South Dakota Psychiatric Residential Treatment Facilities (PRTF) Cost Study

Presented to:

South Dakota Department of Social Services

Presented by:

Guidehouse Inc.

1676 International Dr, McLean | VA 22102

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A. Executive Summary

The South Dakota Department of Social Services (DSS) contracted with Guidehouse, Inc. to conduct a cost study of Psychiatric Residential Treatment Facilities (PRTF) operating in South Dakota, including the cost of standard PRTF services, as well as the unique costs associated with Intensive Residential Treatment (IRT) and Substance Use Disorder (SUD) services delivered within the PRTF setting.

Since the most recent rate study completed by DSS in State Fiscal Year (SFY) 2023, the Division of Behavioral Health (DBH) has assumed the functions of State oversight of PRTFs from the Division of Child Protection Services (CPS). The cost study conducted by Guidehouse provided DBH with an opportunity to perform a detailed review of the existing reimbursement methodology to explore alignment with emerging policy priorities and advantages of potential payment alternatives, in addition to evaluating the adequacy of current payments.

The cost study also examined the impact to PRTF provider costs resulting from substantial reimbursement increases implemented at the beginning of SFY 2024, which saw a rise in PRTF rates of approximately 33-40 percent for the different facility types. Guidehouse's cost build-up methodology supported analysis of changes in direct care compensation and employee-related expenses potentially stemming from provider rate increases, with the goal of evaluating the responsiveness of the current reimbursement methodology to shifting PRTF operational costs.

Currently, South Dakota has a separate reimbursement rate for standard PRTFs, IRTs, and treatment for individuals receiving primarily SUD services. Although a uniform methodology is in place to derive the rates paid to standard PRTFs and IRTs, SUD service payments are not currently aligned to this methodology. Another objective of the Guidehouse cost study was to situate the three distinct levels and types of service within a common cost and reimbursement framework, both to confirm whether current methodologies are appropriately capturing and addressing the changing costs of PRTF providers, and to evaluate rate adequacy for each level of service moving forward.

As noted in Table 1 below, when measured against Guidehouse's cost model, projected DSS rates for SFY 2025 for both standard PRTF and SUD service provision came in above Guidehouse's cost benchmarks, suggesting the current methodology is generating adequate rates for current services. However, the projected SFY 2025 IRT rate of $546.31 is roughly 4 percent lower than the benchmark rate of $569.30, suggesting that the DSS methodology may not be keeping up with the costs of the IRT setting and its more intensive care needs.

It is important to note that Guidehouse's per diem rate benchmarks should be understood primarily as measures of rate adequacy, rather than as recommendations of alternative rates for DSS implementation. These benchmarks reflect what Guidehouse considers to be a minimum threshold of reasonable average provider costs, and so the daily payment needed to cover residential services per person in each of the settings reviewed. In cases in which payments under the current methodology exceed the cost benchmark, this should not be interpreted as a recommendation to lower rates to align to the benchmark. Higher current payments mean only that existing payment rates are sufficient to meet the average reasonable costs of a PRTF provider, as determined by the Guidehouse cost methodology.

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Table 1 shows the benchmarks for each service level, based on the cost build-up model compared to the projected rates proposed for SFY 2025.

Table 1: Cost Study Rate Adequacy Benchmarking Results

PRTF Service Type	Projected SFY 2025 Rates[1] (A)	Cost Model Benchmark (B)	Difference (A / B -1)
Standard PRTF	$408.43	$388.52	**5.12%**
PRTF-SUD	$411.37	$344.17	**19.53%**
IRT	$546.31	$569.30	**-4.04%**

While Guidehouse's benchmarking methodology for standard PRTF and IRT services generates results like the current DSS methodology for these services, the significant difference between Guidehouse benchmarks for SUD services and current payments indicates that the benchmark rates reflect substantially different assumptions than those used to derive current reimbursement for SUD services. We suggest the benchmarking disparity may be driven by differences in staffing assumptions. Guidehouse would not expect that residents treated primarily for SUD needs would require the same heightened level of staff supervision as residents with more intensive behavioral health needs, and Guidehouse's staffing ratio assumptions for SUD services are less intensive than for standard PRTF services (a 1:6 ratio for waking hours, rather than 1:5). While the current DSS rate for SUD services is sufficient to cover these services, Guidehouse recommends that DSS conduct further review of SUD services to determine whether current service delivery aligns with Guidehouse's methodological assumptions, and if so, whether a rate realignment may be warranted.

In Section G, we also develop broader considerations for the Department in adopting alternative reimbursement methodologies, including a more detailed cost-based methodology like the approach employed in Guidehouse's benchmark modeling, as well as the potential advantages of establishing tiered rates that may vary by residential unit within South Dakota's current facilities.

[1] *Projected SFY 2025 rates for standard PRTF and IRT facilities are based on a 4 percent increase from the prior year. Rates for SUD services delivered in the PRTF setting are based on the current rate, with no projected increase.*

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B. Introduction and Background

Guidehouse, Inc. conducted a cost study of Psychiatric Residential Treatment Facilities (PRTF) currently operating in the State of South Dakota, on behalf of the South Dakota Department of Social Services (DSS). The cost study encompassed all PRTF designations, including standard PRTF services as well as Intensive Residential Treatment (IRT) and Substance Use Disorder (SUD) services delivered within the PRTF setting. While all PRTFs offer intensive therapeutic services in residential settings for children and adolescents with severe emotional and behavioral disorders, the IRT designation reflects a facility focused on providing specialized treatment for individuals with complex mental health needs, often requiring a higher level of clinical intervention. The cost study also examined the cost of providing SUD services within the residential treatment environment. IRTs are considered PRTFs and operate within the framework of PRTF regulations, but their distinct capabilities and clients served result in unique cost profiles that are recognized and distinguished within the Department's reimbursement framework.

Currently, South Dakota has a separate reimbursement rate for standard PRTFs, IRTs, and treatment for individuals receiving primarily SUD services. Although a uniform methodology is in place to derive the rates paid to standard PRTFs and IRTs, SUD service payments are not currently aligned to this methodology. One of the primary objectives of the Guidehouse cost study was to situate the three facility types within a common cost and reimbursement framework, both to confirm whether current methodologies are appropriately capturing and addressing the changing costs of PRTF providers, and to evaluate rate adequacy for each level of service moving forward.

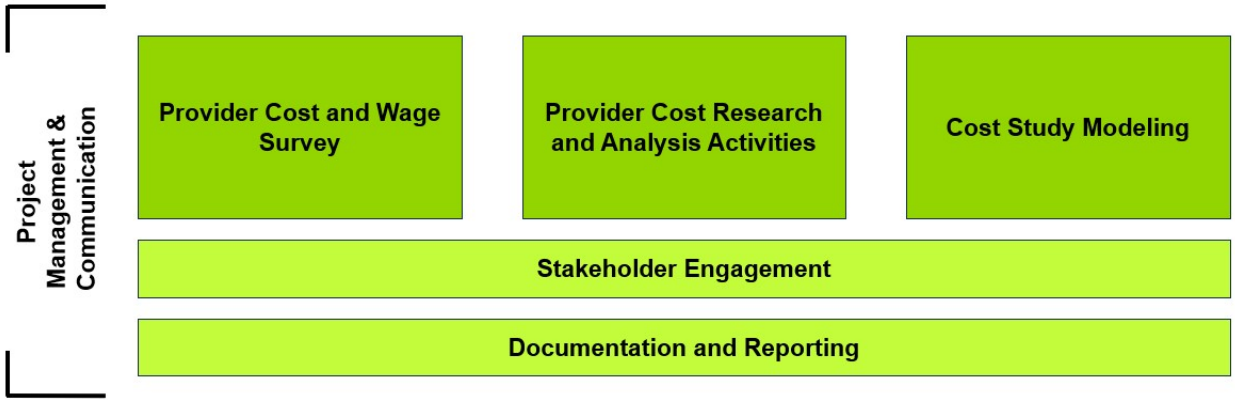
Since the most recent rate study completed by DSS in State Fiscal Year (SFY) 2023, DSS oversight of PRTFs transferred to the Division of Behavioral Health (DBH) from the Division of Child Protection Services (CPS). The cost study conducted by Guidehouse provided DBH with an opportunity to perform a detailed review of the existing reimbursement methodology to explore alignment with emerging policy priorities and advantages of potential payment alternatives, in addition to evaluating the adequacy of current payments. A final rationale for the cost study was to examine the initial financial impacts of substantial reimbursement increases implemented at the beginning of SFY 2024, which saw a rise in PRTF rates of approximately 33-40 percent for the different facility types. Guidehouse's cost build-up methodology supported analysis of changes in direct care compensation and employee-related expenses following provider rate increases, with the goal of evaluating the responsiveness of the current reimbursement methodology to shifting PRTF operational costs.

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 adequacy review and rebasing efforts.
- Additional Cost Research and Analysis: Performing research on other state, regional, and national data sources to inform reimbursement comparison and rate adequacy benchmark development.
- Cost Build-up Modeling: Developing cost models through research and cost analysis on the current model and alternative models for PRTF, IRT, and SUD.

- Stakeholder Engagement: Facilitating engagement with stakeholders including provider representatives and State staff to solicit feedback throughout the cost study process.

Figure 1: Overview of Project Initiatives



The cost study utilized a multitude of data sources, including data collected through a Provider Cost and Wage Survey data, as well as providing avenues for stakeholder feedback to inform reimbursement recommendations more responsive to desired and lasting service delivery changes as well as future planning and budgeting needs.

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C. Provider Engagement

In conducting the PRTF cost study, DSS worked closely with Guidehouse and South Dakota's PRTF providers throughout the study process. DSS convened a group of PRTF providers that met three times over the course of the engagement to support the cost study. Figure 2 describes the composition of this group, their respective roles, and discussion topics.

Figure 2: Rate Workgroup Composition and Roles

Provider Workgroup
Composition: • Membership representative of providers and associations directly impacted by potential rate changes. • Provider representatives who reflect the full range of services included within the cost study scope. • Members with a strong understanding of provider finances, reporting capabilities, and service costs.
Role: • Provide subject matter expertise on provider cost and wage survey and cost model development. • Review and validate cost 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.
Discussion Topics: • Provider Cost and Wage Survey design, administration, and results. • Cost components and cost model build-up approach. • Benchmark wages and adjustments, including supplemental pay and inflation factor. • Staffing levels and supervision ratios. • Considerations for implementation and future analysis.

D. Data Sources

Cost assumptions developed throughout the cost study relied on a wide variety of data sources. Guidehouse drew from both 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 State and provider-reported data when available and appropriate, as well as extensive industry data reflective of the broader labor market for similar services.

D.1. Overview of Data Sources

The data used for cost benchmarking derive from three main sources: 1) annual PRTF cost reports, 2) a specially developed Provider Cost and Wage Survey, and 3) public financial data and economic indices.

Although annual PRTF cost reporting generates a wealth of financial information that can be used for routine rate updates, for the purposes of evaluating rate adequacy, Guidehouse determined that cost report information should be supplemented with a one-time provider survey that would generate more detailed data on key cost components, such as wage and employee benefits, that drive provider expenses. Guidehouse cost modeling continued to rely on cost report information for some element of benchmark comparisons, especially around indirect costs, but we also took advantage of collected survey data as well as publicly available industry data.

Guidehouse conducted a Provider Cost and Wage Survey to obtain financial and service delivery information from providers, including employee salaries and wages, provider fringe benefits, and other costs associated with delivering services. The provider survey collected valuable and detailed information on baseline hourly wages, wage growth rate, provider staffing patterns, and employee fringe benefits, as well as staff productivity for all programs included in the cost study.

Although most cost assumptions used for rate adequacy benchmark development were derived from provider-reported survey data and provider cost reports, publicly available sources were required for supplemental cost data and for benchmarking purposes to establish component assumptions for some aspects of PRTF services.

We describe the key features of the provider survey as well as the other sources used in the development process for the cost model build-up in the section below.

D.2. Provider Cost and Wage Survey

Guidehouse prepared a detailed Provider Cost and Wage Survey based on the landscape of Psychiatric Residential Treatment Facilities in South Dakota. The aim of the survey was to collect provider cost data that would serve as the basis for the cost study. Additionally, Guidehouse utilized the survey to:

- Capture provider cost data to establish a cost foundation for the cost study;

- Receive uniform inputs across all providers to develop standardized cost model components;
- Measure changes in direct care worker wages over time;
- Determine a cost basis for evaluating rate adequacy for services;
- Gather needed data to understand staffing ratios;
- Investigate differences in costs and acuity levels among PRTFs, IRTs, and SUD services within the PRTF settings.

D.2.1. Survey Design and Development

Guidehouse designed this survey with input from DSS staff as well as provider stakeholders, while also drawing on insights gained from conducting similar surveys in other states. The survey was designed in Microsoft Excel and included five (5) sections or worksheets on topics outlined in Table 2 below. On March 13, Guidehouse provided two optional times for providers to join a survey technical assistance session. With the aim of collecting annual wage, benefit, and staffing ratio data from Quarters 1 and 2 of State Fiscal Year 2024 (July 2023-December 2023), Guidehouse collected information on the survey components highlighted in Table 2.

Table 2: Provider Cost and Wage Survey Organization and Data Elements

Survey Topics	Survey Data Points and Metrics	Example Cost Study Data Point(s)
A – Organizational Information	Provider identification, contact information, and organizational details	-
B – Staffing Time and Wages	Job types, staff types, hourly wages, supplemental pay, and training time	Baseline wages for cost build-up, primary job types per service, training assumptions
C – Benefits	Benefits that organizations offer full-time and part-time employees who deliver services – health, vision and dental insurance, retirement, unemployment benefits and workers' compensation, holiday, sick time, and paid time off	Benefits package or Employee Related Expenses (ERE)
D – Staffing Ratio	Information on staffing ratios for waking and sleeping time that are currently being offered as well as facility feedback on the adequacy of those ratios.	Cost modeling architecture and adjustment for acuity levels
E – Qualitative Questions	Clarifying questions and feedback not covered in other sections	Cost modeling architecture

D.2.2. Survey Administration and Support

The survey was released on March 6, 2024, to the PRTF provider community delivering services within the scope of the cost study. Along with the survey, Guidehouse provided a Cost and Wage Survey Instruction Manual. To conduct a successful and accurate survey, Guidehouse facilitated a live PRTF provider technical assistance session with two available times, one in the morning and another in the afternoon on March 13, 2024. In the technical assistance 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 provided a Cost and Wage Survey Instruction Manual detailing the survey components and definitions. Guidehouse also 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. Providers were allowed approximately three weeks to complete the survey, with a final survey deadline of March 27, 2024. Providers requesting extensions were given additional time to complete the survey.

D.2.3. Provider Survey Participation

Guidehouse deployed the survey on March 6, 2024. A total of seven out of seven PRTF and IRT service providers received the survey. All seven providers submitted their survey responses. Throughout the survey submission period, Guidehouse received and answered eight provider questions requesting clarification on either the survey questions, filling out the excel template, or clarification on the time periods requested.

D.2.4. Provider 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 reporting issues or 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, benefits, number of clients, and staffing ratios) reported across all organizations to identify potential outliers. If any outlier data points were excluded or assumptions were made for cost model inputs, the assumptions were reviewed with the Department 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 provider survey processes are not subject to auditing processes, in contrast to an established administrative cost reporting process. 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 accurate benchmarking at a moment of heightened inflation.

Guidehouse utilized the survey data reported by providers to develop several key cost component assumptions, 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 the cost study.

D.3. Other Data Sources

Cost assumptions developed throughout the study rely on a wide variety of data sources. The objectives of the cost study aim to establish rate adequacy benchmarks 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 sections that follow, Guidehouse's provider cost and wage survey furnished most of our cost assumptions on employee wages, provider fringe benefit offerings, staff productivity, staff-to-client ratios, and indirect cost percentages.

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 soon or are not comparable to or competitive within the industry, 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 reported information specific to South Dakota from the provider cost and wage survey. Table 3 summarizes the additional public data sets used to inform cost assumptions used in Guidehouse's benchmarking.

Table 3: 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, Consumer Expenditure Survey	Federal data on annual consumer spending. Provides potential cost assumption for food costs per meal.
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 Review

Guidehouse gathered peer state data sources to inform rate adequacy benchmarking by establishing relevant points of comparison with PRTFs in other states like those included in the cost study. Peer state rates were also reviewed to inform Guidehouse's cost study where applicable. It is helpful to compare reimbursement in South Dakota to other states not only as a basic test of rate adequacy, but also to understand State alignment with standard or best practices, as well as determining whether current rates represent an outlier or whether differences can be explained by distinctive service definitions or economic conditions in the State.

Guidehouse examined various state reimbursement approaches and payment mechanism for PRTFs. Guidehouse weighed the pros and cons of each approach and compared it to South Dakota's current approach. Payment mechanisms varied by state. The major differences, however, appear to be that some states have established facility-specific per diem rates, while others have elected to set a statewide per diem. Guidehouse noted that states with facility-specific per diem reimbursement usually subject individual facility rates to a state-determined cap, while some had implemented facility-specific, acuity-based reimbursement rates.

Table 4: Peer State Rates

State	PRTF Per Diem Rate	Comment and Context
South Dakota	$392.72 - $525.30	Based on SFY 2024 rates. $392.72 for PRTFs, $411.37 for SUD, and $525.30 for IRTs.
Arkansas	$500 (effective 1/1/23)	Rate increased from $350.00 to $500.00 in 2023.
Colorado	$787.95 (effective 7/1/23)	Rate increased from $402.17 in 2020 to $750.00 in 2021 to encourage in-state facilities to accept a larger percentage of in-state youth. Rate updated annually.
Connecticut	$792.46 (effective 1/1/23)	To receive rate, PRTFs must add a director of nursing staffing on-site or available 24/7 to improve the quality and oversight of services.
Kentucky	$274.01 to $405.00 (effective 10/24/22)	Acuity based rates. PRTF rate used is the median in-state rate. Per diem rates increased each biennium by 2.22 percent.
Minnesota	$531.31 - $685.00 (effective 7/1/22)	Provider specific per diem rate set with facility cost reports.
Missouri	$471.46 (effective 7/1/23)	

State	PRTF Per Diem Rate	Comment and Context
Montana	$343.28 (effective 5/12/23)	Out of State payment 50% of usual and customary charges (not to exceed 133% of the in-state PRTF rate.)
Nebraska	PRTF Hospital Based Rate: $549.86 (effective 7/1/22) PRTF Specialty Rate: $435.25 (effective 7/1/22) PRTF Community Based Non-Specialty Rate: $409.09 (effective 7/1/22)	
New Mexico	$350.00 (effective 10/1/19)	
Oregon	$650.00 - $850.00 (effective 1/1/22)	
Virginia	$409.06 - $545.41 (effective 7/1/23)	Per facility per diem rate set via annual cost report process with a rate ceiling $545.41 (effective 7/1/23). Max rate when no cost report is submitted is $409.06.

The immediate fact that stands out when comparing current PRTF reimbursement in South Dakota to other states is that DSS payment rates appear to be middle-of-the-road when considered in the context of wide variation nationally. Of course, considering the extremes of this variation, it is difficult to draw any major conclusions as to the adequacy of rates for services delivered in South Dakota. It is apparent that rates depend on unique methodological and program components that change from state to state, making apples-to-apples comparison difficult. The variation also reflects natural variation from facility to facility, where cost differences are driven by acuity as much as economic factors in each state. The most important conclusion to draw from this scan is that there does not appear to be a concern that South Dakota PRTF rates are an outlier, either for being too excessive or inadequate to cover provider costs.

Of all the states with an occupancy rate adjustment, South Dakota had the most generous occupancy rate adjustment at 90 percent. This also includes states with a separate rate for hospital and therapeutic leave days. Separate rate for hospital and therapeutic leave days are typically paid at a reduced rate, usually as a percentage of the per diem rate.

F. Cost Study Methodologies and Components

By delving into various components of provider costs, such as staff wages, staffing ratios, therapy, and nursing costs, as well as capital and support costs, Guidehouse was able to

construct a cost-based reimbursement model to assess the adequacy of current PRTF rates. This approach afforded detailed insight into the direct and indirect costs associated with staffing and other resources to help inform the study.

F.1. Cost Model Build-Up Approach

Guidehouse employed an independent cost build-up approach to develop rate adequacy benchmarks for covered services. The independent cost build-up strategy allows for fully transparent models that consider the numerous cost components to be considered when establishing benchmarks. The foundation of the independent cost build-up is direct care worker wages and benefits and the respective staffing ratio, which comprise the largest percentage of costs for these services, while also considering the service design and any additional overhead costs necessary for providing the service. This approach:

- Uses a variety of data sources to establish rate benchmarks 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 adjustments to rate benchmarks to reflect state-specific policy goals – for example, anticipated acuity levels.

The cost 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 potential rate methodology, allowing DSS to clearly delineate the components that contribute to rates and adjust as needed.

Guidehouse calculated the values for each component of the cost build-up models, and benchmarks were built from the bottom up for each of the services included in this study. We determined each cost component associated with the direct care provided for a service, identified the corresponding payment amount(s), and accounted for payment amounts reflecting administration and program support costs required to deliver the service.

This cost build-up approach is based on a core set of wage assumptions for direct care staff as well as the staffing ratio to provide these services adjusted for acuity levels, 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 cost 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 Expenses
- Staffing Ratio
- Therapy and Nursing Costs
- Capital and Support

F.2. General Cost Assumptions

The methodology for developing a rate adequacy benchmark for PRTF settings generally includes certain key components.

A cost model starts with the wage for the primary staff person providing a service and then builds upon that wage with fixed or variable cost factors to account for additional program support costs.

Typical components of a reimbursement methodology or cost model include:

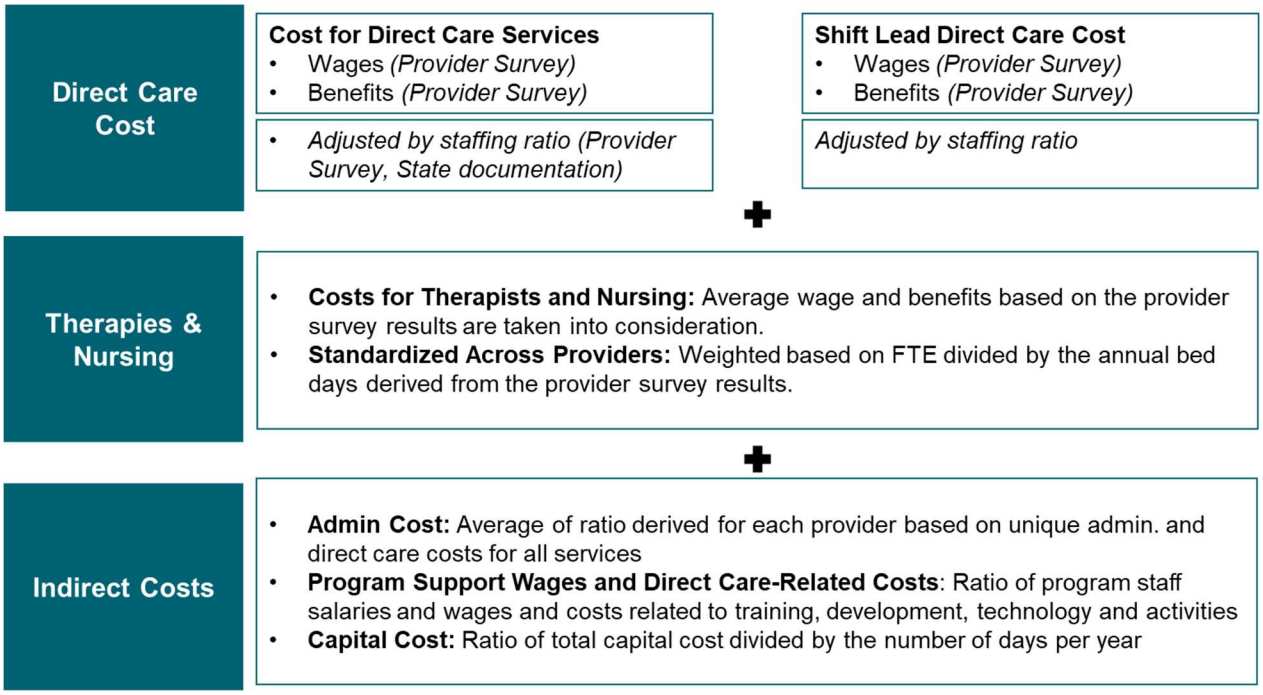
- Direct Care Compensation Costs
  - Staff Wage Costs
  - Employment Related Expenditures (ERE)
  - Supervision Costs
- Adjustments to Direct Care Compensation Costs
  - Staffing Ratio
  - Acuity Adjustment
- Administrative Expenses
- Capital and Support Expenses

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.

Based on survey responses received, many providers mentioned having additional costs related to staffing therapist and nurses. Therapist and nurses may be part of the PRTF’s program staff but are not considered direct care staff. Typically, the cost of employing therapist and nurses are captured in program cost. However, due to an overwhelming response in the quantitative question in the challenges of recruiting and retaining therapist and nurses, both therapist and nurses were broken out of the program expenses and given its own component.

Figure 3 illustrates the “building block” structure of Guidehouse’s cost modeling approach. Although individual services may incorporate different building blocks, each cost 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: Cost Modeling Approach



F.3. 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 cost build-up models for the PRTFs. 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 July 2023 - December 2023. The staff types with the highest number of Full-Time Equivalents (FTE) reported in the survey were residential workers and childcare workers, followed by direct support professionals. Table 5 represents the distribution of FTEs with the corresponding FTE-weighted average wage. The baseline wages represented in Table 5 do not include inflationary factors or supplemental pay.

Table 5: Average Hourly Wage Reported in Cost and Wage Survey, Weighted by FTE

Staff Type List	Job Type	Survey Average FTE-Weighted Hourly Wage	FTEs
Residential Workers	Direct Service Provider	$19.09	99.82
Child Care Worker	Direct Service Provider	$20.06	86.15
Direct Support Professional	Direct Service Provider	$14.40	26.00
Therapist	Therapist	$28.25	19.43
Child Care Supervisor	Shift Lead	$28.21	18.00
Nurse/PA/CNP	Nurse	$29.90	13.61
Residential Supervisor	Shift Lead	$21.86	8.00
Group Leader	Shift Lead	$22.93	6.00
Unit Manager	Shift Lead	$21.77	4.00
Nurse Associate	Nurse	$20.02	2.00

For any job types reported with fewer than two FTEs, Guidehouse chose to combine these job types with a larger grouping instead of listing out all the variations of similar job types. For example, a shift coordinator had a total FTE of 1.5. Hence, to get to the weighted average hourly wage, shift coordinator was combined with similar job types as “Shift Lead.”

For all direct care staff types, Guidehouse applied a weighting of reported wages by the number of FTEs, then compared that wage to mean benchmark wages reported by the Bureau of Labor Statistics, Occupational Employment and Wage Statistics (BLS OEWS). Taking current provider cost as reported on the cost report, the survey results, and workgroup feedback into consideration, Guidehouse ultimately decided to use the weighted average wages based on the survey.

Table 6 shows the weighted average wage from survey results compared to the BLS Job Type used as a benchmark for direct service providers, shift leads, therapists, and nurses listed within the survey. BLS was employed merely for comparative purposes, as the results from the survey were ultimately used for the cost build-up model.

Table 6: BLS Crosswalk for Job Types

Job Title	BLS Job Title	OCC_CODE	SD Median Hourly Wage (BLS)	US Median Hourly Wage (BLS)	Survey FTE-Weighted Average
Behavioral Health Technician	Healthcare Support Workers, All Other	31-9099	$17.09	$18.26	$19.24
Therapist	Substance Abuse, Behavioral Disorder, and Mental Health Counselors	21-1018	$22.01	$26.32	$28.25
Nurse Associate	Nursing Assistants	31-1131	$14.85	$17.02	$20.02
Nurse/PA/CNP	Registered Nurses	29-1140	$30.25	$36.50	$29.83

The BLS OEWS does not list an equivalent occupation for every single job type employed in the PRTF setting, but it features job types that are comparable to those reported for these services. For example, Childcare Workers in the cost and wage survey as well as all other "Direct Service Provider" was most closely related to the BLS job classification of "Behavioral Health Technician." Guidehouse determined that the index could be leveraged for the purpose of benchmarking wages.

For most job types, BLS comparison suggested that PRTF wage compensation has either kept up with the labor market or is better than the industry more broadly. For these reasons, Guidehouse elected to use wage information from the provider survey as the basis for cost benchmarking.

F.3.1. Inflationary Increases in Wages

National data was referenced in tandem with survey data to understand how wages and costs have trended over recent years. Tables 7 and 8 include the most recent growth rate from each source, which include:

- **BLS Current Employment Statistics (CES):** The BLS publishes CES data, which tracks employee earnings. Across Psychiatric and Substance Use Hospital Staff, 2020-2024 trends document an annual growth rate in earnings of **4.0** percent, with a **10**-year average of **3.8** percent.
- **Cost and Wage Survey:** Responding provider organizations recorded wages during the first quarter of SFY 2024 to establish a baseline. Additionally, providers recorded the

average percentage increase to hourly wages over an annualized two years. Across job types, the average increase varied from **6.6** percent to **9.4** percent. These percentages included a one-time wage increase because of Medicaid's recent rate update.

Table 7 below shows the annual rate of growth in employee earnings in recent years. As expected, high growth in wage costs during the COVID-19 public health emergency and immediately following the pandemic were tempered by economic corrections in subsequent years, leading to a five-year average that roughly aligns with the broader ten-year average rate of growth.

Table 7: Wage Trends from BLS Current Employment Statistics

Psychiatric and Substance Use Hospitals							
Year	**2020**	**2021**	**2022**	**2023**	**2024**	**2020 - 2024 Average**	**10-Year Average**
Average hourly earnings of all employees	$27.37	$30.03	$31.65	$31.18	$32.54	$30.55	$26.85
Percent change	2.4%	9.7%	5.4%	-1.5%	4.4%	**4.0%**	**3.8%**

Trends in wage growth reported by PRTF providers through the cost and wage survey suggested similar impacts from the public health emergency, revealing historically high rates of annual growth in wages.

Table 8: Wage Trends from Provider Survey

Wage Inflation (SFY 2022 – SFY 2024 Annualized)	
Direct Service Provider	6.6%
Shift Lead	7.3%
Nursing	6.7%
Therapist	9.4%

Since the cost build-up model is intended to evaluate the adequacy of rate updates to be established soon, Guidehouse used an average wage trend from BLS 2020 to 2024 of **4.0** percent. This percentage is more in-line with historical wage increases from multiple years and is likely to be a more accurate prediction of future wage growth trends than the experience of recent years influenced by the economic effects of the pandemic.

F.3.2. 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 also reported in the cost and wage survey. In analyzing survey results, a supplemental pay percentage ranged from **3.67** percent to **12.33** percent depending on the job type.

Supplemental pay percentage is calculated by dividing total supplemental pay, including overtime reported by total wages for each provider, and then identifying the median across all providers. Table 9 shows supplemental pay as a percentage of total regular and supplemental pay.

Table 9: Supplemental Pay as a Percentage of Total Regular and Supplemental Pay

Supplemental Pay as a Percentage of Total Regular and Supplemental Pay		
Direct Service Provider	Shift Lead	Therapist & Nursing
6.96%	**12.33%**	**3.67%**

Overall, **83.00** percent of providers submitting surveys reported supplemental pay for one or more job types. Supplemental pay was much higher for jobs grouped under “Direct Service Provider” than for other professional/administrative job titles.

As a national benchmark the BLS Employer Costs for Employee Compensation (ECEC) 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. 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. The supplemental pay percentage provided within the ECEC was ultimately used by calculating the average supplemental pay over the past five (5) years, resulting in a percentage of **3.64 percent**.

Given that supplemental pay appears to play a larger role in staff compensation in the PRTF setting than in the health sector more broadly (at least as measured by the ECEC index), Guidehouse elected to use supplemental pay costs as reported by the PRTF providers for wage benchmarking purposes.

F.3.3. Final Wage Assumptions

Guidehouse analyzed wages from the provider survey as well as BLS wages specific to South Dakota. After discussion with workgroup members, Guidehouse ultimately used survey results for wages and supplemental pay percentages. Guidehouse leveraged the national BLS wage assumptions for wage trends. Table 10 displays the wage build-up approach for both “Direct Service Providers” and “Shift Lead”. For example, the baseline wages for Direct Service Provider based on the weighted average FTE from the survey was $19.24. That amount is

inflated by **4.00** percent and **6.96** percent for both wage trend and supplemental pay percentage, respectively.

Table 10: Adjusted Wage Build-Up

Job Type	Baseline Wage	Wage Trend	Supplemental Pay Percentage	Adjusted Wage
Direct Service Provider	$19.24	4.00%	6.96%	$21.41
Shift Lead	$24.73	4.00%	12.33%	$28.89

F.4. Employee-Related Expenses

Employee-related expenses (ERE), or fringe benefits, are costs to the provider beyond wages and salaries, and include costs such as unemployment taxes, health insurance, and paid time off (PTO). These expenses 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 6.0 percent of the first $7,000 in wages and state unemployment tax **(SUTA)** of 1.1 percent based on 2023 base wage of $15,000. Generally, if an employer pays wages subject to the unemployment tax, the employer may receive a credit of up to 5.4 percent of FUTA taxable wages, yielding an effective FUTA of 0.6 percent. Employers pay a combined 7.65 percent rate of the first $160,200 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 1.6 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 **26.8** 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.

Based on South Dakota provider survey responses, all of the providers reported that they offered health, vision, dental, retirement and paid time off benefits to some of the full-time direct care staff with high take-up rates in each category.

F.5. Staffing Ratio

A critical cost component of PRTFs and IRTs is the expense of employing sufficient direct service staff to care for the children residing in these facilities. The State, through its administrative rules, have a minimum waking hour staffing ratio of 1:6 and sleeping hours staffing ratio of 1:12 for PRTFs. For IRTs, the minimum staffing ratio for waking hours and sleeping hours are 1:3 and 1:6, respectively.

The staffing ratio from the survey varied between providers. For many providers, the current staffing ratio varied among different residential units, with most units having a staffing ratio of 1:5 or 1:6 for waking hours. For sleeping hours, the staffing ratio fell between 1:6 to 1:12, with a median of 1:10. Other providers noted the supporting role of a shift supervisor working alongside direct service workers, effectively strengthening the staffing ratio by having more staff available per residents.

Taking the survey results and workgroup feedback into consideration, Guidehouse added another layer of staffing to the cost model during the same hours as direct care workers to account for the fact that the current staffing ratio the PRTF is employing may not be the most ideal staffing ratio. Providers raised concerns that even if their target staffing ratio is higher than the state's minimum requirement, they are faced with challenges of training staffs, dealing with staff absence, and retaining qualified staff.

This layer in the model is the cost of employing a shift lead. Under this methodology, the shift lead has the same number of hours per year as a direct care worker and essentially improves the staffing ratio, increasing the per diem rates. By having one direct care worker for every six children along with a shift lead for the same six children, the staffing ratio under this scenario becomes two staff for every six children, which translates to a 1:3 staffing ratio.

For the various service arrays, PRTFs, IRTs, and SUD services, a different staffing ratio was applied based on the acuity needs of these services. Table 11 shows the various staffing ratio of direct care worker and shift for both waking and sleeping hours.

Table 11: Staffing Ratios

	Direct Care Workers		**Shift Leads**	
	Waking Hours	*Sleeping Hours*	*Waking Hours*	*Sleeping Hours*
PRTF	1:5	1:10	1:5	1:10
IRTs	1:2.5	1:6	1:6	1:6
SUD	1:6	1:10	1:6	1:10

F.6. Therapy and Nursing Costs

Based on survey results and workgroup feedback, there was a need to parse out therapy and nursing as its own cost component rather than lumping them into support. Support is typically captured as a percentage of direct care cost to account for all the overhead and infrastructure that ensures the program runs smoothly as it should. By parsing out therapy and nursing cost separately, the rate structure will account for the difference in the need for additional therapy and nursing cost based on acuity levels. For example, based on survey results, IRTs relied heavily on therapy services as measured in the number of FTEs and hours compared to regular PRTF services. Therapy and nursing cost were derived by taking the FTE-weighted adjusted wages from the survey, multiplied by the total annual hours, and then divided by the total annual bed days. Both PRTFs and PRTFs with SUD services were combined in this calculation to get to an average cost per bed day. IRTs were calculated separately to get their own distinct average cost per bed day.

Table 12 shows the calculation to get to the average cost per bed day for therapy for both PRTF/SUDs and IRTs.

Table 12: Calculation for Therapy

	PRTF/SUD	IRT
Adjusted Wages	$36.95	$36.95
FTE	17.4	3.0
Total Annual Hours	36,254	6,240
Total Annual Bed Day	66,829	5,038
Average Cost per Bed Day	**$20.05**	**$45.77**

Table 13 shows the calculation to get the average cost per bed day for nursing for both PRTF/SUDs and IRTs.

Table 13: Calculation for Nursing

	PRTF/SUD	IRT
Adjusted Wages	$38.95	$38.95
FTE	13.6	1.0
Total Annual Hours	28,309	2,080
Total Annual Bed Day	93,872	5,038
Average Cost per Bed Day	**$11.74**	**$16.08**

F.7. Capital and Support

Administrative and program support expenses reflect the indirect costs associated with operating PRTFs and IRTs. Administrative expenses are costs for administrative employees' salaries and wages along with non-payroll administration expenses, such as licenses, property taxes, liability, and other insurance. 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, and may include supplies, maintenance staffs, and cafeteria workers. All these costs associated with administrative and program support fall under support and is identified as such throughout the report.

To determine support cost factor, Guidehouse calculated the support percentage in relation to the overall program costs derived from the cost reports. The support percentage varied by providers and the types of providers, whether they are PRTFs, PRTFs addressing SUD needs, or IRTs. Hence, the ultimate support percentages used were an average of providers grouped by provider types.

Capital costs were also considered and factored into the overall cost modeling methodology. Based on the State's goal of having more units dedicated to higher acuity youths and the overwhelming responses from providers on the high cost of repurposing or maintaining units within their facilities, it is appropriate to parse out capital percentage as its own percentage from support, both to better understand capital impacts on overall cost, as well as to afford the State with a specific lever to modify capital cost assumptions to support additional investment. Like the support cost factor, the capital cost assumption was derived from the cost report and calculated as a percentage in relation to overall program costs. Table 14 shows the average support and capital factor by provider types.

Table 14: Support and Capital Percentage Factor

Indirect Cost Component	PRTF /SUD	IRT
Support	47.5%	50.5%
Capital	10.7%	8.2%
Total Indirect Adjustment	**58.2%**	**58.7%**

G. Rate Adequacy and Final Recommendations

As previously noted, Guidehouse conducted the PRTF cost study both to evaluate rate adequacy for payments to facilities under the current DSS methodology, as well as to review the methodology itself, to develop recommendations for potential additions or alternatives to the current rate methodology. In this section, Guidehouse discusses our rate adequacy findings and notes recommendations for potential changes to the methodology that may be of assistance in supporting Division of Behavioral Health policy priorities in future rate setting.

G.1. Rate Adequacy

Through a detailed survey process that incorporated both qualitative and quantitative inquires, as well as reviewing the most recent provider cost reports, Guidehouse developed a comprehensive cost-based model to determine the rate adequacy of PRTFs, IRTs, and SUD services delivered in the PRTF setting. Our approach involved gathering insights from the providers with firsthand knowledge of delivering residential services and managing day-to-day operation of the facilities. The quantitative inquires focused on staffing time, wages, and benefit packages. The qualitative questions delved into the nuanced aspect of the operations, such as staffing requirements and training, potential workforce shortages, and serving youth with higher acuity needs in-state.

With this information, Guidehouse developed a cost-based model to assess the rate adequacy of PRTF payments under the current reimbursement methodology. As discussed in detail in Section F, we employed a cost build-up approach to derive an idealized reimbursement rate for each service that could be used to benchmark payment rates under the current DSS reimbursement methodology. Guidehouse's per diem rate benchmarks should be understood primarily as measures of rate adequacy, rather than as recommendations of alternative rates for DSS implementation. These benchmarks reflect what Guidehouse considers to be a minimum threshold of reasonable average provider costs, and so the daily payment needed to cover residential services per person in each of the settings reviewed. In cases in which payments under the current methodology exceed the cost benchmark, this should not be interpreted as a recommendation to lower rates to align to the benchmark. Higher current payments mean only that existing payment rates are sufficient to meet the average reasonable costs of a PRTF provider, as determined by the Guidehouse cost methodology.

As noted in Table 15 below, when measured against Guidehouse's cost model, projected DSS rates for SFY 2025 for both standard PRTFs and SUD service provision came in above the cost benchmarks, suggesting the current methodology is generating adequate rates for current services. However, the projected SFY 2025 IRT rate of $546.31 is roughly 4 percent lower than the benchmark rate of $569.30, suggesting that the DSS methodology may not be keeping up with the costs of the IRT setting and its more intensive care needs. Table 15 shows the benchmarks for each service level, based on the cost build-up model compared to the projected rates proposed for SFY 2025.

Table 15: Cost Study Results

PRTF Service Type	Projected SFY 2025 Rates[2] (A)	Cost Model Benchmark (B)	Difference (A / B -1)
Standard PRTF	$408.43	$388.52	**5.12%**
SUD PRTF	$411.37	$344.17	**19.53%**
IRT	$546.31	$569.30	**-4.04%**

As mentioned in the introduction in Section B, the current approach used by DSS for determining SUD service payments is separate from the methodology used to establish standard PRTF and IRT rates. While Guidehouse's benchmarking methodology for standard PRTF and IRT services generates results like the current DSS methodology for these services, the significant difference between Guidehouse benchmarks for SUD services and current payments indicates that the benchmark rates reflect substantially different assumptions than those used to derive current reimbursement for SUD services.

We suggest the benchmarking disparity may be driven by differences in staffing assumptions. While we understand that SUD services have their own intensive costs, we would not expect that residents treated primarily for SUD needs would require the same, heightened level of staff supervision as residents with more intensive behavioral health needs, and Guidehouse's staffing ratio assumptions for SUD services are less intensive than for standard PRTF services (a 1:6 ratio for waking hours, rather than 1:5). Although Guidehouse can affirm that the current DSS rate for SUD services is sufficient to cover these services, at least as we understand them, we recommend that DSS conduct further review of SUD services to determine whether current service delivery aligns with Guidehouse's methodological assumptions, and if so, whether a rate realignment may be warranted.

G.2. Final Recommendations

Methodological Assumptions. Although Guidehouse developed PRTF cost models primarily for benchmarking purposes, these models can also be used as reimbursement methodologies for rate setting purposes. The advantage of implementing these models for rate development is that they allow a more detailed, higher-resolution understanding of provider costs, as well as greater transparency regarding what DSS considers a reasonable standard of care and the expenses associated with that standard. This cost modeling also allows the Department to make more fine-tuned adjustments to respond to specific changes in provider costs or support targeted policy priorities around staffing or capital investment. While Guidehouse encourages

[2] *Projected SFY 2025 rates for standard PRTF and IRT facilities are based on a 4 percent increase from prior year. Rates for SUD services delivered in the PRTF setting are based on the current rate, with no projected increase.*

DSS to consider the merits of adopting a more fine-grained methodology for modeling costs, comparison to the current methodology indicated that DSS present approach generates similar results, and potentially with greater administrative ease.

Tiered Rates by Residential Unit. Based on survey results, providers indicated that they have residential units within their facilities that are either closed or not fully occupied. The reasons for not using these units vary, stemming from a lack of staff to support multiple units simultaneously to unwillingness to take in higher acuity youth without having the right staffing mix in place.

To incentivize providers to open unused units to higher acuity youth, the State can incorporate this cost-based model with varying degree of reimbursement level based on acuity and staffing ratio needs. This is known as a tiered reimbursement rate system, where units housing youth with higher needs will have higher reimbursement rates compared to units housing lower acuity youth. The tiered reimbursement rate also discourages the facilities with having homogeneous group of children, by incentivizing the in-take of children with various degree of behavioral needs.

However, a tiered reimbursement rate based on units within the facilities does not come without potential challenges. The facility-wide rate used currently gives providers the flexibility to move and regroup children based on available staff and the needs of youth. This flexibility also allows the facility to control and monitor youth more effectively by retrofitting unused space to temporary separate children as the need arises.

Guidehouse recommends that DSS continue to work with provider stakeholders to consider the benefits (and potential challenges) of tiering residential rates to foster additional options for more intensive care in specialized units in existing in-state facilities.