
National Disability Insurance Scheme

Review of Pricing Arrangements for Supported Independent Living

Report

July 2021



Delivered by the
National Disability
Insurance Agency

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Footnotes

Footnotes are repeated in the section "Footnotes" at the end of the document.

Terms that we use

Acronym	Description
DSW	Disability Support Worker
EBA	Enterprise Bargaining Agreement
FLS	Front Line Supervisor
ILO	Individualised Living Options
NDIA	National Disability Insurance Agency
NDIS	National Disability Insurance Scheme
SCHADS Award	Social, Community, Home Care and Disability Services Award 2010
SIL	Supported Independent Living

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Executive Summary

On 1 July 2020, the National Disability Insurance Agency (NDIA) introduced new pricing arrangements for Supported Independent Living (SIL) – support with activities of daily living in a shared living arrangement. Under the new arrangements, the maximum price that the Agency was willing to pay for the component hourly supports of SIL were determined by the NDIS Disability Support Worker Cost Model in line with all other supports for activities of daily living.

The Review was established to suggest improvements to the way in which the NDIA estimates the fully loaded cost of delivering an hour of support in a SIL setting. This included identifying whether there were different costs that arise in the delivery of activities of daily living supports in a shared living arrangement that do not arise in other settings; and quantifying any differences, given the different cost structures of delivering supports in shared living arrangements compared to other settings.

The Review engaged in extensive consultations with industry, community and government stakeholders and undertook a program of research including an analysis of the Financial Benchmarking Survey data held by the Agency to examine whether cost parameters differed between providers that do and do not provide SIL services.

The Review has found that there is evidence to suggest that, compared to activities of daily living delivered in a non-SIL setting by an efficient provider, an efficient SIL provider faces:

- higher rates of permanent employment (85.1% compared to 70.0%);
- higher workers compensation premiums (2.4% compared to 1.7%);
- higher average utilisation rates (94% compared to 92%);
- higher base wages for supervisors (11.9% higher on average); and
- higher annual leave costs associated with great leave entitlement (5 weeks per year compared to 4 weeks per year).

Some of these effects add to the cost of service provision whereas other reduce that cost. The net effect is that the fully loaded costs of service provision in SIL and non-SIL settings are essentially identical.

The Review therefore does not recommend any changes in the current SIL pricing arrangements.

1 Introduction

The National Disability Insurance Agency (NDIA) has responsibility for administering the National Disability Insurance Scheme (NDIS), including managing the markets for disability goods and services. Within the NDIS, **Supported Independent Living (SIL)** is one type of help or supervision with daily tasks to help participants live as independently as possible, while building their skills. SIL is a specialised form of the more general category of supports with activities of daily living. It is intended for participants who require 24/7 support and live in shared living arrangements with other NDIS participants. Other contemporary living models exist for participants, including the use of assistive technology and home modifications, or Individualised Living Options (ILOs).

On 1 July 2020, the NDIA introduced new pricing arrangements for SIL. A quotation process, whereby the Agency and provider negotiated an individual price for each SIL participant, was replaced by a fairer and more transparent process whereby the Agency determined the reasonable and necessary supports for each participant in line with the relevant legislation. Under the new arrangements, the maximum price that the Agency was willing to pay for the component hourly supports of SIL were determined by the NDIS Disability Support Worker Cost Model in line with all other supports for activities of daily living.

The purpose of the current Review was to suggest improvements to the way in which the NDIA estimates the fully loaded cost of delivering an hour of SIL supports in a shared living arrangement. This included identifying whether there were different costs that arise in the delivery of activities of daily living supports in a shared living arrangement that do not arise in other settings; and quantifying any differences, given the different cost structures of delivering supports in shared living arrangements compared to other settings.

1.1 Context

Supported Independent Living

SIL is paid personal support. It includes things like someone to help with personal care tasks or cooking meals. SIL can help build these skills too. Support is provided to each person living in the shared arrangement in accordance with their need. SIL does not cover costs such as rent, board and lodging or other day-to-day ordinary costs such as food and activities. It also does not pay for the capital costs associated with a participant's accommodation – these are either an ordinary costs of living, or, where related to the disability of the participant, may be supported by the NDIS through Specialist Disability Accommodation payments.¹

There were 412,543 active participants with an approved plan in the Scheme at 30 September 2020. Of these, 23,457 (5.7% of all participants) had SIL included in their plans. A total of \$29.3 billion of annualised committed support was in participant plans as at

¹ Further details can be found in the Operational Guideline at <https://ourguidelines.ndis.gov.au/supports-you-can-access-menu/home-and-living-supports/supported-independent-living>

30 September 2020, with some \$8.3 billion committed in participant plans for SIL participants (28% of all commitments).²

For the year to September 2020, the average plan budget for participants in SIL arrangements was \$352,000 compared to \$54,000 for participants not in SIL, with the largest plan budgets found in participants living in the Northern Territory. The results for each state and territory are provided in Exhibit 1 below.³

Exhibit 1: Average Annualised Plan Budgets, 30 September 2020

State/Territory	Participants in SIL	Participants not in SIL	All participants
New South Wales	\$357,000	\$51,000	\$71,000
Victoria	\$325,000	\$54,000	\$64,000
Queensland	\$364,000	\$60,000	\$77,000
Western Australia	\$314,000	\$58,000	\$74,000
South Australia	\$347,000	\$50,000	\$68,000
Tasmania	\$376,000	\$53,000	\$83,000
ACT	\$367,000	\$46,000	\$63,000
Northern Territory	\$593,000	\$86,000	\$137,000
National	\$352,000	\$54,000	\$71,000

For financial year 2019-20, the average payment for participants in SIL arrangements was \$315,000, compared to \$35,000 for participants not in SIL, with the largest payments being made from participants living in Northern Territory. The results for each state and territory are provided in Exhibit 2 below.⁴ Note these reported values included all supports in a plan, not just supports specific to SIL.

Exhibit 2: Average Annualised Payments, 2019-20

State/Territory	Participants in SIL	Participants not in SIL	All participants
New South Wales	\$321,000	\$35,000	\$55,000
Victoria	\$302,000	\$33,000	\$46,000
Queensland	\$322,000	\$40,000	\$58,000
Western Australia	\$228,000	\$32,000	\$43,000
South Australia	\$324,000	\$29,000	\$49,000
Tasmania	\$339,000	\$32,000	\$64,000
ACT	\$326,000	\$31,000	\$48,000
Northern Territory	\$535,000	\$45,000	\$99,000
National	\$315,000	\$35,000	\$52,000

NDIS Pricing Arrangements and the Disability Support Worker Cost Model

One of the principal objectives of the NDIS is for people with disability to exercise choice and control over how, and with which providers, they spend their available budgets. The role of pricing in the NDIS is therefore very important. Prices reflect the preferences and relative values that different participants place on different types of supports. Prices also affect the

² NDIA. (2020). NDIS Quarterly Report to Disability Ministers 30 September 2020, p.539-541.

³ Ibid, p.61.

⁴ Ibid, p.61.

total costs of the NDIS and therefore its financial sustainability. Pricing can also affect providers' choices, including by providing incentives: for entering the market; for upskilling/right-skilling; for innovation; and for improvements in service quality and outcomes.

As the markets for disability goods and services develop and operate more effectively, it is expected that the NDIA, as market steward for the NDIS, will be less interventional.

Currently, the NDIA varies its approach to the regulation of prices between:

- **No regulation** (deregulated markets): this is typically used in cases where markets are highly competitive – for example, transport.
- **The imposition of price limits:** these represent a maximum allowable price payable by participants for types of supports. This approach is used in a significant number of markets, which are still developing and growing, such as those for assistance with daily living activities.
- **Quotable supports:** in which participants are expected to obtain quotations from suppliers to provide to the NDIA as part of verifying that prices are fair and reasonable.

Further information on the NDIA's approach to pricing be found in the NDIA's *Pricing Strategy*⁵ and in the report of the *Annual Pricing Review 2020-21*.⁶

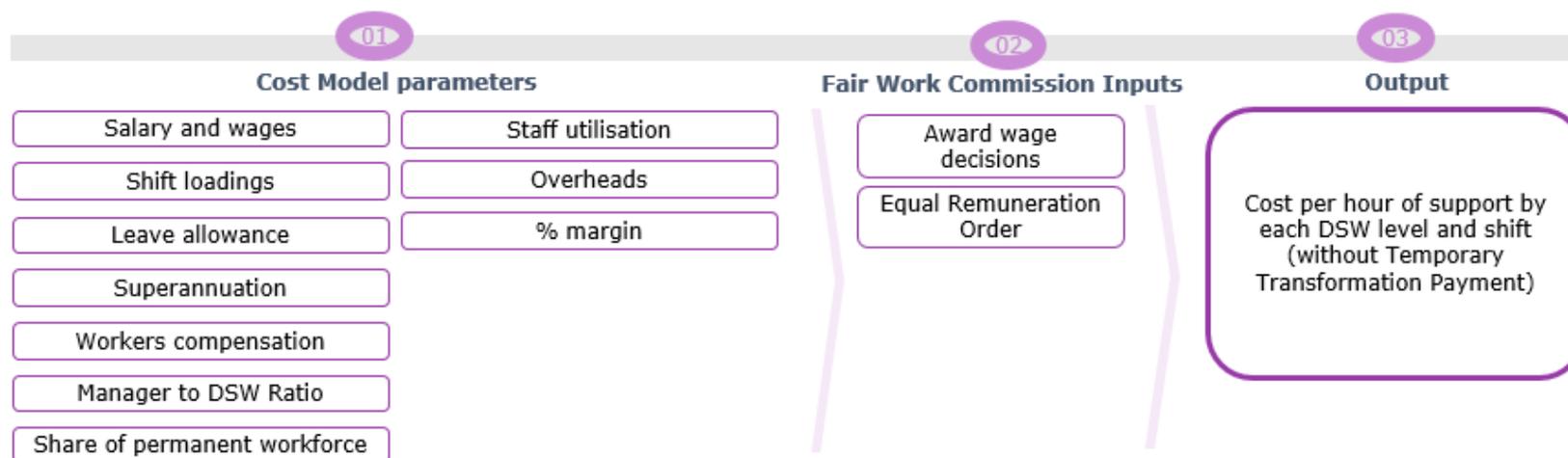
The NDIS Disability Support Worker (DSW) Cost Model is one methodology that the NDIA uses to inform its pricing decisions for those supports delivered by Disability Support Workers on which it imposes price limits.⁷ Exhibit 3 provides a schematic overview of the NDIS Disability Support Worker (DSW) Cost Model.

⁵ <https://www.ndis.gov.au/media/1820/download>

⁶ <https://www.ndis.gov.au/media/2413/download>

⁷ <https://www.ndis.gov.au/providers/price-guides-and-pricing>

Exhibit 3: Schematic overview – NDIS Disability Support Worker Cost Model



Parameter	How is this reflected in the Cost Model?
1 Base pay	Four DSW levels (2.3, 2.4/3.1, 3.2 and 4.4) based on SCHADS classification.
2 Shift loadings	As per the SCHADS Award, applies a loading for permanent staff working on weekends, public holidays, afternoons, and nights, and applies a casual loading for weekdays, weekends, public holidays, afternoons, and nights.
3 Leave allowance	As per the SCHADS Award and the National Employment Standards (NES), includes annual leave, personal leave, public holiday, long service leave
4 On-costs	Superannuation (9.5%) , workers compensation (1.7%), employee allowance (1.0%)
5 Supervision costs	Base pay + leave costs + on-costs for supervisors with three levels of supervisor pay (DSW levels 3.2, 4.2 and 5.1). As with frontline staff, based on SCHADS and NES. Supervisor to DSW ratio of 1 to 15
6 Permanent workforce	Assumes 70% of workforce.
7 Utilisation	Incorporating breaks, training, and other. Varies across staff levels (92% for DSW level 1, to 80% for DSW Level 4).
8 Overheads	Assumes 12.0% of direct cost.
9 Margins	Assumes 2%. Applied to (direct costs plus overheads).
10 FWC Inputs	Each year, the Fair Work Commission determines increases for Award wage rates. The current iteration of the Cost Model also includes the last stage of the FWC's Equal Remuneration Order.

1.2 Conduct of the Review

The Review engaged in extensive consultations with industry, community and government stakeholders and undertook a program of research.

Issues Papers and Submissions

An Issues Paper was released on 31 August 2020 together with a public call for submissions. The closing date for submissions was initially 13 September 2020, later formally extended to 25 October 2020. Some 84 submissions were received by the closing date. A total of 92 submissions had been received and analysed by 31 December 2020.

Most submissions (81) were from service providers, with one received from a builder of Specialist Disability Accommodation. A further four submissions were received from provider peak bodies. One submission was received from a workers union. The participant voice was also heard, with three submissions from participant advocacy bodies and two from participants or their family/nominees.

Providers who made submissions ranged in size from servicing just one single participant in SIL arrangements to over 500 participants in SIL arrangements, with the average being 82 SIL participants and the median 38 SIL participants. They also ranged from having under \$50,000 in NDIS revenue to over \$100 million, with the average being around \$16.15 million and the median being around \$7.39 million.

Consultations with peak bodies

In addition to releasing the Issues Paper, the Review held virtual consultations with sector stakeholders across Australia. This included meetings with Provider and Participant peak bodies as listed below.

On 26 August 2020, the Review met with members of the following participant peak groups: Australian Federation of Disability Organisations; Disability Advocacy Network Australia; Inclusion Australia; and JFA Purple Orange.

On 28 July 2020, the Review met with members of the following provider peak groups: Ability First; Alliance 20; and National Disability Services.

Working Groups

Four working groups were also set up, involving 39 representatives from the sector, to discuss their concerns. These working groups met a total of three times each, two times before the release of the Issues Paper and once after it closed.

- Smaller Providers – 8 organisations (10 August, 17 August, 15 December 2020);
- Larger Providers – 18 organisations (11 August, 17 August, 14 December 2020);
- Very Large Providers – 8 organisations (10 August, 17 August, 15 December 2020); and
- Rural/Remote Providers – 5 organisations (11 August, 17 August, 14 December 2020).

Consultations with Other Schemes

A virtual meeting was held with officers of the following Schemes on 13 August 2020 to compare pricing methodologies and arrangements for supports for activities of daily living and supported independent living:

- Department of Veterans Affairs;
- icare New South Wales;
- Lifetime Support Authority of South Australia;
- SeaCare;
- State Insurance Regulatory Authority New South Wales;
- Victorian Transport Accident Commission;
- WorkCover Queensland; and
- Worksafe Victoria.

Desktop Research

The Review also conducted a comparative study of employment conditions in the Social, Community, Home Care and Disability Sector Industry Award 2010 and some publically available enterprise bargaining agreements of organisations who offer SIL supports. It also compared price limits for supports for activities of daily living and similar supported independent living supports and input cost drivers in other schemes and sectors.

1.3 Methodology

The analyses in this report seeks to understand the degree to which key cost parameters differ between the delivery of SIL and community activities of daily living services. The nature of the data available for this analysis means that it was not possible to fully isolate the costs of supplying SIL services from the costs of supply activities of daily living services. As such, for each parameter of interest the analysis addressed the following questions:

- Do cost parameters differ between providers that do and do not provide SIL services?
- Is a concentration in SIL service provision associated with changing cost parameters?

The first question seeks to understand the baseline differences in service characteristics associated with providers that offer some SIL services, compared to those that do not offer any SIL services. The second question seeks to understand the relationship between service cost and the degree of SIL services delivered by providers.

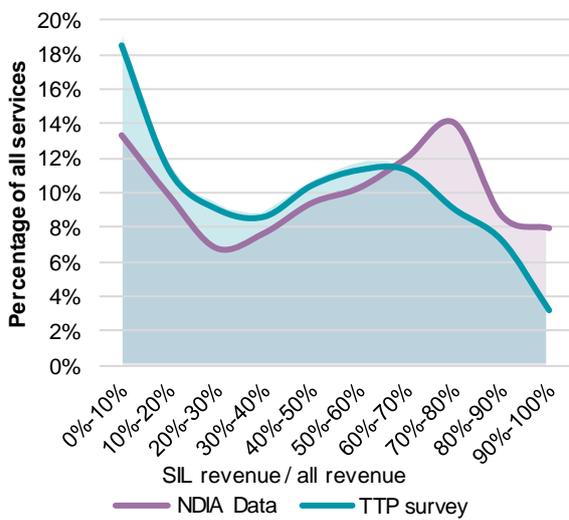
The Review had access to two types of data sources. The Financial Benchmarking Survey was large, with 221 SIL providers. But it was not specifically targeted at SIL. The other data source was financial data deep dives. These were specifically targeted at SIL, but with very small numbers of providers: Deloitte (n=9), Alliance20 (n=11), and Ability First (n=13). Qualitative data from submissions and consultations was also employed to triangulate against this quantitative data

The 2019-20 Financial Benchmarking Survey Data

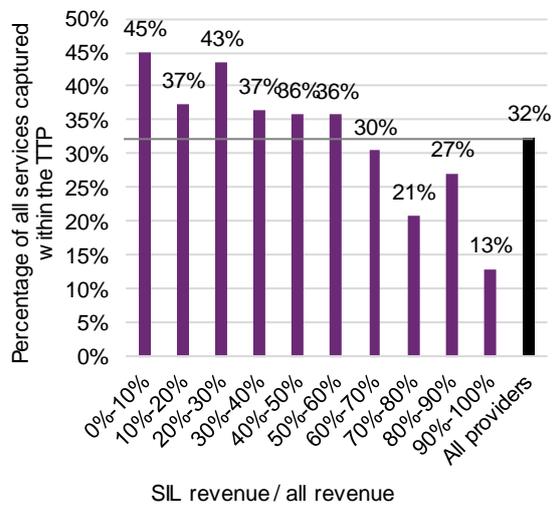
Deloitte Access Economics were engaged by the NDIA to conduct a financial benchmarking survey of providers for FY2019-20, with a particular emphasis on the parameters that underlie the NDIS Disability Support Worker (DSW) Cost Model. This dataset captures data from a sample of 848 providers. The representativeness of the data is displayed in Exhibit 4. Overall, the dataset represents the sector well. While the survey dataset slightly underrepresents providers that primarily offer SIL care (majority-SIL providers), the analysis confirms the characteristics of majority-SIL providers captured in the Financial Benchmarking Survey align with the population.

Exhibit 4: Representativeness of the 2019-20 Financial Benchmarking Survey Data

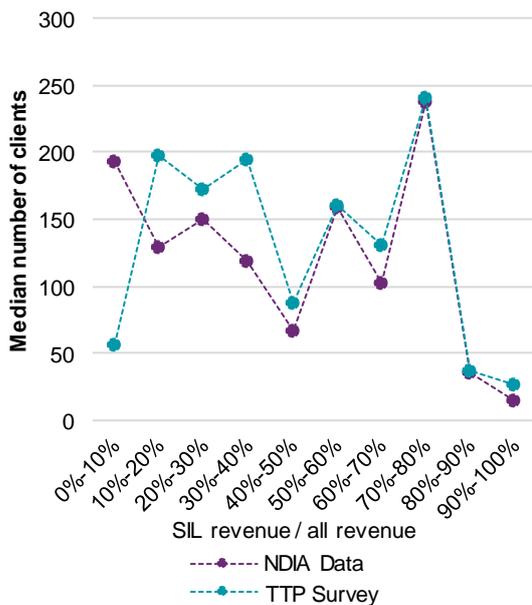
a) Distribution of SIL revenue within TTP survey and NDIA database



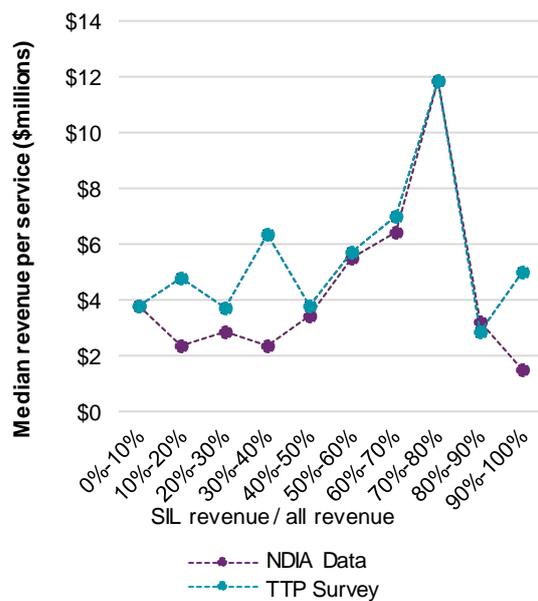
b) Percentage of all services captured within the TTP Survey



c) Median number of clients serviced by organisations providing SIL services



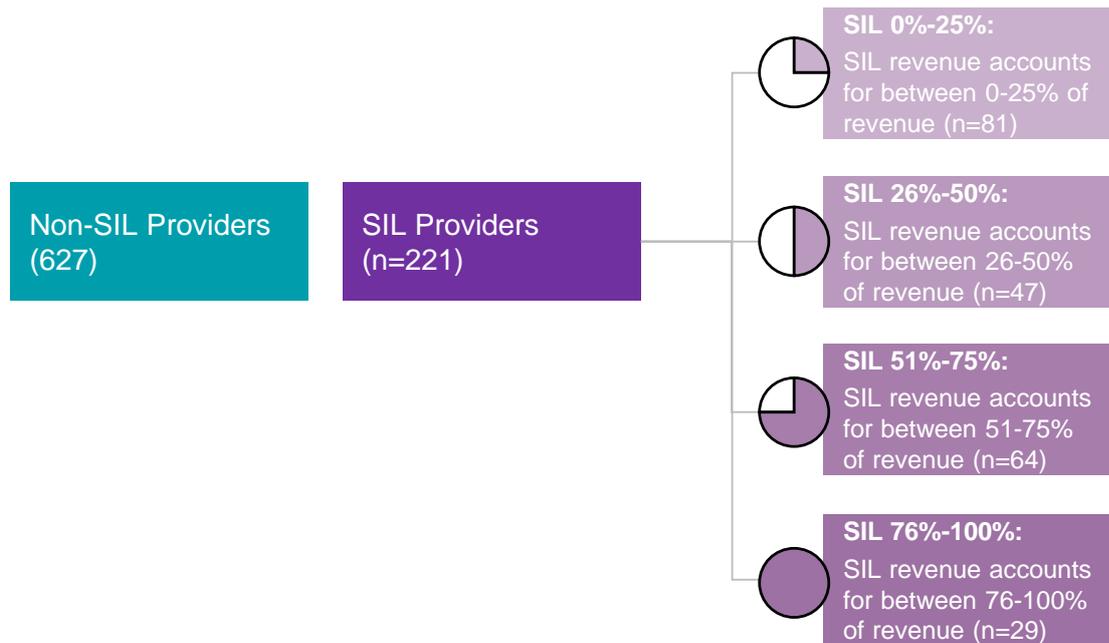
d) Median revenue per service



2.2 Differences between SIL and non-SIL providers in the survey

The unique financial benchmarking survey dataset represents the best available evidence for undertaking the analysis.⁸ The key limitation of this dataset is that the benchmarking survey did not seek to differentiate between costs for community activities of daily living services and SIL services. As most providers supply a mix of services including community activities of daily living, SIL, and other services such as capacity building, the analysis has divided providers into two categories and four sub-categories as presented in Exhibit 5.

Exhibit 5: Breakdown of provider categories used in this analysis



A three-step process was followed for identifying differential costs between SIL and non-SIL services:

- Analysis was undertaken to identify a relationship between the provision of SIL services and the cost parameters.
- Analysis was undertaken to identify the cost for provision of SIL services:
- The efficient provider principle: Parameters within the Cost Model are set equivalent to what is determined to be the 'efficient provider'. For most parameters, this is the parameter level at the 25th (or 75th) percentile of the distribution of the parameter.

Data collected from non-SIL providers were considered to be a reasonable proxy for the costs associated with the provision of community activities of daily living services. For SIL-related costs, there were a low number of providers in the financial benchmarking survey that obtained 100% of their revenue from SIL.

⁸ Where appropriate, the findings from the analysis have been triangulated with findings from the far smaller 2017-18 AbleInsight survey, which aims to identify cost benchmarks for service providers across the NDIS sector. The AbleInsight survey is available at <https://www.ndis.gov.au/providers/price-guides-and-pricing/benchmarking-surveys-and-reports>

2.3 Statistical analysis of 2019-20 Financial Benchmarking Survey

The analysis used the following statistical techniques to identify relationships between the variables:

- Confidence intervals for percentiles were estimated throughout the analysis to understand the range within which the population value of the percentile is likely to fall. Confidence intervals allow for a comparison across groups within a sample of the statistical equivalence of the value of a percentile in the broader population.
- Linear regression analysis is used throughout the report to understand relationships between explanatory variables and the mean of a cost-parameter.⁹
- Quantile regression analysis is used throughout this report to understand relationships between explanatory variables and the percentile representing the 'efficient cost parameter'.¹⁰

⁹ Linear regression is a technique that allows for an assessment of whether a particular explanatory variable has a statistically significant linear relationship with the conditional mean of a cost parameter; meaning that a change in an explanatory variable is associated with a change in the cost parameter, holding other variables constant.

¹⁰ Quantile regression is a technique that allows for an assessment of whether an explanatory variable has a statistically significant relationship with a cost parameter throughout different points (or quantiles) of the conditional distribution of the cost parameter. In general, quantile regression analysis attempts to isolate statistically significant linear relationships between a change in an explanatory variable and the conditional quantile of a cost parameter (25th, 50th and 75th percentile).

Note, Quantile regression uses bootstrap standard errors and Pseudo R² is reported for the quantile regression analysis.

2 Findings

The purpose of the Review was to suggest improvements to the structure of the NDIS Disability Support Worker Cost Model to estimate the fully loaded cost of delivering an hour of SIL supports in a shared living arrangement. The Review sought to:

- Identify whether there were different costs that arise in the delivery of activities of daily living supports in a shared living arrangement that do not arise in other settings; and
- Quantify any differences that may be required in the key parameters of the NDIS Disability Support Worker Cost Model, given the different cost structures of delivering supports in shared living arrangements compared to other settings.

This chapter assesses the available qualitative and quantitative evidence on various costs directly included in the cost model.

2.1 Wages and on-costs

The NDIS Disability Support Worker Cost Model recognises that wages and on-costs are the largest cost driver for providing disability support services. This section considers whether there are material differences between the base hourly wages paid to, and the on-costs associated with, SIL workers and non-SIL workers.¹¹

The key questions for the Review, as outlined in the Issues Paper, are:

- Is there a material difference in the base hourly wages paid to workers delivering SIL services compared to workers delivering non-SIL services? Is this difference because of different levels of required training, the nature of the work, or some other reason? How large is this difference?
- Are salary on-costs different for workers delivering SIL services compared to workers delivering non-SIL services? What aspects of each service type necessitate this difference? How large is this difference?
- Are there differences in overtime costs between staff delivering SIL services compared to non-SIL services? What aspects of each service type necessitate this difference? How large is this difference?
- Are leave costs different for workers delivering SIL services compared to workers delivering non-SIL services? What aspects of each service type necessitate this difference? How large is this difference?

¹¹ Base hourly wage refers to the minimum hourly rate of pay received by a worker, not including any shift or leave loading, overtime, superannuation or allowances.

On-costs include costs such as superannuation, workers compensation premiums, payroll tax, and employee allowances.

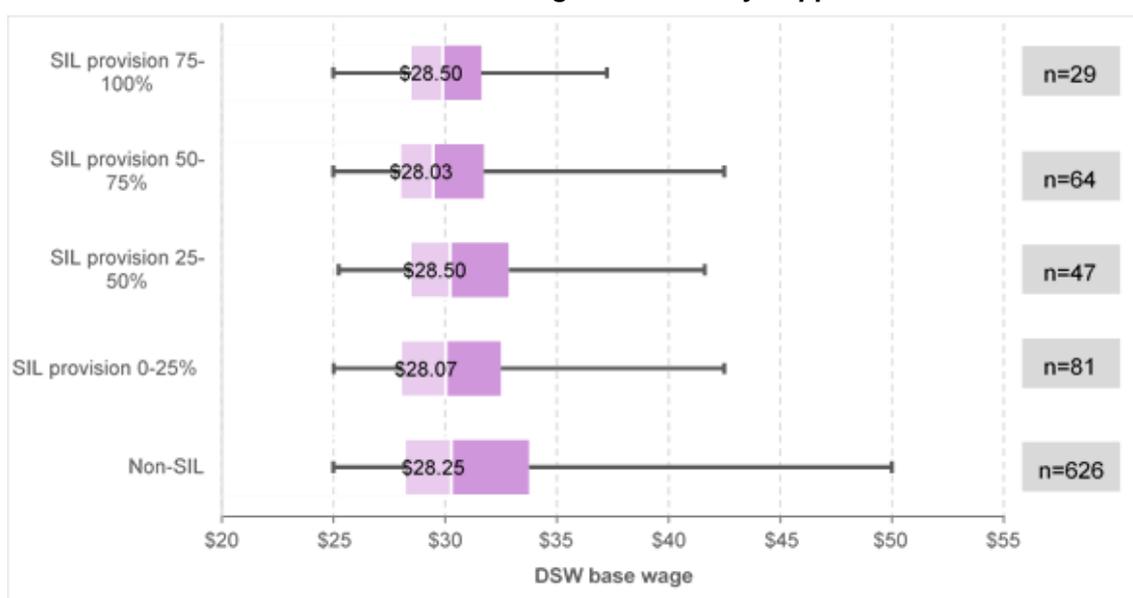
- Do organisations operate under an Enterprise Bargaining Agreement (EBA) or under an Award? Do the EBA conditions differ for workers delivering SIL and non-SIL services? Which conditions are different, and why? How large is this difference?

Base hourly wages

A number of submissions to the Review argued that staff in SIL were, in general, paid a higher wage than staff delivering other activities of daily living supports because participants in SIL tended to have a higher level of complexity than other participants receiving supports with daily activities and therefore more highly qualified staff were needed to deliver support. Some providers commented that they were more comfortable with experienced workers who were more likely to be able to deliver these services seamlessly. The view that workers in SIL tended to be more qualified and higher paid than other workers delivering supports with activities of daily living was not, however, supported by all submissions.

However, analysis of the Financial Benchmarking Survey data does not support the contention that base salaries are higher in SIL settings (see Exhibit 6 and Exhibit 7). Indeed the available evidence indicates that the average base salary paid by SIL providers is lower than the average base salary paid by non-SIL providers. It should also be noted that the 25th percentiles for base salaries are almost equivalent for SIL and non-SIL providers.

Exhibit 6: Box Plot – Base Wages of Disability Support Workers



Note: Data labels for the 25th percentile are shown to highlight the efficient frontier within each category

Exhibit 7: Summary Statistics – Base Wages of Disability Support Workers

Respondent type	Sample size	Mean	Median	25 th percentile	75 th percentile
All respondents	847	\$31.04	\$30.12	\$28.23	\$33.11
Non-SIL respondents	626	\$31.30	\$30.30	\$28.25	\$33.70
Mixed (SIL/ADL) respondents	221	\$30.38	\$29.89	\$28.14	\$32.14
0-25% SIL respondents	81	\$30.36	\$30.03	\$28.07	\$32.49
26-50% SIL respondents	47	\$30.72	\$30.22	\$28.50	\$32.84
51-75% SIL respondents	64	\$30.17	\$29.46	\$28.03	\$31.73

Respondent type	Sample size	Mean	Median	25 th percentile	75 th percentile
76-100% SIL respondents	29	\$30.33	\$29.89	\$28.50	\$31.62

Regression analysis (Exhibit 8) confirms that there is no clear relationship between the extent to which a provider is engaged in the provision of SIL and the average base wage that the provider pays to their disability support worker employees. The coefficients for the SIL indicator variable and SIL share variable are both not statistically significantly different from zero. There is some evidence that average base wages are slightly lower for larger organisations.

Exhibit 8: Regression Analysis – Base Wages of Disability Support Workers¹²

Regression variables	Mean	Median	25 th percentile	75 th percentile
SIL provider indicator	-0.32	0.31	0.03	-0.43
Percentage of revenue sourced from SIL	0.93	0.74	0.88	0.02
Number of clients (log)	0.83**	0.60	0.85**	0.70
Number of staff (log)	-1.84**	-2.04**	-1.23**	-2.32**
Staff-supervisor ratio (log)	0.14	0.39	0.83**	-0.38
R²	4.5%	3.2%	2.8%	4.9%

Note: * and ** indicate the variable is significant at 10% and 5% thresholds respectively (586 observations).

On-costs

The principal on-costs recognised in the NDIS DSW Cost Model are:

- Superannuation;
- Workers Compensation; and
- Employee Allowances.

The Review found no evidence that the costs of either superannuation or employee allowances varied between SIL and non-SIL providers.

There was consensus among providers that workers' compensation costs were higher in the SIL environment. In part, they argued, this is driven because SIL providers are sometimes classified into a different workers compensation risk pool than non-SIL providers. For example, in New South Wales, SIL providers are sometimes classified in the Residential Care Services (not elsewhere classified) sector whereas most providers of activities of daily living supports are classified as part of the Non-Residential Care Services (not elsewhere classified) sector. The basic NSW Workers Compensation Industry Classification Rates,

¹² The equation regresses the average base wage for the disability support workers of a provider against:

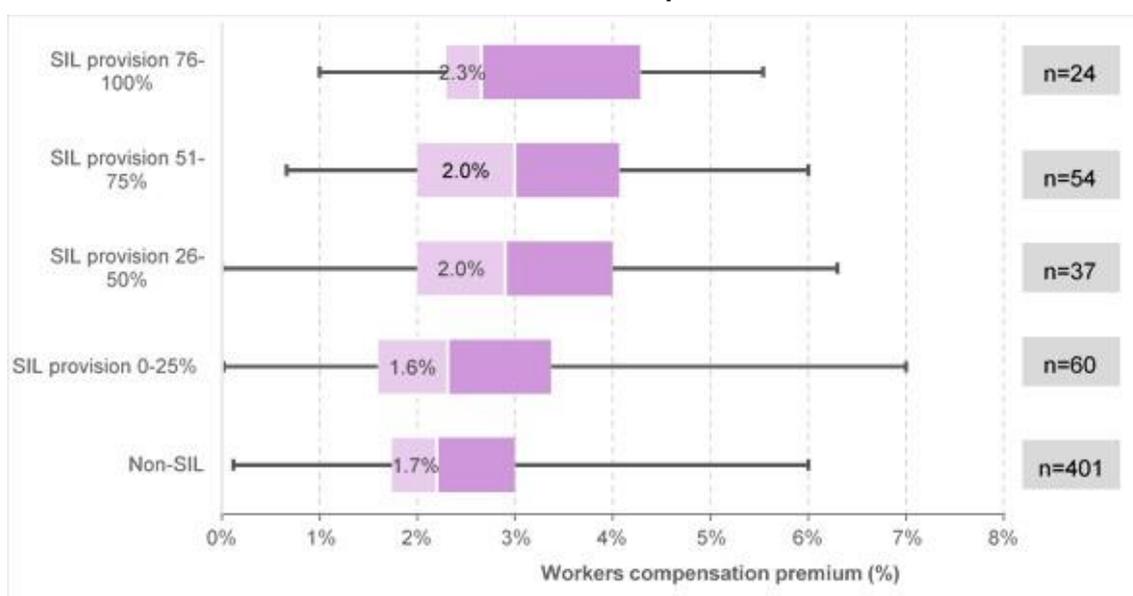
- the SIL provider indicator variable (1 if the provider delivers SIL, 0 otherwise);
- the percentage of the provider's revenue sourced from SIL;
- Log of the number of participants supported by the provider;
- Log of the number of direct support staff (DSWs and FLSs) employed by the provider; and
- Log of the supervision ratio of the provider – Log of the ratio of the number of DSWs (headcount) and the number of FLSs (head count).

prior to adjustments for size and experience, for these two sectors in 2021 are 4.07% and 2.2% respectively.

Analysis of the Financial Benchmarking Survey data confirms that SIL providers tend to have a higher rate of workers compensation premium as a percentage of wages and salaries than non-SIL providers (Exhibit 9 and Exhibit 10). The data indicates that the average provider that offers SIL services pays a workers compensation premium of 2.8% of their total wages and salaries, compared to 2.5% for the median provider that offers no SIL services. However, the level of workers compensation premium increases, on average, in line with the share of SIL provision. In particular, providers for whom SIL makes up more than 75% of their business have an average workers compensation premium of 3.2%.

A similar relationship is seen for efficient providers, with the 25th percentile of non-SIL providers having a workers compensation premium of 1.7% compared to 2.0% for the 25th percentile of all SIL providers and 2.3% for efficient providers for whom SIL makes up more than 75% of their business.

Exhibit 9: Box Plot – Workers Compensation Premiums



Note: Data labels for the 25th percentile are shown to highlight the efficient frontier within each category

Exhibit 10: Summary Statistics – Workers Compensation Premiums

Respondent type	Sample size	Mean	Median	25 th percentile	75 th percentile
All respondents	576	2.6%	2.3%	1.8%	3.5%
Non-SIL respondents	401	2.5%	2.2%	1.7%	3.0%
Mixed (SIL/ADL) respondents	175	2.8%	2.6%	2.0%	4.0%
0-25% SIL respondents	60	2.5%	2.3%	1.6%	3.4%
26-50% SIL respondents	37	3.0%	2.9%	2.0%	4.0%
51-75% SIL respondents	54	3.1%	3.0%	2.0%	4.1%
76-100% SIL respondents	24	3.2%	2.6%	2.3%	4.3%

Regression analysis (Exhibit 11) further confirmed a positive relationship between SIL provision and workers compensation premiums paid as a percentage of wages and salaries.

There are no inherent structural differences between providers that offer some SIL services to those that do not offer SIL services that would contribute to differences in the level of workers compensation premiums paid by a provider. This is indicated by the fact that the indicator variable for SIL provision is not significantly different than zero across the regression equations. However, there is a statistically significant relationship to the share of revenue from SIL increases, as this increases, so do workers' compensation premiums.

A one percentage point increase in the proportion of revenue received from SIL services by an organisation is associated with a 0.009 percentage point increase in the workers compensation premium paid by an organisation, on average. For example, if an organisation that received 0% of their revenue from SIL had a workers compensation premium of 1.7%, then an otherwise identical organisation with 100% revenue sourced from SIL would be expected to have a workers compensation premium of 2.6%. A similar effect, but slightly smaller difference, is observed for efficient (25th percentile) providers. So given the observed average workers compensation premium for efficient non-SIL providers is 1.7% (see Exhibit 10) then the expected average workers compensation premium for efficient SIL providers is 2.4%. The implications of this finding will be considered in Chapter 3.

Exhibit 11: Regression Analysis – Workers' Compensation Premiums¹³

Regression variables	Mean	Median	25 th percentile	75 ^h percentile
SIL provider indicator	0.002	-0.001	-0.000	0.002
Percentage of revenue sourced from SIL	0.009**	0.011**	0.007*	0.017**
Number of clients (log)	-0.004**	-0.004**	-0.001	-0.006**
Staff-supervisor ratio (headcount) (log)	-0.000	-0.000	-0.000	-0.000
Average base wage (Front line supervisor)	-0.000	-0.000	-0.000	-0.000
Average base wage (DSW)	-0.001*	-0.000	-0.000	-0.000
QLD provider indicator	-0.011**	-0.013**	-0.008**	-0.012**
NSW provider indicator	-0.004*	-0.006*	-0.005	-0.000
VIC provider indicator	-0.007**	-0.009**	-0.006**	-0.004
SA provider indicator	-0.000	-0.002	-0.000	-0.004
WA provider indicator	-0.002	-0.001	-0.003	-0.000
R²	13.8%	10.1%	7.3%	13.9%

Note: * and ** indicate the variable is significant at 10% and 5% thresholds respectively (428 observations).

¹³ The equation regresses the workers compensation premium (as a percentage of labour costs) paid by a provider against:

- the SIL provider indicator variable (1 if the provider delivers SIL, 0 otherwise);
- the percentage of the provider's revenue sourced from SIL;
- Log of the number of participants supported by the provider;
- Average base wage paid to DSWs employed by the provider;
- Average base wage paid to FLSs employed by the provider; and
- State Dummy Variables (1 if the state is where the largest share of the provider's revenue is derived, 0 otherwise).

Overtime costs

Generally overtime costs were reported by providers as being higher in SIL than non SIL services. This was mostly attributed by providers to the support needs of SIL participants. Providers argued that that when a staff member could not fulfil a shift the provider did not have the option to let the participant go without support. As a result, workers were sometimes required to continue beyond the end of their shift. The wrap around nature of SIL also meant that workers were more inclined to be asked to work overtime. The range of reported overtime was varied but a number of providers considered it common to see 10 – 20 hours of overtime per house per week.

Submissions reported that households with complex participants or challenging behaviours were more likely to have higher levels of overtime, as staff cannot leave the participant unattended, or cannot leave until the participant is comfortable. Providers generally reported that they preferred to minimise rostering overtime where possible, as excessive overtime was seen to negatively impact the level of care due to staff fatigue.

The Review understands the arguments presented by providers that overtime may be more common in SIL settings than in non-SIL settings. However, the Review did not have an empirical base on which to estimate the materiality of this difference. The Review recommends that future financial benchmarking surveys should examine the use of overtime by efficient SIL and non-SIL providers.

Leave costs

The Review notes that under the Social, Community, Home Care and Disability Services Award 2010 (SCHADS Award), workers who work on ten or more weekends or public holidays a year are defined as “shift workers” and entitled to an extra week’s annual leave.

Submissions to the Review consistently argued that SIL supports were much more likely to be delivered on weekends and public holidays than other activities of daily living supports, and that this resulted in more workers qualifying as shift workers. Providers also pointed out that shift workers are entitled to be paid their weekend loadings even when on leave.

Ability First’s submission, which contained financial benchmarking data from their providers, stated that “the majority of DSWs (95%) meet the threshold for five weeks annual leave under the Award.”

The Review acknowledges that the nature of supporting participants in a SIL arrangement may require many workers of a SIL provider to work over the threshold of weekends required by the SCHADS Award to classify the worker as a shift worker, thus requiring an additional week of annual leave. The implications of this finding will be considered in Chapter 3.

Enterprise Bargaining Agreements (EBAs)

In keeping with the fact that many, if not most, providers do not have EBAs, the Review received fewer submission responses on this topic than others. Of those who did respond, about a third had their own EBA. Providers reported that it was taking longer to transition out of inherited EBAs than they had expected. Moreover, when they were successfully able to do so, this sometimes resulted in higher incidence of staff turnover. The limited analysis that could be conducted across recent ‘SCHADS-compatible’ EBAs did not identify any significant systemic differences between the treatment of SIL and non-SIL workers.

2.2 Workforce mix

The DSW Cost Model recognises that the costs of employing casual and permanent workers are different. The Review therefore sought evidence on whether there were material differences in these distribution or permanent and casual employment arrangements between SIL providers and non-SIL providers.

The key questions for the Review, as outlined in the Issues Paper, are:

- Is there a material difference in the proportion of employees employed on a casual basis between employees providing SIL and non-SIL services? If there is a difference, which aspects of SIL service delivery are suited to more (or fewer) permanent employees relative to casual employees? How large is this difference? What is the average number of hours per week that a casual staff member is employed? Is there a material difference in the average number of hours per week that a casual staff member is employed between employees providing SIL and non-SIL services? If there is a difference, how large is this difference?
- Is there a material difference in the proportion of employees employed on a part-time basis between employees providing SIL and non-SIL services? If there is a difference, which aspects of SIL service delivery are suited to more (or fewer) part-time permanent employees relative to full-time permanent employees? How large is this difference? What is the average number of hours per week that a part-time staff member is employed? Is there a material difference in the average number of hours per week that a part-time staff member is employed between employees providing SIL and non-SIL services? If there is a difference, how large is this difference?
- Are temporary replacement staff engaged more or less often for SIL services? If there is a difference, what are the key drivers of this difference? How large is this difference? Is the cost of the temporary replacement staff different between SIL services and non-SIL services? If there is a difference, what are the key drivers of this difference? How large is this difference?
- What level of worker is employed for standard and higher requirements?

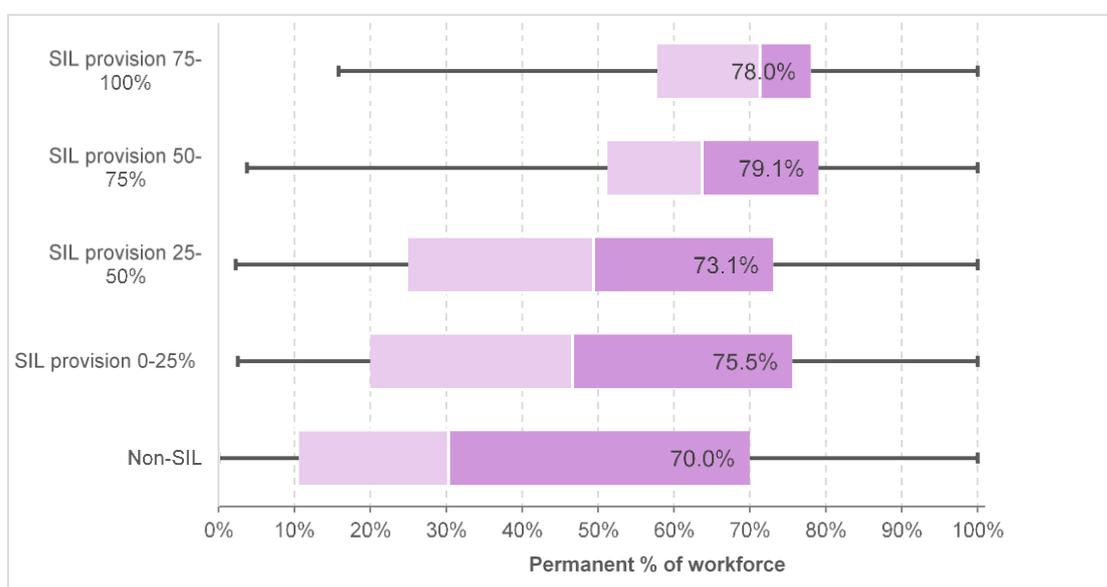
Casual / Permanent Staff Mix

Many submissions to the Review argued that SIL providers were, in general, likely to have a higher proportion of permanent workers than non-SIL providers. The same point was made in consultations with providers. Casualization was typically reported as lower in SIL than in non-SIL settings because there was a preference for higher skilled, more experienced workers and permanence owing to the requirement for 24/7 services. Permanent employment rates were reported to be higher the more skilled the position was (such as team leaders). A few providers noted that the National Disability Services' *Provider Benchmarking Survey 2017-18* found the mix of the SIL workforce was 72% permanent compared to 59% permanent in supports for activities of daily living. Ability First suggested that on average 78% of all hours delivered in SIL are delivered by permanent staff.

Analysis of the Financial Benchmarking Survey Data (Exhibit 12 and Exhibit 13) confirms that SIL providers do tend to employ a larger proportion of their workforce on a permanent basis. The median provider of SIL services employs 59% of their workforce on a permanent basis, compared to 30% for the median provider that provides no SIL services. For efficient

providers (the 25th percentile) SIL providers employ 77.5% of their workforce on a permanent basis, compared to 70.0% for non-SIL providers.

Exhibit 12: Box Plot – Permanent Employment Share



Note: Data labels for the 25th percentile are shown to highlight the efficient frontier within each category

Exhibit 13: Summary Statistics – Permanent Employment Share

Respondent type	Sample size	Mean	Median	25 th percentile	75 th percentile
All respondents	837	44.3%	40.2%	12.5%	72.6%
Non-SIL respondents	617	40.5%	30.2%	10.5%	70.0%
Mixed (SIL/ADL) respondents	220	54.5%	59.3%	30.0%	77.5%
0-25% SIL respondents	81	48.3%	46.6%	20.0%	75.5%
26-50% SIL respondents	47	50.5%	49.4%	25.5%	73.1%
51-75% SIL respondents	64	61.8%	63.7%	51.2%	79.1%
75-100% SIL respondents	28	65.2%	71.3%	57.7%	78.0%

Regression analysis (Exhibit 14) further confirms a positive relationship between SIL service provision and the percentage of the workforce that is employed on a permanent basis. The regression analysis also indicates that there are no inherent structural differences, between providers that offer any SIL services to those that offer none, which have a significant impact on the permanent share of a provider’s workforce. However, the data does show that as the share of revenue from SIL increases, so does the permanent share of the workforce.

A one percentage point increase in the proportion of revenue received from SIL services by an organisation is associated with a 0.41 percentage point increase in the proportion of an organisation’s workforce that is employed on a permanent basis, on average. For example, if an organisation that received 0% of their revenue from SIL had a permanent workforce share of 40.5%, then an otherwise identical organisation with 100% revenue sourced from SIL would be expected to have a permanent workforce share of 81.5%. A similar effect, but smaller difference, is observed for efficient (75th percentile) providers. If an organisation that received 0% of their revenue from SIL had a permanent workforce share of 70.0%, then an

otherwise identical organisation with 100% revenue sourced from SIL would be expected to have a permanent workforce share of 85.1%. The implications of this finding will be considered in Chapter 3.

Exhibit 14: Regression Analysis – Permanent Employment Share¹⁴

Regression variables	Mean	Median	25 th percentile	75 th percentile
SIL provider indicator	0.03	0.08	-0.01	0.20
Percentage of revenue sourced from SIL	0.81**	0.86**	1.05**	0.39*
Number of clients (log)	0.22**	0.25**	0.31**	0.24**
Average base wage (DSW) (log)	-1.82**	-1.96**	-0.46	-3.89**
Staff-supervisor ratio (headcount) (log)	-0.39**	-0.54**	-0.37**	-0.51**
Labour time spent on billable work (% of all time)	0.92*	0.88	0.80	1.27*
Labour time spent training (% of all time)	-0.52	1.00	0.96	0.50
Labour time spent client admin (% of all time)	1.60**	1.27	2.10**	2.24*
Labour time spent on admin (% of all time)	1.91**	1.65	0.93	3.51**
R²	21.6%	16.9%	17.2%	10.9%

Note: * and ** indicate the variable is significant at 10% and 5% thresholds respectively (477 observations).

Part time staff

Most providers indicated that part-time employment was the most common type of employment in a SIL arrangement. Many providers stated that the majority of their staff were permanent part time, with some indicating that 70%-80% of their staff were permanent part time. Part time staff hours were reported to range between 15–40 hours per week, with the most common range between 18–28 hours per week. Offering standard full-time contracts was perceived to be difficult given the atypical hours associated with SIL work.

This issue was considered in depth in AbleInsight’s 2017-18 Financial Benchmarking Survey Report. That Report found that, on average, 53.1% of all disability support worker hours in SIL (and 74.1% of all permanent disability support worker hours in SIL) were delivered by part-time workers. This compared to 42.7% of all disability support worker hours (and 73.0% of all permanent disability support worker hours) in non-SIL settings.

¹⁴ The equation regresses the log of the ratio of the number of permanent workers (headcount) and casual workers (headcount) employed by a provider against:

- the SIL provider indicator variable (1 if the provider delivers SIL, 0 otherwise);
- the percentage of the provider’s revenue sourced from SIL;
- Log of the number of participants supported by the provider;
- Log of the Average base wage paid to DSWs employed by the provider;
- Average base wage paid to FLSs employed by the provider;
- Log of the ratio of the number of DSWs (headcount) and FLSs (headcount) employed by the provider;
- Percentage of labour time spent on billable work by DSWs employed by the provider;
- Percentage of labour time spent on training by DSWs employed by the provider;
- Percentage of labour time spent on client administration by DSWs employed by the provider; and
- Percentage of labour time spent on general administration by DSWs employed by the provider.

Although there may be some additional administrative costs involved in a workforce with a larger share of part-time workers, the Review did not find any evidence of significant differences in costs in this regard between SIL and non-SIL providers.

Agency staff / temporary replacement staff

It was fairly common for providers to report in response to the Issue Paper that they did not use Agency or temporary staff at all. Organisations that did report employing these types of staff said that they are more likely to do so for SIL than non-SIL services. All respondents who used Agency or temporary staff said that they were more expensive and that this sometimes de-incentivised providers from using them. Based on data from five providers, Alliance 20 reported that agency staff hours accounted for about 2.8% of all hours. Ability First suggested that there was pressure to keep houses fully staffed in SIL. They argued that this can necessitate the use of agency staff, overtime, increased wages and recruitment costs. One provider argued that as agency staff often had to be used instead of full-time employees and that this should be accounted for in the Cost Model.

On balance, the Review did not consider that there was significant evidence of a material difference in the cost structures of SIL and non-SIL settings in respect to this cost driver.

Level of staff

Many respondents to the Issues Paper argued that the average level of worker used in SIL was much higher than that allowed for the NDIS Disability Support Worker Cost Model. One provider suggested that in SIL services, they employ staff around SCHADS level 4. They argued that this was because more experience was needed to deal with the challenges - and at times volatility - experienced in the SIL environment. Aspects of care such as medication management and the delivery of specialised services are tasks that require training and experience, so providers wanted experienced staff who were more likely to be able to deliver these services effectively.

These claims are not, however, supported by the evidence on base pay rates in SIL and non-SIL settings discussed above. The Financial Benchmarking Survey data does not support the contention that base salaries are higher in SIL settings (see Exhibit 6 and Exhibit 7 above). Indeed the average base salary paid by SIL providers is lower than the average base salary paid by non-SIL providers. It should also be noted that the 25th percentiles for base salaries are almost equivalent for SIL and non-SIL providers. These findings are not consistent with a consistently higher use of more qualified staff in SIL settings.

2.3 Utilisation

The NDIS Disability Support Worker Cost Model recognises that staff need to spend some working time undertaking non-billable work, including breaks and training. The NDIA therefore sought evidence on whether there were material differences in these arrangements between SIL providers and non-SIL providers.

The key questions for the Review, as outlined in the Issues Paper, are:

- Do training requirements – and associated costs – for workers differ between SIL services and non-SIL services? If there is a difference, what are the key drivers of this difference? How large is this difference?

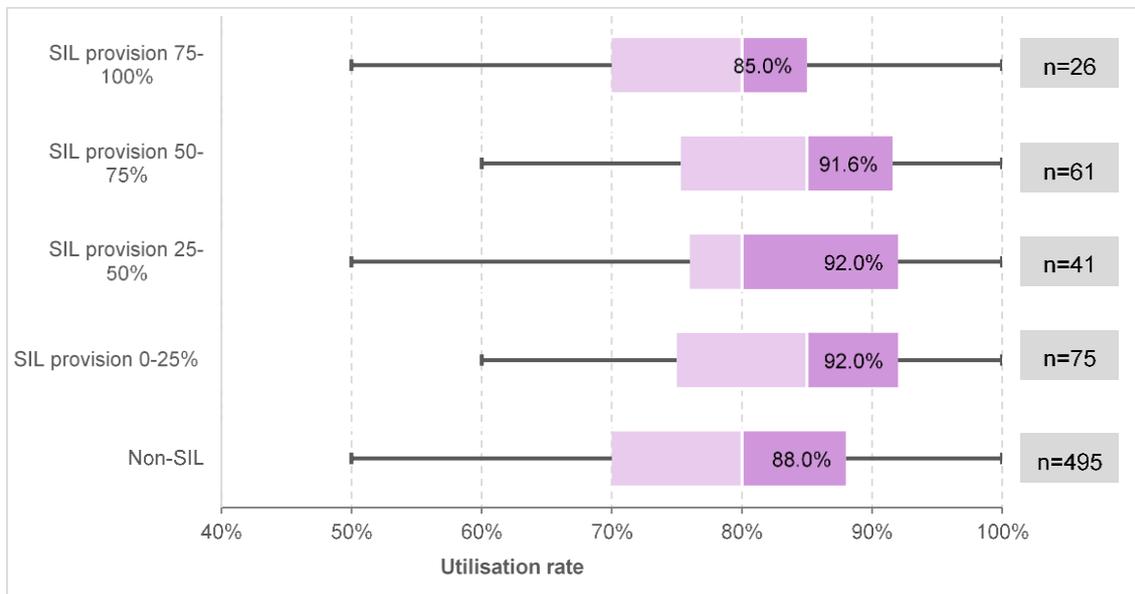
- Is there a material difference in the non-direct care activities that staff in SIL services, compared to staff in non-SIL services, are required to undertake? What are the key drivers of these differences? How large are these differences?

Utilisation (billable v unbillable hours)

Most respondents to the Issues Paper mentioned that workers spent the great majority of their time delivering supports, with most responses between 80-95%. Although providers noted that this could vary substantially between participants. Respondents suggested that SIL staff were more often engaged in unbillable activities than were other staff supporting activities of daily livings, because of an increased emphasis on quality and safeguarding in SIL settings. This includes team meetings, handover, increased reporting, coordination of stakeholders and household management. SIL arrangements were reported to also entail a lot of external stakeholder involvement, family meetings, and communication back and forth with other providers that cannot be attributed directly to the participant. Ability First reported that family/ stakeholder engagement accounts for 1.5% of disability support worker hours for standard participants and 2.1% for high intensity participants. In addition, they reported that liaising and coordinating with other supports and services accounts for 1% of disability support worker hours for standard participants and 1.2% in high intensity participants.

The Financial Benchmarking Survey Data (Exhibit 15 and Exhibit 16) tends to indicate that SIL providers do tend to have slightly higher utilisation rates than other providers of activities of daily living supports.

Exhibit 15: Box Plot – Staff Utilisation Rate



Note: Data labels for the 25th percentile are shown to highlight the efficient frontier within each category

Exhibit 16: Summary Statistics – Staff Utilisation Rate

Respondent type	Sample size	Mean	Median	25 th percentile	75 th percentile
All respondents	698	79.4%	80.0%	70.0%	90.0%
Non-SIL respondents	495	77.9%	80.0%	70.0%	88.0%
Mixed (SIL/ADL) respondents	203	82.7%	84.0%	75.0%	91.0%

Respondent type	Sample size	Mean	Median	25 th percentile	75 th percentile
0-25% SIL respondents	75	83.5%	85.0%	75.0%	92.0%
26-50% SIL respondents	41	82.1%	80.0%	76.0%	92.0%
51-75% SIL respondents	61	83.4%	85.0%	75.3%	91.6%
75-100% SIL respondents	26	78.9%	80.0%	70.0%	85.0%

The median provider of SIL services achieved an utilisation rate of 84% compared to 80% for the median provider that provides no SIL services. For efficient providers (the 25th percentile) SIL providers achieved utilisation rates of 91% compared to 88% for non-SIL providers. These findings align with survey results from the AbleInsight survey of 2017-18, which showed the average SIL provider had a slightly higher utilisation rate (95%) to the average non-SIL provider (93%).

Regression analysis seems to show that utilisation rates do not differ significantly between SIL and non-SIL providers, for median providers (Exhibit 17) as the regression coefficient for the relevant variables are not statistically significantly different from zero. However, in the regression analysis, the coefficient for the SIL provider indicator variable for efficient providers (75th percentile) is statistically significant but the coefficient for the percentage of revenue sourced from SIL variable is not statistically significant. This implies there is structural difference in utilisation rates between SIL and non-SIL providers of about 5%. However, the regression analysis also indicates that the relationship between utilisation and the percentage of revenue sourced from SIL may be quadratic, which means relations are not completely well fitted by regression. On balance, the Review finds that utilisation is slightly higher (two percentage points) in SIL settings. The implications of this finding will be considered in Chapter 3.

Exhibit 17: Regression Analysis – Staff Utilisation Rate¹⁵

Regression variables	Mean	Median	25th percentile	75h percentile
SIL provider indicator	0.03	0.03	0.04	0.05*
Percentage of revenue sourced from SIL	0.15	0.11	0.23	0.05
Percentage of revenue sourced from SIL (squared)	-0.24**	-0.17	-0.36**	-0.15
Number of clients (log)	-0.01	-0.00	-0.02	-0.00
Number of supervisors (log)	-0.05**	-0.06**	-0.04	-0.05**
Number of direct staff (log)	0.03**	0.08**	0.08**	0.09**
Average base wage (FLS)	0.00	-0.00	0.00	-0.00
Average base wage (DSW)	-0.00	-0.01**	-0.00	-0.00
R²	10.9%	4.8%	6.9%	5.9%

Note: * and ** indicate the variable is significant at 10% and 5% thresholds respectively (518 observations).

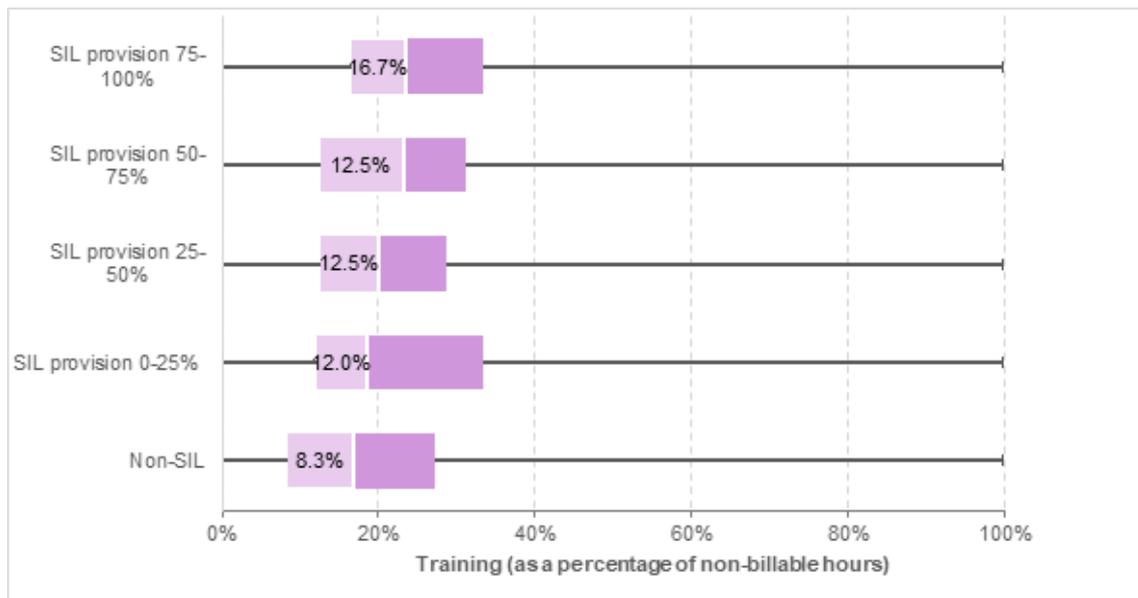
¹⁵ The equation regresses the percentage of labour time that is spent by DSWs employed by the provider on billable work against:

- the SIL provider indicator variable (1 if the provider delivers SIL, 0 otherwise);
- the percentage of the provider's revenue sourced from SIL;
- the square of the percentage of the provider's revenue sourced from SIL;

Training

The Financial Benchmarking Survey data indicates that time spent on training as a proportion of non-billable time is slightly higher, on average, for providers that offer SIL services compared to those that did not (Exhibit 18 and Exhibit 19). Employees of mixed SIL/non-SIL providers spend, on average, 20.5% of non-billable time on training, compared to 18.3% for employees of non-SIL providers.

Exhibit 18: Box Plot – Time spent training as a share of non-billable hours



Note: Data labels for the 25th percentile are shown to highlight the efficient frontier within each category

Exhibit 19: Summary Statistics – Time spent training as a share of non-billable hours

Respondent type	Sample size	Mean	Median	25 th percentile	75 th percentile
All respondents	680	19.0%	18.0%	9.6%	26.9%
Non-SIL respondents	480	18.3%	16.7%	8.0%	25.0%
Mixed (SIL/ADL) respondents	200	20.5%	20.0%	11.1%	27.8%
0-25% SIL respondents	73	18.9%	16.7%	10.0%	25.0%
26-50% SIL respondents	41	19.9%	20.0%	10.0%	25.0%
51-75% SIL respondents	61	21.1%	20.2%	11.1%	29.1%
76-100% SIL respondents	25	24.1%	21.7%	16.7%	33.3%

- Log of the number of participants supported by the provider;
- Log of the number of FLSs employed by the provider;
- Log of the number of DSWs employed by the provider;
- Average base wage paid to FLSs employed by the provider; and
- Average base wage paid to DSWs employed by the provider.

A simple T-test confirmed there is a statistical difference between the proportions of time spent on training as a percentage of non-billable hours for SIL providers when compared to non-SIL providers at the 1% significance level.¹⁶

However, regression analysis (Exhibit 20) indicates that there is no statistically significant relationship between the proportion of revenue from SIL services and time spent on training as a percentage of non-billable hours. It may be that the drivers of time spent on training were not well captured by the regression specification. However, additional regression specifications failed to find a better suited regression model.¹⁷

Exhibit 20: Regression Analysis – Time spent training as a share of non-billable hours¹⁸

Regression variables	Mean	Median	25th percentile	75h percentile
SIL provider indicator	0.01	0.02	0.04	-0.00
Percentage of revenue sourced from SIL	0.05	0.06	0.02	0.08
Number of clients (log)	-0.01	-0.03	-0.03	-0.01
Number of supervisors (log)	-0.02	-0.01	0.02	-0.04
Number of direct staff (log)	0.02	0.00	0.02	0.02
Average base wage (FLS)	-0.00	0.00	0.00	-0.00
Average base wage (DSW)	-0.00	-0.00	-0.00	-0.00
R²	1.8%	2.2%	2.1%	1.3%

Note: * and ** indicate the variable is significant at 10% and 5% thresholds respectively (478 observations).

2.4 Supervision costs

The NDIS Disability Support Worker Cost Model recognises that staff require direct supervision of the care that they provide, as well as management support. The key parameters in the Cost Model associated with supervision are the wages and conditions of the supervisor, and the supervision ratio. This section considers whether there are material differences in these parameters between SIL and non-SIL settings.

The key questions for the Review, as outlined in the Issues Paper, are:

¹⁶ The T-test compared the mean time spent on training as a percentage of non-billable hours between providers that did offer SIL services (n=200) and providers that did not offer SIL services (n=480). P-value of right tail T-test was 0.00, indicating that SIL providers had a greater mean value than non-SIL providers at 1% significance level.

¹⁷ Additional model specifications included; overhead costs as a percentage of total direct costs; direct costs; and permanent employment rates.

¹⁸ The equation regresses the percentage of labour time that is spent by DSWs employed by the provider on training against:

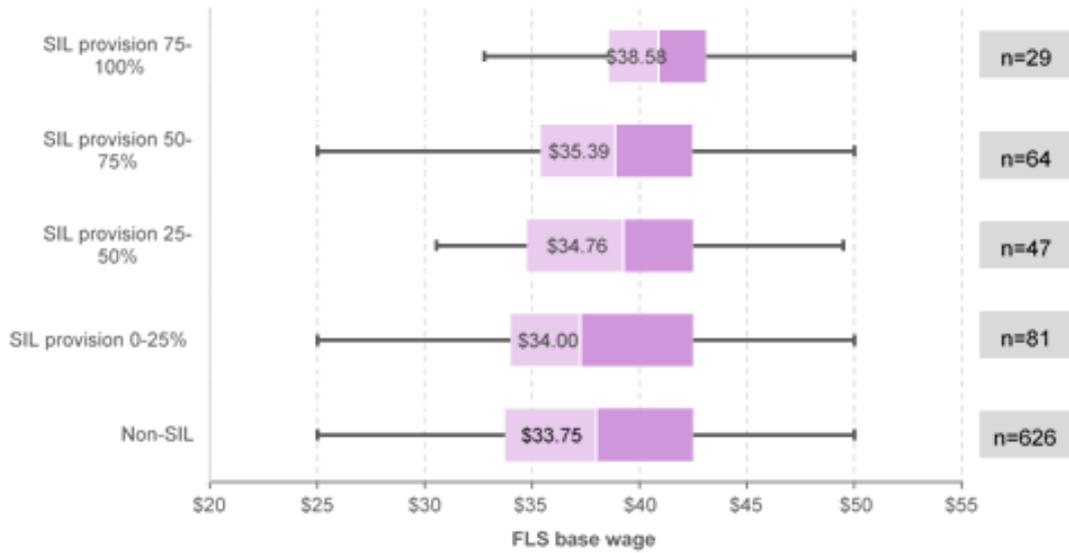
- the SIL provider indicator variable (1 if the provider delivers SIL, 0 otherwise);
- the percentage of the provider's revenue sourced from SIL;
- Log of the number of participants supported by the provider;
- Log of the number of FLSs employed by the provider;
- Log of the number of DSWs employed by the provider;
- Average base wage paid to FLSs employed by the provider; and
- Average base wage paid to DSWs employed by the provider.

- Is there a material difference in the wages and on-costs of supervisors between SIL services and non-SIL services? If there is a difference, what are the key drivers of these differences? How large is the difference?
- Is there a difference in the supervision ratio (the number of workers per supervisor) between SIL services and non-SIL services? If there is a difference, what are the key drivers of these differences? How large is the difference?

Base wages – Supervisors

There is some evidence from the Financial Benchmarking Survey that SIL providers may pay higher base wages for supervisors than non-SIL providers (Exhibit 21 and Exhibit 22).

Exhibit 21: Box Plot – Base Wages of Supervisors



Note: Data labels for the 25th percentile are shown to highlight the efficient frontier within each category

Exhibit 22: Summary Statistics – Base Wages of Supervisors

Respondent type	Sample size	Mean	Median	25 th percentile	75 th percentile
All respondents	846	\$38.40	\$38.50	\$33.80	\$42.50
Non-SIL respondents	625	\$38.21	\$37.74	\$33.75	\$42.49
Mixed (SIL/ADL) respondents	221	\$38.89	\$38.74	\$34.99	\$42.49
0-25% SIL respondents	81	\$38.16	\$37.24	\$34.00	\$42.49
26-50% SIL respondents	47	\$38.85	\$39.24	\$34.76	\$42.49
51-75% SIL respondents	64	\$38.83	\$38.86	\$35.39	\$42.45
75-100% SIL respondents	29	\$41.14	\$40.88	\$38.58	\$43.09

Regression analysis (Exhibit 23) confirms that there is a positive relationship between the proportion of revenue from SIL services and the average base wage paid to supervisors. On average, the base wages of supervisors in efficient (25th percentile) SIL settings are \$4.00 per hour – 11.9% – higher than in non-SIL settings. The implications of this finding will be considered in Chapter 3.

The regression analysis also indicates that supervisor wages increase with the log of the number of clients serviced, but decrease with the log of the number of staff employed by, the organisation. The analysis also indicates that the average wage paid to supervisors increases with the log of the number of clients, and decreases with the log of the number of staff, of the provider. It also decreases as the log of the staff to supervisor ratio increases. These relationships may be worthy of further study by providers.

Exhibit 23: Regression Analysis – Base Wages of Supervisors¹⁹

Regression variables	Mean	Median	25th percentile	75h percentile
SIL provider indicator	0.04	0.0	-0.89	-0.63
Percentage of revenue sourced from SIL	2.8**	3.2*	4.89**	2.36
Number of clients (log)	1.05**	0.73	1.90**	0.49
Number of staff (log)	-2.72**	-2.74**	-2.25**	-4.81**
Staff-supervisor ratio (log)	2.23**	2.97**	1.93**	1.98**
R²	4.6%	3.7%	2.9%	4.0%

Note: * and ** indicate the variable is significant at 10% and 5% thresholds respectively (586 observations).

Supervision ratios

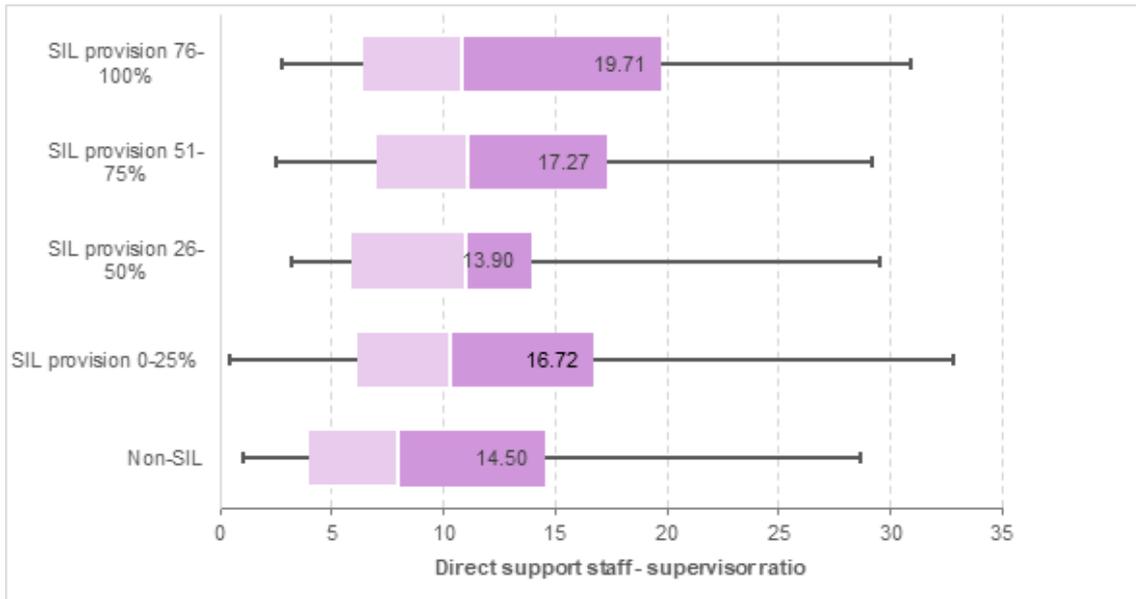
There is some evidence from the Financial Benchmarking Survey that supervisors in SIL settings have higher spans of controls than in non-SIL settings (Exhibit 24 and Exhibit 25).

Supervisors in non-SIL settings have an average span of control of 10.9 to 1 while supervisors in mixed SIL/ADL settings have an average span of control of 13.0 to 1. A similar difference is apparent amongst efficient providers, where the spans of control in SIL and non-SIL settings are 16.7 to 1 and 14.5 to 1 respectively.

¹⁹ The equation regresses the average base wages of supervisors employed by the provider against:

- the SIL provider indicator variable (1 if the provider delivers SIL, 0 otherwise);
- the percentage of the provider’s revenue sourced from SIL;
- Log of the number of participants supported by the provider;
- Log of the number of DSWs employed by the provider; and
- Log of the ratio of the number of FLSs (headcount) and DSWs (headcount) employed by the provider.

Exhibit 24: Box Plot – Supervision Ratio



Note: Data labels for the 25th percentile are shown to highlight the efficient frontier within each category

Exhibit 25: Summary Statistics – Supervision Ratio

Respondent type	Sample size	Mean	Median	25 th percentile	75 th percentile
All respondents	794	11.47	8.55	5.00	15.00
Non-SIL respondents	580	10.89	8.00	4.00	14.50
Mixed (SIL/ADL) respondents	214	13.02	10.75	6.40	16.67
0-25% SIL respondents	78	13.59	10.29	6.17	16.72
26-50% SIL respondents	46	11.87	10.96	5.90	13.90
51-75% SIL respondents	63	12.84	11.10	7.00	17.27
75-100% SIL respondents	27	13.76	10.79	6.40	19.71

However, regression analysis indicates that once differences in numbers of clients, numbers of staff per client, utilisation and skill level of supervisors are controlled for, there is no statistically significant difference in the levels of staff-supervisor ratios between SIL and non-SIL providers (Exhibit 26). This finding aligns with survey results from the AbleInsight survey 2017-18, which showed that there were not material differences in the average level of staff-supervisor ratios between SIL and non-SIL providers.

Exhibit 26: Regression Analysis – Supervision Ratio²⁰

Regression variables	Mean	Median	25 th percentile	75 th percentile
SIL provider indicator	-0.10**	-0.13**	-0.07	-0.10
Percentage of revenue sourced from SIL	0.03	0.01	0.03	-0.08
Number of clients (log)	0.34**	0.39**	0.34	0.34**
Average base wage (FLS)	0.01**	0.01**	0.01**	0.01**
Number of staff-client (log)	0.35**	0.43**	0.35**	0.37**
Labour time spent on billable work (% of all time)	0.38**	0.29**	0.50**	0.22
R²	33.1%	19.0%	20.9%	15.2%

Note: * and ** indicate the variable is significant at 10% and 5% thresholds respectively (477 observations).

2.5 Overheads

The NDIS Disability Support Worker Cost Model recognises that providers incur a number of costs (“overheads”) that not directly attributable to worker salaries and on-costs. This section considers whether there are material differences in overhead costs between SIL and non-SIL settings. The key questions for the Review, as outlined in the Issues Paper, was:

- Is there a difference in the level of corporate overheads that are incurred in delivering SIL services compared to non-SIL services? If so, what aspects of the SIL operating environment drive this difference? How large is the difference?

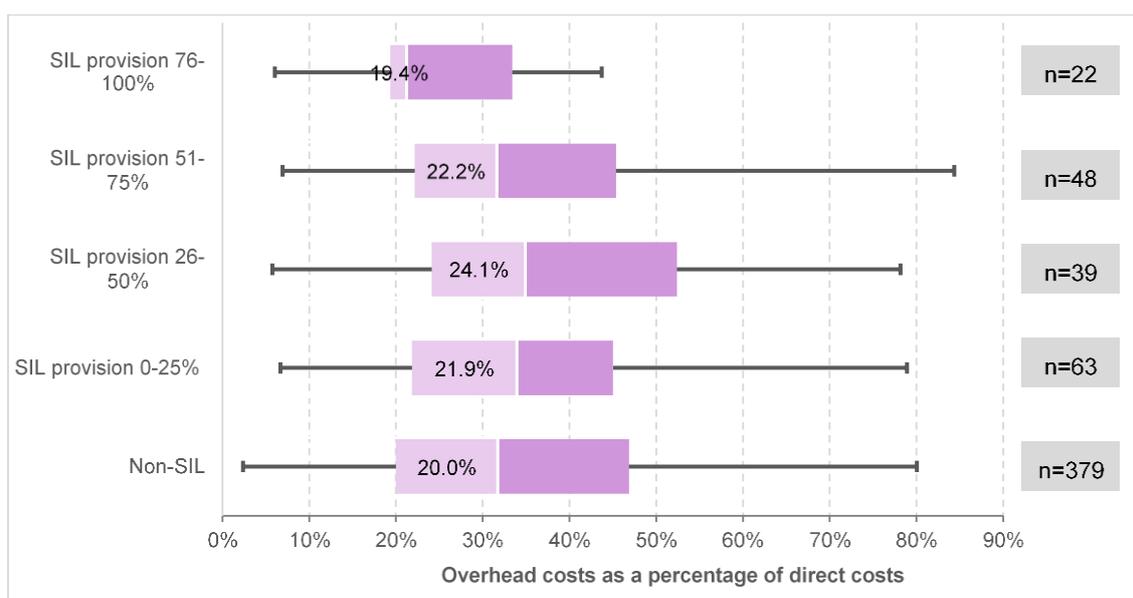
Corporate overheads

Although some providers raised the issue of overheads in their submissions to the Review, they did not provide any significant evidence that different levels of corporate overheads are incurred in delivering SIL services. The Financial Benchmarking Survey (Exhibit 27 and Exhibit 28) suggests that overheads (as a share of costs) are slightly lower, on average, for SIL providers compared to non-SIL providers. It also suggests that for efficient providers, overheads (as a share of costs) might be slightly higher for SIL v non-SIL providers.

²⁰ The equation regresses the log of the ratio of the number of FLSs (headcount) and DSWs (headcount) employed by the provider against:

- the SIL provider indicator variable (1 if the provider delivers SIL, 0 otherwise);
- the percentage of the provider’s revenue sourced from SIL;
- Log of the number of participants supported by the provider;
- Average base wage paid to FLSs employed by the provider
- Log of the ratio of the number of DSWs employed by the provider and the number of participants supported by the provider; and
- Percentage of labour time spent on billable work by DSWs employed by the provider.

Exhibit 27: Box Plot – Overhead Costs



Note: Data labels for the 25th percentile are shown to highlight the efficient frontier within each category

Exhibit 28: Summary Statistics – Overhead Costs

Respondent type	Sample size	Mean	Median	25 th percentile	75 th percentile
All respondents	551	35.1%	32.1%	20.7%	46.2%
Non-SIL respondents	379	35.5%	31.2%	20.0%	46.8%
Mixed (SIL/ADL) respondents	172	34.3%	33.1%	21.4%	44.3%
0-25% SIL respondents	63	35.7%	33.9%	21.8%	45.0%
26-50% SIL respondents	39	38.1%	34.9%	24.1%	52.3%
51-75% SIL respondents	48	33.7%	31.6%	22.1%	45.4%
76-100% SIL respondents	22	24.7%	21.2%	19.3%	33.4%

Regression analysis (Exhibit 29) shows that there is no systemic difference in overheads between SIL and non-SIL providers as the coefficients of both the SIL provider indicator variable and the percentage of revenue sourced from SIL variable are not statistically significant different from zero. This finding holds both on average and for efficient providers.

The statistically significant relationship that can be observed in the data with respect to the direct cost per client (log) variable and the average base wage (DSW) variable is not unexpected as overheads are, in general, driven more by the headcount of workers rather than the individual wage rates of those workers and so as wage expenditure increases, overhead expenditure as a percentage of direct costs can decrease.

Exhibit 29: Regression Analysis – Overhead Costs²¹

Regression variables	Mean	Median	25 th percentile	75 ^h percentile
SIL provider indicator	-0.01	-0.02	-0.04	-0.01
Percentage of revenue sourced from SIL	0.10	0.16	0.02	0.39
Percentage of revenue sourced from SIL (squared)	-0.19	-0.27*	-0.06	-0.51*
Number of clients (log)	0.06**	0.01	0.05**	-0.01
Direct cost per client (log)	-0.04**	-0.05*	-0.03	-0.08**
Labour time spent on billable work (% of all time)	-0.02	0.04	0.06	-0.2
Staff-supervisor ratio (log)	-0.02	-0.02	-0.03	-0.01
Average base wage (FLS)	-0.00	0.00	0.00	-0.00
Average base wage (DSW)	-0.01**	-0.01	-0.01**	-0.00
R²	5.5%	4.3%	4.6%	4.4%

Note: * and ** indicate the variable is significant at 10% and 5% thresholds respectively (374 observations).

2.6 Supply costs specific to SIL services

To test whether there were any supply cost considerations that are specific to delivering SIL services and that are not accounted for in the current NDIS Disability Support Worker Cost Model, the Review sought evidence on these costs and their drivers. In particular, the Issues Paper sought responses to the following questions:

- **Vacancy rates** – What is the average vacancy rate across your properties? Is the vacancy rate of a property influenced by factors such as the complexity of participants in each property, the rurality of the property, and the number of rooms in the property? What factors are considered in optimising the number of participants per SIL property? What impact does this have on costs? What approach is used to optimise vacancy levels across your properties?
- **Vacancy costs** – How do vacancies impact the costs of delivering SIL services? Please quantify these costs for your organisation? Some costs associated with vacancies can be considered to be “fixed” – for example, an inactive sleepover for a three bedroom house has the same cost whether there are two or three participants in the house. Other costs can be considered to be more “variable” – for example, the vacancy costs of a three bedroom house with three residents each receiving 1:1

²¹ The equation regresses the log of the ratio of the overhead costs of the provider to the direct costs of the provider against:

- the SIL provider indicator variable (1 if the provider delivers SIL, 0 otherwise);
- the percentage of the provider’s revenue sourced from SIL;
- the square of the percentage of the provider’s revenue sourced from SIL;
- Log of the number of participants supported by the provider;
- Log of the direct costs per participant for the provider;
- Percentage of labour time spent on billable work by DSWs employed by the provider;
- Log of the ratio of the number of FLSs (headcount) and DSWs (headcount) employed by the provider;
- Average base wage paid to FLSs employed by the provider; and
- Average base wage paid to DSWs employed by the provider.

supports can, in general, be managed through change in rostering. What proposition of vacancy costs are fixed or variable in your organisation?

- **Participant complexity** – What impact does participant complexity have on the costs of delivering supports in the SIL environment? What approach is used to optimise the allocation of participants with different support needs across your properties?
- **Shift costs** – How many shifts are provided in a 24-hour period? To what extent is the number of shifts driven by factors such as the number of participants in the property, the mix of support needs within the property, or other factors? How do sleepover and crossover shifts impact on supply costs?
- **Establishment costs** – On an annual basis, how often is a new participant established in a property? Is there a material difference in the costs of establishing a participant between SIL and non-SIL services? If so, what aspects of the SIL operating environment drive this difference? How large is the difference? How is this influenced by factors such as the complexity of the participant's needs, the existing number of participants and/or rooms within a property, or other factors?
- **Location differences** – Do costs for delivering SIL services differ significantly between metropolitan centres versus regional, rural and remote areas? If so, what is the average cost differential, and what elements of the cost drive this difference?
- **Other supply costs** – In delivering SIL services, what proportion of Disability Support Worker time is spent on providing support to participants? Note that this includes time directly interacting with participants, as well as tasks which do not involve direct interaction with participants such as preparing meals or sleepover shifts.

Vacancy rates and costs

SIL providers can incur vacancy costs when a dwelling is not operating at its full capacity. This can occur because the costs of a support that were previously shared between several participants may not be able to be reduced even though there are fewer participants to contribute to the cost of the worker. Consider, for example the case where three people live in a dwelling and share an inactive overnight support. Each of their plans will include funding for one third of the cost of the inactive overnight support and the provider recovers the cost of the inactive overnight by charging each of them for one third of the cost. If a vacancy occurs then the two remaining participants still require an inactive overnight and the total cost of the inactive overnight support does not change. However, each remaining participant in the dwelling only has sufficient funding to pay for one third of the cost.

It is important to note that this issue is not entirely the same as the one faced by providers of Specialist Disability Accommodation (SDA) and general owners of rental properties. In those cases, the provider has a capital servicing cost over which they have no control. In the case of SIL, however, not all costs have to continue to be incurred when a vacancy occurs. Some supports are no longer needed and re-rostering can reduce the costs of the provider. However, some costs, as noted above, necessarily continue and need to be spread over a smaller revenue base.

In response to the Issues Paper, providers reported vacancy rates, at an organisational level, of between 5-10%. Some respondents suggested vacancies of zero or close to zero. The financial deep dives conducted by Deloitte for the Review supplied some data on vacancy rates. The data indicated a mean of occupancy rate of 94.4% (median of 94.5%), which equates to a vacancy rate of 5.6%. Alliance20 financial information from their sample of nine providers indicated the average proportion of vacancies was 9.2% for SIL. Ability First provided similar vacancy rate numbers to Alliance20, with their average vacancy rate for members being 9.3%.

Providers also reported a significant variation in the length of time that vacancies tended to persist. From the Ability First data, the average vacancy length was around 100 days for participants with standard needs and 150 days for participants with high intensity needs. Rurality and number of rooms in the property were also cited as important but less significant factors.

Respondents reported that at the individual property level between 75% and 90% of vacancy costs are fixed because they are related to the irremediable minimum staffing level of the house and so were not affected by the presence of vacancy. Ability First data also showed that vacancy management contributed 0.6% (Standard), and 0.9% (High Intensity) to the overhead, and further costs for the vacancy risk. If this was the case, it would appear in the overhead analysis in Section 2.5, however, the Financial Benchmarking Survey data does not show any statistically significant difference in overheads between SIL and non-SIL settings.

While SIL is different from SDA, participants who receive one of these types of support often receive both types of support:

- 58% of participants who receive SIL funding also receive SDA funding.
- 93% of participants who receive SDA funding also receive SIL funding.²²

Some providers suggested a vacancy arrangement for SIL similar to SDA, which allows payment for SDA to be made from a participant's plan, in very limited circumstances, when the participant no longer physically resides at an enrolled SDA dwelling. This is set out in Section 32 of the NDIS (Specialist Disability Accommodation) Rules 2020. In essence, an SDA provider can continue to claim SDA payments from a participant's plan after the participant has ceased to reside in the dwelling for up

- 60 days if the dwelling is enrolled to house 2 or 3 residents; and
- 90 days if the dwelling is enrolled to house 4 or 5 residents.

Other responses to the Issues Paper raised concerns with this approach, as it could reduce incentives on providers to fill vacancies.

The Review acknowledges that vacancies can present issues for providers as expenditure is not always able to be adjusted in line with changes in revenue, and certainly not immediately. The Review also notes, however, that providers need to be incentivised to achieve efficiencies in support delivery and to fill vacancies.

²² NDIA, Office of the Scheme Actuary, data current as at 30 June 2020

The Review has considered a number of options to address the irremediable costs associated with vacancies.

- The average irremediable cost of vacancies could be factored into the cost model that determines the price limit. The Review does not support this option because vacancies are not evenly distributed across the sector and because there are a large number of small providers of SIL. For these small providers, an average vacancy payment would almost always result in either super-profits or insufficient compensation. The option is likely to work better for larger providers but would still be difficult to implement given vacancy management costs vary considerably by type of participant and other factors.
- Providers could be permitted to claim for the irremediable cost of vacancies from the plans of the remaining participants, on top of their usual SIL costs. This approach is theoretically attractive as it recognises the true cost of delivering the support (the inactive overnight) that has been determined to be reasonable and necessary for the remaining participants and attributes it to those receiving the benefit of the support. However, it would be difficult to implement. The irremediable cost of the vacancy would need to be determined in each case (as some costs are within the control of the provider). Remaining participants would also have to be involved in the decision making, and may not fully understand why their costs should increase when their supports remain the same. Finally, the plans of the remaining participants would be exhausted earlier, accelerating the need for a plan review.
- Providers could be permitted to claim from the NDIS for the irremediable cost of a vacancy for a period of time, similarly to the approach in Specialised Disability Accommodation. These claims could be made against the plan of the participant who has caused the vacancy, or more generally from Scheme funds. Any such arrangement would need to be managed carefully to reduce incentives for providers to not fill vacancies. This could best be done by restricting the period of time for which providers could bill for vacancies. It may also be sensible to step down the amount of the payment over time to increase the incentive to fill the vacancy and to recognise that more costs can be controlled over longer time periods. The Review notes that the participant who is leaving the SIL dwelling will need a change of circumstances review in any case and that this review could take into account any vacancy break costs.

On balance, the Review considers that there is merit in further investigating these options.

Participant complexity

The consensus from consultations and submissions was that participant complexity increases the cost of delivering supports in the SIL environment. The most commonly raised impacts were more training required for staff supporting participants with higher needs, and the need for more qualified or experienced staff. Further, owing to the intensity and impact of the work carried out, staff turnover, non-billable time and supervision were all said to be greater with complex participants.

These factors are already recognised in the NDIS Disability Support Worker Cost Model, which varies these parameters according to whether or not a participant has high intensity

support needs. The hourly price limit for average high intensity support (level 2) is 8.2% higher than the price limit for standard support.

The Review acknowledges that providers and planners do not always agree on whether the cost of a SIL roster of care should be calculated using the standard or high intensity price limits. While this affects the value of the SIL plan it is not a pricing issue, and the Review considers that this is a matter best addressed through the Operational Guideline for SIL.

Shift costs

The NDIS Price Guide provides that a **Weekday Support** can be either:

- **A Weekday Daytime Support**, which is any support to an individual participant that starts at or after 6:00 am and ends before or at 8:00 pm on a single weekday (unless that support is a Public Holiday Support or a Night-time Sleepover Support); or
- **A Weekday Evening Support**, which is any support to an individual participant that starts after 8:00 pm and finishes at or before midnight on a single weekday (unless that support is a Public Holiday Support or a Night-time Sleepover Support); or
- **A Weekday Night Support**, which is any support to an individual participant that commences at or before midnight on a weekday and finishes after midnight on that weekday, or commences before 6:00 am on a weekday and finishes on that weekday (unless that support is a Public Holiday Support, Saturday Support, Sunday Support or a Night-time Sleepover Support).

Additionally, supports in SIL may also relate to the Night-time Sleepover support when a worker is allowed to sleep while not delivering support. A **Night-time Sleepover Support** is any support to an individual participant delivered on a weekday, a Saturday, a Sunday or a Public Holiday that:

- commences before midnight on a given day and finishes after midnight on that day; and
- is for a continuous period of eight (8) hours or more; and
- the worker is allowed to sleep when they are not providing support.

For pricing purposes, supports provided on a Public Holiday, Saturday or Sunday are claimed at the relevant rate as the costs do not change based on the time during that day it is delivered.

Submissions indicated that most providers did in fact use 3 shifts per 24 hour period. Generally the split was a morning-afternoon shift, afternoon-evening and overnight/sleepover shift. However, a substantial minority reported 4-6 shifts and a few had 7-8 shifts. Several providers mentioned that this is highly dependent on participant support needs. The financial deep dives submitted to Deloitte Access Economics, had a mean of 3.4 shifts and a median of 3 shifts per 24 hour period (7 respondents).

Sleepovers were raised as an issue whenever the participant is active overnight, as then the provider has to pay the worker for an active overnight shift, not just the sleepover allowance as per the Award. The unpredictability of participants, particularly participants with higher needs, can cause high supply costs for sleepovers and crossover shifts, given the higher overtime rates needing to be paid to the worker (as per the Award). However, providers

argued these impacts are not necessarily funded in the Roster of Care. This suggests such concerns are better addressed through planning, as pricing mechanisms do not hinder recovering costs when such support is delivered.

The Review notes that the NDIS Price Limit for Night-Time Sleepover supports includes two hours of overtime support provided during this time, with third and additional hours to be claimed as rates stipulated in the NDIS Price Guide. Potentially, this could lead to higher payments than if the shift had been active overnight. So while SIL workers may have more interrupted sleeps than their community activities of daily living counterparts, providers should still be effectively reimbursed if claiming correctly.

The Review acknowledges that providers and planners do not always agree on whether the cost of a SIL roster of care should include an active overnight or sleepover supports. While this affects the value of the SIL plan it is not a pricing issue and the Review considers that this is a matter best addressed through the Operational Guideline for SIL.

Establishment costs

Providers noted that the frequency of establishing new participants is correlated with the size of the residence. Most respondents did not record high turnover, and it was common to see respondents say they would only establish a new resident every three to six months although it is not clear if this is partly owing to the size of their organisation. One large provider said they establish a new participant every three to four weeks.

Examples of the establishment costs involved included orientation, induction and intake which require a level of nuance regarding individual participant needs. For particular participant needs, there could also be different types of training required related to medication management and other specialised training to support participants. Ability First members reporting the time taken to establish a new participant in a SIL home is approximately three to six months.

The Review, notes, however that, as discussed above, the Financial Benchmarking Data does not show any statistically significant difference in overheads or utilisation (where these additional costs would become apparent) between SIL and non-SIL settings.

Location differences

The majority of respondents to the Issues Paper suggested there was a greater cost to providing SIL supports in rural and remote areas than in metropolitan areas. This was mainly driven by difficulties attracting and retaining staff and the potential length of vacancies in rural SIL arrangements.

The Review notes, however, that both the NDIS Western Australian Market Review 2019 and the NDIS Annual Pricing Review 2020-21 concluded that there was no compelling evidence to support increasing regional price limits versus metropolitan price limits. The Review also notes that remote and very remote price limits are already 40% and 50% higher than metropolitan price limits.

This Review also considers that workforce concerns may be better addressed through non-pricing mechanisms. In particular, issues arising from general rural and regional workforce shortages is better dealt with by larger workforce initiatives, such as *Boosting the Local Care*

*Workforce Program*²³ that encourages greater workforce supply, rather than using NDIS pricing mechanisms to compete for the existing supply.

Other costs

Respondents to the Issues Paper noted the cost of maintaining registration with the NDIS Quality and Safeguard Commission can be a costly exercise and required considerable amounts of time to complete required audits. Some respondents stated that at least half of their supervisors' time is spent dealing with issues flowing from the Commission. Other organisations stated they have engaged staff to handle the quality and safeguarding requirements specifically for their NDIS participants. Providers considered that Quality and Safeguards compliance require a range of administrative tasks that are significantly time consuming.

Respondents noted that SIL organisations often had to resolve safety incidents not directly associated with a SIL's own services. They stated they were often key in managing incidents and complaints relating to a participant's external interactions with employment, day programs, community access etc. This is an important safeguard for many participants who may not have strong informal supports, but it is not without cost.

In relation to costs associated with the NDIS Quality and Safeguards, the majority consensus in submissions was that SIL providers are impacted more so than activities of daily living and Community Support providers. Ability First's submission estimated that these quality and safeguard costs added 1.3% to 1.8% in additional costs (for Standard and High Intensity SIL supports, respectively) over Activities of daily living.

The Review notes the concerns raised by providers about whether or not the costs of registering with the NDIS Quality and Safeguards Commission and of complying with the Commission's reporting and other requirements are appropriately accounted for in the NDIS Disability Support Worker Cost Model. It agrees that these issues require further analysis. The Review notes however that, in so far as these costs are encountered by providers, then they have already been addressed in the analysis above of overheads and utilisation rates for staff.

The Review also notes the concerns that providers continue to raise about the difficulties they can face in interacting with the Agency about planning and claiming issues. The Review recognises that the Agency is continually improving its administrative processes and that some of the issues raised by providers cannot be addressed by the Agency without

²³ <https://blcw.dss.gov.au/>.

The Boosting the Local Care Workforce Program (BLCW Program) is funded by the Department of Social Services and delivered by Ernst & Young, with the First Peoples Disability Network (Australia), and the Community Services Industry Alliance. The BLCW Program aims to develop the capacity of disability and aged care service providers to operate effectively and expand their workforce.

The BLCW Program has three main objectives:

- Reduce barriers that impact providers' ability and willingness to start, continue or grow their service offer.
- Improve the operation and efficiency of labour markets by better matching supply and demand through measures such as providing information, resources and links to relevant government programs.
- Provide local-level knowledge on the disability and aged care service provider and workforce markets.

diminishing the choice and control of participants. The Review urges the Agency to continue to improve its administrative processes and to give further consideration to:

- publishing clearer advice on the circumstances in which high intensity supports and sleepover/active overnight supports will be included in SIL plans; and
- publishing agreed timeframes for plan reviews in SIL, including providing greater certainty for providers about revenue when plan reviews are not completed or billing issues are not addressed in an appropriate timeframe.

The Review also notes the concerns that providers continue to raise about the complexity of the current claiming rules. The Review encourages providers to implement program of support arrangements that would allow providers to average the costs of service delivery to a participant across the period of participant's tenure and provide greater choice and control to participants within the program of support as to the exact timing and type of the supports that they receive. Under this approach, the Roster of Care would still be used by the delegates of the Agency to make a decision about what level of support is reasonable and necessary but providers would be held accountable by participants and providers for the outcomes achieved by the supports rather than for adherence to the Roster of Care.

Providers identified a number of other costs they considered were not directly captured in the Cost Model, and which they considered the overhead component should be increased to cover. Examples were:

- Restrictive interventions
- Property maintenance and costs incurred due to property damage
- Costs involved with stakeholder management and coordinating or discussing plans with family and/or carers
- Buddy shifts

In so far as these costs exist, the Review considers that any differences in these costs between SIL and non-SIL settings will already have been captured in the analysis above or utilisation rates and overheads.

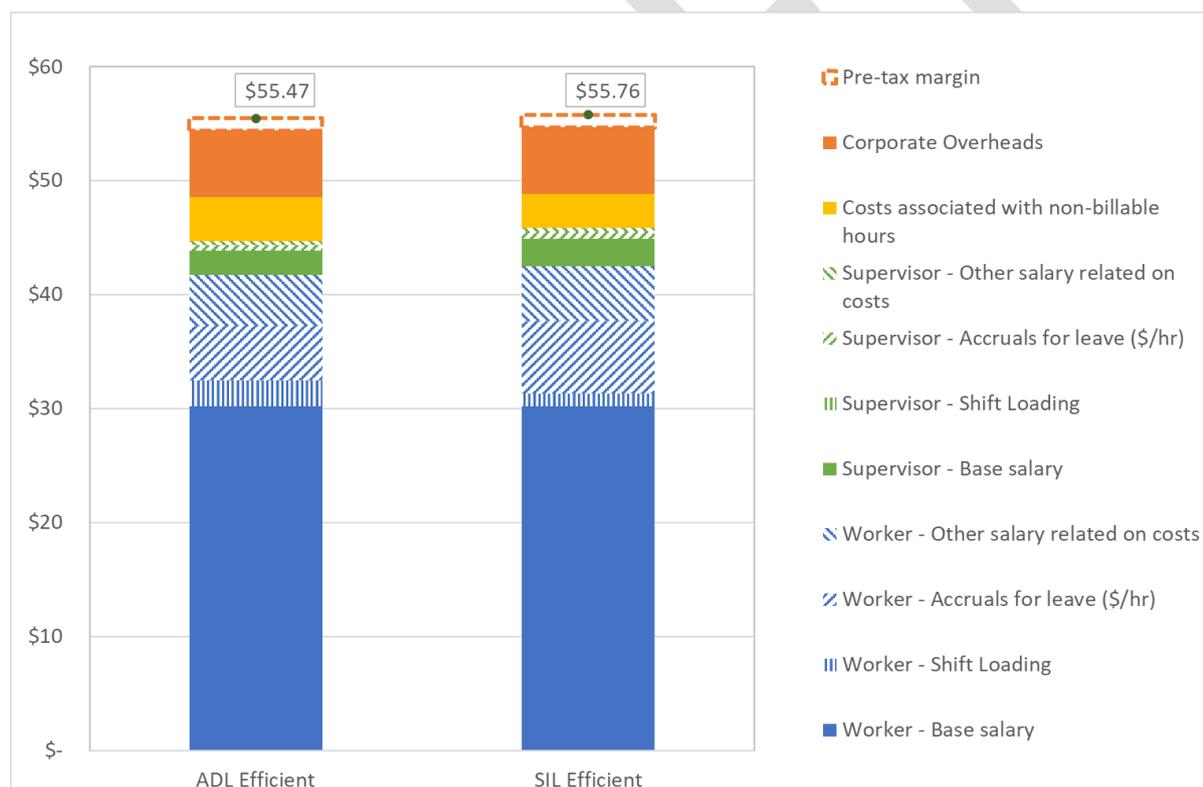
3 Conclusion and Recommendation

The Review has found that there is evidence to suggest that, compared to activities of daily living delivered in a non-SIL setting by an efficient provider, an efficient SIL provider faces:

- higher rates of permanent employment (85.1% compared to 70.0%);
- higher workers compensation premiums (2.4% compared to 1.7%);
- higher average utilisation rates (94% compared to 92%);
- higher base wages for supervisors (11.9% higher on average); and
- higher annual leave costs associated with great leave entitlement (5 weeks per year compared to 4 weeks per year).

Some of these effects add to the cost of service provision whereas others reduce that cost. The net effect, as Exhibit 30 shows is that the fully loaded costs of service provision in SIL and non-SIL settings are essentially identical.

Exhibit 30: Efficient Costs in SIL and Non-SIL Settings



The Review therefore does not recommend any changes in the current SIL pricing arrangements.

Footnotes

- 1 Further details can be found in the Operational Guideline at <https://ourguidelines.ndis.gov.au/supports-you-can-access-menu/home-and-living-supports/supported-independent-living>
- 2 NDIA. (2020). NDIS Quarterly Report to Disability Ministers 30 September 2020, p.539-541.
- 3 Ibid, p.61.
- 4 Ibid, p.61.
- 5 <https://www.ndis.gov.au/media/1820/download>
- 6 <https://www.ndis.gov.au/media/2413/download>
- 7 <https://www.ndis.gov.au/providers/price-guides-and-pricing>
- 8 Where appropriate, the findings from the analysis have been triangulated with findings from the far smaller 2017-18 AbleInsight survey, which aims to identify cost benchmarks for service providers across the NDIS sector. The AbleInsight survey is available at <https://www.ndis.gov.au/providers/price-guides-and-pricing/benchmarking-surveys-and-reports>
- 9 Linear regression is a technique that allows for an assessment of whether a particular explanatory variable has a statistically significant linear relationship with the conditional mean of a cost parameter; meaning that a change in an explanatory variable is associated with a change in the cost parameter, holding other variables constant.
- 10 Quantile regression is a technique that allows for an assessment of whether an explanatory variable has a statistically significant relationship with a cost parameter throughout different points (or quantiles) of the conditional distribution of the cost parameter. In general, quantile regression analysis attempts to isolate statistically significant linear relationships between a change in an explanatory variable and the conditional quantile of a cost parameter (25th, 50th and 75th percentile).
Note, Quantile regression uses bootstrap standard errors and Pseudo R² is reported for the quantile regression analysis.
- 11 Base hourly wage refers to the minimum hourly rate of pay received by a worker, not including any shift or leave loading, overtime, superannuation or allowances.
On-costs include costs such as superannuation, workers compensation premiums, payroll tax, and employee allowances.
- 12 The equation regresses the average base wage for the disability support workers of a provider against:
 - the SIL provider indicator variable (1 if the provider delivers SIL, 0 otherwise);
 - the percentage of the provider's revenue sourced from SIL;
 - Log of the number of participants supported by the provider;

- Log of the number of direct support staff (DSWs and FLSs) employed by the provider; and
 - Log of the supervision ratio of the provider – Log of the ratio of the number of DSWs (headcount) and the number of FLSs (head count).
- 13 The equation regresses the workers compensation premium (as a percentage of labour costs) paid by a provider against:
- the SIL provider indicator variable (1 if the provider delivers SIL, 0 otherwise);
 - the percentage of the provider's revenue sourced from SIL;
 - Log of the number of participants supported by the provider;
 - Average base wage paid to DSWs employed by the provider;
 - Average base wage paid to FLSs employed by the provider; and
 - State Dummy Variables (1 if the state is where the largest share of the provider's revenue is derived, 0 otherwise).
- 14 The equation regresses the log of the ratio of the number of permanent workers (headcount) and casual workers (headcount) employed by a provider against:
- the SIL provider indicator variable (1 if the provider delivers SIL, 0 otherwise);
 - the percentage of the provider's revenue sourced from SIL;
 - Log of the number of participants supported by the provider;
 - Log of the Average base wage paid to DSWs employed by the provider;
 - Average base wage paid to FLSs employed by the provider;
 - Log of the ratio of the number of DSWs (headcount) and FLSs (headcount) employed by the provider;
 - Percentage of labour time spent on billable work by DSWs employed by the provider;
 - Percentage of labour time spent on training by DSWs employed by the provider;
 - Percentage of labour time spent on client administration by DSWs employed by the provider; and
 - Percentage of labour time spent on general administration by DSWs employed by the provider.
- 15 The equation regresses the percentage of labour time that is spent by DSWs employed by the provider on billable work against:
- the SIL provider indicator variable (1 if the provider delivers SIL, 0 otherwise);
 - the percentage of the provider's revenue sourced from SIL;
 - the square of the percentage of the provider's revenue sourced from SIL;
 - Log of the number of participants supported by the provider;
 - Log of the number of FLSs employed by the provider;
 - Log of the number of DSWs employed by the provider;

- Average base wage paid to FLSs employed by the provider; and
 - Average base wage paid to DSWs employed by the provider.
- 16 The T-test compared the mean time spent on training as a percentage of non-billable hours between providers that did offer SIL services (n=200) and providers that did not offer SIL services (n=480). P-value of right tail T-test was 0.00, indicating that SIL providers had a greater mean value than non-SIL providers at 1% significance level.
- 17 Additional model specifications included; overhead costs as a percentage of total direct costs; direct costs; and permanent employment rates.
- 18 The equation regresses the percentage of labour time that is spent by DSWs employed by the provider on training against:
- the SIL provider indicator variable (1 if the provider delivers SIL, 0 otherwise);
 - the percentage of the provider's revenue sourced from SIL;
 - Log of the number of participants supported by the provider;
 - Log of the number of FLSs employed by the provider;
 - Log of the number of DSWs employed by the provider;
 - Average base wage paid to FLSs employed by the provider; and
 - Average base wage paid to DSWs employed by the provider.
- 19 The equation regresses the average base wages of supervisors employed by the provider against:
- the SIL provider indicator variable (1 if the provider delivers SIL, 0 otherwise);
 - the percentage of the provider's revenue sourced from SIL;
 - Log of the number of participants supported by the provider;
 - Log of the number of DSWs employed by the provider; and
 - Log of the ratio of the number of FLSs (headcount) and DSWs (headcount) employed by the provider.
- 20 The equation regresses the log of the ratio of the number of FLSs (headcount) and DSWs (headcount) employed by the provider against:
- the SIL provider indicator variable (1 if the provider delivers SIL, 0 otherwise);
 - the percentage of the provider's revenue sourced from SIL;
 - Log of the number of participants supported by the provider;
 - Average base wage paid to FLSs employed by the provider
 - Log of the ratio of the number of DSWs employed by the provider and the number of participants supported by the provider; and
 - Percentage of labour time spent on billable work by DSWs employed by the provider.
- 21 The equation regresses the log of the ratio of the overhead costs of the provider to the direct costs of the provider against:

- the SIL provider indicator variable (1 if the provider delivers SIL, 0 otherwise);
- the percentage of the provider's revenue sourced from SIL;
- the square of the percentage of the provider's revenue sourced from SIL;
- Log of the number of participants supported by the provider;
- Log of the direct costs per participant for the provider;
- Percentage of labour time spent on billable work by DSWs employed by the provider;
- Log of the ratio of the number of FLSs (headcount) and DSWs (headcount) employed by the provider;
- Average base wage paid to FLSs employed by the provider; and
- Average base wage paid to DSWs employed by the provider.

22 NDIA, Office of the Scheme Actuary, data current as at 30 June 2020

23 <https://blcw.dss.gov.au/>.

The Boosting the Local Care Workforce Program (BLCW Program) is funded by the Department of Social Services and delivered by Ernst & Young, with the First Peoples Disability Network (Australia), and the Community Services Industry Alliance. The BLCW Program aims to develop the capacity of disability and aged care service providers to operate effectively and expand their workforce.

The BLCW Program has three main objectives:

- Reduce barriers that impact providers' ability and willingness to start, continue or grow their service offer.
- Improve the operation and efficiency of labour markets by better matching supply and demand through measures such as providing information, resources and links to relevant government programs.
- Provide local-level knowledge on the disability and aged care service provider and workforce markets.