Statistical standard for number of rooms/bedrooms

Rationale

A question on the number of rooms/bedrooms in a private dwelling is common in household surveys. A question on the number of rooms is mandatory for the Census of Population and Dwellings.

The number of rooms/bedrooms variable provides a measure of the size of a private dwelling, and in conjunction with the number of usual occupants, provides an indication of crowding and space utilisation in private dwellings.

Definition

Room

A room is defined as a space in a dwelling which is used, or intended for habitation, and is enclosed by walls reaching from the floor to the ceiling or roof covering. Service areas are excluded.

The total number of rooms includes habitable spaces such as bedrooms, kitchens, dining rooms, living rooms, lounge rooms, studies, games rooms, studios, hobby rooms, habitable cellars and attics. However, service areas such as pantries, hallways, spa–rooms, walk–in wardrobes, corridors, verandas, garages, laundries, toilets and bathrooms should not be counted as rooms for the purpose of this standard.

If a dwelling is built in an open-plan style, then room equivalents should be counted as if they had walls between them.

Room equivalents should not be counted for one roomed dwellings (ie bed-sitting rooms). A one–roomed dwelling should be counted as having one room only.

Ideally, habitable rooms should be at least two metres in height and of at least four square metres in area. However, due to operational difficulties outlined below this is not a critical requirement of this standard. Service areas are excluded from the count of rooms even if they meet the criteria concerning walls and floor space.

Dwelling, dwelling type, private dwelling and service area are supporting concepts for number of rooms and are defined in the Glossary.

Bedroom

A bedroom is defined as a room in a dwelling which is used, or intended for sleeping in. The following rules apply:

A room is considered to be a bedroom if it is furnished as a bedroom even if it is not being used at the time of the data collection. A room furnished as a bedroom should include a sleeping facility such as a bed or mattress, and could include items such as a dresser and chest of drawers.

Room equivalents should not be counted for one roomed dwellings (ie bed–sitting room). A one–roomed dwelling should be counted as having one bedroom and therefore one total room.

A sleepout adjacent to a private dwelling should be counted as a bedroom if it is used and/or furnished as a bedroom *and* is occupied by members of the same household as occupy the dwelling.

A caravan adjacent to a private dwelling should be counted as a bedroom only if it is used as a bedroom *and* is occupied by members of the same household as occupy the dwelling.

A room (such as a living room) that is used as a bedroom at night, either short–term or long–term, should not be counted as a bedroom unless the *only* bedroom facilities in the dwelling are in that room. If the only bedroom facilities in a dwelling are in a room that is also used for another purpose, (ie in a living room), this room should be counted as a bedroom.

Dwelling, private dwelling and furnished bedroom are supporting concepts for number of bedrooms and are defined in the Glossary.

Operational issues

The United Nations specifies that ideally a room should be at least two metres in height and of at least four square metres in area. In practice however this requirement is difficult to implement. Respondents often may not know the exact or even the approximate size of each room. Training enumerators or expecting respondents to calculate room size would be complicated and prone to inconsistencies.

The criteria for calculating habitable rooms contained in the standard definition is sufficient to ensure an accurate and practical calculation without the need for strict size criteria. The majority of habitable rooms, which conform to the criteria contained in the standard definition, will be of at least two metres in height and of at least four square metres in area.

In self–completion questionnaires, data quality may be compromised if respondents do not apply the definition of number of rooms/bedrooms correctly. For example, respondents may include service rooms such as bathrooms in their count of the number of rooms, or they may not include sleepouts used as bedrooms in their count of the number of bedrooms.

Explanatory notes

Alternative dwelling size indicators

Number of rooms/bedrooms is the variable that provides an indication of the size of a dwelling. It has been suggested in the past that information on the total floor area of a dwelling would provide a better indicator of the size of a dwelling than the number of rooms/bedrooms.

However, respondents may not know the exact or even approximate area of the dwelling they occupy and training interviewers

to calculate the floor space would be complicated and prone to inconsistencies. Calculation of total floor area would also increase respondent burden as the majority of respondents would have difficulty providing this information without consulting official documentation such as the rental agreement and title.

Exclusion of service areas

Service areas, such as bathrooms, toilets and laundries, are excluded from the count of the number of rooms because they are not considered to reflect the living area available to household members. This is consistent with the recommendations of the United Nations.

Number of other rooms derivation

Subtracting the number of bedrooms from the number of rooms can derive the number of other rooms in a dwelling. Note: Service areas are not counted as rooms.

Crowding in households

Crowding in households relates to situations where the number of people residing in a household exceeds the capacity of the household to provide adequate shelter and services to its members.

The simplest measures of crowding provide comparisons between numbers of people and either rooms or bedrooms. There is no consensus however, in defining the point at which a dwelling may be considered crowded.

Crowding is extremely subjective and likely to vary largely according to context. Complex combinations of criteria such as age, gender and relationships can be given varying emphasis when studying the rooms/bedrooms to people ratio. Thus definitions vary between surveys and between international organisations.

There is no contemporary official statistic or index of household crowding in New Zealand. However, the Housing Improvement Regulations of 1947 does have an official definition of overcrowding which specifies an approved number of people per bedroom, taking into account their age, sex and relationship, relative to bedroom size. In the majority of surveys however, bedroom size is not calculated, thus these rules cannot be applied.

The 'adult equivalent' concept can be applied in crowding measures. For example, one crowding index weights each individual who is in a couple relationship as one half, as well as children aged under 10 years:

Crowding index = [1/2 (number of children under 10 years) + (number of couples) + (all other people aged 10 years and over)] / number of bedrooms

Crowding indicators which take into account both household size and composition have been used in Australia, Canada and the United Kingdom. The Australian Bureau of Statistics (ABS) has used a definition known as the Canadian National Occupancy Standard, developed by the Canada Mortgage and Housing Corporation. The Canadian model provides a measure of bedroom occupancy in a dwelling, which can be related to personal and household characteristics.

In the Canadian model, households are considered over crowded where the following standard cannot be met:

- there should be no more than two people per bedroom
- children less than 5 years of age of different sexes may reasonably share a bedroom
- children 5 years or older of the opposite sex should not share a bedroom
- children less than 18 years of age and of the same sex may reasonably share a bedroom
- household members 18 years of age or over should have a separate bedroom, as should parents or couples.

Different crowding measures are therefore applied, both in New Zealand and overseas. The application of a consistent definition of crowding may be an area of interest for the future.

Classification criteria

The criterion used to place a dwelling into the classification is the number of rooms or bedrooms stated by the respondent.

Classification

Number of rooms and number of bedrooms are both flat classifications. Excluding residual categories number of rooms has 20 categories whereas number of bedrooms has 14.

The residual categories are defined in the Glossary.

Number of rooms

Classification	Number of Rooms – Standard Classification
Abbreviation	ROOMS
Version	V2.0
Effective date	01/04/1999

Number of bedrooms

Classification	Number of Bedrooms – Standard Classification
Abbreviation	BEDROOMS
Version	V1.0
Effective date	01/04/1999

Questionnaire module

Requirements

The questionnaire modules for both rooms and bedrooms must obtain an integral number of rooms or bedrooms. The

provision of instructions on which spaces in a dwelling should be counted as rooms or bedrooms is critical to ensure the correct and consistent calculation of the number of rooms or bedrooms.

Instructions for calculating rooms should address:
- the inclusion of habitable rooms (inclusions should be listed)
- the exclusion of service areas (exclusions should be listed)
- the treatment of spaces in open–plan dwellings
- the treatment of room equivalents
- the treatment of one–roomed dwellings

Instructions for calculating bedrooms should address:
- the inclusion of rooms which are furnished as bedrooms
- the inclusion of sleepouts when furnished and/or used as bedrooms and occupied by members of the same household as the dwelling
- the inclusion of caravans when used as bedrooms and occupied by members of the same household as the dwelling

- the treatment of room equivalents
- the treatment of rooms used for dual purposes
- In self-completion questionnaires, instructions should ideally be included in the question text, however if space on the questionnaire is limited, the provision of instructions in attached help notes is beneficial.
- In an interview situation the use of prompt cards listing instructions on which spaces in a dwelling should be calculated as rooms or bedrooms is recommended. The interviewer may help the respondent to identify those rooms which should be counted in the data collection and with the permission of the respondent may be able to sight any rooms which are difficult to define and thereby discern their status.
- Only two blank boxes are necessary for recording the number of rooms or bedrooms because (a) the classifications for number of rooms and bedrooms extend only to '20 or more' and '14 or more' respectively, and (b) the majority of private dwellings will have less than 100 rooms or bedrooms.

Example
Rooms
The questionnaire module below is an example that meets the requirements documented in this statistical standard. Other questionnaire modules may vary in format but should conform to the requirements contained in this statistical standard.

Help notes
In an open-plan situation, count rooms such as dining rooms and living rooms in the same way as you would if they had walls between them.

If this is a one-roomed dwelling put 1 .

Bedrooms
The questionnaire module below is an example that meets the requirements documented in this statistical standard. Other questionnaire modules may vary in format but should conform to the requirements contained in this statistical standard.

Help notes
If the ONLY bedroom facilities in this dwelling are in a room that is used for another purpose, as, for example, in a bed-sitting room, count this room as a bedroom and put 1.

Count rooms that are furnished as bedrooms. But do not count a room such as a living room that is used as someone's

bedroom at night, either short-term or long-term, unless the ONLY bedroom facilities in this dwelling are in that room.

Standard output

The following standard output sets are for use in tables published by Statistics New Zealand (Statistics NZ). Note: this does not include customised output requested by clients or descriptive information in Statistics NZ publications. Totals and sub–totals may be included in tables as subject matter areas see fit.

Number of rooms – Top category aggregation

This output set is the same as the classification for number of rooms, however the top input variable categories are aggregated to form a '10 or more rooms' category in order to protect the confidentiality of these respondents. The residual categories may be output separately or combined. Where a combination item of residuals is to be used in output, this item should be labelled 'not elsewhere included' and should have a footnote indicating its composition.

The residual categories are defined in the Glossary.

Number of rooms for cross tabulations

Alternatively, when output is used in cross–tabulations, to protect the confidentiality of respondents the top input variable categories can be aggregated to for a '7 or More Rooms' output category. Again the residual categories can be output seperately or aggregated.

Number of bedrooms – Top category aggregation

This output set is the same as the classification, however the top input variable categories are aggregated to form a '10 or more bedrooms' category in order to protect the confidentiality of these respondents. The residual categories may be output separately or combined. Where a combination item of residuals is to be used in output, this item should be labelled 'not elsewhere included' and should have a footnote indicating its composition.

The residual categories are defined in the Glossary.

Number of bedrooms for cross tabulations

Alternatively, when output is used in cross–tabulations, to protect the confidentiality of respondents the top input variable categories can be aggregated to for a '5 or more bedrooms' output category. Again the residual categories can be output seperately or aggregated.

Related classifications and standards

New Zealand

Related standards

Number of rooms/bedrooms is only asked of people in occupied private dwellings, which includes temporary private dwellings like park benches and bridges. The standard for dwelling type is currently being reviewed and it is proposed that the 'temporary private dwelling' division be further defined by the addition of a separate category for 'roofless and/or rough sleepers'. This separate category will solely cover those who sleep on the streets or other public areas, at the time of a survey and have no other place of usual residence. (Inclusions: park bench, bus shelter, under bridges, in the park, train station, and doorways). Dwelling characteristics for 'rough sleepers' such as number of rooms/bedrooms will then either (a) be excluded if collected, or (b) not be collected at all.

Users of the standard

Users of the standard for number of rooms/bedrooms include Housing New Zealand, the Ministry of Health, and the Ministry of Education, Area Health Boards, the Department of Social Welfare, town planners, local authorities, and real estate agents.

International

Rooms and bedrooms

The standard definition for number of rooms is based on United Nations recommendations. The standard is consistent with the United Nations in that the number of rooms includes spaces intended for habitation, and excludes service areas. (The United Nations uses the term 'utility room' rather than 'service area', however the coverage is the same.)

The United Nations defines a bedroom as "a room equipped with a bed and used for night rest". The definition of bedroom contained in this standard is more extensive in detail than that of the United Nations. In the standard definition, a room is considered to be a bedroom if it is furnished as a bedroom even if it has never been used or is not being used at the time of the data collection. The standard definition also allows for a 'sleeping facility' (this could be a bed, a mattress or even a mat), and incorporates guidelines for calculating the number of bedrooms in difficult situations (such as a bed–sit).

Business rooms

The United Nations recommends that rooms used exclusively for business or professional purposes should be counted separately, as it is desirable to include them when calculating the number of rooms in a dwelling but to exclude them when calculating the number of people per room. In the standard, rooms used exclusively for business and professional purposes are included in the number of rooms, but are not calculated separately.

A separate count for rooms used for business and professional purposes has not been identified as a priority in New Zealand at present. The introduction of a standard for the number of business rooms variable presents difficult issues which require investigation in a New Zealand context. Many private dwellings do not have rooms allocated solely for business purposes; these rooms often double as studies, store rooms and even bedrooms. The inclusion of a separate count for rooms used exclusively for business or professional purposes may, however, be an area of interest for the future.

Glossary

Crowding in households

Crowding in households relates to situations where the number of people residing in a household exceeds the capacity of the household to provide adequate shelter and services to its members.

Dwelling

A dwelling is any building or structure, or part thereof, that is used (or intended to be used) for the purpose of human habitation. It can be of a permanent, temporary or even mobile nature and includes structures such as motels, hotels, hospitals, prisons, motor homes, huts, and tents.

At the highest level, dwellings are classified as private or non–private. A private dwelling accommodates a person or a group of persons, but is not available to the public. Included are: houses, flats, and apartments; residences attached to a business or institution; baches, cribs and huts; garages; caravans, cabins and tents; vehicles; vessels; or dwellings of the above types that are under construction.

All other dwellings are non–private and are available to the public. They may be available for use generally, or by virtue of occupation or study, special need, or legal requirement. Such dwellings may have facilities (such as a dining room) that are for shared use. These dwellings include: hotels and motels; guest houses and boarding houses; hostels; public and private hospitals; homes for the elderly; educational, welfare, religious and charitable institutions; prisons and penal institutions; defence establishments; work camps, staff quarters and seasonal quarters; motor camps; and other communal dwellings. If this type of accommodation includes units that are designed for the exclusive use (temporarily) of one or more persons, the units are considered to be part of the non–private dwelling and not separate non–private dwellings. Private residences that are attached to non-private dwellings are, however, considered to be separate private dwellings.

Dwelling occupancy status

Dwelling status refers to one of the categories of dwellings as selected by the enumerator or interviewer. These categories are based on whether the dwelling is occupied or not and why it is unoccupied.

Dwelling type

Dwelling type refers to one of the categories of dwellings as selected by the responding unit. These categories are based on the structure and function of the dwelling and include private and non-private dwellings.

Furnished bedroom

A room furnished as a bedroom should include a sleeping facility such as a bed, mattress or mat, and could include items such as a dresser, and/or wardrobe, and/or chest of drawers.

Non-private dwelling

Non–private dwellings are available to the public. They may be available for use generally, or by virtue of occupation or study, special need, or legal requirement. Such dwellings may have facilities (such as a dining room) that are for shared use. These dwellings include: hotels and motels; guest houses and boarding houses; hostels; public and private hospitals; homes for the elderly; educational, welfare, religious and charitable institutions; prisons and penal institutions; defence establishments; work camps, staff quarters and seasonal quarters; motor camps; and other communal dwellings. If this type of accommodation includes units that are designed for the exclusive use (temporarily) of one or more persons, the units are considered to be part of the non–private dwelling and not separate non–private dwellings. Private residences that are attached to non-private dwellings are, however, considered to be separate private dwellings.

Private dwelling

A private dwelling accommodates a person or a group of persons, but is not available to the public. Included are: houses, flats, and apartments; residences attached to a business or institution; baches, cribs and huts; garages; caravans, cabins and tents; vehicles; vessels; or dwellings of the above types that are under construction.

Private residences that are attached to non-private dwellings are, however, considered to be separate private dwellings.

Where the are shared cooking facilities, occupants should generally be regarded as flatmates, boarders or lodgers in common; and only one dwelling from should be completed.

Single room apartment: A single-room apartment that is not self–contained at least in respect of sleeping or cooking facilities is not regarded as a separate dwelling.

Note: A private dwelling with more than 5 boarders or lodgers should be classified as a boarding house (a non–private dwelling).

Service area

A service area may be:
- equipped with appliances for washing, ironing and other domestic work
- used for storage
- used as a thoroughfare
- used mainly for purposes other than 'habitation' (ie a room which is not considered to provide actual 'living space')

Service rooms and areas include: pantries, hallways, garages, spa-rooms, walk-in wardrobes, corridors, verandas, laundry rooms, boiler rooms, toilets and bathrooms.

Residual categories

Don't know

Use of this category is discretionary. The use of a category capturing don't know responses is most applicable to household surveys where don't know may be a legitimate response to certain questions.

Refused to answer

This category is only used when it is known that the respondent has purposefully chosen not to respond to the question. Use of this residual category in processing is optional. Its use is most applicable in face–to–face or telephone interviews, but may be used in self–completed questionnaires if the respondent has clearly indicated they refuse or object to answering the question.

Response unidentifiable

This category is used when there is a response given, but:
1. the response is illegible, or
2. it is unclear what the meaning or intent of the response is – this most commonly occurs when the response being classified contains insufficient detail, is ambiguous or is vague, or
3. the response is contradictory eg, both the yes and no tick boxes have been ticked, or

4. the response is clear and seemingly within the scope of the classification but can not be coded because no suitable option (particularly other residual category options such as 'not elsewhere classified' or 'not further defined') exists in the classification or codefile.

Response outside scope
This category is used for responses that are positively identified (ie the meaning and the intent are clear) but which clearly fall outside the scope of the classification/topic as defined in the standard.

Not stated
This category is <u>only</u> used where a respondent has not given any response to the question asked, ie it is solely for non–response.

References

Statistics New Zealand (1997). *Census 1996: Housing* , Wellington.

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United Nations (1998). *Recommendations for the 2000 Censuses of Population and Housing in the ECE Region* , Brussels.