

A guide to census-based indicators to estimate demand for public legal assistance services



The Law and Justice Foundation of NSW has developed a series of Need for Legal Assistance Services (NLAS) indicators. This guide outlines key steps to create census-based proxy measures of potential legal need such as NLAS.

Why use census-based counts?

- Census data can be used to estimate demand by harnessing the qualifying criteria for public legal assistance and evidence about legal need from legal needs surveys and other sources.
- Through interactive platforms or custom data requests, census data can count people that meet multiple economic and socio-demographic conditions.
- Comprehensive census coverage enables proxy indicators of relative demand between geographic areas to inform geographic resource allocation.
- Specific indicators can be designed if public legal assistance providers service particular groups in the population or have a range of services with different qualifying criteria.

How to NLAS in 6 steps



Good to know



- Census-based indicators are not a precise measure of demand: factors other than socio-demographics also influence whether people experience legal issues, and whether or how they might access legal assistance.
- Such indicators do not lend themselves to trend analysis over time. That is because the indicator definition should be revised after each census to account for ageing cohorts, changes in cost of living and/or qualifying criteria for legal assistance services.
- The number of variables used to compute the indicator should be kept to a minimum. The greater the number of variables, the greater the impact of missing data; and the increased risk of individuals becoming identifiable in the indicator. Too complicated a model may inadvertently imply a degree of precision that is not appropriate given the other influences on demand for services.

Where to find out more

This resource is a short summary. More detail on the design of NLAS indicators is available [here](#). View the distribution of NLAS counts and rates across Australia in the [NLAS Dashboard](#)

STEP

1

What are the financial criteria for receiving public legal assistance services?

- Public legal assistance services may be targeted at those most in need, including by applying a qualifying financial means test. Providers might differ in their qualifying financial criteria, and may set different criteria depending on the resource intensity of the services offered.
- Census data on income, sources of income such as government benefits, and housing tenure, can be used to provide an approximation of a qualifying test, even if it isn't possible to precisely replicate the criteria (especially as income is usually recorded as a banded category rather than actual values).
- Where **household income** is used, equivalised estimates take account of household size/composition and its impact on spending power of individuals within the household.
- Alternatively, using **personal income** may include in the indicator people on low or nil income who live in privileged households, and therefore incorrectly inflate the estimates of demand for services. However, these people may have no access to funds should they require the assistance of a lawyer, for example in a family dispute. This group with potential vulnerability and need in specific circumstances would not be included in an indicator based on household income.

STEP

2

What factors related to legal need are captured in the census?

- Legal needs surveys and other research identify socio-demographic characteristics that are associated with increased legal need more broadly. Where these are collected by a census, they can be used to design indicators.
- Concepts like the personal capability to manage issues are more complex and nuanced and not directly measured by a census. However, some variables can relate to aspects of capability. For example, self-efficacy is related to educational attainment (*see note 1*).
- Some legal assistance services are targeted at specific groups that have a well-defined socio-demographic profile. For example, organisations providing court-based services for criminal defendants would have a different target client profile than one for victims of family violence.

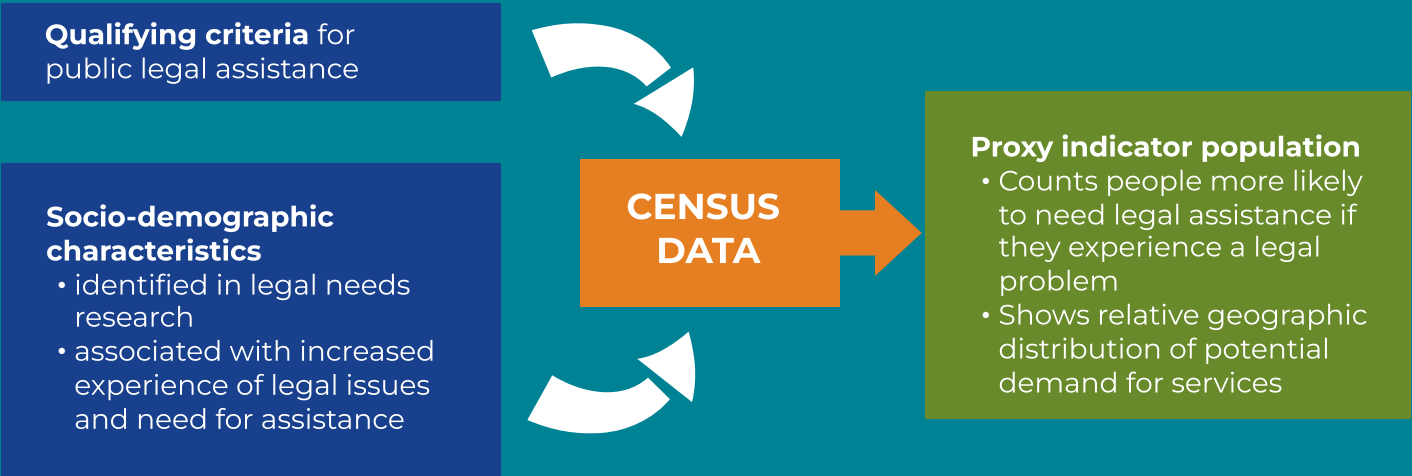
Examples of census variables that may be valid indicators of need for legal assistance services	
Age	Gender
Income	Education level
Ethnic/cultural background	Years of residence in country
Language ability	Housing status
Gender/sexual identity	Family status
Other cultural or faith-based indicators	

STEP

3

Which geographic structures most closely align to legal assistance resource planning?

- Indicator counts can be computed for multiple geographic structures. Depending on the available geographies, it may be feasible to compute counts for states, regions, administrative localities, and separately for regional and metropolitan areas.
- While indicator counts for smaller areas may reveal concentrations of legal need, it should be remembered that census data is based on place of residence, which is not necessarily where legal assistance will be accessed in practice.



STEP 4 Is it necessary to correct for missing data?

- Not everyone completes a census, and not everyone who does so provides information for every question. Census data is often cleaned by imputing missing data on key variables, such as age and gender, or using administrative sources to fill gaps. If any of the variables used to construct the indicator is not corrected for missing data, any person for whom there is missing information will be excluded from the indicator.
- Where missing data is proportionately equivalent across geographic areas, this is not likely to be a concern when comparing relative demand for services. But it becomes problematic where missing data impacts some geographies/areas more than others, such as the more disadvantaged (*see note 2*).
- Various statistical methods can correct for missing data. Advice should be sought on which is most appropriate for the local circumstances.

STEP 5 Compute the counts of potential demand

- Within each geographic structure, compute indicator counts for each of the groups meeting the criteria, and sum together to provide a total count.
- Updating counts between census years may be achieved by multiplying the indicator's rate for a specific geographic area with a revised population count for that same area.
- Indicator definitions should be reviewed at each census data release to adjust for changes in cost of living, financial qualifying criteria, and/or the impact of other cohort changes.
- Direct comparisons of the indicator counts between census years may not be meaningful, due to the interaction between shifting age cohorts and variables such as income and education.

STEP 6 Conduct a sense check

- Once the counts are computed, engage with stakeholders and service providers to sense-check who is included in the indicator.
- The financial qualifying criteria will impact the age and gender profile of the indicator population. For example, it may include a disproportionate number of older people and inadvertently focus generalist legal assistance resources on retirement areas where the type of legal need may be more narrowly focused. Definition adjustments may therefore be necessary.



The size, spread and concentration of the indicator population can be analysed and mapped to inform legal assistance service planning.

Example: NLAS(Capability)

In this example, data from the Australian Bureau of Statistics (ABS) 2021 Census is used for all steps. It is retrieved from the ABS interactive platform TableBuilder Pro, using the dataset 'Counting Persons, Place of Usual Residence'.

Step 1: Compute NLAS(Capability) raw counts	
These comprise three cohorts with respective age group and education level.	
Cohort 1	Persons aged 15 to 44 AND Highest year of school completed is Year 12 or below AND Non-school qualifications are no higher than Certificate 2 AND Not a full-time or part-time student AND Total personal income is less than \$33.8k per year
Cohort 2	Persons aged 45 to 54 AND Highest year of school completed is Year 11 or below AND <i>Other three criteria as above</i>
Cohort 3	Persons aged 55 to 64 AND Highest year of school completed is Year 10 or below AND <i>Other three criteria as above</i>
The sum of cohorts 1 to 3 make up NLAS(Capability) raw counts.	
Step 2: Compute NLAS(Capability) population base	
This is the general population for which data is available for all above variables.	
	Persons aged 15 to 64 AND Highest year of school completed is stated AND Non-school qualifications are stated AND Student status is stated AND Personal income is stated
Step 3: Calculate NLAS(Capability) rate	
Divide the raw population (the sum of the three cohorts from Step 1) by the population base (from Step 2).	
Step 4: Compute NLAS(Capability) population base (aged 15 to 64)	
	Persons aged 15 to 64
Step 5: Calculate final NLAS(Capability) population counts	
Multiply the above rate (from Step 3) by the resident population aged 15 to 64 (from Step 4).	
Note that steps 2 to 5 are designed to correct for missing data by assuming proportionality in the missing counts. The proportion of residents meeting the indicator criteria for whom there was complete data is applied to the total resident population count, which includes people for which there was missing data. Other statistical methods to consider include modelling and probabilistic imputation.	

Notes

1. The OECD Programme for International Student Assessment (PISA) assesses the proportion of near school leavers that have acquired the knowledge and skills for participation in modern society, and where this level of attainment has been mapped to local educational qualifications, this can provide a useful indicator of personal capability. However, the assessment of educational attainment can be complicated by historical changes due to educational policies, such as school leaving ages and support for vocational and university education. It may be appropriate, therefore, to adjust the way educational attainment is included as a variable for different age cohorts.
2. If the proportion of the population with missing data is greater in areas of disadvantage, unless some form of correction is made for this, a comparison of the counts between areas will under-estimate legal need in areas of disadvantage, relative to more advantaged areas. However, if the proportion of missing data is not related to potential drivers of legal need, such a correction is not necessary as even though this impacts absolute counts, the relative comparisons between geographic areas will not be affected.