



# **CAPACITY TO CONTRIBUTE: INCOME EQUIVALISATION – PRELIMINARY RESULTS**

Direct Measure of Income refinement working group  
paper  
April 2021



## **CAPACITY TO CONTRIBUTE: INCOME EQUIVALISATION – PRELIMINARY RESULTS**

### **Executive summary**

#### **Overview**

This paper summarises the Australian Bureau of Statistics' (ABS) investigation of the fitness-for-purpose of data and methods for incorporating family composition into a refined Direct Measure of Income (DMI) methodology. This investigation was introduced in the March 2021 DMI Refinement Working Group meeting paper, 'Capacity to Contribute: Introduction to income equalisation', available on the [DESE website](#).

Under the existing Capacity to Contribute (CTC) policy framework, family composition – that is, family size and structure – is not accounted for in the DMI methodology. Rather, large average family size at a school may be considered as part of the review process<sup>1</sup>, which is consistent with its treatment under the previous Socio-Economic Status (SES) methodology for CTC.

Income equalisation allows comparisons of total income across households of different sizes. A household with more people will generally have higher living costs, but there will also be economies of scale. Standard income equalisation methods divide total household income by an adjustment factor based on the number and, in some cases, age of people in the household.

For CTC, there is interest in equalising income in the calculation of the DMI score to take into account that families with more children will have higher living costs and therefore may be considered to have less capacity to contribute to the operating costs of schooling. However, equalising income in CTC is complicated by the availability of the required data – total household income and the age and number of household members – in the administrative data.

This report contains:

- a brief summary of the ABS' literature review of income equalisation methods;
- data requirements for income equalisation;
- assessment of family members residing in separate households in the CTC population;
- assessment of the available data sources for estimating the number of dependants for parents in the CTC population;
- description and evaluation of a potential method that is feasible with the data available; and
- recommendations regarding the fitness-for-purpose of available data for income equalisation and potential options for further analysis.

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<sup>1</sup> For more information about the CTC review process, see the fact sheet 'What is the Capacity to Contribute review process?' available at: [www.education.gov.au/what-capacity-contribute-review-process](http://www.education.gov.au/what-capacity-contribute-review-process).

## Key findings

### **1. Data requirements of standard approaches to income equivalisation**

Standard approaches to equivalising family incomes generally require total family income within a household and the number of adults and children, or at least members, in the family. In CTC, there are limitations to the availability of this data. The closest available approximations are to use parental income as a substitute for total family income, and parents and dependants as a substitute for family members in the household. However, it should be noted that these data items are conceptually different to those used in standard approaches to income equivalisation.

### **2. Fitness-for-purpose of income data**

The measurement of total family income in a household may be especially limited for students whose parents reside in separate households. This is because those parents may have a spouse whose income data is not available. As the proportion of such families varies among schools, this limitation is expected to affect some schools more than others.

### **3. Fitness-for-purpose of dependants data**

Counts of dependants are available for approximately three-quarters of parents who link to MADIP via PIT and DOMINO. These two data sources are reasonably coherent. However, a coherent count of dependants is not available for a quarter of parents. Further investigation would be required to identify a robust approach to dealing with this missingness, should DESE wish to adopt a refined DMI methodology based on equivalised household income. Further work would also be required to quality assure and assign the counts of dependants available in administrative data sources. For example, the treatment of outlier counts of dependants which may indicate anomalies in the data.

### **4. Evaluation of a potential approach**

A non-standard approach which incorporates equivalised household incomes into the DMI methodology was implemented to inform this investigation. The approach is non-standard due to:

- its definition of income (i.e. parental income rather than total household income);
- the limited scope of household members (i.e. parents and dependants or students, rather than all household members); and
- the combination of equivalised parental income for students whose parents live in separate households.

Using this method had no impact on scores for most schools (56% of schools), and a limited impact of 1 or 2 points for schools whose scores did change (40% of schools), compared with DMI scores.

## Recommendation

If total household income becomes available in the future, the ABS would recommend further investigation of the impact of applying standard income equivalisation methods. Methods for combining the equivalised incomes of parents who reside in separate households and dealing with missing counts of dependants would need to be considered.

## Introduction and background information

This paper summarises the Australian Bureau of Statistics' (ABS) investigation of the fitness-for-purpose of data and methods for incorporating family composition into a refined Direct Measure of Income (DMI) methodology. This investigation was introduced in the March 2021 DMI Refinement Working Group meeting paper, 'Capacity to Contribute: Introduction to income equivalisation', available on the [DESE website](#).

Under the existing Capacity to Contribute (CTC) policy framework, family composition – that is, family size and structure – is not accounted for in the DMI methodology. Rather, large average family size at a school may be considered as part of the review process<sup>2</sup>, which is consistent with its treatment under the previous Socio-Economic Status (SES) methodology for CTC.

Income equivalisation allows comparisons of total income across households of different sizes. A household with more people will generally have higher living costs, but there will also be economies of scale. For example, heating costs and some transport costs may be shared among the household. The income equivalisation process typically begins with the total household income and then applies an adjustment factor based on the number of people in the household. Some equivalisation methods also take the ages of the people in the household into account, based on the assumption that older children and adults are likely to have higher living costs than younger children.

The ABS uses the "OECD modified equivalence scale" for income equivalisation in collections such as the Census of Population and Housing (the Census) and the Survey of Income and Housing. This method assigns an equivalisation factor of 1 to the first adult in the household, 0.5 to each additional adult (in the ABS, this factor is assigned to people aged 15 or over) and 0.3 to each child.<sup>3</sup>

For CTC, there is interest in applying income equivalisation in the calculation of the DMI score to take into account that families with more children will have higher living costs and therefore may be considered to have less capacity to contribute to the operating costs of schooling. However, equivalising income in CTC is complicated by the fact that the DMI methodology only accounts for the income of up to two parents or guardians of a child, including when those parents reside in different households. A household for the purpose of income equivalisation generally refers to a group of people who usually live in the same dwelling. Economies of scale in living costs are less likely to apply to people living in different dwellings, so equivalising the income of families where the parents reside in separate households is not a standard approach.

This report contains:

- a brief summary of the ABS' literature review of income equivalisation methods;
- data requirements for income equivalisation;
- assessment of family members residing in separate households in the CTC population;

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<sup>2</sup> For more information about the CTC review process, see the fact sheet 'What is the Capacity to Contribute review process?' available at: [www.education.gov.au/what-capacity-contribute-review-process](http://www.education.gov.au/what-capacity-contribute-review-process).

<sup>3</sup> For more information, see: [Fact sheet 2: Understanding measures of income and wealth](#), on the ABS website, and [Adjusting household incomes: equivalence scales](#), published by the OECD.

- assessment of the available data sources for estimating the number of dependants for parents in the CTC population;
- description and evaluation of a potential method that is feasible with the data available; and
- recommendations regarding the fitness-for-purpose of available data for income equivalisation and potential options for further analysis.

## Literature review summary

The ABS conducted a literature review of income equivalisation methods, finding that:

1. There are a range of different equivalisation factors in use, with no clear consensus on the best approach. For example, the "square root" method uses the square root of the number of people in the household as the equivalisation factor, as opposed to the OECD method described above, which uses different factors for people of different ages. Each method is based on assumptions that may not necessarily apply to all households.
2. There has been some research exploring living costs for separated parents, but it relies on survey data with responses specifically about the amount of money spent on supporting children. The ABS does not currently have access to such data.

The ABS did not identify any research that directly applied income equivalisation methods to families whose members reside in separate households.

## Data requirements for standard approaches to income equivalisation

To apply standard methods for income equivalisation requires:

1. access to data on total household income for all parents in the Student Residential Address and Other Information Collection (the Address Collection).
  - This would need to include the income of new spouses of parents or guardians who reside in separate households. This data is not currently available.
2. an accurate value for the number and ages of family members residing in each household.
  - Counts of dependants are available in several administrative datasets linked via MADIP. Some discrepancies among sources of administrative data are expected, but if the discrepancies are frequent and large, and it is not clear which values are more likely to be correct, then it may be challenging to determine the most fit-for-purpose data source or approach.

### ***Key finding 1: Data requirements for standard approaches to income equivalisation***

Standard approaches to equivalising family incomes generally require total family income within a household and the number of adults and children, or at least members, in the family. In CTC, there are limitations to the availability of this data. The closest currently available approximations are to use parental income as a substitute for total family income, and parents and dependants as a substitute for family members in the household. However, it should be noted that these data items are conceptually different to those used in standard approaches to income equivalisation.



## Family members residing in separate households in the CTC population

As noted above, the data requirement for total household income and the number of dependants in each household may not be met for all families in the CTC population. In particular, this requirement may not be met when the parents or guardians reside in separate households, because:

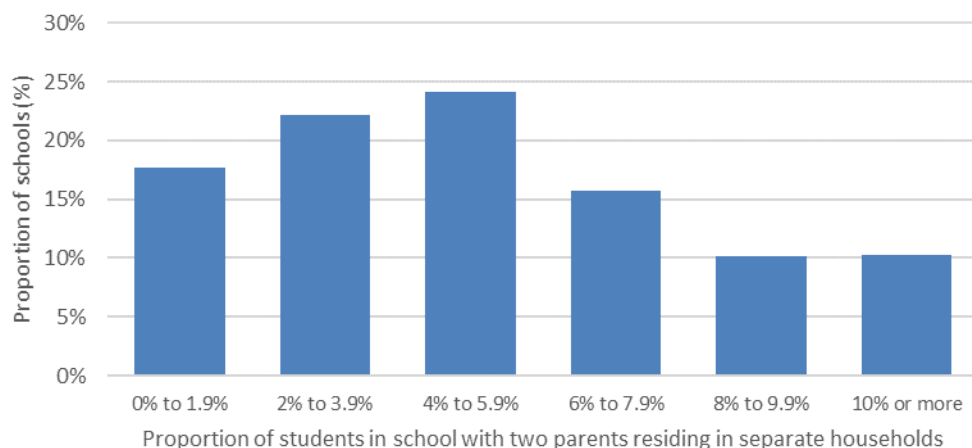
- the parents may have a spouse who contributes to the household income but is not included in the Address Collection; and
- there is limited, if any, information available about the proportion of financial responsibility each parent has for the child. For example, a child may reside most of the time with one parent, or may spend equal amounts of time with both parents. This affects the extent to which the child is considered a dependant of each parent for the purpose of equivalising each parent’s household income.

Therefore, in assessing the fitness-for-purpose of income equivalisation approaches for CTC, it is important to understand the distribution of families whose members reside in separate households.

In 2019, approximately 91% of parents belonged to families with two parents, and 9% of parents belonged to families with one parent recorded in the Address Collection. Approximately 85% of parents belonged to two-parent families where both parents resided in the same household, while 6% of parents belonged to two-parent families where the parents resided in separate households<sup>4</sup>.

The distribution of families with members who reside in separate households varied across schools. Figure 1 shows the distribution of schools by the proportion of students with two parents who resided in separate households, for 2617 schools in 2019. For almost a quarter of schools (24%), between 4% and 5.9% of students belonged to families with two parents residing in separate households. For 18% of schools, the proportion of students with two parents residing in separate households was less than 2%, while for 20% of schools, it was the case for 8% of students or more.

*Figure 1: Distribution of schools by proportion of students with two parents residing in separate households, 2019.*



<sup>4</sup> The proportions of parents in this paragraph refer to parent records which linked to MADIP in 2019.



### ***Key finding 2: Fitness-for-purpose of income data***

The measurement of total family income in a household may be especially limited for students whose parents reside in separate households. This is because those parents may have a spouse whose income data is not available. As the proportion of such families varies among schools, this limitation is expected to affect some schools more than others.

## **Counts of dependants in administrative data sources**

### **Data sources**

Various data sources can be used to estimate the number of dependants in a family, including:

- number of dependent children in Personal Income Tax (PIT);
- various data items in the DOMINO Centrelink Administrative dataset;
- count of dependent children in a family, in the Census; and
- the Address Collection, collected by DESE, which provides the student and parent populations for CTC<sup>5</sup>.

In reviewing the fitness-for-purpose of these data sources for providing counts of dependants, it is important to consider the coherence and availability of the data. It is also important to note that, except for the Census, the data are collected for administrative, rather than statistical purposes.

### **Coherence**

Regarding the use of different data sources to provide counts of dependants, coherence refers to:

- differences in the definition of dependants used in each data source; and
- the extent to which the data describe different periods of time (i.e. the reference period).

As summarised in Table 1 (on the next page), the data sources vary in their definition of dependants and their reference periods. The Census and PIT definitions include children up to the age of 24 who are studying full-time. In contrast, a dependant in the DOMINO definition may be up to 21 years old, while a child for Family Tax Benefit (FTB) purposes may be up to 19 years old. The DOMINO data items also have criteria regarding the amount of time a child lives with a parent. The Address Collection is based on the concept of students, rather than dependants, and excludes young children who are yet to start school, school-aged children attending schools not subject to the CTC assessment, and older children who do not attend school.

The reference periods of counts of dependants in DOMINO and PIT data are consistent with those of the income data used in DMI scores. For some DOMINO data, the number of dependants a person has may only be updated when circumstances change which affect the person's eligibility for a government payment or benefit, or when the person's eligibility is reviewed. The reference period of the Address Collection aligns with the year of the corresponding DMI score, but not with the reference period of the income data used in DMI scores.

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<sup>5</sup> See Appendix 1: References for links to further information about these data items.

As a result, there is a lack of conceptual coherence among counts of dependants from the available data sources.

*Table 1: Definition and reference periods of counts of dependants in administrative sources.*

Data item and source	Definition	Reference period & availability
<b>Count of students associated with a parent, Address Collection</b>	Students enrolled in non-government schools to which the CTC assessment applies.	<ul style="list-style-type: none"> <li>• Annual</li> <li>• Same year as corresponding DMI score. For example, the Address Collection used in the 2020 DMI score is collected in Term 1, 2020.</li> </ul>
<b>Number of dependent children (Personal Income Tax)</b>	A dependent child is: <ul style="list-style-type: none"> <li>• an Australian resident; and</li> <li>• maintained by the parent or guardian; and</li> <li>• under 21 years old; or</li> <li>• 21 to 24 years old and a full-time student at a school, college or university.</li> </ul>	<ul style="list-style-type: none"> <li>• Annual</li> <li>• Financial year ended 18 months prior to corresponding DMI score. For example, PIT data from the 2017-18 financial year is used in the 2020 DMI score.</li> <li>• Available for more than one parent or guardian.</li> </ul>
<b>Number of children – Family Tax Benefit (FTB) (DOMINO Centrelink)</b>	An FTB child is: <ul style="list-style-type: none"> <li>• up to 15 years; or</li> <li>• 16 to 19 years, in full time secondary study; and not receiving a prescribed education scheme payment; and</li> <li>• in the care of the parent or guardian at least 35% of the time; and</li> <li>• meets residency or visa requirements.</li> </ul>	<ul style="list-style-type: none"> <li>• Annual</li> <li>• As at 30 June 18 months prior to corresponding DMI score. For example, DOMINO data from the year ended 30 June 2018 is used in the 2020 DMI score.</li> <li>• Available for more than one parent or guardian.</li> </ul>
<b>Number of dependants – Low income concession card and Other concession card (DOMINO Centrelink)</b>	A dependent child is: <ul style="list-style-type: none"> <li>• up to 15 years; or</li> <li>• 16 to 21 years, in full time secondary or tertiary study; and</li> <li>• does not exceed the personal income limit; and</li> <li>• lives in the care of the parent or guardian at least 14% of the time; and</li> <li>• meets residency or visa requirements.</li> </ul>	<ul style="list-style-type: none"> <li>• Reference period is same as DOMINO FTB data above.</li> <li>• Available for primary carer only.</li> </ul>
<b>Count of Dependent Children in a Family (CDCF), Census of Population and Housing</b>	A dependent child is: <ul style="list-style-type: none"> <li>• a child under 15 years of age; or</li> <li>• a full-time student in secondary or tertiary study aged 15-24 years.</li> </ul> May include up to three children absent on Census night. Families with more than 6 children are assigned the category of ‘6 or more dependent children’.	<ul style="list-style-type: none"> <li>• Every 5 years</li> <li>• The most recent Census data reflects the point in time as at 9 August 2016.</li> <li>• Available for more than one parent or guardian.</li> </ul>

To assess coherence, ABS compared the counts of dependants in the different data sources, for parents with information available in each source.

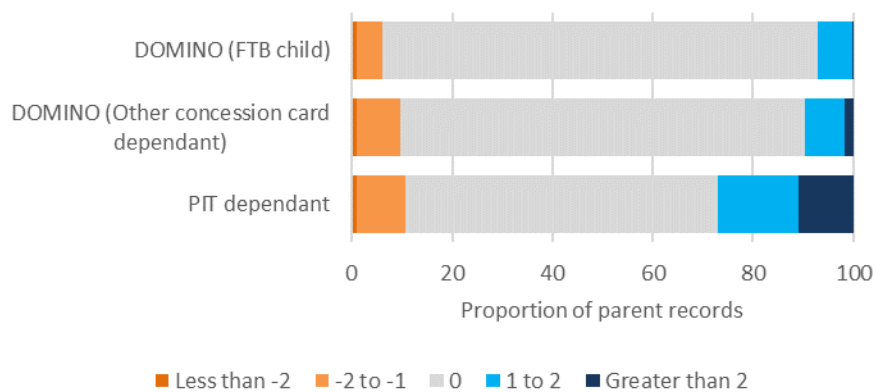


**Counts of dependants in Census, DOMINO and PIT data**

Counts of dependants in PIT and DOMINO were compared with those in the Census, for parents with data available in each source. The 2019 CTC dataset was used, as it is linked to PIT data from 2016-17 and DOMINO data as at 30 June 2017, which align more closely with the Census reference period (9 August 2016). The difference in the number of dependants was calculated as the Census count of dependants minus the count in PIT or DOMINO. Differences of zero indicate that the count of dependants is the same in both sources, while a positive difference indicates that the Census count is larger, and a negative difference indicates the Census count is smaller.

Figure 2 shows, for parents in couple families<sup>6</sup>, the distribution of differences in counts of dependants in Census and DOMINO (FTB), DOMINO (Other concession card) and PIT.

*Figure 2: Distribution of differences between counts of dependants in 2016 Census and selected administrative data sources, for parents in couple families, in 2019 CTC data.*

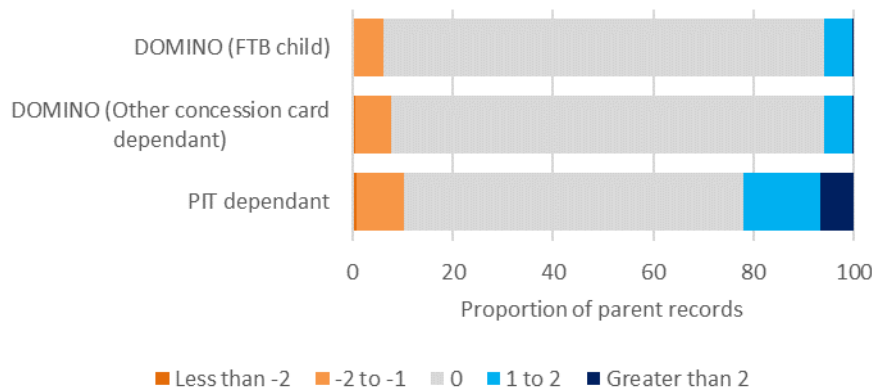


The DOMINO (FTB) count of dependants is the most coherent with Census data, with 87% of parents recording the same count in both sources. For DOMINO (Other concession card) data, the count of dependants is the same as the Census count for 81% of parents. The count of dependants in PIT data is the same as that of Census for 63% of parents. The Census count of dependants is larger than that of PIT data for 27% of parents, compared with 10% of parents in DOMINO (Other concession card) data and 7% of parents in DOMINO (FTB) data.

Figure 3 provides the distribution of differences between the count of dependants recorded in Census, compared with DOMINO (FTB), DOMINO (Other concession card) and PIT, for parents in one parent families. The distribution of differences for one parent families is similar to that of couple families. The count of dependants is the same as the count in Census for 88% of parents in the DOMINO FTB data, 86% of parents in the DOMINO other concession card data, and 68% of parents in the PIT data.

<sup>6</sup> In this analysis, couple families and one parent families are classified according to the Census Family Composition classification. For more information, see: [Family Composition](#), Census of Population and Housing: Census Dictionary, 2016 (cat. no. 2901.0).

Figure 3: Distribution of differences between counts of dependants in 2016 Census and administrative data sources, for parents in one parent families, in 2019 CTC data.

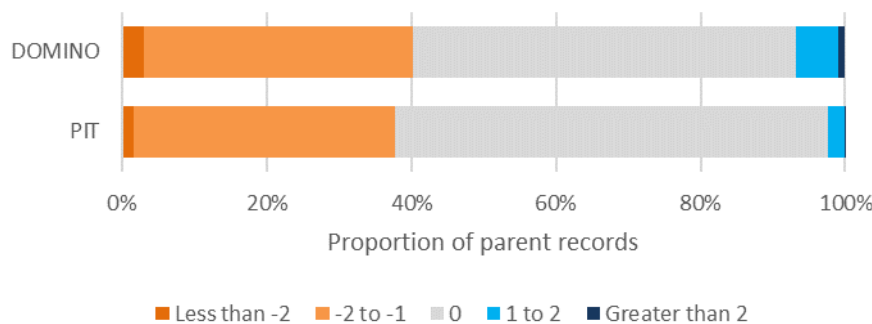


**Counts of students in the Address Collection, compared with dependants in DOMINO and PIT data**

Counts of dependants in PIT and DOMINO were also compared with the count of students associated with a parent or guardian in the 2019 Address Collection. It should be noted that the reference periods of the data sources do not align, with PIT data from 2016-17 and DOMINO data as at 30 June 2017. The difference was calculated as the count of students in the Address Collection minus the count of dependants in PIT or DOMINO. If a parent had data in multiple DOMINO sources, the maximum value was used. Differences of zero indicate the count is the same in both sources, while a positive difference indicates that the Address Collection count is larger, and a negative difference indicates the Address Collection count is smaller.

Figure 4 shows the distribution of differences in counts of students in the Address Collection and dependants in DOMINO and PIT. The count of students in the Address Collection is the same as the count of dependants in PIT data for 60% of parents and in DOMINO data for 53% of parents. The count of students in the Address Collection is less than the count of dependants in PIT for 38% of parents and DOMINO for 40% of parents. This is expected, given the conceptual differences between the data items.

Figure 4: Distribution of differences between counts of students associated with a parent or guardian in the 2019 Address Collection and dependants in administrative data sources.



### Availability of counts of dependants for parents in the CTC population

While the Address Collection could, in theory, be used to provide a count of students for all families in the CTC population, such an approach would exclude a variety of dependants and as such may have limited relevance in terms of measuring family composition for the purpose of income equivalisation. In contrast, counts of dependants are only available for parents who link to MADIP and have information recorded in the relevant PIT or DOMINO data items.

In 2020, 91% of parents in the Address Collection linked to MADIP. Of these parents:

- 84.8% have dependant information in Census data;
- 83.7% have dependant information in PIT data;
- 72.9% have non-zero dependant information in PIT data;
- 3.8% have dependant information in DOMINO Other concession card data;
- 2.6% have dependant information in DOMINO FTB data;
- a small proportion have dependant information in other DOMINO data items; and
- 24% have no dependant information in either PIT or DOMINO data.

The availability of counts of dependants in the different data sources varies across schools. Figure 5 shows the proportion of schools with different levels of availability of dependant information in PIT data, in 2019. The availability of dependant information in PIT is defined as the proportion of students in each school with a non-zero parental count of dependants in PIT data. For 30% of schools, between 80% and 84.9% of students have a parent with dependant information in PIT data. For most schools (62%), at least 80% of students have a parent with dependant information in PIT.

*Figure 5: Proportion of schools with different levels of dependant information available in PIT, 2019.*

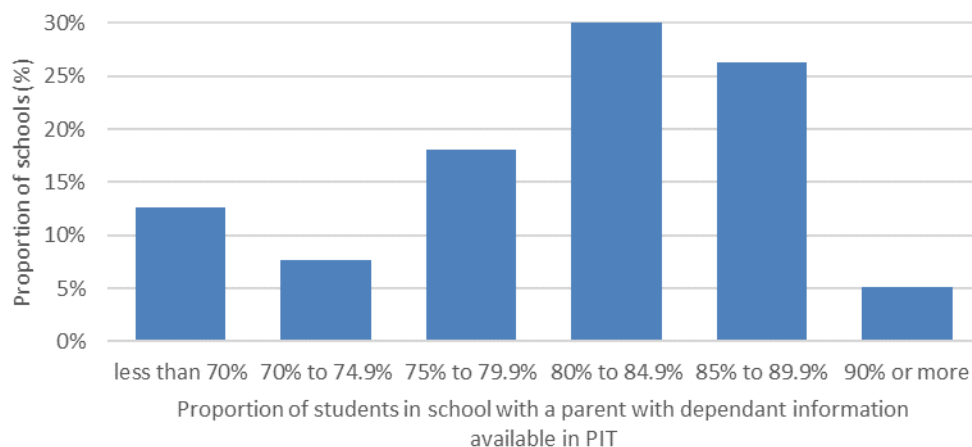
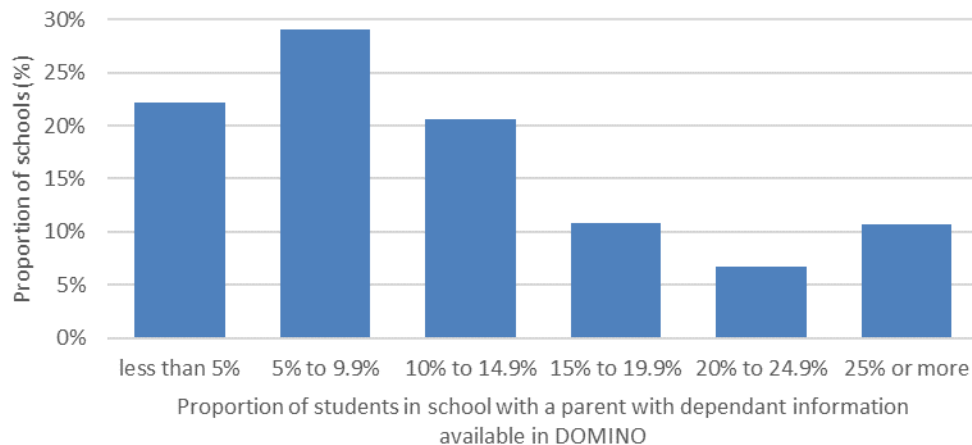


Figure 6 shows the proportion of schools with different levels of dependant information available in DOMINO, in 2019. The availability of dependant information in DOMINO is defined as the proportion of students in each school with a parental count of dependants in DOMINO. For 29% of schools, between 5% and 9.9% of students have a parent with dependant information in DOMINO data. For approximately half of schools (51%), less than 10% of students have a parent with dependant information in DOMINO data.

*Figure 6: Proportion of schools with different levels of dependant information available in DOMINO, 2019.*



## Summary

A summary of the coherence and availability of counts of dependants in administrative data sources available for use in CTC is provided in Appendix 2.

### **Key finding 3: Fitness-for-purpose of data on dependants**

Counts of dependants are available for approximately three-quarters of parents who link to MADIP via PIT and DOMINO. These two data sources are reasonably coherent. However, a coherent count of dependants is not available for a quarter of parents. Further investigation would be required to identify a robust approach to dealing with this missingness, should DESE wish to adopt a refined DMI methodology based on equivalised household income. Further work would also be required to quality assure and assign the counts of dependants available in administrative data sources. For example, the treatment of outlier counts of dependants which may indicate anomalies in the data.

## A potential method for equivalising incomes

### Description of method

The ABS has tested the following approach for equivalising income in the DMI calculation:

1. For each parent, calculate an equivalised income based on the number of dependants.
  - a. The number of dependants assigned to a parent is:
    - i. the maximum of available counts of dependants in PIT or DOMINO data; or
    - ii. the count of students associated with the parent in the Address Collection.
  - b. If a parent is currently living in the same household as another parent in the Address Collection, they are treated as a two-adult household and the corresponding equivalisation factor is used (1 for the first parent, 0.5 for the second parent in the household, and 0.3 for each dependant). The two parents' incomes are added together and equivalised to give an equivalised total household income.
  - c. If a parent is not currently living in the same household as another parent from the Address Collection, they are treated as a one-adult household. The corresponding equivalisation factor is used to equivalise the individual parent's income.
2. The equivalised household income of parents is then assigned to each student.
  - a. If the student is linked to two parents who reside in separate households, the parents' equivalised household income values are added together.
3. For each school, the median of the students' equivalised household income values is used instead of the current estimate of income to calculate a new DMI score. Other aspects of the DMI methodology were held constant.
4. For this analysis, scores were rounded to the nearest integer. To support the analysis of score changes which have an impact on funding, schools with scores below 93 were assigned a score of 93, and schools with scores above 125 were assigned a score of 125.

It should be noted that, while this method is feasible given the available data, it is non-standard and has limitations in terms of its ability to meet the data requirements for income equivalisation. The ABS is not aware of previous studies or applications in which the simple method of adding together the equivalised incomes of parents who reside in separate households has been used. The ABS recommends further investigation of methods for combining the equivalised incomes of parents who reside in separate households as part of future implementation of income equivalisation.

### Evaluation of preliminary results

The ABS applied the equivalisation method described above to the 2020 CTC dataset and compared the result with 2020 DMI scores.

For each school, the difference in score was calculated as the score based on the equivalised incomes minus the 2020 DMI score. Key findings in the analysis of score differences include:

- The average difference across the 2625 schools included in the analysis was 0.04 points and the standard deviation of the difference was 1.08 points.

- The scores based on equivalised incomes and the 2020 DMI score were the same for 56% of schools (1480 schools).
- The absolute difference in score was 1 or 2 points for 40% of schools (1047 schools).
- The absolute difference in score was 3 or more points for the remaining 4% of schools (98 schools).

The calculation of scores using the equivalised incomes did not affect the proportion of schools with scores of 93 and below, or 125 and above. When the equivalised incomes were used, 30% of schools had a score of 93 or less, 65% of schools had a score between 94 and 124, and 3% of schools had a score of 125 or more. These proportions are the same for the distribution of 2020 DMI scores.

***Key finding 4: Evaluation of a potential approach***

A non-standard approach which incorporates equivalised household incomes into the DMI methodology was implemented to inform this investigation. The approach is non-standard due to:

- its definition of income (i.e. parental income rather than total household income);
- the limited scope of household members (i.e. parents and dependants or students, rather than all household members); and
- the combination of equivalised parental income for students whose parents live in separate households.

Using this method had no impact on scores for most schools (56% of schools), and a limited impact of 1 or 2 points for schools whose scores did change (40% of schools), compared with DMI scores.

**Recommendation**

If total household income becomes available in the future, the ABS would recommend further investigation of the impact of applying standard income equalisation methods. Methods for combining the equivalised incomes of parents who reside in separate households and dealing with missing counts of dependants would need to be considered.

## Appendix 1: References

### Income equivalisation methods

Gray, M. (2005) Costs of children and equivalence scales: A review of methodological issues and Australian estimates, Australian National University. Available at:  
[www.dss.gov.au/sites/default/files/documents/costs-children-equivalence-scales.pdf](http://www.dss.gov.au/sites/default/files/documents/costs-children-equivalence-scales.pdf).

Ponthieux, S. (2005) Intra-Household Sharing Of Resources: A Tentative “Modified” Equivalised Income, French National Statistical Institute (INSEE). Available at:  
[www.researchgate.net/profile/Sophie-Ponthieux/publication/284725525\\_INTRA-HOUSEHOLD\\_SHARING\\_OF\\_RESOURCES\\_A\\_TENTATIVE\\_MODIFIED\\_EQUIVALISED\\_INCOME/links/565810d408ae4988a7b5b574/INTRA-HOUSEHOLD-SHARING-OF-RESOURCES-A-TENTATIVE-MODIFIED-EQUIVALISED-INCOME.pdf](http://www.researchgate.net/profile/Sophie-Ponthieux/publication/284725525_INTRA-HOUSEHOLD_SHARING_OF_RESOURCES_A_TENTATIVE_MODIFIED_EQUIVALISED_INCOME/links/565810d408ae4988a7b5b574/INTRA-HOUSEHOLD-SHARING-OF-RESOURCES-A-TENTATIVE-MODIFIED-EQUIVALISED-INCOME.pdf).

### Information about counts of dependants available via the Multi-Agency Data Integration Project (MADIP)

Australian Bureau of Statistics, Census of Population and Housing: Census Dictionary, 2016 (cat. no. 2901.0), available at: [www.abs.gov.au/ausstats/abs@.nsf/Lookup/2901.0Chapter1602016](http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/2901.0Chapter1602016).

Australian Taxation Office, Individual Tax Return Instructions 2017, available at:  
[www.ato.gov.au/Individuals/Tax-return/2017/](http://www.ato.gov.au/Individuals/Tax-return/2017/).

Department of Social Services, Family Assistance Guide, available at:  
<https://guides.dss.gov.au/family-assistance-guide>. (Refer to section 2.1.1.10 for the definition of an FTB child: <https://guides.dss.gov.au/family-assistance-guide/2/1/1/10>).

Department of Social Services, Social Security Guide, available at: <https://guides.dss.gov.au/guide-social-security-law>. (Refer to section 1.1.D.70 for the definition of a dependent child: <https://guides.dss.gov.au/guide-social-security-law/1/1/d/70>).



## Appendix 2: Summary of dependant information in administrative data sources

Data source	Conceptual coherence	Comparing counts of dependants / students	Availability
<b>Address Collection</b>	<ul style="list-style-type: none"> <li>Definition is limited to students attending schools subject to the CTC assessment.</li> <li>The reference period aligns with that of the corresponding DMI score.</li> </ul>	<ul style="list-style-type: none"> <li>Coherent with counts of dependants for most parents, but underestimates counts of dependants for a large minority.</li> <li>Counts of students are less than counts of dependants in PIT or DOMINO data for approximately 40% of parents.</li> </ul>	<ul style="list-style-type: none"> <li>Available for 100% of parents in the CTC population.</li> </ul>
<b>PIT</b>	<ul style="list-style-type: none"> <li>Definition includes children up to 21 years and full-time students up to 24 years.</li> <li>The reference period refers to the financial year ended 18 months before the year of the corresponding DMI score.</li> </ul>	<ul style="list-style-type: none"> <li>Coherent with Census data for the majority of parents.</li> <li>Counts of dependants are the same as those in Census for the majority of parents (approx. 60%).</li> <li>A relatively high proportion of counts of dependants in PIT data are less than those in Census (over 20% in PIT, compared with less than 10% in DOMINO).</li> </ul>	<ul style="list-style-type: none"> <li>A non-zero count of dependants is available for 73% of parents who linked to MADIP in 2019.</li> </ul>
<b>DOMINO</b>	<ul style="list-style-type: none"> <li>Definitions vary, including children up to 15 years and full-time students up to 19 or 21 years.</li> <li>Data are extracted as at 30 June of the year ended 18 months before the year of the corresponding DMI score, but may have been recorded during earlier administrative processes.</li> </ul>	<ul style="list-style-type: none"> <li>Very coherent with Census data.</li> <li>Counts of dependants are the same as those in Census for a large majority of parents (approximately 80% to 90%).</li> </ul>	<ul style="list-style-type: none"> <li>Available for 3% to 4% of parents who linked to MADIP in 2019.</li> </ul>
<b>Census of population and housing</b>	<ul style="list-style-type: none"> <li>Definition includes children up to 15 years and full-time students up to 24 years, with a maximum of 6 dependants.</li> <li>The reference period is 9 August 2016.</li> </ul>	<ul style="list-style-type: none"> <li>As above.</li> </ul>	<ul style="list-style-type: none"> <li>Available for 85% of parents who linked to MADIP in 2019.</li> </ul>

