percent of total FTEs. Table 9 represents the distribution of FTE’s with the corresponding FTE weighted average wage, lowest wage, and highest wage. The baseline wages represented in Table 9 do not include inflationary factors or supplemental pay.

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Table 9: Average Hourly Wage Reported in Cost and Wage Survey, Weighted by FTEs

Job Type	Number of Providers	FTEs	FTE Weighted Wage	Lowest	Highest
Certified Medication Assistant	24	150.96	$15.66	$10.80	$28.00
Cook	19	44.81	$16.01	$11.47	$26.25
Certified Nurse's Assistant	13	42.98	$18.88	$14.00	$24.21
Caregiver	7	39.77	$14.94	$10.80	$20.40
Case Manager	4	35.35	$25.35	$21.00	$29.48
Housekeeper	9	16.32	$14.49	$10.80	$20.50
Licensed Practical Nurse	14	14.51	$22.79	$19.50	$36.00
Registered Nurses	18	13.89	$33.95	$25.00	$62.00
Dining Aide	6	13.72	$13.64	$10.95	$16.00
Home Companion/ Personal Care Aide	3	6.70	$16.14	$15.00	$19.03

For all direct care staff types, Guidehouse applied a weighting of reported wages by the number of FTEs, then comparing that wage to benchmark wages reported by the Bureau of Labor Statistics, Occupational Employment and Wage Statistics (BLS OEWS) specific to South Dakota for early-2023. The BLS OEWS does not have every single job type but it has jobs that are fairly comparable to those reported for these services that were able to be leveraged as appropriate benchmark wages. For example, Certified Medication Assistant staff in the cost and wage survey was most closely related to the BLS job classification of “Home Health and Personal Care Aides”. An inflationary factor was applied to the BLS OEWS information due to the database reflecting wages from May 2022 to be able to compare to the wages reported from

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the survey time period of April-June 2023. BLS benchmarks are used to confirm that potentially deflated wages due to an underfunded system are not used in prospective rate development. Since the wages reported in the survey were consistently higher than those in the publicly available data, Guidehouse decided to use the information collected in the survey to determine appropriate wage assumptions for most services. This assumption was also reviewed by the Advisory Workgroup members and with DHS staff.

F.2.1.1. Inflationary Increases in Wages

National data was referenced in tandem with survey data to understand how wages and costs have trended over recent years. Inflationary factors were evaluated from 2022 to the preliminary numbers in 2023. Table 10 includes the most recent growth rate from each source, which include:

- **BLS Current Employment Statistics (CES):** The BLS publishes CES data which looks at earnings. Across Assisted Living Facilities for the Elderly Staff, 2022-2023 trends document an annual growth rate in earnings of **3.1 percent.** Staff in Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly and Services for the Elderly and Persons with Disabilities showed annual earnings growth rates of **4.7 percent** and **6.5 percent**, respectively.
- **BLS Producer Price Index (PPI):** The BLS also publishes PPI data that examines costs to producers. Across Medicaid Home Health Care services, 2022-2023 trends document an annual growth rate of **3.10 percent**.
- **Cost and Wage Survey:** Responding provider organizations recorded wages during Q2 of CY2023 to establish a baseline. Additionally, providers recorded the average percentage increase to hourly wages after the end of the survey time period. Across job types, the average increase was **3.1 percent,** which aligned with the BLS inflation.

Table 10: Sources of Growth Rates in Relevant Costs and Wages

Source	Time Period	Growth Rate
Bureau of Labor Statistics (BLS) Current Employment Statistics (CES) Average for Assisted Living Facilities for the Elderly	2022-2023	3.1%
Bureau of Labor Statistics (BLS) Current Employment Statistics (CES) Average for Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly	2022-2023	4.7%
Bureau of Labor Statistics (BLS) Current Employment Statistics (CES) Average for Services for the Elderly and Persons with Disabilities	2022-2023	6.5%

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Source	Time Period	Growth Rate
Bureau of Labor Statistics (BLS) Current Employment Statistics (CES) Average for Other Residential Care Facilities	2022-2023	5.4%
Bureau of Labor Statistics (BLS) Producer Price Index (PPI) Average for Home Health Care services – Medicaid patients	2023	5.7%
Bureau of Labor Statistics (BLS) Producer Price Index (PPI) Average for Nursing Care Facilities – Medicare and Medicaid Patients	2023	4.7%
Bureau of Labor Statistics (BLS) Producer Price Index (PPI) Average for Residential Developmental Disability Homes	2022-2023	6.2%
South Dakota DHS Provider Cost and Wage Survey	2022-2023	3.1%

Since wage growth is the primary driver of Long-Term Services and Supports cost growth, Guidehouse determined that the CES inflation factor was more representative of the economic conditions faced by providers. To align potential growth in costs during 2023 and to account for economic and labor conditions that may reflect the future cost of service delivery, our wage assumptions include a wage adjustment from the survey and BLS benchmarks of **3.1 percent** from July 1, 2023 – June 30, 2024. This inflation factors assumes consistent wage growth from the previous year based on economic conditions. The transparent model development allows inflation to be re-evaluated dependent on labor conditions.

F.2.1.2. Supplemental Pay

Supplemental pay – inclusive of costs such as overtime wages, holiday pay, and other supplemental compensation *on top of* compensation from regularly-earned wages – was reported in the cost and wage survey. Supplemental pay reported in the survey showed inconsistent values and several high outliers. After the most significant outliers were removed, supplemental pay values still remained artificially high due to temporary factors that may not reflect long-term wage trends. As such, the surveyed value was not used in favor of benchmark values to more accurately reflect wage trends.

As a national benchmark the BLS Employer Costs for Employee Compensation (ECEC)

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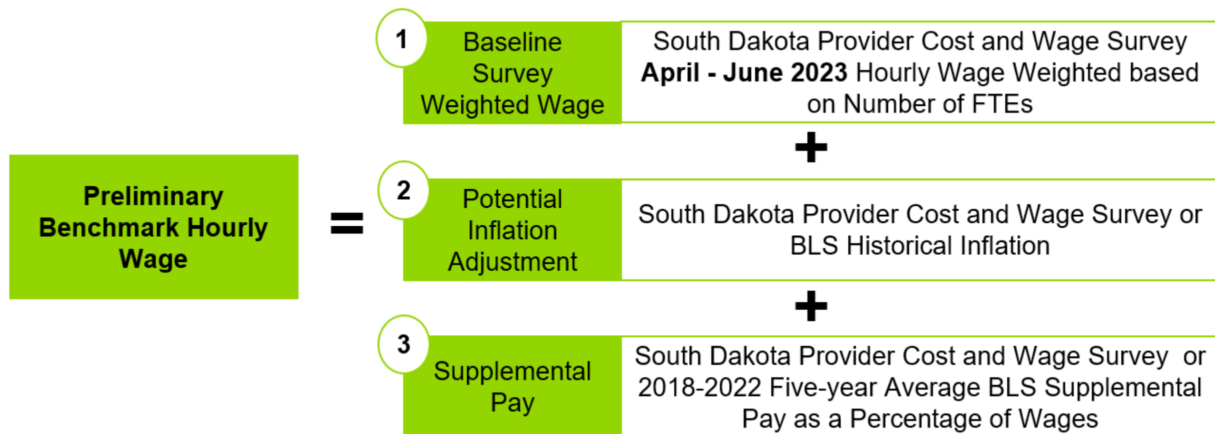
quarterly data series for the Health Care and Social Assistance industry, which divides costs into hourly wages as well as expense categories related to mandatory taxes and benefits, insurance, retirement, paid time off, supplemental pay, and other benefits. In the first calendar year quarter of 2023 (CY2023 Q1) – the closest available time period to that requested in the cost and wage survey – supplemental pay for the selected labor category equaled **3.76 percent** of the average hourly wage, which has remained relatively stable over the past five-year period from 2019 through Q1 2023. Guidehouse determined to use the five-year average supplemental pay percentage of **3.76 percent** to account for a longer trend history that accounts for market fluctuations and the impact of COVID-19 on the rates. The BLS ECEC data includes all supplemental cost components integral to overall compensation, and the data provides consistent and periodic trends that can be used to project a future state.

F.2.1.3. Final Wage Adjustments

Guidehouse calculated the benchmark wage assumptions by adjusting the CY2023 Q2 survey wages by the **3.1 percent** indicated within the survey which correlates to the CES inflationary metric and then adding the additional supplemental pay percentage of **3.76 percent**. This wage build up is demonstrated in Figure 4.

Figure 4: Calculation of Wage Adjustment Factors



For example, using the Certified Medication Assistant weighted baseline wage from 2023 of $15.66 (as discussed above), a wage adjustment of 3.1 percent was applied which amounts to $0.49, or a total of $16.15. From the inflated wages, now in July of 2024, we add a 3.76 percent supplemental pay increase of $0.60, which brings the projected hourly wage in July 2024 to $16.75. Table 11 completes this calculation for each job type.

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Table 11: Benchmark Wage Recommendations

Job Type	Baseline Wage	Inflation Adjusted Wage (3.1%)	Inflated Wage + Supplemental Pay
Certified Medication Assistant	$15.66	$16.15	$16.75
Cook	$16.01	$16.51	$17.13
Certified Nurse's Assistant	$18.88	$19.47	$20.20
Caregiver	$14.94	$15.40	$15.98
Case Manager	$25.35	$26.14	$27.12
Housekeeper	$14.49	$14.94	$15.50
Licensed Practical Nurse	$22.79	$23.50	$24.38
Registered Nurses	$33.95	$35.00	$36.32
Dining Aide	$13.64	$14.06	$14.59
Home Companion/ Personal Care Aide	$16.14	$16.64	$17.27
Cooks	$16.01	$16.51	$17.12
Food Preparation Workers	$13.84	$14.27	$14.80
First-Line Supervisors of Food Preparation and Serving Workers	$19.47	$20.07	$20.82

This methodology results in a total of 3.1 percent inflation with 3.76 percent inflation to account for wages at time of proposed rate implementation on July 1st, 2024.

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F.2.2. Employee-Related Expenses

Employee-related expenses, or fringe benefits, are costs to the provider beyond wages and salaries, such as unemployment taxes, health insurance, and paid time off (PTO). These fall into three distinct categories of benefits. These ERE or fringe benefits include legally required benefits, paid time off, and other benefits such as health insurance.

- **Legally required benefits** include federal and state unemployment taxes, federal insurance contributions to Social Security and Medicare, and workers' compensation. Employers in South Dakota pay a federal unemployment tax **(FUTA)** of 6.00 percent of the first $7,000 in wages and state unemployment tax **(SUTA)** of 1.00 to 1.20 percent of the first $15,000 in 2023 wages. Generally, if an employer pays wages subject to the unemployment tax, the employer may receive a credit of up to 5.40 percent of FUTA taxable wages, yielding an effective FUTA of 0.60 percent. Employers pay a combined 7.65 percent rate of the first $142,800 in wages for Social Security and Medicare contributions as part of Federal Insurance Contributions Act **(FICA)** contributions. Per the cost and wage survey, employers in South Dakota pay an average effective tax of 1.60 percent toward workers' compensation insurance.
- **Paid time off (PTO) components of ERE** include holidays, sick days, vacation days, and personal days. The median aggregate number of paid days off per year, per the cost and wage survey, was 35 days total. As PTO benefits only apply to full-time workers, the daily value of this benefit is multiplied by a part time adjustment factor, which represents the proportion of the workforce which works full-time for the provider organizations responding to the cost and wage survey.
- **Other benefits in ERE** include retirement, health insurance, and dental and vision insurance. Other benefits are also adjusted by a part time adjustment factor, as well as a take-up rate specific to each benefit type which represents the proportion of employees who utilize the benefit.

Not all providers who responded to the provider cost and wage survey have historically offered a "full" or competitive benefits package. To determine competitive contributions for benefits which are not legally required, the paid time off components were analyzed in aggregate and data on other benefits only from providers *who contribute to their full-time employees' benefits*. Analyzing these contributions and take-up rates for providers offering "other benefits" yielded median annual contributions per employee.

Benefits information reported in the survey was compared to the publicly available Medical Expenditure Panel Survey (MEPS). MEPS is a set of large-scale surveys of families and individuals, their medical providers, and employers across the United States. MEPS is the most complete source of data on the cost and use of health care and health insurance coverage which is also state specific. During this comparison the average monthly premium reported in the State of South Dakota was $883.68. This premium came in lower than the average of $901.25 reported in the survey. Guidehouse ultimately decided to use the MEPS information over the survey data, both because this source is grounded in a wider response base, and because it provides a more representative standard for determining competitive insurance

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offerings for South Dakota employers overall. Therefore, the information provided within the cost and wage survey was used to develop the assumptions for vision insurance, dental insurance, and other benefits, while the data from Medical Expenditure Panel Survey (MEPS) was utilized for determining a take-up rate and monthly premium assumption for health insurance.

Calculating each ERE component as a percentage of the annual wage assumption for Certified Medication Assistants, or $32,574 per year, yielded a competitive fringe benefit package of **39.56 percent** of wages as outlined in Table 12.

Table 12: Components of ERE for a Certified Medication Assistant

Component	Value / Calculation	
Annual Wage	$32,574 ($15.66 x 2080 hours)	
FUTA	0.60% of up to $7,000	$42 (0.13%)
SUTA	1.2% of up to $15,000	$165 (0.51%)
FICA	7.65% of up to $142,800	$2,492 (7.65%)
Workers' Compensation	1.60%	$521 (1.60%)
Legally Required Benefits	**-**	**$3,220 (9.89%)**
Daily Wage	$15.66 x 8 hours	$125.28
Part-Time Adjustment Factor	86.30%	
Paid Time Off	35 days	
Paid Time Off	**$125.28 x 86.30% x 35 days**	**$3,784 (11.62%)**
Part-Time Adjustment Factor	86.30%	
Retirement Take Up Rate	88.14%	
Health Insurance Take-up Rate	64.62%	
Dental Insurance Take-Up Rate	49.04%	

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Component	Value / Calculation	
Vision Insurance Take Up Rate	45.63%	
Other Benefits Take Up Rate	98.00%	
Retirement	3.58%	$888 (2.72%)
Health Ins.	$884/mo.	$4,850 (14.89%)
Dental Ins.	$116/yr.	$49 (0.15%)
Vision Ins.	$56/yr.	$22 (0.07%)
Other Benefits	$86/yr.	$73 (0.22%)
Other Benefits	**-**	**$5,882 (18.05%)**
Total ERE per Homemaker	**Legally Required Benefits + Paid Time Off + Other Benefits**	**$12,886 (39.56% of Annual Wage Assumption)**

Under the employment structure for many provider organizations, Certified Medication Assistants represent baseline staff. However, as wages rise, costs of contributing to certain legally required benefits and other benefits do not necessarily become more expensive. As wages increase, the proportion of ERE to wages decreases; therefore, individual ERE percentages were developed based on job type utilizing the baseline wage.

As an example of how the ERE percentage decreases with a higher wage within Table 13 we display the numbers for the remaining job types:

- Caregiver
- Certified Medication Assistant
- Certified Nurse's Assistant
- Registered Nurse

Table 13: Employee-Related Expenses across Job Types

Component	Caregiver	Certified Medication Assistant	Certified Nurse's Assistant	Registered Nurse
Hourly Wage	$14.94	$15.66	$18.88	$33.95

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Component	Caregiver	Certified Medication Assistant	Certified Nurse's Assistant	Registered Nurse
Annual Wages – FY2023	$31,078	$32,574	$39,268	$70,611
Legally Required Benefits	$3,082 (9.92%)	$3,220 (9.89%)	$3,844 (9.79%)	$6,743 (9.55%)
Paid Time Off Benefits	$3,610 (11.62%)	$3,784 (11.62%)	$4,443 (11.31%)	$7,989 (11.31%)
Other Benefits	$5,841 (18.80%)	$5,882 (18.06%)	$6,064 (15.44%)	$6,918 (9.80%)
Total ERE per Staff	**$12,533 (40.33%)**	**$12,886 (39.56%)**	**$14,466 (36.84%)**	**$21,860 (30.96%)**
Hourly Wage with ERE	**$20.97**	**$21.86**	**$25.83**	**$44.46**

F.2.3. Supervision

While direct care staff deliver services, other staff are often present to supervise, usually multiple staff at one time. Wages for supervisors are often higher, but proportionate, to the wages of the direct care staff they supervise and are therefore included in independent rate models as a separate component to the primary staff wage. The supervision cost component captures the cost of supervising direct care staff. It should be noted that supervision costs are distinct from administrative costs related to higher-level management of personnel. Supervision is time spent in direct oversight of and assistance with care provision and is frequently conducted by staff who are themselves providing direct care as a part of their role.

The cost and wage survey included questions regarding the number of direct care staff supervised by one supervisor and the total number of hours a supervisor spends, on average, directly supervising staff. For the majority of services, the average number of staff supervised by one supervisor ranged from three to ten. Developing this add-on accounts for the costs of employing supervisors to help assure appropriate delivery of services. Table 14 displays examples of how supervisor costs are calculated depending on the supervisor span of control related to the number of residents they are responsible for overseeing. Depending on the type of model, supervision hours can vary based on how many staff they oversee or how many participants in a residential setting they are responsible for. However, **Appendix A** displays the individual rate models and the supervisory assumptions included. The "Annual Supervision Hours" is the total hours that supervisors spend annually on supervisory activities. These hours were calculated by taking a full time FTE assuming 2080 working hours in a year and dividing by 20 residents. Survey responses showed a wide variety in supervisory hours depending on the size of the facility. These hours were validated with the advisory workgroup to confirm

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reasonableness. These hours are in addition to additional administrative and program support staff.

Table 14: Supervision

Line Description	Residential Manager
Hourly Supervisor Wage	$29.10
Supervisor ERE	32.92%
Hourly Supervisor Compensation	$38.68
Annual Supervision Hours	104
Annual Supervisor Compensation	$4,022.57

F.2.4. Administrative Expenses

Administrative expenses reflect costs associated with operating a provider organization, such as costs for administrative employees' salaries and wages along with non-payroll administration expenses, such as licenses, property taxes, liability, and other insurance. Rate models typically add a component for administrative expenses to spread costs across the reimbursements for all services an organization may deliver; our recommended rates reflect this methodology by establishing a percentage add-on for each service rate.

To determine an administrative add-on, Guidehouse calculated the ratio of administrative costs to direct care wages by summing administrative costs reported in the South Dakota collected SFY 2022 cost reports, then dividing by total direct care wages and benefits inflated according to new wage and fringe assumptions for direct care workers for the time period captured in the survey.[4] Administrative costs include several categories:

- ***Payroll Administrative Expenses:*** *Employees and contracted employees who perform administrative activities or maintenance activities earn salaries and benefits, which count toward payroll expenses in the calculation of total administrative costs.*
- ***Non-Payroll Administrative Expenses:*** *Costs including office equipment and overhead comprise non-payroll administrative expenses, net of bad debt and costs related to advertising or marketing.*

[4] The calculation to determine median and average administrative expense ratios excluded providers that did not report administrative or direct care costs or reported costs such the ratio of administrative costs to direct care costs was above 45%.

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Administrative percentages calculated from the cost reports were higher than industry trends. Guidehouse found that roughly 45% of providers reported administrative percentages over 40 percent. Based on these observations Guidehouse determined that leveraging national standards and best practices to standardize administrative cost expectations and control for any unique facility and system financial reporting structures would be beneficial when making rate recommendations. As such, a benchmark ratio of **25 percent** was recommended for rate calculations, which adds a dollar amount to a unit rate by multiplying the direct care related expenses by the average administrative percentage. Table 15 illustrates the application of the administrative percentage to the direct care related cost to create the annual add-on before calculating the per diem rate.

Table 15: Administrative Add-On

Line Description	Certified Medication Assistant (Assisted Living)
Total Hourly Compensation	$23.38
Administrative Overhead Percentage	25.0%
Administrative Overhead Factor	$5,234.72 (Annual)

F.2.5. Program Support Expenses

Program support expenses reflect costs associated with delivering services, but which are not related to either direct care or administration, but still have an impact on the quality of care. These costs are specific to the program but are not billable and may include costs related to program support staff, supplies, transportation and building expenses. Similar to the calculation for administrative costs, the program support percentage is calculated based on cost data reported in the provider survey, cost reports and national benchmarks. Also similar to the calculation for administrative costs program support costs reported by providers were calculated in relation to direct care costs reported in the provider survey and found to be substantially higher than national and State comparisons. Cost reports were analyzed to determine the residential service program support by including the program support staff and supply line items. After isolating that food costs were included in the supply line within the cost reports Guidehouse was able to remove food since this would be included in a separate room and board payment to determine the additional program support percentage of 10.1 percent. Table 16 illustrates the application of the program support percentage to the direct care related cost to create the indirect cost add-on.

Table 16: Program Support Add-On

Line Description	Assisted Living
Total Hourly Compensation	$23.38
Program Support Percentage	10.1%

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Line Description	Assisted Living
Program Support Factor	$2,114.83 (Annual)

F.2.6. Staffing Ratios

A key rate component of residential models is the calculation of the primary and substitute hours required to staff the residential setting. Total hours required for the full 24-hour setting need to be considered to ensure there is adequate staffing for the number of residents. The annual certified medication assistant primary hours represent the total number of staffed service delivery hours. Substitution hours represent the hours needed to cover non-productive hours due to staff training, paid time off, and resident absences from day programs. The training hour assumptions assume a staff turnover rate of 50 percent and required annual training hours per staff as 30 hours. The *PTO-Related Substitution* assumes 35 days of paid time off, consistent with the 35-day average paid time off reported by providers in the Provider Survey.

Assisted living facilities need to be staffed 24 hours a day, 365 days in a year, resulting in 8,760 total yearly hours per staff. Depending on if the setting has higher intensity residents, increased hours would be required to account for multiple staff working simultaneously. Due to the three-tier structure, it was assumed that the base tier has a staffing ratio of **1:14**, tier 1 with **1:12** and tier 2 with **1:10**. These assumptions were based on survey results in combination with workgroup feedback. These staffing ratios result in the hours per resident of 625.7, 730.0, and 876.0 respectively between the tiers. Additional substitutions are added on top of those hours to account for the PTO-related substitution.

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G. Benchmark Rates and Final Recommendations

G.1. Rate Considerations

Wages

The general Guidehouse recommendation is to use the wages reported in the provider cost and wage survey for all job types. There was a range of staff reported within the survey however there were job types that were reported as the majority by FTE's depending on service. For Assisted Living, the staff type with the highest number of Full-Time Equivalents (FTE) reported in the survey were Certified Medication Assistants, with almost 150 FTEs across all services within the rate study scope. The wages and benefits are key components in developing service rates and the benchmark metrics have a significant impact on the final rates. Guidehouse identified the standardized benchmark wages and benefits used in developing the rates to be competitive based on comparison to industry data and feedback from stakeholders in the advisory workgroups. Additionally, the due diligence conducted to arrive at the benchmark wages reveals the recommended wages align with industry wages found using BLS within South Dakota as well as we utilized the healthcare premiums found within MEPS to best align with statewide healthcare premiums.

Tier Re-distribution

Guidehouse evaluated the current distribution of participants within the three-tier structure for residential services by observing the resource utilization group score (RUG) to Tier mapping. The recommendation is to change the mapping for specific RUGs to shift a portion of participants into higher tiers. The decision was made that for RUGs score that included combination of different categories should be included in higher tiers such as combinations of ADLs and IADLs. Since the RUGs score are assigned in a hierarchical manner using the Home Care Assessment tool, we wanted to ensure that there was a reasonable distribution of higher tiers earlier within the hierarchy. The changes are:

- Patients with clinically complex ADL scores of 4 or 5 and an IADL score of at least 1 would move from the **Base Tier to Tier 1**.
- Patients with Cognitive Performance Scale scores of 3 or more and the above ADL and IADL scores would fall into **Tier 2 instead of Tier 1.**
- Patients that receive at least 120 minutes of rehabilitative therapy weekly, have an ADL score between 4 and 10, and have an IADL score of at least 1 would fall into **Tier 2 instead of Tier 1.**

Table 17 shows the impact of the redistribution on the current participants within the Assisted Living facilities.

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Table 17: Tier Re-Distribution

Tier	Current Distribution	Proposed Distribution
Base	88.1%	57.8%
Tier 1	8.4%	37.0%
Tier 2	3.5%	5.2%

As discussed earlier in the report these changes resulted in a larger portion of participants being shifted into tier 1 from the base tier and from tier 1 into tier 2.

Tier Structure

Extensive research was conducted to compare South Dakota's three-tier rate structure to other comparable states. After researching it was determined that the current three tiers are the most appropriate to reduce administrative burden and align with the acuity of the population. It is understood that there is not a perfect methodology when utilizing individualized care plans and assessment tools however, it is important to balance increasing complexity with better outcomes. Workgroup feedback indicated that developing population specific reimbursement rates such as traumatic brain injury or behavioral health, are not necessary as long as the tier distribution is appropriate to assign the higher acuity participants into higher tiers. Therefore, the recommendation is to keep the tier structure with the prosed re-distribution of RUGs score to tiers. A possible consideration for DHS is to explore participants historical and current claims data to understand if the tier assignment correlates to higher acuity and ultimately higher utilization of services.

Benchmark Rates

Benchmark rates for each service across all programs, outlined in Table 18, were developed using the independent rate build-up approach. **Appendix A** includes the rate models for individual services along with the appropriate sources and calculations for each rate component that contributes to the benchmark service rate. The proposed benchmark rates resulted in an increase ranging from 16.1 to 20.8 percent.

Table 18: Overall Rate Impacts for Assisted Living

Code	Description	SFY24 Rate	Proposed Benchmark Rate	Percent Difference
T2031	Assisted Living Waiver - Base	$67.56	$81.58	20.8%
T2031 - U1	Assisted Living Waiver - Tier 1	$79.71	$92.57	16.1%
T2031 - U2	Assisted Living Waiver - Tier 2	$92.55	$107.95	16.6%

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	Assisted Living - Non-Waiver	$68.72	$81.58	18.7%

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H. Fiscal Impact Estimates

H.1. Fiscal Impact Overview

As a part of determining final rate recommendations, Guidehouse analyzed how proposed rate benchmarks would affect projected expenditures in an effort to estimate the fiscal impact of increased rates for the State of South Dakota as well as providers delivering services across the State. This analysis was conducted exclusively for the purposes of the rate study, to assess the implications of increasing funding for services to the levels identified by study rate benchmarks. However, as we note in the sub-sections below, our analysis includes several simplifying assumptions that, while warranted for projection purposes, may not reflect eventual service utilization or future Medicaid/State federal financial participation. Moreover, these assumptions represent Guidehouse's best judgment based on the utilization data available, but do not necessarily reflect State legislative or executive decision-making, nor do they indicate additional commitments to future financing.

In the following sub-sections, Guidehouse describes the data sources for our utilization assumptions, including the service periods reflected in the data as well as any service exclusions or other limitations that frame the data set. The analysis also considers factors that influenced utilization assumptions and our approach to addressing these factors, including COVID-19 service impacts, utilization patterns sensitive to reimbursement increase, or adjustments to utilization stemming from proposed changes to service definition. With these caveats in mind, the report presents the fiscal impact to the services overall as well as split by department, detailing projected total and "State share" expenditures.

Fiscal impact is also influenced by the redistribution of participants between tiers, moving participants from lower-level tiers to higher level. This change has a compounding effect on the fiscal impact because rates for residential services are increases at each tier level but a participant can also move into a higher reimbursement tier.

H.2. Baseline Data and Service Periods

Guidehouse determined that SFY 2023 the be the most representative base year when understanding utilization of the services within scope. Ideally, the most recent year of claims utilization is key when determining the prospective impact of rate changes. Based on historical trends the most recent year showed steady month over month utilization which allowed us to determine that this steady utilization would stay consistent and allow for reasonable projections of expenditures.

Since State expenditures during SFY 2023 were not paid at current rates, Guidehouse adjusted the expenditure baseline grounded in SFY 2023 by repricing this utilization to reflect current rates. This adjustment is noted in fiscal impact tables in the "Paid at SFY24" columns, which indicates what the Department *would have paid* in SFY 2023 if reimbursing claims at the rates currently effective. To establish the payment baseline, Guidehouse priced each unit of service included in the data at the current rate without mimicking all the claims adjudication nuances

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that can yield a final payment amount below the Medicaid allowed amount, such as reductions due to third party liability or other determinations. Expenditures calculated at Guidehouse's benchmark rates follow suit, allowing proportionate comparison for assessing financial impact. The fiscal impact numbers also account for the State-funded services as well as Medicaid services. This distinction is outlined since the State-funded claims do not receive Federal Medical Assistance Percentage (FMAP) but will still be costs to the State.

H.3. Other Projection Assumptions

For the most part, the analysis' utilization assumptions reflect historical service volume, and Guidehouse did not attempt to adjust utilization patterns based on anticipated changes stemming from rate increases.

While it is possible some services experiencing substantial rate increases may see higher utilization due the monetary incentives driven by the increased rates to deliver these services, it is too soon to predict whether rate adequacy alone is sufficient to address workforce shortages that may have contributed previously to depressed utilization or challenges to access to care. It is our understanding that workforce challenges as well as lower rates of reimbursement may have caused some providers not to be able to deliver the volume of services that were demanded. With increased rates, providers may be in a position to hire and retain more staff than current levels, resulting in a greater volume of services delivered than historical utilization trends. Given the uncertain economic climate, the complexity of the dynamics operating in the current labor market, and the difficulty in gauging consumer and provider behavior post-COVID, Guidehouse declined to apply speculative adjustments to utilization projections specifically to model potential upticks in utilization influenced by a rate increase. However, Guidehouse based fiscal projections on SFY 2023 utilization both to account for higher utilization post-COVID as well as higher utilization stemming from a rate increase and greater access to services.

The analysis identifies fiscal impact in terms of both total expenditure increases and the additional state share dollars needed to fund services at the proposed benchmark rate. Projected state share impacts are also subject to simplified federal participation assumptions that may deviate from actual Federal Medical Assistance Percentage (FMAP) levels depending on several factors, including time of implementation and the persistence of the federal emergency declaration, as well as the relative proportion of Medicaid expansion and non-expansion beneficiaries receiving services.

In SFY 2024, South Dakota Medicaid FMAP will be 58.55 percent, which means the federal government will cover 58.55 percent of expenditures for standard Medicaid services, with South Dakota's State share covering the remaining 41.45 percent of reimbursement costs. This 58.55 percent is a blended percentage calculated by the State to estimate aggregate federal participation across multiple services and populations. It is a blend of the State share of the FMAP for 1 quarter of FFY2023 (July – Sept) and 3 quarters of FFY2024 (Oct – Jun) to align with State Fiscal Year. However, for the Assisted Living non-waiver service, the State does not receive a FMAP and is therefore responsible for the full cost of providing the service.

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H.4. Fiscal Impact Across All Services

Comparisons between current rates and the benchmarks developed by Guidehouse included only the reimbursement rate included in the DHS effective fee schedules, without considering other payments the Department may make to providers as a part of total reimbursement.

Table 19 shows the fiscal impact of funding rate changes to the full rate benchmark for all services included in the rate study, and also analyzed by program. The table includes a projection of expenditures if service utilization were to be paid at benchmark rates (the column labeled "**Utilization Paid at Benchmark Rates**", which is compared to a set of baseline current expenditures "**Utilization Paid at SFY24 Rates**" to identify the overall fiscal impact, a figure that reflects new expenditures needed to finance benchmark rates (representing the "Difference" between benchmark and current spending). The "Utilization Paid at SFY24 Rates" column represents claims paid at current fee schedule rates.

Table 19: Total Fiscal Impact (Federal + State Share)

Service	Utilization Paid at SFY24 Rates	Utilization Paid at Benchmark Rates	Change	Difference
Total	**$18,009,649**	**$22,478,661**	**24.8%**	**$4,469,012**
Assisted Living	$16,761,469	$20,996,901	25.3%	$4,235,432
Assisted Living – State Funded	$1,248,180	$1,481,760	18.7%	$233,580

Analysis suggests the system would require an additional $4.47 million—which includes not just State but also federal dollars—to reimburse providers at the benchmark rates recommended by Guidehouse.

While the fiscal impact analysis indicates the system would require $4.47 million annually to increase reimbursement to the benchmark rates, the additional dollars the State of South Dakota would need to raise represents a substantially lower proportion of those total funds. The collective impact of these State share reductions is a price tag of $1.99 million for the State of South Dakota, assuming full funding of the benchmark rates. Table 20 details the State fiscal impact across all services, with expenditure breakdowns by population.

Table 20: Total Fiscal Impact (State Share)

Service	Utilization Paid at SFY24 Rates	Utilization Paid at Benchmark Rates	Change	Difference
Total	**$8,195,809**	**$10,184,975**	**24.3%**	**$1,989,166**
Assisted Living Facilities	$6,947,629	$8,703,215	29.6%	$1,755,587
Assisted Living Facilities – Non-Waiver	$1,248,180	$1,481,760	18.4%	$233,580

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These rate changes create an aggregate fiscal impact of roughly **24.3 percent**. This figure is an estimate based on the proposed benchmark rates within this report. Depending on budgetary constraints there is the possibility that the full rates may not be able to be implemented. Overall, this rate study was intended to inform DHS of the various cost components and service delivery that should be considered when developing rates to support provider costs.

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Appendix A: Assisted Living Rate Models

Tier	Base	Tier 1	Tier 2
Staffing Ratio	1:14	1:12	1:10
Certified Medication Assistant (CMA) Primary Hours	625.71	730	876
CMA Substitute Hours	97.77	114.06	136.88
Total Annual CMA Hours	723.48	844.06	1012.88
Hourly CMA Wage	$16.75	$16.75	$16.75
CMA Employee Related Expense (ERE) Percentage	39.56%	39.56%	39.56%
Hourly CMA Compensation	$23.38	$23.38	$23.38
Annual CMA Cost	*$16,916.32*	*$19,735.71*	*$23,682.85*
Annual Supervisor Hours	104	104	104
Hourly Supervisor Wage - Residential Manager	$29.10	$29.10	$29.10
Supervisor ERE	32.92%	32.92%	32.92%
Hourly Supervisor Compensation	$38.68	$38.68	$38.68
Annual Supervisor Cost	*$4,022.57*	*$4,022.57*	*$4,022.57*
Total Personnel Cost	**$20,938.89**	**$23,758.28**	**$27,705.42**
Program Support Percentage	10.1%	10.1%	10.1%
Annual Program Support Costs	**$2,114.83**	**$2,399.59**	**$2,798.25**
Administration Percentage	25.0%	25.0%	25.0%
Annual Administration Costs	**$5,234.72**	**$5,939.57**	**$6,926.36**
Total Annual Cost	$28,288.44	$32,097.44	$37,430.02
Occupancy Rate	95%	95%	95%
Occupancy Adjustment	1.05	1.05	1.05
Adjusted Total Annual Cost	**$29,777.31**	**$33,786.78**	**$39,400.03**
Total Annual Days	365	365	365
Per Diem Rate	**$81.58**	**$92.57**	**$107.95**
Current Rate	$67.56	$79.71	$92.55
Percentage Difference	20.8%	16.1%	16.6%

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