Review of the Australian Apprenticeships National Skills Needs List

Issues Paper

August 2019
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Introduction

In the 2019-20 Budget the Government announced it would establish the Additional Identified Skills Shortage Payment to boost existing incentives for areas of identified skills needs and to support up to 80,000 new apprentices over five years. In addition, the Government announced it would introduce a new simplified and streamlined incentives program for employers of apprentices and trainees, the Incentives for Australian Apprenticeships program.

As part of the streamlining measure, the Government announced it would comprehensively review the National Skills Needs List, in consultation with industry and employer groups, to ensure it remains relevant to changing labour market demand.

The review of the National Skills Needs List will be completed prior to the commencement of the new Incentives for Australian Apprenticeships program, which will replace the Australian Apprenticeships Incentives Program on 1 July 2020.

The Review is being conducted by the Department of Employment, Skills, Small and Family Business (Department) with a view to advising the Government on the methodology and inaugural composition of the replacement list. Thereafter the National Skills Commission will assume responsibility for advising the Government on the future composition of the list. The composition of the list will ultimately be a decision of the Government.

Objectives of the Review

The key objectives of the review include:

- to ensure the National Skills Needs List is fit for purpose and responsive to changing labour market conditions;
- to develop an integrated approach to identifying occupations in skills shortage to effectively target employer apprenticeship incentives and apprentice payments; and
- to contribute to a coherent policy approach to identifying and addressing skills shortages across government.

Scope of the Review

The central focus of the review is the methodology with which occupations in skills need are identified and prioritised for the purpose of targeting apprenticeships incentives and payments.

The scope of this methodology will encompass eligibility for all Australian Government skills shortage apprenticeships payments, including Trade Support Loans, and the Additional Identified Skills Shortage Payment and the additional incentives available to National Skills Needs List occupations and Australian Apprenticeships Incentives Program Priority Occupations.
The scope of the review does not extend to an examination of the effectiveness of apprenticeship incentives in increasing the number of apprenticeships or the level at which incentives should be set. Consideration of the interactions between Australian Government and state and territory incentives is also beyond the scope of this review.

The Australian and New Zealand Standard Classification of Occupations (ANZSCO) underpins the current apprenticeship system and existing occupational skills shortage methodologies. The ANZSCO has not been updated for some time and has been criticised for not being representative of the current occupational structure of the workforce. The relevance of the ANZSCO for the apprenticeship system and any future skills shortage methodology is beyond the scope of the Issues Paper but it may be a consideration in the framing of the Methodology Discussion Paper.

Review and Consultation process

The Review will be informed by feedback from industry and other stakeholders on two papers – the first focused on getting the fundamental design principles right and the second on the methodology to realise those principles.

The Department will work closely with other Australian Government agencies and the Interim National Skills Commission to ensure a smooth handover to the National Skills Commission, which will be responsible for maintaining and updating the skills shortage methodology going forward.

The broad timeline for the review is set out below:

<table>
<thead>
<tr>
<th>Consultation Stage</th>
<th>Approximate Timing</th>
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</thead>
<tbody>
<tr>
<td>Release of Issues Paper – design principles</td>
<td>September</td>
</tr>
<tr>
<td>Consultation with industry and other stakeholders</td>
<td>September</td>
</tr>
<tr>
<td>Close of Submissions</td>
<td>27 September</td>
</tr>
<tr>
<td>Release of Policy Discussion Paper - methodology</td>
<td>November</td>
</tr>
<tr>
<td>Consultation with industry and other stakeholders</td>
<td>Late November</td>
</tr>
<tr>
<td>Close of Submissions</td>
<td>Early December</td>
</tr>
<tr>
<td>Release of draft Guidelines for new Incentives for Australian Apprenticeships program, including the revised NSNL</td>
<td>May 2020</td>
</tr>
</tbody>
</table>
How to make a submission

Interested parties are invited to make a submission on the issues raised in this Issues Paper using the online submission form by 27 September 2019. If you do not wish to use the online submission form please refer to the Department’s submission guidelines.

Electronic lodgement of submissions is preferred. If you are unable to submit your response using this method, please contact the Director, Apprenticeships Framework Policy via the number below.

Closing date for submissions: 27 September 2019

Email: nsnlreview@employment.gov.au

Enquiries: 1300 488 064

Providing a confidential response

It is our intention to publish non-confidential submissions on the Department website after the closing date for submissions has passed.

If you would like all or part of your submission to remain confidential, you should indicate this at the time of lodging your submission together with reasons as to why you are requesting that the information be accepted on a confidential basis. Automatically generated confidentiality statements in emails do not suffice for this purpose.

Respondents who would like part of their submission to remain confidential should provide a version that ‘blacks out’ or specifically identifies the confidential information as well as a separate complete version.

A request made under the Freedom of Information Act 1982 (Cth) to have access to submissions marked ‘confidential’ will be determined in accordance with that Act.
Key Issues and Questions

1. The Current Incentives Framework

1.1 Australian Apprenticeships Incentives Program

Employer incentives and financial support to apprentices have been long used as mechanisms to encourage participation in Australian Apprenticeships. Two key rationales for this government intervention in the skills market are to:

- expand the available training pathways and/or employment opportunities for young people, disadvantaged groups and mature people needing to retrain; and
- encourage participation in occupations that are in, or are expected to be in, skills shortage, particularly those that are a critical part of the supply chain for sectors of the economy.

Under the Australian Apprenticeships Incentives Program (AAIP) employers may be entitled to a range of incentives to support them in commencing and training an Australian Apprentice. Australian Apprentices may be eligible for support to assist them to undertake and complete their apprenticeship.

A summary of the available employer incentives and apprentice support is available on the Australian Apprenticeships website.

Available incentives are subject to the employer and/or the apprentice meeting the eligibility criteria for each payment type.

One criterion that applies across a range of the available employer incentives, the Additional Identified Skills Shortage (AISS) Payment and Trade Support Loans for apprentices is that the apprentice is undertaking an eligible qualification leading to an occupation that is considered to be in skills shortage. Until 1 July 2019 skills shortage occupations were identified under one of two lists – the National Skills Needs List or the AAIP Priority Occupations list. On 1 July 2019 a third skills shortage category was introduced to determine eligibility for the AISS Payment. The occupations included under each of these three lists are detailed at Appendix A.

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1 Trade Support Loans are restricted to occupations on the Trade Support Loans Priority List. This list mirrors the National Skills Needs List, with the exception that it also includes Certificate II, III and IV agricultural qualifications and Certificate II, III and IV horticulture qualifications in rural or regional Australia.
1.2 Simplified and Streamlined Incentives for Australian Apprenticeships

In the 2019-20 Budget the Government announced it will simplify and streamline incentive payments, with effect from 1 July 2020, by collapsing the number of payments under the Incentives for Australian Apprenticeships (IAA) program. In doing so it will harmonise the way commencement and completion incentives are applied to:

- full-time and part-time workers;
- Certificate III/IV and Diploma/Advanced Diploma qualifications; and
- National Skills Needs List and Priority AAIP occupations.

More detailed information about the changes in payment categories can be found at the Australian Apprenticeships website.

1.3 The National Skills Needs List (NSNL)

The NSNL was introduced in 2007 to address areas of persistent skills shortage in the Australian economy. To be included on the current NSNL an occupation needs to meet the following criteria:

- The occupation must be classified under Major Group 3 Technicians and Trades Workers of the Australia and New Zealand Standard Classification of Occupations (ANZSCO); and
- At least 1500 people are employed in the occupation (at the four-digit ANZSCO level of classification), according to ABS Census data; and
- The occupation is assessed as being in skills shortage for three of the past five years, including at least one of the past two years, as determined by the Department’s Skills Shortage Research.

For an apprenticeship to attract NSNL linked incentives for the employer and apprentice, the qualification toward which the apprentice is training must be relevant to an NSNL occupation and be undertaken at the certificate III or IV level.

The 65 occupations that currently comprise the NSNL encompass around 85 per cent of trade-based Australian Apprenticeships. The occupations on the NSNL have only been updated once since its inception, that being in 2011.

Employers engaging an apprentice in an NSNL occupation are eligible for the standard commencement, recommencement and completion incentives for all workers irrespective of whether the apprentice is a New or Existing Worker and whether they are engaged full-time or part-time.

Employers may also be eligible for the Rural and Regional Skills Shortage Incentive and the Support for Adult Australian Apprentices incentive. Being identified on the NSNL is also a requirement for eligibility for the Australian Apprentice Wage Subsidy. Apprentices in NSNL occupations are eligible
to receive **Trade Support Loans**. These additional incentives are not available for employers and apprentices in non-NSNL occupations.

The Department’s Skills Shortage Research applies a methodology to collect information about employers’ ability to recruit the skilled workers they need. A key element of the skills shortage research is the Survey of Employers who have Recently Advertised, through which the Department collects both quantitative data about employers’ recruitment experiences and qualitative information about issues surrounding the recruitment of skilled workers. The survey is primarily focused on ANZSCO Major Group 2 and Major Group 3 occupations.

Currently, an occupation is considered to be in skills shortage when employers are unable to fill, or have considerable difficulty in filling, vacancies for an occupation or significant specialised skills needs within that occupation, at current levels of remuneration and conditions of employment, and in reasonably accessible locations. This determination is based on both the outcome of the quantitative data and the insights drawn from qualitative evidence gathered from employers and other quantitative and qualitative evidence.

### 1.4 Australian Apprenticeship Incentive Program (AAIP) Priority Occupations

The AAIP Priority Occupations (aged care, child care and enrolled nursing) were identified in 2012 as occupations in high skills need outside the scope of the NSNL - as these occupations are outside ANZSCO Major Group 3. In 2013, the same year the NDIS Act 2013 was passed, disability care was added to the list of AAIP Priority Occupations. The Department does not propose to update this list of four occupations at the moment. However, it remains under review and will continue to be monitored from year to year.

### 1.5 Additional Identified Skills Shortage (AISS) Payment

The **AISS Payment** provides additional employer incentives (totalling $4,000) and an apprentice incentive (totalling $2,000) for eligible apprentices undertaking a certificate III or IV level qualification leading to one of the identified occupations. The initial list of occupations comprises:

<table>
<thead>
<tr>
<th>Carpenters and Joiners (ANZSCO 331211 / 331212 / 331213)</th>
<th>Plasterers (ANZSCO 333211 / 333212)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plumber (ANZSCO 334111- / 334112 / 334113 / 334114 / 334115)</td>
<td>Bakers and Pastrycooks (ANZSCO 351111 / 351112)</td>
</tr>
<tr>
<td>Hairdressers (ANZSCO 391111)</td>
<td>Vehicle Painters (ANZSCO 324311)</td>
</tr>
</tbody>
</table>
The intent of the measure is to provide additional support for employers and apprentices in occupations where there are skills shortages to boost the supply of skilled workers. All of the initial eligible occupations (19 at the six digit ANZSCO level) eligible for the AISS Payment are on the NSNL, though this is not an eligibility requirement.

To be potentially eligible for the AISS Payment three criteria need to be met:

- The occupation needs to be in national skills shortage as determined by the Department's Skills Shortage Research; and
- The occupation is assessed as facing a potential shortage of qualified workers over the next five years; and
- An Australian Apprenticeship is the main pathway through which skilled workers enter the occupation.

Occupations meeting the above three criteria were ranked according to the total number of Australian Apprenticeship commencements in the occupation, from highest to lowest. The top ten occupations were selected to receive the incentive in 2019-20.

The assessment as to whether an occupation is facing a potential shortage of qualified workers over the next five years was based on the Department’s employment projections and data from the National Centre for Vocational Education Research relating to potential movements of existing skilled workers out of the occupation, apprentices currently in-training and potential future commencements.

The list of occupations will be reviewed and updated annually to reflect the occupations in greatest skills need for which an Australian Apprenticeship is a primary entry pathway. The AISS occupations will be integrated with the revised NSNL. The new National Skills Commission will advise the Government annually on the occupations that should be eligible for the AISS Payment.

2. The need to review the NSNL

The NSNL Review is a response to a number of identified shortcomings in the NSNL and its underpinning methodology. It provides an opportunity to design a holistic approach to identifying occupations in skills need and the way in which skills shortage linked apprenticeship incentives are allocated. Identified shortcomings with the current approach are discussed below.
2.1 The NSNL is not representative of current skills shortages

The NSNL is not representative of skill shortages in occupations for which an apprenticeship is an entry pathway to the occupation. This arises for two reasons, those being the frequency with which the NSNL is updated and the criteria that define the scope of the NSNL.

Frequency of NSNL updates

Of the 65 occupations currently on the NSNL, only 22 currently meet the selection criteria, due largely to changes in the economy and the labour market since the list was last updated in 2011.

The occupational scope of the NSNL

The current NSNL is limited to occupations that:

- Are classified under Major Group 3 Technicians and Trades Workers of the Australia and New Zealand Standard Classification of Occupations (ANZSCO); and
- Have at least 1500 people employed in the occupation (at the four-digit ANZSCO level of classification), according to ABS Census data; and
- Are assessed as being in skills shortage for three of the past five years, including at least one of the past two years, as determined by the Department’s Skills Shortage Research.

The combination of these criteria mean that only a subset of occupations that might otherwise be considered to be in skills shortage can be considered for NSNL eligibility. Excluded are those occupations that fall outside ANZSCO Major Group 3, or that have relatively few participants or do not otherwise provide a sufficient basis for meaningful results to be drawn from the Department’s Skills Shortage Research – for example, because internet advertising of vacancies is not the primary method of filling vacancies.

While the employment and research thresholds provide a measure of rigor in determining the existence of skills shortages, the outcome may be that critical skills shortages in small or niche occupations are allowed to persist. This is further exacerbated by the fact that ANZSCO has not been recently updated and does not necessarily capture emerging occupations.

The focus on the Major Group 3 subset of AAIP occupations has led to a separate classification being introduced to expand the incentives eligible for new worker apprenticeships in AAIP Priority Occupations – aged care, child care, disability care and enrolled nursing.

2.2 The NSNL is not fit for purpose

The methodology underpinning the NSNL is poorly aligned with the lags in delivering skilled workers through the apprenticeship system.

The Skills Shortage Research that underpins the NSNL is an indicator of current skills shortage. The NSNL requirement that the occupation be listed as being in skills shortage in three of the last five
years, including at least one of the last two years is backward looking. Given the three to four year training period for Certificate III/IV technician and trade apprenticeships, such an indicator is not a good basis on which to allocate incentives aimed at addressing skills shortages through the apprenticeship system.

At the very least it will be slow to identify emerging skills shortages and slow to identify skills shortages that have disappeared or have been addressed. It could mean that available funding for skills incentives is poorly targeted. This has the potential to exacerbate supply–demand imbalances in supported occupations.

2.3 The NSNL methodology may not be well suited to the policy intent

The policy rationale for the NSNL is to reduce skills shortages in critical occupations, and thereby minimise economic inefficiencies arising from a shortage of skilled workers in those occupations. The methodology currently underpinning the NSNL may not meet this objective.

The Survey of Employers who have Recently Advertised is focused on the ease with which employers are able to fill advertised vacancies for skilled workers in their occupation. Changes in the ease with which vacancies are filled may not, of itself, be a reliable indicator of whether there is a critical skills shortage. While the skills shortage research methodology takes into consideration a broader range of information in assessing whether a skills shortage exists, the outcome of the assessment is applied in a formulaic manner in the NSNL methodology, without regard to the relative significance of the skills shortage in an occupation for the broader economy.

2.4 The effectiveness of the NSNL will diminish under the IAA

The IAA program, which is due to commence from 1 July 2020, will harmonise the way commencement and completion incentives are applied to:

- full-time and part-time workers;
- Certificate III/IV and Diploma/Advanced Diploma qualifications; and
- National Skills Needs List and Priority AAIP Occupations.

These changes will align the treatment of NSNL and AAIP Priority Occupations and narrow the potential benefits that come with being designated as being in skills shortage.

The remaining benefits, relative to non-NSNL occupations, will be:

- Employer eligibility for the base commencement, recommencement and completion incentives for Existing Workers (workers that have an existing employment relationship with the employer for greater than 3 months);
- Apprentice eligibility for a Trade Support Loan; and
• Access to the NSNL-linked specific incentives – the Rural and Regional Skills Shortage Incentive and the Support for Adult Australian Apprentices incentive.

2.5 Opportunities to improve the effectiveness of the NSNL linked incentive

Of the 65 occupations currently listed on the NSNL, 15 have met the selection criteria in at least 12 of the 13 years since its inception, which may reflect the need for a different approach to meeting skills shortages in these occupations. An understanding of the causes of persistent skills shortage could complement skills shortage analysis to ensure the issue is being addressed in the most efficient and effective manner.

Discussion Questions
1. Do you agree with the identified issues with the NSNL as it currently operates?
2. What evidence or examples can you highlight in support of your position?
3. Are there other issues with the NSNL that should be considered?

3. Designing a new approach

A key objective of this Review is to develop a consistent and enduring approach to determining how apprenticeship incentives are targeted to address skills shortages in the economy.

A good starting point for doing so is to settle upon a set of design principles to guide the new approach. Six possible design principles are outlined in this section, each supported by discussion of the issues they raise and questions aimed at eliciting other perspectives.

The six design principles are:

1. There should be a single coherent approach to identifying occupational skills shortages
2. The methodology should be forward looking
3. The methodology should be responsive to changes in skills shortages
4. The methodology should be transparent yet flexible
5. The methodology should support informed decision making
6. The methodology should prioritise outcomes that deliver the greatest social and economic benefit.
Discussion Questions

4. Are the design principles outlined in this section the right ones for a methodology to identify occupations in skills shortage and to allocate apprenticeship incentives?
5. Are there other design principles that should be considered? If so, please describe them and outline the rationale for their inclusion?
6. Which of the design principles would you rank as being of greatest importance?

3.1 A single coherent approach to identifying occupational skills shortages

The NSNL, the AAIP Priority Occupations and the AISS occupations have the shared objective of addressing identified skills shortages in occupations for which an apprenticeship is an entry pathway, but apply different methodologies for determining the occupation in skills shortage (described in Section 1).

A key issue for employers has been that not all occupational skills shortages for which an apprenticeship is an entry pathway are encompassed by these disparate methodologies. This is particularly the case for niche occupations that do not meet the selection thresholds for the indicators underpinning the NSNL or AISS Payment methodologies. Emerging occupations are also not readily catered for.

There is merit in developing a single coherent methodology that is capable of encompassing all occupational skills shortages for which an apprenticeship is an entry pathway within a consistent framework. Of itself, the underlying methodology should not preclude occupations on the basis of their size or because they are prospective rather than existing.

The application of a broad skills shortage identification methodology does not mean that every occupation identified as being in skills shortage would necessarily be eligible for additional apprenticeship incentives. Complementary selection principles (such as those outlined later in this Section) might be applied to target available funding to particular outcomes. What is important is that those principles act as clearly articulated filters or prioritisation tools which maintain transparency in the selection of occupations.

Discussion Questions

7. Do you agree that a single coherent approach should underpin the identification of occupational skills shortages? If not, what is/are the alternative/s?
3.2 A Forward looking skills shortage methodology

The methodology currently used to identify occupational skills shortages for the NSNL only considers current and historical shortages.

Incentives that promote skills development through participation in apprenticeships will necessarily have a considerable lead time before they contribute to the supply of qualified workers who are proficient in their occupation. This lead time could span anywhere from three to six years. Even if more responsive pathways to skills supply were included within the scope of the incentives, such as through short duration apprenticeships aimed at skills broadening, the lead time is likely to be of several years duration.

A better approach to targeting skills shortage incentives is to use a methodology aimed at identifying skills shortages that are expected to prevail or arise in a medium term context – for example, three to six years hence. This is not without its challenges, as future outcomes are often different to what they appear years in advance, due to unforeseen factors. But it has the potential to drive behaviour in ways that align with future occupational needs.

Aligning incentives to expected future skills shortages would also have the benefit of providing a signal to individuals seeking to invest in skills development about the occupations that might deliver better prospects for employment stability and income growth.

For apprenticeship incentives designed to address skills shortages to be efficient and effective, a methodology through which future skills needs and supply can be assessed with a reasonable degree of confidence is required.

Such a methodology could consist of several core components:

- An understanding of the current state of the skilled worker demand/supply balance in each occupation;
- An understanding of the future demand for skilled workers in each occupation, which takes into account projected growth in the economy and changes in its composition (growth demand);
- An understanding of the potential attrition of existing skilled workers (replacement demand) in each occupation over the projection period, occurring through retirement, occupational or role changes of existing workers, or for other reasons; and
- An understanding of the potential contribution of skilled workers to each occupation over the projection period through completion of apprenticeships, completion of other qualifications or through other pathways.

The capacity to bring timely numerical evidence to each of the above components of an assessment of the future balance between the demand for and supply of skilled workers will vary across the information components and across occupational categories. For example, projections of the future occupational composition of the economy will be subject to a considerable degree of uncertainty. This is particularly so in respect of newly emerging skills demands, such as those that...
might be associated with the digital economy and the introduction of large programs like the National Disability Insurance Scheme. Workforce projections are likely to provide greater insight into the demands for skills in broader occupations than those involving niche skill sets.

These limitations may be partially addressed by complementing this type of analysis with informed judgement, such as through consultation with industry. The review will also consider how new data science techniques could provide new insights into the labour market that could be incorporated into the methodology.

**Discussion Questions**

8. What timeframe into the future should be used when identifying occupational skills shortages for the purpose of targeting skills shortage incentives? Why?

9. What are the key limitations, if any, of a forward looking methodology? How can these be addressed or managed?

10. Are the core components of a possible forward looking methodology outlined above appropriate? If not, why and what are the alternatives?

11. Are there objective means of assessing skills shortages in small and emerging occupations for which there is no primary data?

**3.3 A methodology that is responsive to changes in skills shortages**

As noted in Section 2.1, the occupational composition of the NSNL has not been reviewed since 2011 and is now poorly aligned with the outcomes of the methodology that underpins it.

Incentives that are effective in increasing the supply of skilled workers through the apprenticeship system could be expected to reduce any skills shortage in an eligible occupation over time, other things being equal. For this reason there is a strong case for any new methodology to be subject to regular review to ensure incentives remain targeted to occupations in greatest need.

Regular application of any new methodology and updating of the list of occupations attracting any additional incentives would ensure the incentives are responsive to changes in the demand and supply balance of skilled workers. The AISS Payment incorporates a process of annual review for this reason.

In addition to ensuring that incentives are targeted to areas of greatest benefit, a process of regular review will reduce the potential for overinvestment in skilled workers in occupations where the demand and supply of skilled workers is in transition toward a more balanced outcome.

The frequency with which the methodology should be reviewed will be governed to a large extent by the frequency with which key information components used within the methodology are updated. Other considerations that are likely to influence the frequency of any occupational updates include:
- the planning timeframes for hiring an apprentice;
- the annual cycle with which apprenticeships are offered; and
- volatility in the data and the occupations eligible for the incentive.

Given these considerations, it is anticipated that eligible occupations should not be reviewed more frequently than on an annual cycle.

Discussion Questions

12. Do you agree that the skills shortage methodology should be applied annually?
13. Should the occupational skills shortage list be updated with the same frequency? If not, why not?

3.4 A transparent yet flexible methodology

A desirable property of any methodology is that there should be sufficient transparency that participants in the system can understand the outcomes of the methodology. This can deliver higher levels of acceptance of, and trust in, the outcomes.

An ability to replicate and predict future outcomes would also be of value to training providers in that it would allow them to better plan their training capacity in accordance with changes in the expected demand for those services.

Transparency is likely to be greatest where there is a fixed formulaic methodology for determining occupational skills shortages, albeit subject to the vagaries of the data that underpins it. However, such an approach has its limitations. For example, identifying future skills shortages would be subject to a degree of imprecision under any methodology due to deficiencies in, or the absence of, suitable employment market data at the occupational level, imprecision in the understanding of the drivers of employment market outcomes and unforeseen events that influence future state outcomes.

A more nuanced approach could provide the capacity to smooth the outcomes of a formulaic approach, incorporate occupations for which the data requirements of a formulaic approach cannot be met and bring to bear considerations that are not reflected in the available data. Consultation with industry stakeholders provides an opportunity to ensure the widest information set is taken into account when identifying occupations likely to experience a medium term skills shortage and those likely to deliver the greatest return from incentives aimed at increasing the number of apprenticeships.

Discussion Questions

14. What is the right balance between transparency and flexibility? How might a formulaic approach to identifying skills shortages be made more flexible without compromising transparency?
3.5 Support informed decision making

Maximising the effectiveness of skills shortage incentives requires there to be a clear link between the availability of the incentives and informed decision making by employers and potential apprentices.

Where an employer and/or apprentice becomes eligible for a skills shortage incentive, their eligibility for any prospective payments should not be contingent on the occupation remaining on the skills shortage list for the duration of the eligibility period for the incentive. Such a contingency would introduce considerable uncertainty about eligibility for the incentive, thereby diminishing its value in stimulating the intended change in employment decisions.

Depending upon the methodology adopted, it is plausible that with frequent updating of the skills shortage list some occupations could fluctuate between being on and off the list over a period of a few years. Such fluctuations could lead to confusion about the incentives available to employers or apprentices and reduce their effectiveness in stimulating increased apprenticeships. If this were an outcome of the preferred skills shortage methodology, an option might be to incorporate a mechanism to stabilise eligibility for the skills shortage incentives without impeding longer term signals.

It is desirable that changes to the skills shortage list and access to incentives are announced with sufficient lead time so that employers and apprentices can make informed employment decisions, taking into account the existence of the skills shortage incentives. It is also desirable that changes in the skills shortage list are introduced in a way that minimises any unintended distortion to the hiring intentions of employers within the annual apprenticeship cycle.

Discussion Questions

15. Do you agree that eligibility for skills shortage incentives over the life of the apprenticeship should be determined at the commencement of the apprenticeship?

16. Would volatility in the availability of skills shortage incentives impede their uptake? If so, what type of stabilising mechanism would help to address this issue?

17. How far in advance of the effect date should changes in the skills shortage list be announced, given the need to balance business planning and distortions to commencement patterns?
3.6 Prioritise outcomes that deliver the greatest economic and social benefit

A methodology that is broad enough to identify all areas of occupational skills shortage will require design parameters to align its scope with the policy objectives of apprenticeship incentives and the level of program funding.

A key feature of the occupational methodology underpinning the AISS Payment is that occupations are required to have an Australian Apprenticeship (apprenticeship or traineeship) as their primary pathway for entry.

Prior experience indicates that in some occupations the provision of apprenticeship incentives can result in broad take-up with relatively little addition to the skills capacity in the occupation. This type of response can arise where apprenticeships are just one pathway into the occupation and can be readily substituted for other forms of training. In these circumstances apprenticeship-based skills shortage incentives are likely to be both inefficient and ineffective.

Consequently, there appears to be a good case for a requirement that apprenticeship incentives designed to address anticipated skills shortages through the apprenticeship system are prioritised to occupations where an apprenticeship is the primary pathway for entry to the occupation.

Understanding where occupational shortages are likely to arise in a medium term timeframe is a necessary condition for ensuring apprenticeship incentives are delivered efficiently and effectively. However, it is not of itself sufficient to ensure these outcomes.

Incentives can be delivered more efficiently where they are targeted to the incremental behaviour they are designed to achieve. Effective targeting of incentives in this way means that for a given program budget the rate of incentive can be higher and as a result the increment to the supply of skills is likely to be greater. The requirement that the apprentice be additional to the employers usual apprentice intake for the employer to receive the AISS incentive is intended to achieve this outcome.

The greatest benefit to society will be achieved when apprenticeship incentives are directed towards skills formation in occupations that are more responsive to the existence of the incentives and which deliver the greatest economic or social benefit. Achieving this outcome is likely to require an appreciation of the relative impact of skills shortages in different occupations and the responsiveness of apprenticeship placements to the provision of an incentive. A rolling program of occupational analysis might be a valuable adjunct to a revised skills shortage methodology to support the effective targeting of incentives.

For example, targeting incentives at employers may be efficient where there exists an excess supply of potential apprentices for that occupation. However, they are likely to be less effective if the skills shortage is largely attributable to the inability of employers to attract suitable apprentices. Similarly, analysis of the drivers of skills shortages may reveal other factors that
constrain any skills supply response. Such factors might include, industrial relations settings, rigidities in training pathways or the absence of career and income progression on a sufficiently broad scale to encourage retention in the occupation.

**Discussion Questions**

18. What criteria should be used to target apprenticeship incentives to deliver the greatest economic and social benefit?
19. What type of occupational analysis should be undertaken in support of the objective of addressing skills shortages in apprenticeship-based occupations?
List of Discussion Questions

1. Do you agree with the identified issues with the NSNL as it currently operates?
2. What evidence or examples can you highlight in support of your position?
3. Are there other issues with the NSNL that should be considered?
4. Are the design principles outlined in this section the right ones for a methodology to identify occupations in skills shortage and to allocate apprenticeship incentives?
5. Are there other design principles that should be considered? If so, please describe them and outline the rationale for their inclusion?
6. Which of the design principles would you rank as being of greatest importance?
7. Do you agree that a single coherent approach should underpin the identification of occupational skills shortages? If not, what is/are the alternative/s?
8. What timeframe into the future should be used when identifying occupational skills shortages for the purpose of targeting skills shortage incentives? Why?
9. What are the key limitations, if any, of a forward looking methodology? How can these be addressed or managed?
10. Are the core components of a possible forward looking methodology outlined above appropriate? If not, why and what are the alternatives?
11. Are there objective means of assessing skills shortages in small and emerging occupations for which there is no primary data?
12. Do you agree that the skills shortage methodology should be updated annually?
13. Should the occupational skills shortage list be updated with the same frequency? If not, why not?
14. What is the right balance between transparency and flexibility? How might a formulaic approach to identifying skills shortages be made more flexible without compromising transparency?
15. Do you agree that eligibility for skills shortage incentives over the life of the apprenticeship should be determined at the commencement of the apprenticeship?
16. Would volatility in the availability of skills shortage incentives impede their uptake? If so, what type of stabilising mechanism would help to address this issue?
17. How far in advance of the effect date should changes in the skills shortage list be announced, given the need to balance business planning and distortions to commencement patterns?
18. What criteria should be used to target apprenticeship incentives to deliver the greatest economic and social benefit?
19. What type of occupational analysis should be undertaken in support of the objective of addressing skills shortages in apprenticeship-based occupations?
Appendix A: Occupational Composition of the NSNL, AAIP Priority Occupations and the AISS Payment

Table 1: National Skills Needs List (NSNL) Occupations

<table>
<thead>
<tr>
<th>Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airconditioning and Mechanical Services Plumber</td>
</tr>
<tr>
<td>Airconditioning and Refrigeration Mechanic</td>
</tr>
<tr>
<td>Aircraft Maintenance Engineer (Avionics)</td>
</tr>
<tr>
<td>Aircraft Maintenance Engineer (Mechanical)</td>
</tr>
<tr>
<td>Arborist</td>
</tr>
<tr>
<td>Automotive Electrician</td>
</tr>
<tr>
<td>Baker</td>
</tr>
<tr>
<td>Binder and Finisher</td>
</tr>
<tr>
<td>Boat Builder and Repairer</td>
</tr>
<tr>
<td>Bricklayer</td>
</tr>
<tr>
<td>Butcher or Smallgoods Maker</td>
</tr>
<tr>
<td>Cabinetmaker</td>
</tr>
<tr>
<td>Carpenter</td>
</tr>
<tr>
<td>Carpenter and Joiner</td>
</tr>
<tr>
<td>Cook</td>
</tr>
<tr>
<td>Diesel Motor Mechanic</td>
</tr>
<tr>
<td>Drainer</td>
</tr>
<tr>
<td>Electrical Linesworker</td>
</tr>
<tr>
<td>Electrician (General)</td>
</tr>
<tr>
<td>Electrician (Special class)</td>
</tr>
<tr>
<td>Occupation</td>
</tr>
<tr>
<td>----------------------------------</td>
</tr>
<tr>
<td>Electronic Equipment Trades Worker</td>
</tr>
<tr>
<td>Fibrous Plasterer</td>
</tr>
<tr>
<td>Fitter (General)</td>
</tr>
<tr>
<td>Fitter and Turner</td>
</tr>
<tr>
<td>Fitter-Welder</td>
</tr>
<tr>
<td>Floor Finisher</td>
</tr>
<tr>
<td>Furniture Finisher</td>
</tr>
<tr>
<td>Gasfitter</td>
</tr>
<tr>
<td>Glazier</td>
</tr>
<tr>
<td>Hairdresser</td>
</tr>
<tr>
<td>Joiner</td>
</tr>
<tr>
<td>Landscape Gardener</td>
</tr>
<tr>
<td>Lift Mechanic</td>
</tr>
<tr>
<td>Locksmith</td>
</tr>
<tr>
<td>Metal Fabricator</td>
</tr>
<tr>
<td>Metal Machinist (First class)</td>
</tr>
<tr>
<td>Motor Mechanics (General)</td>
</tr>
<tr>
<td>Motorcycle Mechanic</td>
</tr>
<tr>
<td>Optical Mechanic</td>
</tr>
<tr>
<td>Painting Trades Worker</td>
</tr>
<tr>
<td>Panel Beater</td>
</tr>
<tr>
<td>Pastrycook</td>
</tr>
<tr>
<td>Picture Framer</td>
</tr>
<tr>
<td>Occupation</td>
</tr>
<tr>
<td>--------------------------------</td>
</tr>
<tr>
<td>Plumber (General)</td>
</tr>
<tr>
<td>Pressure Welder</td>
</tr>
<tr>
<td>Printing Machinist</td>
</tr>
<tr>
<td>Roof Plumber</td>
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<tr>
<td>Roof Tiler</td>
</tr>
<tr>
<td>Screen Printer</td>
</tr>
<tr>
<td>Shearer</td>
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<tr>
<td>Sheetmetal Trades Worker</td>
</tr>
<tr>
<td>Signwriter</td>
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<tr>
<td>Small Engine Mechanic</td>
</tr>
<tr>
<td>Solid Plasterer</td>
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<tr>
<td>Stonemason</td>
</tr>
<tr>
<td>Telecommunications Linesworker</td>
</tr>
<tr>
<td>Telecommunications Technician</td>
</tr>
<tr>
<td>Toolmaker</td>
</tr>
<tr>
<td>Upholsterer</td>
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<tr>
<td>Vehicle Body Builder</td>
</tr>
<tr>
<td>Vehicle Painter</td>
</tr>
<tr>
<td>Vehicle Trimmer</td>
</tr>
<tr>
<td>Wall and Floor Tiler</td>
</tr>
<tr>
<td>Welder (First class)</td>
</tr>
<tr>
<td>Wood Machinist</td>
</tr>
</tbody>
</table>
### Table 2: Australian Apprenticeships Incentives Program (AAIP) Priority Occupations

<table>
<thead>
<tr>
<th>Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aged Care</td>
</tr>
<tr>
<td>Child Care</td>
</tr>
<tr>
<td>Disability Care</td>
</tr>
<tr>
<td>Enrolled Nursing</td>
</tr>
</tbody>
</table>

### Table 3: Additional Identified Skills Shortage (AISS) Payment Occupations (2019-20)

<table>
<thead>
<tr>
<th>Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carpenters and Joiners</td>
</tr>
<tr>
<td>Plumbers</td>
</tr>
<tr>
<td>Hairdressers</td>
</tr>
<tr>
<td>Airconditioning and Refrigeration Mechanics</td>
</tr>
<tr>
<td>Bricklayers and Stonemasons</td>
</tr>
<tr>
<td>Plasterers</td>
</tr>
<tr>
<td>Bakers and Pastrycooks</td>
</tr>
<tr>
<td>Vehicle Painters</td>
</tr>
<tr>
<td>Wall and Floor Tilers</td>
</tr>
<tr>
<td>Arborists</td>
</tr>
</tbody>
</table>