Disability Waivers Rate System

Minnesota Department of Human Services Disability Services Division

January 15, 2016

Legislative Report

Minnesota Department of **Human Services**

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I. Executive summary

This is the second report produced by the Department of Human Services that responds to legislation enacted in January 2014, which required the Minnesota Department of Human Services to implement a new Disability Waivers Rate Setting (DWRS) system. This is a more accurate projection of the future than the preliminary 2015 report, as it includes an additional year of available data and a projection of estimated rate exceptions. This is the first opportunity to see a long-term projection of the fiscal impact of the DWRS with a full year of data.

The DWRS was a significant change for the state, and 2013 legislation was careful to allow for a 5-year transition plan to full implementation of the new system. Legislation provided a process intended to allow time to adjust the system and ensure continuing access to quality services. This transition plan includes rate stabilization for people who received services in 2013, as well as rate stabilization for providers who provided services in 2013. The rates determined through the new rate methodology will not be applicable for most people and providers until calendar year 2019 or 2020. Therefore, the current fiscal impact of DWRS is extremely limited. The analysis in this report provides estimates for the long-term impact of DWRS in 2019 or 2020.

The development of DWRS began in 2007, when the Centers for Medicare & Medicaid Services (CMS) informed Minnesota that its four disability waivers were out of compliance with federal requirements for uniform rate-determination methods and standards.

DHS conducted extensive research and, after lengthy stakeholder input and legislative negotiations, the Disability Waivers Rate System was finalized in the 2013 legislative session. This system transferred the responsibility of setting service rates from counties and tribes to the state. It allowed for the federal renewal of Minnesota's disability waivers.

Individual service needs are the basis for calculations. System rates are based on static cost components such as wages, employee-related expenses and client and program overhead factors. These factors are applied to variable inputs entered into the calculation related to the person's needs. The combination of these elements and the resulting calculations are commonly referred to as "framework rates."

This report summarizes the analysis of first- and second-year data entries into the DWRS. It examines the projected long-term impact of DWRS on the price of providing services to ongoing disability waiver recipients on a statewide, service, provider, and lead agency level. In addition to fiscal impact estimates, legislation requires research and data gathering for specific cost components used to calculate rates within DWRS. This report details completed elements of the ongoing research plan and provides an overview of continuing and future analysis.

The findings in this report illustrate the projected long-term fiscal impact of DWRS when rate stabilization no longer is applicable in calendar year 2019 or 2020. The estimated impact of DWRS is a 1 percent increase in projected spending for disability waiver services, which are governed by rate-setting frameworks detailed in this report. That amounts to approximately $26.9 million per year (federal and state spending combined). This projected increase does not include cost-of-living adjustments, which the legislature authorized in 2014 and 2015. It also does not include required updates to the Bureau of Labor Statistic wage codes in the frameworks, required by the legislature to take place in fiscal year 2017. Additionally, this projection is likely to increase as we identify more people to be approved for rate exceptions.

Despite the increase in total projected spending, the impact of DWRS does vary, with some providers, services and lead agencies showing increases while others indicating decreases. As an example, spending for residential services is projected to increase 2.4 percent, while spending for day services is projected to decrease 4.8 percent.

As the rate stabilization period continues, DHS will continue to employ a comprehensive research plan to ensure:

- The DWRS system accurately reflects the cost of providing services
- Recipients continue to have access to the services they need
- The DWRS system is implemented fairly and consistently throughout the state.

In the second year of implementation, DHS used research findings to implement two data-driven modifications to the frameworks: Transportation for daily day training and habilitation services and regional variance factors for all frameworks. As other research projects are completed, DHS will present data findings to the legislature and make recommendations for rate framework modifications based on research findings.

DHS recommends that current administrative processes remain in place to allow for careful analysis during the remaining years of implementation. This approach will result in appropriate, data-driven adjustments to framework component values and allow for the service planning that is necessary to provide the best services for people who use waiver services.

II. Legislation

Minnesota Statute, section 256B.4914, subdivision 10 requires the Department of Human Services to submit a report on the status of the implementation and the additional data and summary information as follows:

Subd. 10. **Updating payment values and additional information.**

(a) From January 1, 2014, through December 31, 2017, the commissioner shall develop and implement uniform procedures to refine terms and adjust values used to calculate payment rates in this section.

(b) No later than July 1, 2014, the commissioner shall, within available resources, begin to conduct research and gather data and information from existing state systems or other outside sources on the following items:

(1) differences in the underlying cost to provide services and care across the state; and

(2) mileage, vehicle type, lift requirements, incidents of individual and shared rides, and units of transportation for all day services, which must be collected from providers using the rate management worksheet and entered into the rates management system; and

(3) the distinct underlying costs for services provided by a license holder certified under section 245D.05, 245D.06, 245D.07, 245D.071, 245D.081, and 245D.09, and for all services provided by a license holder certified under section 245D.33.

(c) Using a statistically valid set of rates management system data, the commissioner, in consultation with stakeholders, shall analyze for each service the average difference in the rate on December 31, 2013, and the framework rate at the individual, provider, lead agency, and state levels. The commissioner shall issue semiannual reports to the stakeholders on the difference in rates by service and by county during the banding period under section 256B.4913, subdivision 4a. The commissioner shall issue the first report by October 1, 2014.

(d) No later than July 1, 2014, the commissioner, in consultation with stakeholders, shall begin the review and evaluation of the following values already in subdivisions 6 to 9, or issues that impact all services, including, but not limited to:

(1) values for transportation rates for day services;

(2) values for transportation rates in residential services;

(3) values for services where monitoring technology replaces staff time;

(4) values for indirect services;

(5) values for nursing;

(6) component values for independent living skills;

(7) component values for family foster care that reflect licensing requirements;

(8) adjustments to other components to replace the budget neutrality factor;

(9) remote monitoring technology for nonresidential services;

(10) values for basic and intensive services in residential services;

(11) values for the facility use rate in day services, and the weightings used in the day service ratios and adjustments to those weightings;

(12) values for workers' compensation as part of employee-related expenses;

(13) values for unemployment insurance as part of employee-related expenses;

(14) a component value to reflect costs for individuals with rates previously adjusted for the inclusion of group residential housing rate 3 costs, only for any individual enrolled as of December 31, 2013; and

(15) any changes in state or federal law with an impact on the underlying cost of providing home and community-based services.

(e) The commissioner shall report to the chairs and the ranking minority members of the legislative committees and divisions with jurisdiction over health and human services policy and finance with the information and data gathered under paragraphs (b) to (d) on the following dates:

(1) January 15, 2015, with preliminary results and data;

(2) January 15, 2016, with a status implementation update, and additional data and summary information;

(3) January 15, 2017, with the full report; and

(4) January 15, 2019, with another full report, and a full report once every four years thereafter.

Additionally, Minnesota Statute, section 256B.4914, subdivision 14, paragraph l requires the Department of Human services to submit a report on rate exception research as follows:

Subd. 14. **Exceptions.**

(l) No later than January 15, 2016, the commissioner shall provide research findings on the estimated fiscal impact, the primary cost drivers, and common population characteristics of recipients with needs that cannot be met by the framework rates.

III. Introduction

The Department of Human Services (DHS) submits this report to the Minnesota Legislature pursuant to Minnesota Statute, section 256B.4914, subdivision 10 that directs DHS to submit a report about the Disability Waiver Rates System (DWRS). The statute requires the commissioner of the Department of Human Services to analyze, for each service, the difference in the rate on Dec. 31, 2013, and the framework rate at the individual, provider, lead agency and state levels.

A. Background

In 2007, the Centers for Medicare & Medicaid Services (CMS) informed Minnesota that its four disability waivers were out of compliance with federal requirements for uniform rate-determination methods and standards. The disability waivers are the:

- Brain Injury (BI) Waiver
- Community Alternative Care (CAC) Waiver
- Community Alternatives for Disabled Individuals (CADI) Waiver
- Developmental Disabilities (DD) Waiver.

Navigant Consulting Inc., an independent research firm, conducted complex and extensive research on the cost of providing disability waiver services in Minnesota. This research included a review of national and local independent data sources as well as a disability service provider cost and wage survey. Navigant Consulting completed its research and presented recommendations to DHS in January 2012.

Workgroups comprised of service providers and lead-agency representatives have met and provided input in this process since 2009. DHS established an advisory committee comprised of stakeholders that has been meeting on a monthly basis since 2011.

After stakeholder input and legislative negotiations, the legislature finalized the Disability Waivers Rate System during the 2013 legislative session. This system transferred the responsibility of setting service rates from counties and tribes to the state. Doing so made possible the federal renewal of the Minnesota disability waivers.

The DWRS was a significant change for the state, lead agencies and providers. It required extensive work and thousands of hours of training by all involved in order to learn the new rate-setting system.

Due to the significance of this change, legislation was careful to allow for a five-year transition plan for full implementation of the new system. This process was intended to allow time to adjust the system and ensure that the services maintained quality.

In January 2014, this system went live statewide on a rolling basis as recipients renewed their service agreements. Lead agencies use the Disability Waivers Rate System to calculate a framework rate for each recipient and service. From 2014 through 2018, rates calculated by DWRS are banded to their historic rate. Banding protections are as follows:

- Calendar Year 1 (2014): 2014 rates are limited to be within 0.5 percent of their 2013 rates
- Calendar Year 2 (2015): 2015 rates are limited to be within 0.5 percent of their 2014 rates

- Calendar Year 3 (2016): 2016 rates are limited to be within 1.0 percent of their 2015 rates
- Calendar Year 4 (2017): 2017 rates are limited to be within 1.0 percent of their 2016 rates
- Calendar Year 5 (2018): 2018 rates are limited to be within 1.0 percent of their 2017 rates
- Calendar Year 6 (2019): Rates calculated in 2019 are full framework rates.

Legislation passed in 2015, changed the banding schedule by adjusting the 2016 banding value to 0.5 percent and adding an additional banding year in calendar year 2020.

The original banding values and schedule authorized by the legislature in 2013 were subject to CMS approval. Subsequent banding value and schedule changes are also subject to federal approval. The banding value change and the additional year of banding authorized by the legislature in 2015 are part of the department's federal waiver amendment package, which CMS has not yet approved. In order to remain in compliance with federal waiver amendments, DHS will implement the banding schedule as previously approved by CMS until it receives final CMS approval or denial.

Banding protections are designed to give adequate time to conduct appropriate and complex research on the rate-setting system prior to statewide full implementation. This report highlights the data trends in the system through the second year of implementation. Using the fiscal findings from the first two years of implementation, DHS designed a focused evaluation strategy of DWRS components and system usage for the subsequent research years. In addition to reporting fiscal findings, this report will summarize the evaluation strategy of DWRS.

B. How the system works

An application, known as the Rates Management System (RMS), calculates rates. Individual needs, as directed by service planning, are the basis for direct service costs. Direct service wages are the primary driver for rates. Other costs values, such as staff supervision, employee benefits, taxes, program costs and other cost components also are incorporated within the frameworks. Direct wages and component values are multiplied by the required service units to provide costs related to individual needs.

C. System goals

The goals of the system were to create statewide rate-setting methodologies that:

- Are transparent, fair and consistent across the state
- Comply with federal requirements for administration of waiver programs
- Establish rates based on a uniform process of structuring component values for service
- Promote quality and participant choice
- Recognize a person's assessed need for particular components within each service.

D. Implementation years

During the implementation years, DHS will use data to drive improvement and mitigate potentially negative impacts of the system. As we implement the research topics and the report schedule detailed in Minn. Stat. §256B.4914, more and better data will be available. We will share this with various stakeholders for their review. The implementation schedule will allow for careful analysis, which will result in appropriate adjustments to framework component values and the service planning necessary to provide the best services for people who use waiver services.

DHS is committed to continued collaboration with provider representatives, lead agency representatives and other stakeholders to ensure the disability waiver rates system is applied uniformly and in a way that allows for necessary adaptations, which may be identified throughout the implementation period.

IV. Impact analysis

This report summarizes the projected long-term impact of the disability waivers rate system (DWRS) on the price of providing services to ongoing disability waiver recipients. The analysis and findings in this report highlight the projected impact to rates on a service, lead agency, provider and individual level.

A. Analysis methodology

This study measures the projected fiscal impact of DWRS by examining the percent difference in the rate per unit for recipients who had the same services authorized in 2013 and currently. The objective of this analysis is to measure the direct impact of DWRS, excluding all other factors that may affect rates. Therefore, this study is limited to the following specifications:

- **Ongoing recipients:** This study measures the impact of DWRS by only looking at recipients who received the same service from the same provider in both time periods. It does not include recipients who had a change in service or service provider since December 2013. It also does not include new recipients of service. In order to be included in this study, the person must have had an approved service line in December 2013 for the same service and provider.

- **Rate Management System (RMS) usage:** This study only includes service agreement lines in which RMS was used to calculate a rate that was then entered into MMIS. In order to be included in this study, each service agreement line must have an identical record in both databases.

- **Holding units constant**: In order to isolate projected changes in the actual rates, this study does not consider changes to the number of units authorized and/or paid.

- **Cost-of-living increases:** Since the initial implementation of DWRS, there have been three cost-of-living increases approved through the legislature in the aggregate amount of 7 percent. In order to isolate the direct impact of DWRS and exclude other legislative changes, this analysis removes the additional impact of cost-of-living increases by applying them, when applicable, in both time periods.

- **Bureau of Labor Statistic (BLS) Wage Code and Consumer Price Index updates:** The legislature requires DHS to update component values in DWRS according to changes in the BLS wage codes and Consumer Price Index in July 2017. These updates will impact the framework rates calculated by RMS. Because the values of these changes are not yet known, this analysis does not include these updates.

- **Rate exceptions:** This study includes all ongoing recipients who have the same service in both time periods, regardless of whether they will receive a rate exception when banding protections are not applicable. The projected cost of rate exceptions will be applied as an additional consideration to the state-level and service bucket-level projections. All other findings in this study do not consider rate exceptions. As rate exceptions are approved by lead agencies and DHS during the implementation period, this analysis will modify impact projections accordingly.

- **Jan. 1, 2016, framework changes:** Regional variance factor components are being applied to all framework rates beginning Jan. 1, 2016. Additionally, the day training and habilitation service daily-unit framework will include a transportation value directed by statute. In order to project future DWRS rates accurately, this analysis applies both of these factors to framework rates accordingly.

Limitations

Because this study does not consider service purchasing changes or new recipients, the precise fiscal impact of DWRS on paid claims is not being measured in this report. This analysis purely measures the difference in the actual rates. It compares the rates authorized under historical rate-setting methods to the projected rates calculated by the Disability Waivers Rate System.

Study sample

This study examined 38,822 approved service agreement lines from Oct. 1, 2014, through Sept. 30, 2015. It includes 18,946 recipients and 1,728 providers.

Definitions and measures

This report evaluates the impact of DWRS by estimating the 2019 projected impact to rates. This is the percent difference between the average rate per unit in 2013 and the framework rate calculated by the DWRS.

B. Summary of findings

Statewide

The total projected statewide impact of the DWRS across all services is a 1.04 percent increase in the rate per unit for DWRS services. Without factoring in rate exceptions, the projected statewide impact of DWRS is a 1.7 percent decrease. Additionally, the projected cost of rate exceptions is a minimum of 2.2 percent of DWRS spending. With both measures applied to the state forecasted spending in FY2020, we project a 1.04 percent increase to the total statewide impact of DWRS, including rate exceptions, upon full implementation in calendar year 2019 or 2020. That amounts to approximately $26.9 million per year (state and federal share combined).

Findings by service

This analysis measures the projected fiscal impact to rates on a service bucket and service category level. Service buckets are broad groupings of services. They include residential, day, unit-based with programming, and unit-based without programming. Service categories are smaller groupings that include all procedure codes for a particular service type. For example, all foster care services, including family, corporate, adult, and child, are included in the foster care service category.

Note that these findings only account for rate exceptions on a service-bucket level Due to sample size requirements, rate exceptions could not statistically be included in the analysis projections for the service category and procedure-code level analysis. As DHS and lead agencies approve rate exceptions in the forthcoming years of implementation, we will modify projections accordingly.

For a detailed table that lists study findings by service category, go to Appendix A.

Residential services

The residential bucket projects a 2.43 percent increase in the rate per unit from 2013 to 2019. Without factoring in rate exceptions, the projected impact of DWRS to rates is a 0.7 percent increase. Rate exceptions are projected to account for an additional 1.73 percent of total service bucket spending. Figure 1 shows the projected impact for each service category in the residential bucket:

Figure 1: Statewide impact to residential service rates

Service category	Projected impact
Customized living services	-2.0%
Foster care services	0.1%
Residential care services[1]	-11.7%
Supportive living services (daily)	1.2%
TOTAL residential bucket without exceptions	**0.7%**
Projected additional spending on rate exceptions (as a percent of total bucket spending)	1.73%
Total projected impact for residential bucket	**2.4%**

Analysis from the Exceptions Research Study concluded residential services is a primary service area of projected exceptions. In addition to the number of exceptions DHS is likely to grant in this area, the total cost of the exceptions also is higher than other service areas. Therefore, the projection of DWRS impact may change when more statewide data is available to identify the specific people who will require rate exceptions. Find more information on the Exceptions Research Study section of this report.

Day services

The day services bucket projects a 4.85 percent decrease in the rate per unit from 2013 to 2019. Without rate exceptions factored in, the projected impact of DWRS is a 10.3 percent decrease. Rate exceptions are projected to account for an additional 5.45 percent of total service bucket spending. Figure 2 shows how DWRS implementation has affected specific day-service categories statewide.

Figure 2: Statewide impact to day service rates

Service category	Projected impact
Adult day services	6.6%
Day training & habilitation	-10.3%
Prevocational services	-19.0%
TOTAL impact of DWRS (without exceptions)	**-10.3%**
Projected additional spending on rate exceptions (as a percent of total bucket spending)	**5.45%**
Total projected impact for day bucket	**-4.85%**

[1] Residential care service is being eliminated before the banding period ends. This service currently is used by approximately 216 people who will have access to different waiver services.

These projections take into consideration both the new regional variance factor components, as well as the legislatively priced transportation in the day training and habilitation daily framework. Before the inclusion of these factors, the day training and habilitation service category was projected to decrease 12.85 percent and the day-services bucket was projected to decrease 12.46 percent (without exceptions accounted for). Combined, the implementation of these factors increased the expected framework spending in the day bucket by approximately 2 percent.

As Figure 2 illustrates, we project two service categories within the day bucket to decrease when full DWRS implementation occurs. The bucket also is projected to have the highest concentration of rate exceptions, as a percentage of total bucket spending, compared with other service buckets. DHS currently is conducting a comprehensive analysis on the non-wage cost components within these frameworks to verify the values reflect data on provider costs. For more information on that study, see the section on the Non-Wage Cost Study later in this report.

Unit-based services without programming

The unit-based services without programming bucket projects a 11.32 percent increase in the rate per unit from 2013 to 2019. Before the consideration of rate exceptions, the projected impact of DWRS is a 10.8 percent increase. An additional 0.52 percent of service bucket spending is projected for rate exceptions. Figure 3 shows how DWRS implementation has affected the service categories in this bucket statewide.

Figure 3: Statewide impact to unit-based services without programming rates

Service category	Projected impact
Personal support/companion[2]	15.2%
Respite care services	9.8%
TOTAL impact of DWRS (without exceptions)	**10.8%**
Projected additional spending on rate exceptions (as a percent of total bucket spending)	0.52%
Total projected impact for bucket	**11.32%**

As indicated in this table, both service categories in this bucket project an increase. Personal support, in particular, indicates a large projected increase in 2019. In the respite care services category, respite provided in a person’s home is projected to increase, while out-of-home daily respite is projected to see decreases. We currently are researching the costs required of out-of-home respite providers in the Non-Wage Cost Component Study. Specifically, we are looking at the number of hours within a daily unit, as well as room-and-board costs associated with the service.

Unit-based services with programming services

The unit-based with programming service bucket projects an 8.1 percent decrease in the rate per unit from 2013 to 2019. Without rate exceptions factored in, the projected impact of DWRS is a 10.9 percent decrease. Rate exceptions are projected to account for an additional 2.84 percent of

[2] The service definition and guidance pertaining to the provision of personal supports changed concurrently with DWRS implementation. The rate framework was developed accordingly. Due to this additional change, the nature of the service being provided in both time periods, and their respective rates, is not equivalent.

total service bucket spending. Figure 4 shows how DWRS implementation has affected specific service categories in this bucket.

Figure 4: Statewide impact to unit-based services with programming rates

Service category	Projected impact
Behavioral support	2.7%
Independent living skills	-26.7%
In-home family support	0.9%
Supported employment	3.1%
Supported living services, 15-minute	-6.4%
TOTAL impact of DWRS (without exceptions)	**-10.9%**
Projected additional spending on rate exceptions (as a percent of total bucket spending)	2.84%
Total projected impact for bucket	**-8.1%**

The cost components for these services are being examined in the Non-Wage Cost Component Study in order to ensure the values in the rate frameworks reflect the appropriate level of providers' costs as substantiated by data.

Findings by lead agency

Legislation requires this analysis to also look that the projected impact to rates for each lead agency. A lead agency, as measured in this study, is the county where the individual receiving services lives. This analysis measures the change to rates, but does not measure differences in spending or the fiscal impact on lead agency budgets.

This section summarizes the projected impact of DWRS on lead agency rates on an aggregate level. The report calculates change by considering, for each lead agency, all service authorizations across all buckets for recipients that had both 2013 and current authorizations. The impact analysis in this report compares rates in both periods and does not consider the additional factor of rolling implementation. DHS will assess the actual fiscal impact on lead agencies as implementation continues and data about claims is collected.

Additionally, this level of analysis does not include recipients of rate exceptions, which could significantly affect the 2019 projections for some agencies. As rate exceptions are approved by lead agencies and DHS throughout the banding years, we will modify lead agency projections.

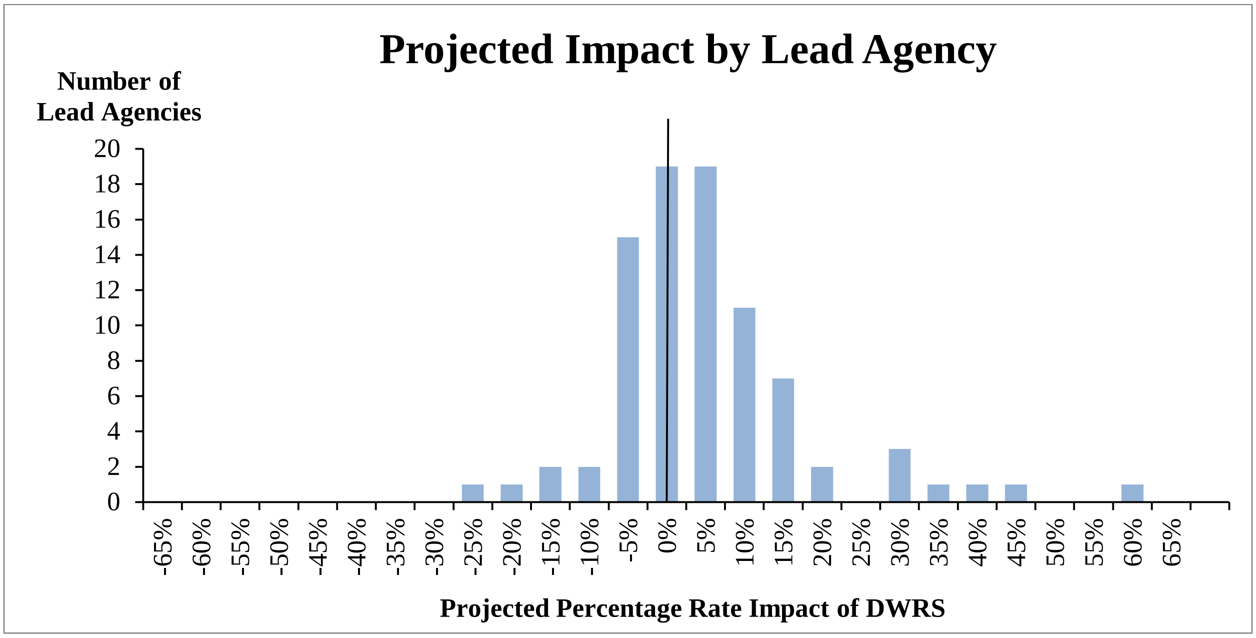
When banding no longer applies and lead agencies use all framework rates in 2019 or 2020, the projected impact of DWRS on lead agency service rates varies greatly, ranging from a 25 percent decrease to a 56 percent increase. However, 48 percent of lead agencies project a change of 5 percent or less. 78 percent of lead agencies project a change of 10 percent or less.

The following statistics summarize distribution of the projected impact across the state:

- The average change projected for lead agencies as a whole is a 3 percent increase.
- The median change projected for lead agencies as a whole is a 1 percent increase.
- 53 percent of lead agencies project an increase in aggregate rates while 47 percent project a decrease.

The following graph, Figure 5, shows the frequency distribution among lead agencies.

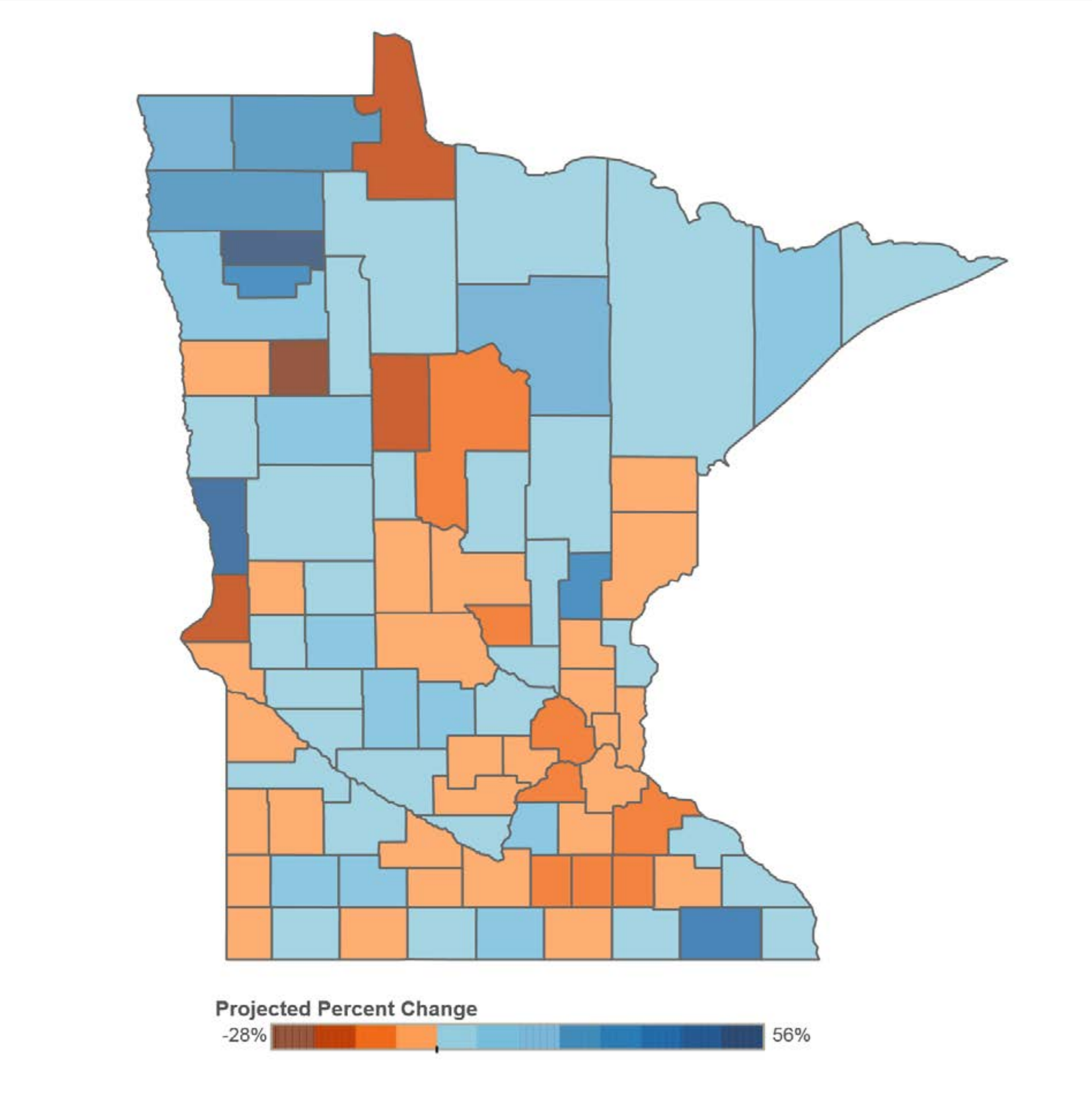
Figure 5: Projected 2019 impact by lead agency



This graph demonstrates that the number of lead agencies that project an increase in 2019 is larger than the number of agencies that project a decrease. It also shows that most lead agencies project a change of 10 percent or less, and that there are more lead agencies with extreme increases than there are with extreme decreases.

As indicated in these findings, the projected impact of DWRS in 2019 varies widely among lead agencies. This largely is due to historic rates having wide variability across the state before the implementation of DWRS. Figure 6 illustrates the variability of the projected change across the state's lead agencies.

Figure 6: State of Minnesota map, projected 2019 impact by lead agency



As Figure 5 and 6 illustrate, more lead agencies project an increase rather than a decrease. However, many of the state's largest lead agencies, who have the most recipients and highest disability waiver spending, project a decrease.

The DWRS frameworks are based on statewide average and median cost drivers, with the largest cost driver being direct care staff wages. The regional variance research, completed in 2015, found that direct care staff wages did have statistically significant variation across different regions of the state, and as a result, the Rate Management System will apply regional variation factor components to the frameworks effective Jan. 1, 2016. This report includes the application of these factors. In applying these factors, the research found implementation of the regional variance factors reduced the wide variability seen in the impact of DWRS by accounting for some variance in cost throughout the state. For more information on that study, see the section on the Regional Variance Study later in this report.

For a more detailed look at the projected fiscal impact of DWRS on each lead agency, both on a county of residence and county of financial responsibility level, go to Appendix B.

Findings by provider

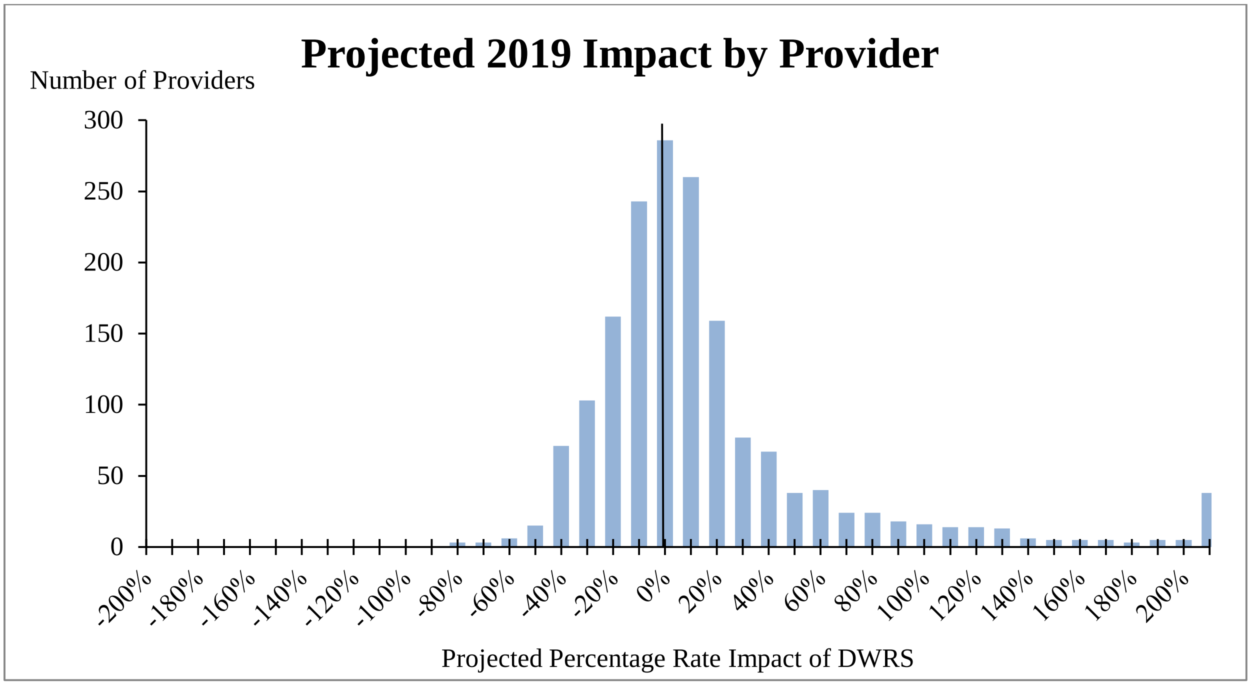
This section summarizes the projected impact of DWRS on providers' rates on an aggregate level, as identified by their National Provider Identifier (NPI). This level of analysis does not include rate exception projections, which could significantly impact the 2019 projections for providers. As rate exceptions are approved by lead agencies and DHS throughout the banding years, these projections will be modified. Additionally, providers who have multiple NPIs are included in this study independently for each NPI.

When banding no longer applies and full framework rates are authorized in 2019 or 2020, the projected impact of DWRS on providers varies widely. The following statistics summarize trends seen on a provider level, as measured by rates authorized for each NPI:

- The median percent change in rates projected for all providers is a 0.6 percent decrease
- The average percent change in rates projected for all providers is a 14.5 percent increase
- One third of all providers project a change of 10 percent or less
- Forty-eight percent of providers project an increase in 2019/2020
- Fifty-two percent of providers project a decrease in 2019/2020.

Figure 7 shows the frequency distribution of providers' projected change in 2019 or 2020.

Figure 7: Projected 2019 impact by provider



As seen in Figure 7, the projected impact varies widely among all providers across the state and across wavier services. Variability in DWRS impact among providers depends on many factors, such as historical rate setting methods, the number of recipients served and the type of services delivered by providers. Figure 7 also shows that while the median change is a 0.6 percent decrease, the average is a 14.5 percent increase because there are more providers projected to have extreme increases than those projected to have extreme decreases.

For more details on the estimated impact to providers, go to Appendix C.

Findings by recipient

This section summarizes how DWRS implementation is projected to affect the rates of each recipient. We calculated these statistics by considering all DWRS services that a person has been authorized for in both time periods and determining the total percent change projected for the individual across all services. This analysis does not include changes in service authorizations or services not priced by DWRS.

The following statistics summarize the projected impact to recipients' aggregate rates:

- The average change projected for recipients' aggregate rates is a 2.2 percent decrease.
- The median projected change is a 6 percent decrease.
- The average number of distinct providers for each recipient is 1.4.
- The average number of distinct services calculated in DWRS for each recipient is 1.7.

As with other findings in this report, these analysis trends vary widely and depend on many factors, such as historical rate-setting methods, the number of services authorized and the types of services authorized. This analysis level also is particularly susceptible to significant changes in rate exceptions. As DHS and lead agencies approve rate exceptions during the banding years, we will modify projections.

For more details on the estimated impact to recipients' total rates, go to Appendix D.

C. Findings conclusion

The findings in this fiscal impact study estimate the total statewide impact of the Disability Waiver Rate System implementation on home and community-based service rates is a 1.04 percent increase. This impact will occur in calendar year 2019 or 2020, when banding protections no longer are applicable, and the system is fully implemented.

This study also illustrates that the projected impact of DWRS to the rates of specific services, lead agencies, providers and recipients varies widely, with some show large increases while others show large decreases. While it is anticipated that moving from a variable county-negotiated rate system to a systematic statewide methodology will result in different rates, DHS is employing a comprehensive research plan in order to confirm that the cost components within the frameworks accurately reflect the cost of providing services. Go to the Non-Wage Cost Study Section for more information on the DWRS research plan.

V. Data gathering

Legislation requires DHS to, within available resources, conduct preliminary research and gather preliminary data from sources within and outside the state system on the following items:

- Differences in the underlying cost to provide services and care across the state
- Mileage, vehicle type, lift requirements, incidents of individual and shared rides, and units of transportation for all day services, which must be collected from providers using the rate management worksheet and entered into the rates management system
- The distinct underlying costs for services provided by a license holder certified under section 245D.05, 245D.06, 245D.07, 245D.071, 245D.081, and 245D.09, and for all services provided by a license holder certified under section 245D.33.

This section summarizes research completed and applicable ongoing research projects in these subject areas.

A. Regional differences in provider costs

Minn. Stat. §256B.4914 requires DHS to:

- Research the cost differences across the state to provide home and community based services
- Implement a regional adjustment factor at the end of each rate calculation.

DHS commissioned an independent health research firm, Truven Health Analytics, to conduct a study on the differences in the cost of providing services throughout the state and to use those findings to develop an appropriate regional variance factor to apply to rate calculations.

Study findings

The study completed by Truven Health Analytics found that staff wages, the predominant cost in providing disability waiver services, did have statically significant variation across the state. Researchers developed regional variance factors from this data. The Rate Management System will apply those factors to the Disability Waiver Rate System calculations on a rolling basis as service agreements renew beginning Jan. 1, 2016. Go to Appendix E for the regional variance factor values.

Region defined

The study used Metropolitan Statistical Areas (MSAs) to define regions. The federal Office of Management and Budget determines MSAs using labor market measures. In order to be included in an MSA, a county adjacent to a core county must either have:

- At least 25 percent of its workers living in the county, but working in the central core county
- At least 25 percent of the employees working in that county reside in the central core county.

This study used the MSA designations from the federal Office of Management and Budget, which were published at the time of the study methodology development, in early 2014. MSA designations may change over time depending on federal decennial census results. Go to Appendix F for the composition of Minnesota's twelve MSAs used in this this study.

Data used

Cost drivers within the DWRS frameworks, which have rationale to support statistically significant cost variation by region, were identified for study. For each cost factor, researchers conducted a review of all available data. In order to be included in the study, the cost factor had to have sufficient, reliable and credible data available to study a meaningful regional variation in cost. For instance, the available data must:

- Sufficiently cover the whole state
- Be reliable so that any future study would be able to replicate the results
- Come from an independent, credible source.

Wage data, available through Bureau of Labor Statistics (BLS), was the only cost factor within the DWRS frameworks that had available data to meet this criteria.

Currently DWRS frameworks are based on statewide median wages measured by the applicable BLS wage codes. Researchers studied these particular wage codes across the MSA regions and compared them to the statewide median. This study concluded that there are areas in the state that have significantly higher wages than the statewide median as well as areas in the state that have significantly lower wages. Using these findings in combination with MMIS historical spending data, researchers developed regional variance factors that were budget neutral on a statewide level.

Stakeholder engagement

Throughout the research process, DHS and Truven Health Analytics engaged with stakeholders on the research methodology, study findings and implementation options. Specifically, Truven Health Analytics presented the research methodology to the DWRS Advisory Committee. It also presented its findings to this group upon research completion. DHS publically posted the research findings and hosted a public comment period before developing an implementation resolution.

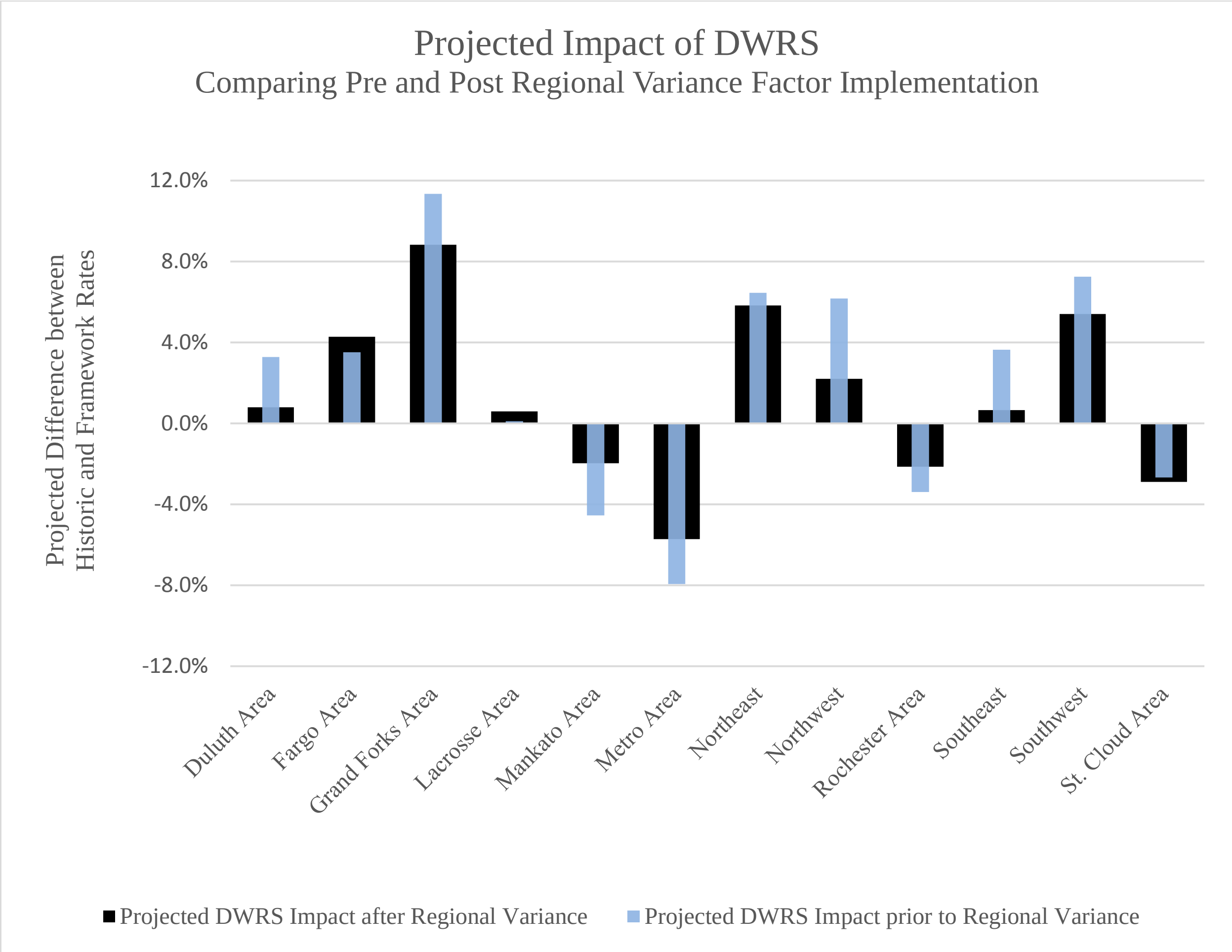
Impact assessment

Following the development of the regional variance factors, DHS completed an assessment of the projected impact. According to statute, the regional variance factors must be applied to the end of the framework calculations. The impact assessment compared the projected impact of DWRS to rates (percent difference between the average rate per unit in 2013 and the framework rate calculated by the DWRS) to the projected impact of DWRS to rates with the regional variance factors applied.

The impact assessment found that applying the regional variance factors to the framework rates would not result in decreased spending. In most regions where a negative regional variance factor would be applied, they currently project large increases when full DWRS implementation occurs. Implementing the regional factors will result in smaller increases for these regions. Additionally, not implementing a regional variance factor likely would have a negative impact in areas where staff wages significantly are higher than the statewide median.

Figure 8 illustrates the regional variance impact assessment for each region, comparing the projected DWRS impact to rates with regional variance factors applied to the projected DWRS impact to rates without regional variance factors applied.

Figure 8: Comparing the projected impact of DWRS pre- and post-regional variance factor implementation



Future adaptation

In this study, researchers considered all cost components within the DWRS frameworks. However, the availability of the other cost-driver data from all regions of the state was not sufficient to meet minimum research sample standards. Wages are the largest provider cost component for all DWRS services. DHS currently is conducting an additional study on non-wage cost components. If a statistically significant regional variation is evident in future research of other cost components, adaptations to the regional variance factor can occur in conjunction with updates in 2017. For more information, go to the Non-Wage Cost Study section of this report.

DHS will replicate this study in conjunction with the statutory requirements to update BLS wage values in 2017, and every five years thereafter. Replication of this research will consider any changes to the regional wage values as well as any changes to the Metropolitan Statistical Area regions defined by the U.S. Office of Management and Budget.

B. Transportation for day services

Legislation requires DHS to collect data on the miles traveled, time spent and type of ride for transportation provided by day service providers. After one year of data collection, DHS reviewed data with the following research objectives:

- Determine the cost difference between historical methods of pricing transportation and the pricing structure in 256B.4914 for daily day training and habilitation services (DTH)
- Examine trends in transportation utilization and price

This analysis reviewed all approved service agreement lines with start dates in fiscal year 2015 that had a matching record in the Rate Management System. This included a total of 8,342 recipients and 261 providers. The following sections summarize the findings on transportation utilization and price.

Utilization

The average miles a person traveled per day as part of their daily-unit day training and habilitation service was 18 miles. The average time a person spent in transit per day was 58 minutes. Regionally, these numbers had wide variability. People in the metro area had the largest average time spent in transit, at 70 minutes. Whereas, other large regions in rural areas, such as the Northwest, Southeast and Southwest regions, all averaged 44 to 45 minutes.

Price

The average historical price of transportation was $11.50 per day, per person. The average new price of transportation is $14.48 per day, per person. All regions, as defined as Metropolitan Statistical Areas, would see an increase in their DTH daily transportation spending upon moving from historical pricing methods to the new pricing structure.

Approximately 86 percent of providers across the state would see an increase in DTH daily transportation spending. Statewide, this analysis found that framework rate spending for daily DTH is approximately 5 percent higher with the new pricing methodology compared to framework rate spending utilizing historical transportation pricing.

2016 implementation of DTH daily transportation

In the initial years of DWRS implementation, DHS and stakeholders agreed to delay the DTH daily transportation pricing methodology, outlined in Minnesota Statutes 256B.4914 subdivision 7, paragraphs 16 and 17, pending the collection and analysis of this data.

After the review of the findings outlined above, the new transportation pricing methodology will be implemented on a rolling basis beginning Jan. 1, 2016. This change only applies to framework rates, or the rate that will be applicable when banding no longer applies.

Future research and adaptation

DHS will continue to research transportation in day services, particularly trends in the utilization and time spent in transit. Transportation is a critical issue that affects people’s ability to gain access to the services they need. Future research also may include developing a transportation framework for other services.

C. DHS licensing costs

Legislation requires DHS to study the distinct underlying costs for services provided by a license holder certified under section 245D.05, 245D.06, 245D.07, 245D.071, 245D.081, and 245D.09, and for all services provided by a license holder certified under section 245D.33

These costs include training costs, staff time, licensing fees and administrative tasks. We will review these cost components through the Non-Wage Cost Component Study section in this report.

VI. Payment values

Legislation requires DHS to conduct a preliminary review or evaluation of the following payment values for services in the DWRS. In some instances, an analysis plan for future reporting is included.

A. Values for transportation rates for day services

DHS evaluated transportation rates as required by Minn. Stat. §256B.4914, subd. 10b. You can find this research on in the Transportation for Day Services section of this report.

B. Values for transportation rates in residential services

Transportation costs for residential services in the service framework rate. The rate is based on the resident with the highest need and is priced as follows:

- No transportation required: $0/individual
- Transportation without a customized adapted vehicle required for all residents: $1,600/individual annually
- Transportation in an adapted vehicle with a lift required for one or more residents: $3,000/individual annually.

DHS currently is evaluating transportation costs in residential services in the Non-Wage Cost Component Study.

C. Values for services where monitoring technology replaces staff time

Minnesota defines monitoring technology as the use of technology and equipment for providing oversight, monitoring and supervision of individual health and safety while also supporting independence. Monitoring technology equipment includes tools such as alarms, sensors, remote monitors and other devices. The goals for using monitoring technology are to promote community living and independence and to ensure the health and welfare of people with disabilities. Lead agencies may authorize remote staffing in corporate- and family-foster care and supported living services (SLS).

DHS is evaluating the cost of monitoring technology in foster care and supportive living services settings in the Non-Wage Cost Component Study.

D. Values for indirect services

With a few exceptions, only direct (or recipient-facing) time is billable. The program plan support value within the DWRS frameworks accounts for the time spent by direct-service staff when they are not directly engaged with service recipients. Navigant Consulting Inc. developed the cost component for the program plan support value from findings collected through the 2010 RSMI Provider Cost and Wage Survey. DHS is replicating this survey through the Non-Wage Cost Component Study and indirect time is a core component we are evaluating.

E. Values for nursing

Lead agencies may enter nursing information in the Rate Management System (RMS) for direct care by a registered nurse (RN) or a licensed practical nurse (LPN) in day and residential services. This section will analyze the average utilization and cost of RN and LPN inputs in day and residential services.

Residential services

Approximately 30 percent of recipients of daily foster care and supportive living services (SLS) have some hours for RN or LPN nursing accounted in their framework calculation. Corporate adult foster care has the highest occurrence at 34 percent of people. SLS adult family has the lowest at 6 percent. For service recipients with nursing hours, the average amount of time of LPN or RN direct care incorporated into the foster care or SLS rate is 26 minutes per day.

Figure 9 displays the distribution of these statistics by service.

Figure 9: Nursing in foster care and daily SLS services

Service	Percent of recipients with RN or LPN	For people with nursing, average time of RN or LPN in a daily unit
Foster care, adult, corporate	34%	33 minutes
Foster care, adult, family	7%	92 minutes
Foster care, child, corporate	23%	28 minutes
Foster care, child, family	9%	3.6 minutes
SLS, adult, family	6%	40 minutes
SLS, adult, corporate	29%	20 minutes
SLS, child, family	33%	71 minutes
SLS, child, corporate	34%	82 minutes
Grand total (SLS & foster care)	**29%**	**26 minutes**

The average price for one hour of nursing within the framework, including the nursing wage and all proceeding factors applied, depends on the residential setting due to the compounding factors. The cost for one hour of LPN staffing within the framework is approximately $28.60 in family settings and $31.87 in corporate settings. The cost for one hour of RN staffing is approximately $47.29 in family settings and $52.70 in corporate settings. This does not include the regional variance factor that will depend on the person’s county of residence.

Day services

Approximately two percent of recipients of day services have some hours for RN or LPN nursing accounted in their framework calculation. The service category with the highest occurrence is adult day services with 13 percent of people receiving some nursing. The approximate cost of nursing in the day services frameworks is $61.29 for one hour of RN direct care and $37.07 for one hour of LPN-direct care. This does not include the regional variance factor that will depend on the person’s county of residence. Due to the varying unit levels within the day service bucket, the average amount of nursing time varies by service.

Figure 10 displays the distribution of these statistics by service:

Figure 10: Nursing day services

Service	Percent of recipients with RN or LPN	For people with nursing hours, average time of RN or LPN
Adult day care	13%	
15 minutes	14%	4.9 minutes per 15 minute unit
Daily	11%	18.73 minutes/day
DT&H/structured day	1%	
15 minutes	1%	15 minutes per 15 minute unit
Daily	1%	20.2 minutes/day
Prevocational services	0.4%	
Daily	0.4%	14.10 minutes/day
Hourly	0.4%	9.9 minutes/hour of service
Grand total	**2%**	

F. Component values for independent living skills

Independent living skills training is defined as direct training from a staff person to address identified skill development needs of a person in the areas of:

- Communication skills
- Community living and mobility
- Interpersonal skill
- Reduction or elimination of maladaptive behavior
- Self-care
- Sensory or motor development involved in acquiring functional skills.

We are evaluating the costs associated with providing independent living skills, particularly indirect time, absence, transportation and training costs, in the Non-Wage Cost Component Study.

G. Component values for family foster care that reflect licensing requirements

Licensing requirements enacted Jan. 1, 2014, because of the new 245D law, may require some family-foster care providers and staff to complete a level of training that was not required before 2014. This change was part of a DHS initiative to establish health and safety standards across all of the home and community-based services.

Component values for corporate foster care and family foster care differ in two ways:

- The first difference is in the general administrative support ratio (13.25 percent in corporate versus 3.3 percent in family foster care). Family foster care providers typically provide this service in their own home, and therefore, generally do not incur the administrative costs typically associated with providers that operate on a larger scale, and/or perhaps in a separate location. As such, they generally would not incur the costs associated with administrative functions (i.e. human resources, accounting, office supplies and equipment maintenance and facilities management).

- The second difference is in the absence factor (3.9 percent in corporate, which includes a utilization factor, versus. 1.7 percent in family foster care, which does not include a utilization factor). Family foster care providers typically provide this service in their own home, and therefore generally do not incur additional costs that other providers incur to maintain a licensed capacity associated with the utilization factor.

Training is included in the program-related expense ratio within the framework (1.3 percent). The training component value is the same in corporate foster care.

Additional analysis in the Non-Wage Cost Component Study will look into these costs.

H. Adjustments to other components to replace the budget neutrality factor

Under current statute, each framework rate calculation in DWRS has an after model adjustment called the budget neutrality factor. The framework rate generated by DWRS is multiplied by the following factors:

- For residential services: 1.003
- For day services: 1.000
- For unit-based services with programming: 0.941
- For unit-based services without programming: 0.796.

The purpose of this factor was to ensure that the level of spending during the banding years remains comparable to historic spending. It is anticipated that moving from a variable county-negotiated rate system to a statewide, systematic rate system will result in different rates. However, as the banding period continues, DHS is conducting comprehensive analysis and evaluation on framework inputs, component values, and the impact of DWRS. We have focused research on ensuring that components within the DWRS accurately reflect the cost of providing disability wavier services and that recipients continue to have access to the services they need.

If evaluation findings conclude that component values should be modified to more accurately reflect the cost of proving waiver services, DHS will consider recommendations to adjust or remove the budget neutrality factors.

I. Remote monitoring technology for nonresidential Services

Presently, lead agencies may only authorize remotely monitored-service hours within RMS for corporate and family foster care or supported living services, all of which are residential services.

Monitoring technology is an emerging practice in home and community-based services, and practices across the state vary widely. The use of remote monitoring within additional rate frameworks is a future possibility. However, the provision of remote services and service standards must be within CMS-approved guidelines. As future remote services emerge, DHS will work with stakeholders throughout the rate-setting process.

J. Values for basic and intensive services in residential services

An Intensive Workgroup of provider and lead agency stakeholders developed the DWRS over four years of meetings. This workgroup defined the cost drivers for each service.

This group determined that staff with greater skills is required to deliver services that include training, habilitation, and rehabilitation. The group also determined that more skilled staff receives higher wages than similar staff in the industry that deliver care but are not required to understand learning styles, implement a training plan and measure its success. For this reason, during legislative negotiations in 2013, DHS initially proposed two tiers of residential services: an intensive level for training services and a basic level for maintenance services. There was concern during 2013 legislative negotiations that implementation of two tiers would be administratively burdensome. DHS agreed to collapse the two tiers until further research could be conducted.

Currently, intensive service needs are accommodated through increased individual staffing levels and increased staff training requirements are accommodated through the rate exception process.

The Non-Wage Cost Component and the Exceptions Research studies will provide new data to analyze further the concept of basic and intensive service provision.

K. Values for the facility use rate in day services

The facility use rate in DWRS is considered to be an interim component within the frameworks for day services. This component value was determined using a combination of a rate recommended in the Navigant report and information gathered from stakeholders. The two primary data sources for this component value were:

1. An average cost of $8.30 per person, per week to rent existing appropriate space in Minneapolis
2. The cost of $8.24 per person, per week for new construction for a day care center in Minneapolis.

The Navigant report recommended use of the higher of these two values. DHS accepted this recommendation.

During legislative negotiations in 2013, DHS and stakeholders compromised to reach the current value of $19.30 per person, per week.

CMS issued new rules in January 2014, which required each state to create a transition plan to achieve compliance with requirements by March 17, 2019. This rule limits the community-based service dollars spent on facility settings until the assessment phase of the transition plan is completed.

The facility use rate for day services is a component of the non-wage cost analysis detailed in this report. If it is determined that adjustments are required, DHS will make recommendations that comply with CMS regulatory requirements.

L. Employee-Related Expenses

The current methodology for all DWRS frameworks includes 11.56 percent for payroll taxes, unemployment insurance and workers compensation. This percentage includes the following employer costs:

- 6.20 percent for Social Security payroll taxes
- 1.45 percent for Medicare payroll taxes
- 2.41 percent for unemployment insurance
- 1.5 percent for workers' compensation.

We are evaluating these costs to providers in the Non-Wage Cost Component study.

M. Group Residential Housing Rate 3 Costs

This section relates to analysis of costs associated with individuals with rates previously adjusted for the inclusion of Group Residential Housing (GRH) Rate 3 costs.

Before to Dec. 1, 2004, a GRH supplemental rate was available for people with disabilities who lived in foster care-licensed settings. This rate, commonly referred to as "GRH rate 3," was a supplement to the base-group residential housing payment, and it was available for people who had limited income and assets while they lived in a licensed foster care setting. The GRH rate 3 was available only to people with disabilities. The amount was negotiated between the lead agency and the licensed setting within the cap amount available. It required DHS approval.

The majority of GRH rate 3 payments went to providers who provided home and community-based waiver services (usually through the Developmental Disability or Community Alternatives Care waivers). GRH rate 3 payments ended Dec. 1, 2004. At DHS direction, lead agencies negotiated increases (also effective Dec. 1, 2004) to home and community-based waiver rates to offset the loss of GRH rate 3.

Between Dec. 1, 2004, and the implementation of the statewide disability waiver rates system Jan. 1, 2014, lead agencies negotiated residential service rates with providers without statewide oversight. There was no consistent approach for to account for provider costs as previously captured under the GRH rate 3. Some lead agencies simply carried their historically negotiated GRH rate 3 agreements forward as part of the provider's contract rate.

Some provider agencies are concerned that DWRS implementation will shift funds inappropriately between agencies, thus reducing rates for providers whose lead agency-negotiated rates were based, in part, on historic GRH rate 3 agreements and thereby increasing rates for other providers.

The department is committed to assuring that DWRS implementation is budget neutral and that no funding will be lost as part of the implementation.

Capturing historic GRH rate 3 agreements within the DWRS will be difficult for several reasons.

- First, no reliable data source exists for the historic GRH rate 3 agreements that ended more than ten years ago.

- Second, the intention of a statewide rate system, and our specific direction from CMS, is to replace county negotiated rates with a consistent statewide system of establishing rates.

Carrying forward the historic GRH rate 3 amounts that lead agencies and providers negotiated contradicts the intention of the DWRS and direction from CMS.

N. Law changes that impact cost of providing HCBS services

This section relates to the analysis of state and federal law changes that may have an impact on the underlying cost of providing home and community based services.

DHS will assess and research the impact of any new state or federal laws that could have a statistically significant impact on the cost of providing disability waiver services. DHS will conduct the following research process:

1. **Identification and initial assessment:** We will identify and assess state and federal law changes that could have an impact on the cost of providing services. We will then determine if the change meets at least one of the following criteria:
    - Is there rationale and evidence that the particular law change has a *direct* and *significant* impact on specific component values within the DWRS frameworks?
    - Is there rationale and evidence that the particular law change introduces a new cost driver to providing waiver services that current component values do not reflect within the DWRS frameworks?

    New state and federal laws that do not meet these criteria will not be the subject of further study under this research plan.

2. **Development of research plan:** For new laws that meet at least one of the criteria in step one, DHS will develop a comprehensive research plan. The research plan will specify the study's research questions, data resources and research methodology.
3. **Conduct research**. Depending on the research methodology, DHS will obtain data or develop a data model. We will conduct research on the requirements of the new law and its impact on the cost to provide waiver services.
4. **Review findings**. DHS will review the research and discuss recommendations with stakeholders.

VII. Approved rate exceptions

The DWRS was developed after a complex review of the costs associated with providing disability waiver services. While the DWRS frameworks are designed to cover the cost of serving most recipients, it is anticipated that some recipients with exceptionally high needs will require a DHS-approved rate exception. Rate exception eligibility and processes are outlined in Minn. Stat §256B.4914, subd. 14.

Due to banding protections, which limit the financial impact to rates for ongoing recipients and providers, rate exceptions during the banding period are limited. Below is a summary of the exceptions received by DHS during calendar year 2015.

A. Summary of 2015 rate exceptions

As of mid-December 2015, DHS received 343 exception requests from 59 different lead agencies. Of all the requests received, we approved 238. Twenty-two (22) currently are pending and 83 were withdrawn because either they did not meet the basic statutory qualifications or the lead agency was able to meet the person's needs through additional units of service in DWRS.

No exception requests have been denied by DHS. However, approximately five of the exceptions were withdrawn because the request did not come from the lead agency. One application received was denied by the lead agency, and DHS only received the request for tracking purposes.

Out of the approved exceptions in 2015:

- 68 percent were for residential services
- 10 percent were for day services
- 15 percent were for unit-based services without programming
- 6 percent were for unit-based services with programming.

VIII. DWRS rate exception research

Because Minn. Stat. §256B.4913 protects most recipients and providers with banding provisions, there are few people currently who both are subject to full framework rates and also need a rate-exception approval. Therefore, a projection of rate exceptions is needed in order to accurately estimate the total fiscal impact of DWRS.

DHS commissioned an independent research firm, The Improve Group, to gather data and project the number of rate exceptions that will be granted when banding protections no longer are applicable. In addition to estimating the fiscal impact of rate exceptions to the HCBS waiver programs, the research study identified patterns in cost drivers, population characteristics and services. DHS will use these findings to identify cost components within the rate frameworks that should be researched further in an effort to accurately reflect providers' costs and to reduce the need for future exceptions.

A. Analysis methodology

Due to the limited number people with rate exceptions in 2015, there is insufficient existing data to estimate the financial impact of exceptions when banding restrictions are lifted. Therefore, this analysis created a new data set using a stratified random sample, based on service groupings of current wavier recipients in a cohort of lead agencies. That cohort was selected to be representative of the lead agencies throughout the state using criteria based on size, region, the presence of a county alliance and the presence of a tribe. The sample size included 6,907 waiver recipients and 1,077 providers.

B. Data collection

Each provider in the study received a list of service recipients who were selected for the study. For each recipient and service, researchers asked the provider to make a judgement as to whether it would request a rate exception if banding protections were lifted. If yes, the provider was asked to submit additional exception request documentation. Lead agencies reviewed the data next, and each indicated whether it would approve or deny each request. Lastly, DHS reviewed all of the exceptions to determine whether the state would grant the exception. This data formed the basis for the fiscal analysis on DWRS rate exceptions.

From the 6,907 sample claims, providers submitted 1,104 rate exception applications. Of those applications, the final data set included 361 approved exceptions. All service groupings, unless noted, have a sample size that meets or exceeds a confidence level of 95 percent.

C. Measures

From the collected data set, the analysis used the following measures to calculate fiscal impact:

- **Rate of approved exceptions**: The percentage of recipients in the total sample approved to receive a rate exception.
- **Average percent increase:** The average difference between the framework rate and approved exception rate for people approved to receive a rate exception.

Figure 11 displays these two measures for the service groups in this study:

Figure 11: DWRS Rate Exception Measures, by Service Grouping

	Study service group	Total sample size	Rate of approved exceptions	Average percent increase over framework rate
1	Day services – Day training & habilitation	1,233	7%	82%
2	Day services – Other	759	4%	82%
3	Residential services – Customized living & residential care services	614	3%	19%
4	Residential services – Foster care & supportive living services, corporate	1,537	7%	29%
5	Residential services – Foster care & supportive living services, family	264*	2%	53%
6	Unit services – Independent living skills	798	11%	59%
7	Unit services – Respite care services	517	2%	69%
8	Unit services – Personal support	308*	1%	11%
9	Unit services - Other	877	2%	31%
	Total	**6,907**	**5%**	**54%**

* Low survey response rate resulted in a confidence level of 90 percent for these service groupings.

D. Fiscal impact findings

This analysis estimated the statewide cost of exceptions by applying the rate of approval and the percent cost increase to 2014 calendar year spending in each service group. Across all service groups, the total statewide projected spending on exceptions accounted for approximately 2.22 percent of total DWRS spending in 2014 dollars.

Applied to the fiscal year 2020 forecast for DWRS spending, the total dollar amount projected for exception spending is $58,789,761 million per year (state and federal spending combined). This is the total amount projected to be spent in addition to framework rate spending for people with rate exceptions. Given the limitations of this study, which are detailed in the Study Limitations section later in this report, this projection is considered as a minimum estimate.

The service groups with the largest projected financial impact of rate exceptions, in total dollars, are:

- Corporate foster care
- Supportive living services
- Day training and habilitation services.

The service groups with the largest projected prevalence of exceptions, as measured by the percentage of the total service spending, is:

- Independent living services, 6.2 percent
- Day training and habilitation services, 6 percent
- Adult day and prevocational service, 3 percent.

On a larger service bucket level, the day bucket is projected to have the largest exception cost as a percentage of the total bucket spending, while the unit-based services without programming bucket is expected to have the lowest. Figure 12 illustrates the findings by service bucket:

Figure 12: Projected exceptions cost by service bucket

Service bucket	Projected exceptions cost as a percentage of total spending
Residential	1.73%
Day	5.45%
Unit with programming	2.84%
Unit without programming	0.52%

E. Primary cost drivers

Lead agency and DHS review of the rate exception requests submitted by providers included ensuring that three criteria were met:

- Evidence of the person's needs
- Explanation of the providers' response to the person's needs
- An explanation of how framework cost components are higher due to the provider providing services to meet the person's needs.

The application asked providers to select the reason why they requested the exception. Providers could choose one or more of the following reasons:

- Competent provision of care requires specialized providers standards
- Discharge
- Extraordinary cost driver exceeds assumption in frameworks
- Other cost driver not recognized in the frameworks.

Many applications had more than one reason selected.

As shown in Figure 13 below, more than 50 percent of submissions had "extraordinary cost driver," "other cost driver" and "specialized provider standards" as the reasons for the exception request. Discharge was significantly lower and present in only 8 percent of submissions.

Figure 13: Cost drivers cited in exceptions request applications

Exception request reason	Number of approved applications with that reason	Percent of approved applications with that reason	Number of total applications with that reason	Percent of total applications with that reason
Extraordinary cost driver exceeds assumption in frameworks	257	71.2%	702	63.6%
Other cost driver not recognized in the frameworks	214	59.3%	661	59.9%
Competent provision of care requires specialized provider standards	195	54.0%	596	54.0%
Discharge	23	6.4%	90	8.2%

More than 70 percent of the approved applications listed "extraordinary cost driver" as one of the reasons for the request. When providers selected that reason, they could select one to four specific cost drivers that exceeded the assumption within the frameworks, including:

- Liability insurance
- Staff turnover
- Physical plant
- Wage differential.

As shown in Figure 14, providers selected wage differential on 63 percent of approved applications and on more than 51 percent of the total applications.

Figure 14: Breakdown of extraordinary cost drivers in applications

Extraordinary cost driver	Number of approved applications with that reason	Percent of approved applications with that reason	Number of total applications with that reason	Percent of total applications with that reason
Wage differential	228	63.2%	562	50.9%
Staff turnover	88	24.4%	325	29.4%
Physical plant	84	23.3%	176	15.9%
Liability insurance	13	3.6%	94	8.5%

When they selected "other cost driver," providers could write-in a specific cost driver that they believed the framework did not recognize. The most common submissions on approved applications were regarding:

- Recipient absences and lack of service utilizations
- Excessive travel or transportation costs
- Costs pertaining to administration or other business related factors
- Training for staff.

Figure 15 shows the most frequently listed cost drivers in the “other” category.

Figure 15: Breakdown of “other cost drivers”

Other cost driver	Number of approved applications with that reason	Percent of approved applications with that reason	Number of total applications with that reason	Percent of total applications with that reason
Absences/utilization	20	5.5%	25	2.3%
Travel/transportation	20	5.5%	89	8.1%
Business cost	19	5.3%	53	4.8%
Training	13	3.6%	33	3.0%

F. Overall cost driver findings

In addition to the cost driver reasoning indicated in the exception application selections, providers also had to submit a qualitative summary about the needs of the person, the service response to the person’s needs, and the resulting increase to specific cost drivers. Analysis of these summaries along with the data above found the following cost drivers as the most frequently cited reasons for needing for a rate exception:

- **Staff wages:** Service providers for people with high needs are challenged to attract and retain qualified staff due the low wages relative to the demands of the work (e.g., risk of injury, unpredictable hours). Staff that serve people with specific needs often require training and additional qualifications, which require higher wages.
- **Specialized training:** People with unique needs require specialized knowledge and training of staff. This requires additional staff time and provider resources.
- **Absence/utilization:** Recipients with large numbers of absences can be a significant cost to the provider, as they cannot bill for the service but still pay for staffing and overhead costs.
- **Scarcity of services/service providers:** Rural areas of Minnesota have a limited number of providers and staff to serve the wide range of needs across the waiver programs. Service providers have a difficult time meeting the needs of complex or highly behavioral recipients within the framework. Additionally, transportation costs may be higher in rural areas for recipients with specialized needs, as they need to travel to receive services due to lack of options closer to home.

G. Primary characteristics of people who require rate exceptions

To identify the characteristics that influence whether a specific exception request would be approved, a predictive model was created using the random forest package in R statistical software. Random forests generate a large number of decision trees to use in developing a predictive model. The factors generated by using random forest modeling more accurately predict the outcome of interest (in this case, an approved exception request) than other statistical methods. To build a predictive model, the random forest package compares all the variables against each other over hundreds of iterations. The variables listed below were identified as having a high influence on whether an exception request was approved.

This analysis was conducted using all variables found on the DD screening document for recipients on the DD waiver and all variables found on the long-term care document for recipients on the BI, CAC, and CADI waiver programs.

In BI, CAC, and CADI programs, the primary predictors of needing a rate exception included:

- Medication management
- Behavior needs
- Vision needs
- Orientation needs

Age, mental health status, and the number of emergency room visits also were indicators of an approved request.

The primary predictors of rate exceptions for people on the DD waiver program included:

- Age
- Expressive communication
- Behavioral needs
- Mobility needs
- Vision needs

The DD screening document includes more information on behavioral needs than the LTC screening, and as such, all of the behavioral needs were identified as predictors of an approved exception request.

Based on the preliminary analysis of exceptions applications and screening data, rate exception requests primarily were based on the recipient's needs. The exception request applications asked providers to give a reason for the request that included the person's specific need for the request. The most common reasons given for approved requests included "aggressive other behaviors" and "specialized medical needs." Complexity of diagnosis also was a factor in a many applications, including recipients with multiple diagnoses and co-occurring conditions.

H. Study limitations

Because the data used in this analysis depended heavily on survey participation and the submission of adequate, detailed information, the calculated statewide fiscal impact is a conservative estimate of the costs associated with exceptions when banding protections are lifted in 2019 or 2020. The estimate should be interpreted as a floor rather than a ceiling.

The study also has the following additional limitations:

- **Response rate:** The number of applications received in each service bucket and lead agency was highly dependent on the willingness and ability of providers to participate in the research study. Family foster care providers in particular expressed concerns about participating in the study.
- **Lead agency variability:** The lead agencies used in this study were selected to be representative of the types of lead agencies in the state. However, the total number of

exceptions and the fiscal impact will depend on the populations served by lead agencies not included in the study.

- **Framework or service changes***:* The financial impact estimates do not take into account changes in the services providers offer, scheduled increases to the framework rate or services an individual receives. These changes likely will affect the fiscal cost of rate exceptions.
- **Exception process barriers:** This study is a point-in-time estimate centered on current exceptions process and knowledge. If future modifications to the exceptions process are made or there is more familiarity with the process over time, there may be more providers who submit exceptions than were captured in this study.

IX. DWRS evaluation plan

As the banding period continues, DHS will focus research on ensuring that:

- the disability waiver rate system accurately reflects the cost of providing services
- Recipients continue to have access to the services they need
- The system is implemented fairly and consistently throughout the state.

In order to ensure DHS meets these goals, the following research projects are currently being conducted:

- **DWRS Inputs:** The inputs that lead agencies enter in the Rate Management System, such as staffing hours, are fundamental to the calculation of rates. DHS is studying the inputs entered into DWRS and identifying outliers and trends.
- **DWRS Compliance:** DHS will continue to monitor DWRS compliance for each lead agency to ensure the system is used accurately to calculate rates. DHS will report findings to CMS.
- **Non-Wage Component Value Research:** DHS will study non-wage costs providers have in order to deliver disability waiver services. This report details that research in the Non-Wage Costs Study section below.
- **Rate Exceptions**: DHS will continue to study rate exceptions, including the fiscal cost, trends in service categories and exception reasons and the specific cost drivers that necessitate an approved exception.
- **DWRS impact by recipient:** DHS will further examine DWRS impact by recipient as we research the rate impact of DWRS to specific recipient and waiver populations.
- **Transportation:** DHS will continue to examine transportation use and cost.

DHS will continue to work with stakeholders on the development, adaptation, and implementation of the DWRS research plan.

A. Non-wage component value study

The rate frameworks comprise components for wage, business and program expenses. While the wage component costs are based on independent data from the Bureau of Labor Statistics, other cost components are primarily based on a 2009 provider survey. The purpose of this study is to research all non-wage cost components in order to validate previously identified values and, if needed, recommend modifications to values within the frameworks. DHS commissioned an independent research firm, Truven Health Analytics, to conduct this research.

Research questions

This research study will seek to answer the following research questions:

1. **Identification of Costs:** What are the specific non-wage costs necessary to effectively provide home and community based services for people who receive services on the four disability waivers? Are there cost components that have not been identified previously?

2. **Identification of Cost Values:** What should be the value and/or percentage incorporated in the rate methodology frameworks to cover each identified non-wage cost component?

3. **Review of Trends:** What is the variability among providers in these cost components? Are there statistically significant trends observed, (i.e., characteristics of the recipients served, waiver type and geographic region)?

Non-wage costs
This study will research all costs within the rate frameworks except for direct-care staff wages. These costs include but are not limited to:

- Taxes
- Employee benefits such as health insurance and time off
- Training
- Licensing costs
- Costs for supervisory time
- Insurance
- Facility costs
- Transportation
- General administrative costs
- Participation expenses
- The costs of service recipient absences
  The costs associated with indirect time not spent with the service recipient.

Research methodology
In order to answer the research questions, Truven Health Analytics will collect data from two primary activities:

- **Review of Primary Data Sources:** Researchers will research and identify primary sources of data on non-wage cost components. Sources will include Medicaid experts, home and community based services in other states, and values used for non-wage components in similar industries
- **Provider Cost Survey:** Researchers will conduct a survey to all home and community based providers in Minnesota in order to collect cost information.

After the collection of this data, Truven Health Analytics will conduct a comprehensive analysis and recommend a value for each identified cost component. Recommendations will also include a review of the distribution of cost values across different services, recipients, waivers, and regions.

Study risks and challenges
This study relies on the use of two equally important data collection efforts. The availability of primary data sources to verify and confirm survey findings is important to ensure the accuracy and validity of research findings. In some cost component cases, we anticipate adequate primary data sources to be limited, which will result in reduced opportunities to validate survey responses.

The accuracy of survey data relies heavily on an adequate response rate and the quality of data provided. A low response rate would risk the statistical validity of the findings and may limit the ability of researchers to stratify findings across service categories, recipient populations and geographic regions. Strategies to mitigate this risk include stakeholder engagement, communications, and the development of an easily understood survey.

The quality of the survey data also poses a risk, given that survey respondents have a financial interest in the study findings. Researchers will mitigate this risk by using statistical methods for identifying survey gaming, as well as by using primary data source validation.

Timeline

This study will be conducted in the first quarter of 2016, with findings available in June 2016. DHS will continue to work with stakeholders on the development of the survey and communication of the study results. We will publish the results in a Jan. 15, 2017, legislative report.

X. Report recommendations

The DWRS was a significant change for the state, and 2013 legislation was careful to allow for a five-year transition plan to fully implement the new system. This process was intended to allow time to adjust the system and ensure the quality of services was maintained.

This report is the first opportunity to review a full year of data, which provides a projection of the potential impacts of the rate-setting methodology. These projections found that the impact of DWRS to rates is estimated to result in a 1 percent increase to DWRS spending. Projections also found that there is wide variability in the estimated impact among services, providers, and lead agencies. Continued research within the implementation years will include reviewing the cost components in the DWRS frameworks to ensure they accurately reflect costs required to provide home and community based services.

DHS recommends a continuance of the current implementation schedule, and, pending federal approval, the implementation of a modified and adjusted version of the banding schedule and banding values passed during the 2015 legislation.

We recommend the current administrative processes detailed in statute remain in place to allow for increased stability in service planning and service authorizations. Consistent program administration will allow for further development and refinement of the centralized set of rules, which are required in order to implement a statewide rate-setting methodology.

Legislative adjustments have had an impact on the first two years of system implementation. Those adjustments altered the administration of the rates system. Many of the administrative changes required both complex communication and complex adaptations which impacted providers and lead agency staff. Administrative changes also add complexity to the research and analysis necessary to ensure system integrity.

DHS is committed to continued communication with provider representatives, lead agency representatives and other stakeholders to ensure the Disability Waiver Rates System is applied uniformly and the system functions accurately.

Through full implementation of the DWRS, protections exist for recipients, providers, lead agencies and the state. These protections include the rate-stabilization adjustment period, known as banding, as well as the rates exceptions request process for people with needs that may not be met by the rate frameworks. The five year implementation period with these protections allow DHS to complete complex analysis on the new system and make data-driven changes that will mitigate future, long-term negative impacts.

During the remaining four or (pending CMS approval) five years of banding protection, DHS will focus on careful analysis to ensure that components within the Disability Waivers Rates System accurately reflect the cost of providing services, recipients continue to have access to the quality services they need, and DWRS is implemented fairly and consistently throughout the state.

XI. Appendix

Appendix A: Statewide analysis by service

Figure 16: Day services analysis

Service category	Service	Projected percent change in rates
Adult day	Corporate, 15 minute	5.8%
	Family, 15 minute	4.2%
	Corporate, daily	8.0%
	Adult day bath	-18.6%
	Total for service category	6.6%
Day training & habilitation	15 minute	25.5%
	Daily	-10.9%
	Partial day	0.8%
	Total for service category	-10.3%
Prevocational services	Daily	-16.3%
	Hourly	-27.3%
	Total for service category	-19.0%
Day bucket total		**-10.3%**
Projected additional spending on rate exceptions (as a percent of total bucket spending)		5.45%
Total bucket projected impact of DWRS implementation		**-4.85%**

Figure 17: Residential services analysis

Service category	Service	Projected percent change in rates
Customized living	Daily	7.9%
	24-hour, daily	-4.5%
	Total for service category	-2.0%
Foster care	Corporate, adult, daily	-2.9%
	Family, adult, daily	50.4%
	Family, child, daily	6.0%
	Total for service category	0.1%
Residential care services	Daily	-11.7%
Supportive living services	Corporate, adult, daily	1.2%
	Family, adult, daily	1.7%
	Family, child, daily	-12.0%
	Total for service category	1.2%
Residential bucket total		**0.7%**
Projected additional spending on rate exceptions (as a percent of total bucket spending)		1.7%
Total bucket projected impact of DWRS implementation		**2.4%**

Figure 18: Unit-based services without programming

Service category	Service	Projected percent change in rates
Personal support	Personal support/companion	15.2%
Respite care services	In home, 15 minute	11.2%
	In home, daily	6.8%
	Out of home, 15 minute	12.8%
	Out of home, daily	-5.4%
	Total for service category	9.8%
Unit based without programming bucket total		**10.8%**
Projected additional spending on rate exceptions (as a percent of total bucket spending)		0.52%
Total projected bucket impact of DWRS implementation		**11.32%**

Figure 19: Unit-based with programming services

Service category	Service	Projected percent change in rates
Behavioral support	By analyst	-12.2%
	By Specialist	39.2%
	By Professional	-20.8%
	TOTAL for Service Category	2.7%
Independent living skills	Independent living skills training	-26.7%
In home family support	In home family support	0.9%
Supported employment	Supported employment, 1:1 ratio	3.7%
	Supported Employment, 1:2 Ratio	-11.3%
	Supported Employment, 1:3 Ratio	-28.5%
	TOTAL for Service Category	3.1%
Supportive living services	Family, adult, 15 minute	-6.6%
	Corporate, Adult, 15 Minute	-6.2%
	TOTAL for Service Category	-6.4%
Unit based with programming bucket total		**-10.9%**
Projected additional spending on rate exceptions (as a percent of total bucket spending)		2.84%
Total projected bucket impact of DWRS implementation		**-8.10%**

Appendix B

Figure 20: Lead agency impact analysis by county of residence (COR) and county of financial responsibility (CFR)

Lead agency	Projected percent change to rates for lead agency as the COR	Projected percent change to rates for lead agency as the CFR
Aitkin	3.8%	-6.2%
Anoka	-6.4%	-7.9%
Becker	11.4%	11.7%
Beltrami	4.6%	3.1%
Benton	-7.9%	-7.4%
Big Stone	-5.0%	-2.0%
Blue Earth	-3.9%	2.6%
Brown	-1.2%	-0.2%
Carlton	-2.0%	3.2%
Carver	-6.2%	-5.7%
Cass	-9.9%	-6.8%
Chippewa	5.0%	6.0%
Chisago	2.5%	3.4%
Clay	4.3%	5.9%
Clearwater	6.3%	-3.8%
Cook		2.7%
Cottonwood	13.0%	6.6%
Crow Wing	0.0%	-0.6%
Dakota	-2.6%	-2.0%
Dodge	-10.8%	-7.3%
Douglas	5.3%	2.5%
Faribault	12.0%	7.3%
Fillmore	39.5%	19.6%
Freeborn	-3.2%	-3.8%
Goodhue	-8.0%	-2.0%
Grant	-4.6%	28.1%
Hennepin	-9.2%	-8.5%
Houston	0.6%	-2.2%
Hubbard	-17.6%	3.7%
Isanti	-6.3%	-0.8%
Itasca	16.6%	12.0%
Jackson	-3.3%	2.4%
Kanabec	28.7%	-0.9%
Kandiyohi	10.4%	13.6%
Kittson	18.3%	3.5%

Lead agency	Projected percent change to rates for lead agency as the COR	Projected percent change to rates for lead agency as the CFR
Koochiching	1.1%	-5.9%
Lac Qui Parle	-3.7%	-1.2%
Lake	9.0%	11.9%
Lake of the Woods	-21.0%	4.0%
Le Sueur	13.6%	-5.1%
Lincoln	-1.7%	-3.5%
Lyon	-2.3%	-2.9%
Mahnomen	-25.2%	-2.3%
Marshall	25.8%	10.3%
Martin	2.6%	2.4%
McLeod	-1.3%	2.8%
Meeker	10.4%	10.8%
Mille Lacs	5.6%	3.6%
Morrison	-7.0%	-0.5%
Mower	3.5%	-0.9%
Murray	10.7%	-0.2%
Nicollet	4.2%	5.2%
Nobles	6.8%	10.9%
Norman	-1.5%	0.3%
Olmsted	-1.7%	-2.2%
Otter Tail	3.1%	2.1%
Out of State	-6.7%	-
Pennington	56.4%	28.1%
Pine	-6.8%	2.9%
Pipestone	-0.3%	-8.0%
Polk	8.8%	7.6%
Pope	9.1%	4.4%
Ramsey	-6.7%	-7.1%
Red Lake	34.0%	17.5%
Redwood	3.4%	6.5%
Renville	6.7%	0.2%
Rice	0.0%	6.9%
Rock	-6.2%	-1.2%
Roseau	25.8%	35.8%
Scott	-8.8%	-7.9%
Sherburne	4.2%	3.6%
Sibley	-2.8%	-3.9%
St. Louis	1.1%	3.8%
Stearns	-0.3%	-4.7%

Lead agency	Projected percent change to rates for lead agency as the COR	Projected percent change to rates for lead agency as the CFR
Steele	-10.2%	-3.8%
Stevens	4.1%	-4.0%
Swift	6.3%	2.5%
Todd	-6.4%	-4.7%
Traverse	-15.9%	-22.4%
Wabasha	1.1%	1.6%
Wadena	1.4%	-2.7%
Waseca	-7.2%	11.1%
Washington	-3.6%	-3.0%
Watonwan	-2.3%	-7.9%
White Earth Tribe	-	11.9%
Wilkin	44.8%	4.1%
Winona	2.0%	1.2%
Wright	4.7%	3.6%
Yellow Medicine	7.0%	9.1%

Appendix C

Figure 21: Estimated impact by provider (NPI), by service bucket

	Day	Residential	Unit based without programming	Unit based with programming	All providers - all buckets
Number of providers in study	344	1,225	191	339	1,729
Average percent change projected for providers in 2019	-1.85%	20.80%	17.10%	-3.27%	14.45%
Median percent change projected for providers in 2019	-7.22%	2.16%	4.14%	-8.62%	-0.64%
Percentage of providers projecting an increase in 2019	33%	54%	55%	36%	48%
Percentage of providers projecting a decrease in 2019	66%	46%	45%	64%	52%

Figure 21 illustrates the average and median changes experienced by providers within each service bucket. Additionally, the last column in this table illustrates the changes experienced by providers as a whole. These estimates do not consider rate exceptions, which will affect future projections.

Appendix D

Figure 22: Estimated impact by recipient, by service bucket

	Day	Residential	Unit based without programming	Unit based with programming	Total – all buckets
Number of recipients in study	9,862	10,595	1,548	5,390	18,946
Average percent change projected for recipient rates	-6.85%	6.64%	20.41%	-15.63%	-2.20%
Median percent change projected for recipient rates	-11.89%	-0.14%	11.37%	-18.64%	-5.89%
Percentage of recipients projecting an increase	25%	50%	69%	29%	38%
Percentage of recipients projecting a decrease	67%	50%	31%	71%	60%

Figure 22 illustrates the average and median changes projected for recipients' aggregate rates within each service bucket. The last column in this table illustrates the changes experienced by recipients' aggregate rates as a whole. However, these projections do not consider rate exceptions, which will affect projections in the forthcoming years of DWRS implementation as we identify them.

Appendix E

Figure 23: Regional variance factors

Region	Residential	Day	Unit with program	Unit without program
Duluth, Minn. Area	0.973	0.966	0.979	0.961
Fargo, N.D. Area	1.010	1.001	0.976	1.021
Grand Forks, N.D. Area	0.976	0.963	0.958	0.956
Lacrosse, Wisc. Area	1.001	1.049	1.040	0.941
Mankato, Minn. Area	1.020	1.063	1.078	0.955
Metro Minnesota Area	1.024	1.023	1.024	1.017
Northeast Minnesota Area	0.985	1.001	1.002	0.911
Northwest Minnesota Area	0.956	0.947	0.948	0.913
Rochester, Minn. Area	1.009	0.988	1.015	1.016
Southeast Minnesota Area	0.969	0.959	0.947	0.919
Southwest Minnesota Area	0.976	0.963	0.946	0.911
St. Cloud, Minn. Area	0.993	0.961	0.957	0.991

Appendix F

Figure 24: Regional variance factor regions

Region	Lead agencies
Duluth, Minn. Area	Carlton County, Fond-Du-Lac Tribe, St. Louis County
Fargo, N.D. Area Grand Forks, N.D. Area	Clay County Polk County
Lacrosse, Wisc. Area Mankato, Minn. Area	Houston County Blue Earth County, Nicollet County
Metro Minnesota Area	Anoka County, Carver County, Chisago County, Dakota County, Hennepin County, Isanti County, Ramsey County, Scott County, Shakopee Tribe, Sherburne County, Washington County, Wright County
Northeast Minnesota Area	Aitkin County, Bois Forte Tribe, Cook County, Grand Portage Tribe, Itasca County, Kanabec County, Koochiching County, Lake County, Mille Lacs Band Tribe, Mille Lacs County, Pine County
Northwest Minnesota Area	Becker County, Beltrami County, Cass County, Clearwater County, Crow Wing County, Douglas County, Grant County, Hubbard County, Kittson County, Lake of the Woods County, Leech Lake Tribe, Mahnomen County, Marshall County, Morrison County, Norman County, Otter Tail County, Pennington County, Pope County, Red Lake County, Red Lake Tribe, Roseau County, Stevens County, Todd County, Traverse County, Wadena County, White Earth Tribe, Wilkin County
Rochester, Minn. Area	Dodge County, Olmsted County, Wabasha County
Southeast Minnesota Area	Brown County, Faribault County Fillmore County, Freeborn County, Goodhue County, Le Sueur County, Martin County, Mower County, Prairie Island Tribe, Rice County, Sibley County, Steele County, Waseca County, Watonwan County, Winona County
Southwest Minnesota Area	Big Stone County, Chippewa County, Cottonwood County, Jackson County, Kandiyohi County, Lac Qui Parle County, Lincoln County, Lower Sioux Tribe, Lyon County, McLeod County, Meeker County, Murray County, Nobles County, Pipestone County, Redwood County, Renville County, Rock County, Swift County, Upper Sioux Tribe, Yellow Medicine County
St. Cloud, Minn. Area	Benton County, Stearns County