



## How New Zealanders Spend their Time and How We Classify It

Paper presented at the International Association of Time Use Researchers  
conference,  
at Sydney, Australia,  
1–3 December 2008

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## **Abstract**

An important contribution of time use surveys is that they give a picture of how people lead their daily lives, by providing detailed information about how people spend their time on different economic and non-economic activities. The activity classification is what categorises all these different activities into groups. It is the essential building block for the information that comes out of the survey. New Zealand's first time use survey was conducted in 1998–99. Now, 10 years on Statistics New Zealand is planning to run a second time use survey.

This paper outlines the main features of the creation of the activity classification for the next time use survey. A new classification is needed because, while the previous activity classification was structured using a relevant framework and was comparable internationally, there were issues with the structure of unpaid work activities and lack of detail at the lowest classification level for output of data. In addition, including 'who for' information inside the activity classification was problematic. The aim of the creation of the classification is to rectify these problems and improve the relevance of the classification to the needs of users, while keeping the classification comparable with the previous New Zealand Time Use Survey and other international time use surveys. This paper outlines the process of updating the classification while accounting for these sometimes conflicting needs.

## **1 Introduction**

During 1998 and 1999, Statistics New Zealand, on behalf of the Ministry of Women's Affairs, ran the first national time use survey in New Zealand. The activity classification used was based on the Australian 1997 Time Use Survey activity classification, using the Dagfinn Aas's (1982) conceptual framework, which is used by many other countries. The classification was adapted to reflect data needs and New Zealand's unique Māori culture. In 2003 the New Zealand Government approved the Programme of Official Social Statistics (POSS), which includes time use surveys run every eight to 10 years. Statistics New Zealand's second time use survey will be in the field in 2009 and 2010.

The 1998–99 activity classification was reviewed for use in the 2009–10 survey. The aim of this classification review was to ensure that the activity classification was still relevant and meeting the needs of key users, to assess whether an international classification should be used, and to ensure high comparability to the first New Zealand Time Use Survey.

The main findings of the review were that New Zealand researchers want more information on childcare, on unpaid work, and on cultural, leisure and Internet activities. The required changes were significant enough to warrant the development of a new activity classification, rather than a revision of the 1998–99 activity classification.

## **2 Creating the activity classification**

### **2.1 Consultation**

The process of creating the Activity Classification for the Time Use Survey (ACTUS) 2009–10 started with a consultation phase with end-users of time use data, including government, non-government organisations, and people within Statistics New Zealand. This consultation was focused on establishing and prioritising the information needs that the ACTUS supports.

The consultation process was started when the *Time Use Scoping Paper*, co-written by Wellington School of Medicine and Statistics New Zealand, was started. During the writing of this paper, consultation was done with end-users outside of Statistics New Zealand concerning their information needs from the survey, including the activity classification. The purpose of the paper was to provide advice to Statistics New Zealand on the options for the scope and methodology of the 2009–10 Time Use Survey. The paper, released in August 2007, examined applications of time use data in New Zealand and overseas, and the implications of these applications for the design and methodology of the 2009–10 Time Use Survey.

Once the scoping paper was finished in December 2006, the time use survey project team within Statistics New Zealand began a more in-depth consultation process with external and internal stakeholders, focusing on the information needs of each stakeholder and how these needs could be met by a time use survey. The key areas requiring improvement in the 1998–99 activity classification were childcare and formal unpaid work. Internet activities were identified as a newly emerged information need. The ability to compare data with other national time use surveys and the New Zealand 1998–99 Time Use Survey is paramount.

### **2.2 Evaluation of activity classifications**

The New Zealand 1998–99 activity classification and the international activity classifications were evaluated against the needs of key users. The international classifications evaluated were the Australian Bureau of Statistics (ABS) 2006 Time Use activity classification, the 2007 American Time Use Survey (ATUS) activity classification, the 2000 Harmonised European Time Use Survey (HETUS) activity classification, and the trial International Classification of Activities for Time Use Statistics (ICATUS) activity classification.

The evaluation focused on three points. It looked at whether the classification could provide:

- the data end-users wanted (key areas are childcare, Internet, and unpaid work)
- comparability with the New Zealand 1998–99 activity classification

- international comparability.

The evaluation showed that the best activity classification to use as the base for the upcoming time use survey was the New Zealand 1998–99 activity classification. The reason behind this decision was that none of the classifications looked at would provide all the data needs of our end-users. Therefore we needed to create a new activity classification. The New Zealand 1998–99 activity classification was the best to use as a base for the new activity classification. This is because using it would allow us to focus on adapting the activity classification to the data end-users' requirements. If we had used any of the international classifications, then we would have had to adapt the classification not only for the data end-users' requirements, but also to be comparable with the 1998–99 activity classification.

### 2.3 Primary concepts used for the NZ TUS activity classification

The primary concepts used for the New Zealand activity classification are the four main types of time proposed by Dagfinn Aas in 1982. This is because of widespread international use of these concepts for time use surveys.

Aas (1982) proposed a typology that identified four categories of time:

**1. Necessary time:** Includes activities that serve basic physiological needs, such as sleeping, eating, personal care, health and hygiene.

**2. Contracted time:** Includes paid work and regular education. Activities within this category have explicit contracts that control the periods of time in which they are performed. These activities, therefore, constrain the distribution of other activities over the rest of the day.

**3. Committed time:** Describes activities to which a person has committed him/herself because of previous acts or behaviours, or community participation. The consequent housework, care of children, shopping or provision of help to others are committed activities. In most cases, services could be bought to provide the same activity. For example, unpaid work activities, that are identified in the New Zealand Non-Profit Institutions satellite accounts, are all committed time activities.

**4. Free time:** The amount of time left when the previous three types of time have been taken out of a person's day. Many free time activities are considered leisure, but not all. Leisure time is subjective, and depends on a particular person's point of view. In fact, many activities included in committed time can be considered to be leisure activities by some people (eg gardening). The only way to obtain more free time is for contracted and committed time allocations to be changed, as the total time available in a day is constant.

All activities can be fitted within these four types of time, and the ordering above describes the priority with which the time in a day is generally allocated.

International comparability among time use surveys is usually not possible at a detailed activity level because countries tend to adapt time use classifications to reflect their own cultures and economies. However, broad international comparisons are achievable when activities and categories fit into Aas's four typologies.

## **2.4 Internal stakeholder review**

When a comprehensive draft version of the ACTUS was completed, it was passed to internal stakeholders within Statistics New Zealand to review the classification. Part of this review process involved a series of meetings (including the time use project team and the internal stakeholders) that were run to allow open discussion of any issues with the classification. These meetings raised a number of issues that needed to be resolved before a final version of the ACTUS could be agreed upon. These issues were mainly focused on the location of activities within the classification, whether or not activities were detailed enough or too detailed, and activities that were missing.

The final version, agreed upon by the internal stakeholders and the time use project team, incorporated all the major changes detailed in section 3.2 Creating the ACTUS.

## **2.5 External stakeholder review**

As ACTUS plays such an important part of the time use survey's ability to meet the data needs of our external stakeholders, it was important that the external stakeholders were given the opportunity to review the ACTUS. The difficulty with this was the large number of external stakeholders the ACTUS has. To allow all them the opportunity to review the classification would have taken more time than was available. Therefore all the external stakeholders that were viewed as key to the time use survey were asked to review the classification. To ensure wider external stakeholder buy-in, several of the non-key stakeholders were asked to review the ACTUS as well. To help them with this review, a presentation was organised at Statistics New Zealand's Wellington office to explain to external stakeholders: the background of the time use survey; the concepts used for the classification; and the major parts of the classification, including all major changes from the 1998–99 activity classification and the reasons why the changes had occurred. This presentation was also provided to those external stakeholders unable to attend the presentation in Wellington. There was general support for the ACTUS from external stakeholders, with the few changes requested being minor in nature.

## **2.6 Final sign-off**

The final sign-off for the ACTUS was by Statistics New Zealand's Standards Governance Board, which is responsible for approving all of Statistics New Zealand's standard classifications. A detailed documentation of the consultation process used to create the ACTUS was provided to the board, along with an endorsement from our classification expert.

### 3 Activity Classification for the Time Use Survey (ACTUS)

#### 3.1 Structure of ACTUS

The ACTUS contains four groups, 12 major categories, 74 third-tier categories and 129 fourth-tier categories. This compares with the 1998–99 activity classification, which contained 12 major categories, 70 second-tier categories and 91 third-tier categories. ACTUS has had a fourth level added to it with the addition of the four groups at the top of the classification. This means that the ACTUS fourth-tier and the 1998–99 activity classification third-tier are comparable. The same is true for the ACTUS third-tier and the second-tier of the 1998–99 activity classification, and also the 12 major categories in both classifications. Therefore, the most significant change is the expansion of the 1998–99 activity classification third-tier categories, with the addition of 38 more categories.

The ACTUS uses a hierarchical structure, classifying reported activities into major categories, with the additional third-tier and fourth-tier providing more detailed information by enabling greater breakdowns of the activities. The ACTUS uses a five-digit classification code for each activity, rather than the four-digit classification code used in the 1998–99 survey. The reason for adding an additional digit at the bottom level, is that it allows for more fourth-tier categories to be assigned to a third-tier category, greatly increasing the allowed level of detail for each of the third-tier categories. The first digit represents the group, the second digit the major category, the third digit the third-tier category, and the final two digits the fourth-tier category. For example, the ACTUS fourth-tier code for 'indoor cleaning' is 31211, coming under the third-tier category of 312 'indoor cleaning, laundry and other clothes care', the major category 31 'household work' and the group 3 'committed time'.

```
3      Committed time
      31      Household work
            312      Indoor cleaning, laundry and other clothes care
                    31211      Indoor cleaning
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#### 3.2 Creating the ACTUS

The ACTUS is based on the 1998–99 activity classification. This is so areas where major additions or changes to the 1998–99 activity classification can be identified (to ensure it will meet the requirements of the ACTUS).

There are two major areas in the 1998–99 activity classification, where it differs significantly from the ACTUS, that need to be focused on. These are below:

The first major difference is childcare. In the 1998–99 activity classification, childcare was included with caring for adults, so that a further breakdown was then needed between adult and child caring. Also, caring was separated by who the caring was for, so that caring for household members and non-household members were under two different major categories. In the ACTUS childcare has its own major category, because of the information needs of end-users and also the fact that childcare makes up a greater part of all caring activities than caring for adults. All caring for adults has

been grouped together as well. This is explained in greater detail further on in the paper.

The second major difference between the 1998–99 activity classification and ACTUS is the removal of the contextual descriptions within the activity classification labels. This is because the contextual information duplicated the information collected in the ‘who for’ classification. The 1998–99 activity classification included ‘who for’ information in the activity labels, as a way of differentiating between activities for the household and those for outside the household, including those activities done for formal organisations.

The ACTUS will not include contextual descriptions in the activity labels, because the inclusion of the context descriptors inside the activity classification labels leads to duplication of activities. The same activity could be located in two different categories, based solely on where or who the activity was for. For example from the 1998–99 activity classification, physical care of a child could end up in the following:

- 511 Physical care of household members
- 713 Service provision (formal)
- 721 Caring for non-household members (informal).

The ACTUS is solely focused on measuring the time taken on an activity, regardless of who it was for. The ‘who for’ classification (see appendix C) can then be used to break down the activity by who it was for. So in the ACTUS, the context (who for) has been removed from the activity classification, except for:

- childcare where the information need outweighs the problems caused by the inclusion of the context within the activity classification label.

When the ACTUS was created, the following five objectives were the main focus of the classification:

1. The classification should be simple, easy to understand, easy to operate and easy to code. The number of broad groups and subgroups should be large enough to reveal the major characteristics of activities, but should not be too large or unwieldy.
2. The classification should provide information about the types of unpaid work activities, so that these can be valued in a similar way to paid work, for compilation into the Non-profit Institutions Satellite Accounts.
3. The classification should provide statistics of sufficient relevance for the purpose for which the information is required.
4. The classification should allow researchers to examine how respondents balance work and other activities with family and leisure time, not specific occupational tasks.
5. The classification should be related to the present established time use classifications developed by different countries. This is for enhancing international comparability of time use data.

Other differences between the 1998–99 activity classification and ACTUS are set out below in following the four groups of time: necessary, contracted, committed and free time. These changes will not result in a loss of comparability to the 1998–99 TUS activity classification, except in the few instances where a category has been moved from one major category to another.

(The 1998–99 activity classification can be found in appendix A at the end of this paper. The ACTUS can be found in appendix B at the end of this paper.)

### **Necessary time**

“Refers to the activities that serve the basic physiological needs like sleep, meals and personal care, health and hygiene.” (Aas, 1982, p30).

Personal care:

There has been the addition of ‘sleeplessness’ as a third-tier category. This category will measure insomnia and the amount of time respondents spend in wakeful or restless periods during the night. This is a standard category in the 2006 ABS time use activity classification. In the 1998–99 activity classification ‘sleeplessness’ was part of the ‘sleeping’ third-tier category.

### **Contracted time**

“These are activities for which explicit contracts are made, usually for long periods of time. Such contracts constrain the rest of the day markedly, particularly because these activities take place outside of home.” (Aas, 1982, p31).

Labour force activity:

In keeping with the 1998–99 activity classification and international practice, very little detail is included on respondents’ activities at work. While collecting the amount of time spent at work is important in an activity classification, work tasks are so varied that developing a coding classification that could handle them all would be difficult to develop.

The category ‘education or training in work time’ has been moved from its own second-tier category in the 1998–99 activity classification to within the ‘work for pay or profit’ third-tier category, and the name of the category has been changed to ‘education or training paid for by employer’. This was done to more accurately reflect what the activities coming under this category actually were. It is also our view that training paid for by the employer should be counted as a work activity.

Education and training:

The ‘work-related training not in work time’ third-tier category has been moved into the ‘labour force activity’ major category. It is our view that all work-related activities should come under the ‘labour force activity’ major category.

## Committed time

“Refers to very different activities that we most often are committed to do because of other earlier acts and behaviours. Getting married, having children, and setting up a household are examples of such acts. The consequent amount of housework, care of children and shopping are all activities falling under the heading of committed time.” (Aas, 1982, p31).

### Household work:

The second-tier category 'production of household goods' has been moved within the household work major category to sit under the 'home maintenance' third-tier category. The reason for this change is that, it can be logically said that the production of household goods is linked to the maintenance of the home and household goods. This change brings us more into line with the ABS 2006 time use activity classification, which has making clothes under its 'laundry and clothes care' category, and the making of household goods under its 'home maintenance' category. Due to the small numbers of episodes recorded in the 1998–99 TUS for these categories, we have decided to leave all production of household goods in one category, rather than splitting as was done in the ABS 2006 time use activity classification.

The 1998–99 TUS second-tier category 'gathering and collecting food for household consumption' has been split into two categories. The first 'harvesting domestic produce' covers the gathering of food from any fruit trees and gardens the household has. The second 'hunting and fishing' covers the gathering of food that is often viewed as a leisure activity, such as pig and deer hunting, and fishing. With splitting the second-tier category, the 'harvesting domestic produce' category has been moved under the third-tier category 'grounds maintenance and animal care', as the activity of harvesting food from plants you have been maintaining is a highly-linked activity, and can be seen as the end action in the process of caring for and maintaining fruit trees and edible plants. 'Hunting and fishing' has been moved to its own third-tier category under sports and hobbies.

### Childcare:

Under ACTUS, we have gone from the 1998–99 activity classification, which splits caring for those inside the household from caring for those outside the household, to splitting caring for children from caring for adults. This change comes from a recommendation that the NZ 2009–10 activity classification focus more on the care of children (*Time Use Survey Scoping Paper*). With the 'who for' classification being used, the activity classification does not need to be split between those in the respondent's household and those outside the household. This means, for example, with the 1998–99 activity classification, an activity of 'physical care of child' for a child in the household, would be coded to 'physical care of household members'. To find out if the caring was done for a child, you would have to cross-examine the activity with the 'who for' classification. If you wanted to know how much time was spent on physical care of children, you would need to look at two different categories – one for household members and one for non-household members, as well as look at the 'who for' classification for those two categories. With the ACTUS, all the information needed is in one category – 'physical care of children'. This can then be split into household and non-household, using the 'who for' classification. This means that all the information available using the 1998–99 activity classification is still available, as

the information has simply been reorganised. With these changes, it is easier for data end-users to get the information they want on childcare, without having to first try and separate the data into adult care and childcare. By having a separate major category for childcare, one for more childcare-specific activities can be added to provide more detailed information.

#### Purchasing goods and services:

There has been a change to the 'purchasing goods and services' major category. For the New Zealand 1998–99 activity classification, purchasing of goods and services was split according to who the purchasing was being done for. This means for example, if a respondent went to a supermarket to buy groceries for themselves as well as for a neighbour, this activity was coded under two classification categories: 'purchasing goods and services for the household' and 'helping a non-household member'. In the new classification, the activity of purchasing goods and services, regardless of who the respondent is buying for, can be recorded in one major category. The contextual classification of 'who for' can then be used to obtain information on the amount of time spent purchasing goods for the respondent's household or for another household. This approach is the same as taken by the ABS in their 2006 time use activity classification, the 2007 ATUS and the 2000 HETUS activity classifications.

#### Other unpaid work:

There has been a change to this major category. Due to the changes outlined previously, this major category is now the place for unpaid work activities that do not fit into the other three major unpaid work categories. With the creation of a major category for childcare, all adult caring for household and for non-household members is now included in this major category. All adult caring has now been included together, regardless of whether the caring was for household or non-household members – that information now comes from the 'who for' classification. Also, the major category no longer includes any childcare for non-household members, or purchasing goods and services for non-household members. The name has changed from 'unpaid work outside of the home' to 'other unpaid work'. This is to clearly define that we want to include all other unpaid work that does not fit into the other three groups, such as unpaid work that is generally done just for formal organisations, and caring activities for adults.

#### **Free time**

"According to this scheme the time left over after the Necessary, the Contracted and the Committed time is taken out." (Aas, 1982, p32)

#### Religious, cultural and civic participation:

There has been an expansion in the third-tier category 'participation in ceremonies or rituals significant to Māori culture' so that attending a tangi (funeral) or a hui (meeting) will be recorded in separate fourth-tier categories. Analysis of the data from the 1998–99 TUS indicated that these were the most common activities recorded under the 'participation in ceremonies or rituals significant to Māori culture' third-tier category in that survey.

The name of the third-tier category 'attending meetings of political, citizen, fraternal, union, professional, special-interest, identity groups, etc' has been changed to 'attending meetings as an observer' to provide a clear difference between this third-tier category and the fourth-tier category 'attending a meeting as participant', as both categories seek to capture different things. Some examples of the things this category is supposed to capture are council meetings or political debates, observing what is happening, or representing themselves at such meetings. The other category is capturing time spent attending meetings as part of unpaid work, for example chairing a meeting for a sports club, or going to a council meeting representing a non-profit organisation.

#### Social entertainment:

There has been an amendment to the category 'attending performing arts as a spectator' to now include visual arts as well. This change was in response to information needs of end-users. Currently only the American Time Use Survey activity classification specifically mentions 'attending performing arts'. None of the other international classifications examined have attending visual arts as a spectator, as part of a category.

#### Sports and hobbies:

The 'playing organised sport' third-tier category now has two fourth-tier categories, which are 'playing active organised sports' and 'playing other organised sports'. Active sports include football, rugby, netball and other organised sports, including lawn bowls, pool and darts. This change was in response to information needs of end-users.

The 'exercise' third-tier category now has two fourth-tier categories which are 'exercise – gentle' and 'exercise – active'. Active exercise includes running and aerobics, and gentle exercise includes walking and yoga. This change was in response to information needs of end-users.

#### Mass media and free time:

There has been an addition of a new fourth-tier category for 'personal writing'. This new category has been added to cover a gap in the 1998–99 activity classification. This category will cover things such as writing poetry and writing in a personal diary. The ABS 2006 time use activity classification includes writing in two categories: 'arts (for poetry and novels)' and 'associated communication for recreation and leisure – written (letters and diaries)'. Unlike some other international classifications, we do not include associated communication categories in each group. We therefore needed a category that covers writing that is not used to communicate to others. Communicating with other people is included in the 'socialising and conservation' third-tier category.

The 'accessing Internet' second-tier category has changed to a generic 'other Internet use' fourth-tier category. With the introduction of new interviewer instructions aimed at getting respondents to record what they were doing on the Internet, most Internet activities will be recorded throughout the activity classification now, except where the respondent was doing generic web surfing, or refuses to say what they

were doing on the Internet. A new yes/no Internet classification has been set so that information needs on Internet activities can be better provided for.

#### **4 Summary**

The new ACTUS classification was developed in consultation with a wide range of data users. The new ACTUS classification enables comparisons both with the Time Use Survey 1998–99 and international time use surveys.

The ACTUS classification, while formally approved and sign-off by Statistics New Zealand, still needs to be tested in the field before it can be used in the 2009–10 New Zealand Time Use Survey. The field test is in March 2009, and it is expected that the classification will come through the field test well and (at the most) the classification may need some minor alterations before the survey goes into the field in September 2009.

## 5 References

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## Appendix A

### NZ 1998–99 activity classification

#### Code description

- 1 Personal care
  - 10 Personal care nfd
    - 100 Personal care nfd
  - 11 Personal hygiene and grooming
    - 111 Personal hygiene and grooming
  - 12 Sleeping
    - 121 Sleeping
  - 13 Eating and drinking
    - 131 Eating and drinking
  - 14 Private activities
    - 141 Private activities
  - 15 Personal medical care
    - 151 Personal medical care
  - 18 Travel associated with personal care
    - 188 Travel associated with personal care
  - 19 Other personal care nec
    - 199 Other personal care nec
  
- 2 Labour force activity
  - 20 Labour force activity nfd
    - 200 Labour force activity nfd
  - 21 Work for pay or profit
    - 211 Work for pay or profit
  - 22 Education or training in work time
    - 221 Education or training in work time
  - 23 Job search activities
    - 231 Job search activities
  - 28 Travel associated with labour force activity
    - 288 Travel associated with labour force activity
  - 29 Other labour force activity nec
    - 299 Other labour force activity nec
  
- 3 Education and training
  - 30 Education and training nfd
    - 300 Education and training nfd
  - 31 Formal education
    - 311 Formal education
  - 32 Work-related training not in work time
    - 321 Work-related training not in work time
  - 33 Informal education and training
    - 331 Informal education and training
  - 34 Homework or study for any course or class
    - 341 Homework or study for any course or class
  - 38 Travel associated with education and training
    - 388 Travel associated with education and training
  - 39 Other education and training nec
    - 399 Other education and training nec

- 4 Household work
  - 40 Household work nfd
    - 400 Household work nfd
  - 41 Food or drink preparation and cleanup
    - 410 Food or drink preparation and cleanup nfd
    - 411 Preserving and brewing
    - 412 Meal or snack preparation and cleanup
  - 42 Indoor cleaning, laundry and other clothes care
    - 420 Indoor cleaning, laundry and other clothes care nfd
    - 421 Indoor cleaning
    - 422 Laundry and other clothes care
  - 43 Grounds maintenance and animal care
    - 430 Grounds maintenance and animal care nfd
    - 431 Tending edible plants
    - 432 Tending domestic animals (excluding pets)
    - 433 Other grounds maintenance and pet care
  - 44 Home maintenance
    - 440 Home maintenance nfd
    - 441 Home repair or improvement
    - 442 Heating and water upkeep
    - 443 Vehicle maintenance
    - 449 Other home maintenance nec
  - 45 Household administration
    - 451 Household administration
  - 46 Production of household goods
    - 461 Production of household goods
  - 47 Gathering and collecting food for household consumption
    - 471 Gathering and collecting food for household consumption
  - 48 Travel associated with household work
    - 488 Travel associated with household work
  - 49 Other household work nec
    - 499 Other household work nec
  
- 5 Caregiving for household members
  - 50 Caregiving for household members nfd
    - 500 Caregiving for household members nfd
  - 51 Physical care of household members
    - 511 Physical care of household members
  - 52 Available for care of household members
    - 521 Available for care of household members
  - 53 Playing with household members
    - 531 Playing with household members
  - 54 Teaching household members
    - 541 Teaching household members
  - 55 Helping household members with educational activities
    - 551 Helping household members with educational activities
  - 58 Travel associated with caring or helping for household members
    - 588 Travel associated with caring or helping for household members
  - 59 Other caring or helping for household members nec
    - 599 Other caring or helping for household members nec
  
- 6 Purchasing goods and services for own household
  - 60 Purchasing goods and services for own household nfd

- 600 Purchasing goods and services for own household nfd
- 61 Purchasing goods and services
  - 610 Purchasing goods and services nfd
  - 611 Receiving health services
  - 612 Waiting for health services
  - 613 Purchasing goods and services (excluding health services)
- 68 Travel associated with purchasing goods and services
  - 688 Travel associated with purchasing goods and services
- 7 Unpaid work outside of the home
  - 70 Unpaid work outside of the home nfd
    - 700 Unpaid work outside of the home nfd
  - 71 Unpaid work (formal)
    - 710 Unpaid work (formal) nfd
    - 711 Administration (formal)
    - 712 Training and fundraising (formal)
    - 713 Service provision (formal)
    - 718 Travel associated with unpaid work (formal)
    - 719 Other unpaid work (formal) nec
  - 72 Unpaid work (informal)
    - 720 Unpaid work (informal) nfd
    - 721 Caring for non-household members (informal)
    - 722 Helping non-household members (informal)
    - 728 Travel associated with unpaid work (informal)
    - 729 Other unpaid work (informal) nec
- 8 Religious, cultural and civic participation
  - 80 Religious, cultural and civic participation nfd
    - 800 Religious, cultural and civic participation nfd
  - 81 Religious practice
    - 811 Religious practice
  - 82 Attending weddings, funerals and other ceremonies
    - 821 Attending weddings, funerals and other ceremonies
  - 83 Participation in ceremonies or rituals significant to Māori culture
    - 831 Participation in ceremonies or rituals significant to Māori culture
    - 838 Travel associated with participation in ceremonies or rituals significant to Māori culture
  - 84 Civic responsibilities
    - 841 Civic responsibilities
  - 85 Attending meetings of political, citizen, fraternal, union, professional, special-interest, identity groups etc
    - 851 Attending meetings of political, citizen, fraternal, union, professional, special-interest, identity groups etc
  - 86 Filling in time use diary
    - 861 Filling in time use diary
  - 88 Travel associated with religious, cultural and civic participation (excluding participation in ceremonies or rituals significant to Māori culture)
    - 888 Travel associated with religious, cultural and civic participation (excluding participation in ceremonies or rituals significant to Māori culture)
  - 89 Other religious, cultural and civic participation nec
    - 899 Other religious, cultural and civic participation nec

- 9 Social entertainment
  - 90 Social entertainment nfd
    - 900 Social entertainment nfd
  - 91 Attending a sports event as a spectator
    - 911 Attending a sports event as a spectator
  - 92 Attending entertainment as a spectator
    - 920 Attending entertainment as a spectator nfd
    - 921 Attending performing arts as a spectator
    - 922 Attending the cinema
    - 923 Visiting the library
    - 924 Visiting exhibitions, museums and art galleries
    - 929 Attending other entertainment as a spectator nec
  - 93 Socialising and conversation
    - 931 Socialising and conversation
  - 98 Travel associated with social entertainment
    - 988 Travel associated with social entertainment
  - 99 Other social entertainment nec
    - 999 Other social entertainment nec
  
- 10 Sports and hobbies
  - 100 Sports and hobbies nfd
    - 1000 Sports and hobbies nfd
  - 101 Playing organised sport
    - 1011 Playing organised sport
  - 102 Exercise
    - 1021 Exercise
  - 103 Pleasure drives, cruises, sightseeing
    - 1031 Pleasure drives, cruises, sightseeing
  - 104 Taking part in performing arts
    - 1041 Taking part in performing arts
  - 105 Hobbies and games
    - 1051 Hobbies and games
  - 106 Gambling
    - 1061 Gambling
  - 108 Travel associated with sports and hobbies
    - 1088 Travel associated with sports and hobbies
  - 109 Other sports and hobbies nec
    - 1099 Other sports and hobbies nec
  
- 11 Mass media and free time activities
  - 110 Mass media and free time activities nfd
    - 1100 Mass media and free time activities nfd
  - 111 Watching television or video
    - 1111 Watching television or video
  - 112 Listening to music or radio
    - 1121 Listening to music or radio
  - 113 Reading
    - 1131 Reading
  - 114 Accessing Internet
    - 1141 Accessing Internet
  - 115 Thinking, reflecting, relaxing, resting and planning
    - 1151 Thinking, reflecting, relaxing, resting and planning
  - 116 Smoking
    - 1161 Smoking
  - 118 Travel associated with mass media and free time activities

- 1188 Travel associated with mass media and free time activities
- 119 Other mass media and free time activities nec
- 1199 Other mass media and free time activities nec

## Appendix B

### ACTUS classification

#### Code description

- 1 Necessary time
  - 11 Personal care
    - 111 Personal hygiene and grooming
      - 11111 Personal hygiene and grooming
    - 112 Sleeping
      - 11211 Sleeping
    - 113 Sleeplessness
      - 11311 Sleeplessness
    - 114 Eating and drinking
      - 11411 Eating and drinking
    - 115 Private activities
      - 11511 Private activities
    - 116 Personal medical care
      - 11611 Personal medical care
    - 118 Travel associated with personal care
      - 11811 Travel associated with personal care
    - 119 Other personal care
      - 11911 Other personal care
- 2 Contracted time
  - 21 Labour force activity
    - 211 Work for pay or profit
      - 21111 Work for pay or profit
      - 21112 Work breaks
      - 21113 Education or training in work time
    - 212 Job search activities
      - 21211 Job search activities
    - 213 Work-related training not in work time
      - 21311 Work-related training not in work time
    - 218 Travel associated with labour force activity
      - 21811 Travel associated with labour force activity
    - 219 Other labour force activity
      - 21911 Other labour force activity
  - 22 Education and training
    - 221 Formal education
      - 22111 Formal education
    - 222 Informal education and training
      - 22211 Informal education and training
    - 223 Homework/study/research for any course or class
      - 22311 Homework/study/research for any course or class
    - 228 Travel associated with education and training
      - 22811 Travel associated with education and training
    - 229 Other education and training
      - 22911 Other education and training
- 3 Committed time
  - 31 Household work
    - 311 Food or drink preparation and cleanup

- 31111 Food or drink preparation and cleanup
- 31112 Preserving/freezing and brewing
- 312 Indoor cleaning, laundry and other clothes care
  - 31211 Indoor cleaning
  - 31212 Laundry, ironing and other clothes care
- 313 Grounds maintenance and animal care
  - 31311 Grounds maintenance
  - 31312 Tending edible plants
  - 31313 Pet and domestic animal care
  - 31314 Harvesting domestic produce
  - 31319 Grounds maintenance and animal care nec
- 314 Home maintenance
  - 31411 Home maintenance or improvement
  - 31412 Heating and water upkeep
  - 31413 Vehicle maintenance
  - 31414 Production of household goods
- 315 Household administration
  - 31511 Mail organisation
  - 31512 Packing away goods
  - 31513 Financial budgeting
  - 31514 Packing for journey/moving
  - 31519 Household administration nec
- 318 Travel associated with household work
  - 31811 Travel associated with household work
- 319 Other household work
  - 31911 Other household work
- 32 Childcare
  - 321 Physical care of children
    - 32111 Physical care of children
  - 322 Teaching/helping child
    - 32211 Teaching/helping child
  - 323 Playing/reading/talking with child
    - 32311 Playing/reading/talking with child
  - 324 Accompanying a child
    - 32411 Accompanying a child
  - 325 Supervising child
    - 32511 Supervising child
  - 326 Available for childcare
    - 32611 Available for childcare
  - 328 Travel associated with childcare activities
    - 32811 Travel associated with childcare activities
  - 329 Other childcare activities
    - 32911 Other childcare activities
- 33 Purchasing goods and services
  - 331 Purchasing goods
    - 33111 Purchasing non-durable goods
    - 33112 Purchasing durable goods
    - 33113 Window shopping
    - 33119 Purchasing goods nec
  - 332 Purchasing services
    - 33211 Purchasing repair services
    - 33212 Purchasing personal care services
    - 33213 Purchasing/receiving health services
    - 33214 Waiting for health services
    - 33215 Purchasing administrative services

- 33216 Purchasing childcare services
- 33219 Purchasing services nec
- 338 Travel associated with purchasing goods and services
  - 33811 Travel associated with purchasing goods and services
- 339 Other purchasing goods and services
  - 33911 Other purchasing goods and services
- 34 Other unpaid work
  - 341 Other unpaid work
    - 34111 Providing accounting or advisory service
    - 34112 Fundraising
    - 34113 Attending a meeting as participant
    - 34114 Providing emergency service
    - 34115 Coaching
    - 34116 Teaching adults
    - 34117 Environmental protection
    - 34121 Delivery and driving services
    - 34122 Security services
    - 34123 Managerial and executive work
    - 34124 Administration, secretarial or clerical work
    - 34125 Building, repairing and maintenance work
    - 34126 Arranging, organising, running events or activities
  - 342 Other unpaid caring work
    - 34211 Caring for adults
    - 34212 Accompanying an adult
    - 34213 Available for care of adults
  - 348 Travel associated with other unpaid work
    - 34811 Travel associated with other unpaid work
  - 349 Other unpaid work nec
    - 34911 Other unpaid work nec
- 4 Free time
  - 41 Religious, cultural and civic participation
    - 411 Religious practice
      - 41111 Religious practice
    - 412 Attending weddings, funerals and other ceremonies
      - 41211 Attending weddings, funerals and other ceremonies
    - 413 Participation in ceremonies or rituals significant to Māori culture
      - 41311 Attending tangi
      - 41312 Attending hui significant to Māori culture
      - 41319 Participation in ceremonies or rituals significant to Māori culture nec
    - 414 Civic responsibilities
      - 41411 Civic responsibilities
    - 415 Attending meetings as an observer
      - 41511 Attending meetings as an observer
    - 416 Filling in time use diary
      - 41611 Filling in time use diary
    - 418 Travel associated with religious, cultural and civic participation
      - 41811 Travel associated with ceremonies or rituals significant to Māori culture
      - 41812 Travel associated with religious, cultural and civic participation (excluding participation in ceremonies or rituals significant to Māori culture)

- 419 Other religious, cultural and civic participation
  - 41911 Other religious, cultural and civic participation
- 42 Social entertainment
  - 421 Attending a sports event as a spectator
    - 42111 Attending a sports event as a spectator
  - 422 Attending entertainment as a spectator
    - 42211 Attending performing or visual arts as a spectator
    - 42212 Attending the cinema
    - 42213 Visiting the library or archives
    - 42214 Visiting exhibitions, museums and art galleries
    - 42215 Visiting historic places
    - 42219 Attending entertainment as a spectator nec
  - 423 Socialising and conversation
    - 42311 Socialising and conversation
  - 428 Travel associated with social entertainment
    - 42811 Travel associated with social entertainment
  - 429 Other social entertainment
    - 42911 Other social entertainment
- 43 Sports and hobbies
  - 431 Playing organised sport
    - 43111 Playing active organised sport (football, squash, mountain biking, motorcross, etc)
    - 43112 Playing other organised sport (lawn bowls, pool, darts, tenpin bowling, etc)
  - 432 Exercise
    - 43211 Exercise – gentle (walking, yoga, tai chi, etc)
    - 43212 Exercise – active (running, aerobics, weights, etc)
  - 433 Pleasure drives, cruises, sightseeing
    - 43311 Pleasure drives, cruises, sightseeing
  - 434 Taking part in performing or visual arts
    - 43411 Taking part in performing or visual arts
  - 435 Hobbies and games
    - 43511 Playing video or computer games
    - 43512 Playing card or board games
    - 43513 Collecting stamps, coins, etc
    - 43514 Handwork, crafts
    - 43519 Hobbies and games nec
  - 436 Gambling
    - 43611 Gambling
  - 437 Hunting and fishing
    - 43711 Hunting
    - 43712 Fishing
  - 438 Travel associated with sports and hobbies
    - 43811 Travel associated with sports and hobbies
  - 439 Other sports and hobbies
    - 43911 Other sports and hobbies
- 44 Mass media and free time activities
  - 441 Watching television or video
    - 44111 Watching television or video
  - 442 Listening to music or radio
    - 44211 Listening to music or radio
  - 443 Reading or personal writing
    - 44311 Reading
    - 44312 Personal writing
  - 444 Other Internet and computer use

- 44411 Other Internet use
  - 44412 Other computer use (excl Internet)
  - 445 Thinking, reflecting, relaxing, resting and planning
    - 44511 Thinking, reflecting, relaxing, resting and planning
  - 446 Smoking
    - 44611 Smoking
  - 448 Travel associated with mass media and free time activities
    - 44811 Travel associated with mass media and free time activities
  - 449 Other mass media and free time activities
    - 44911 Other mass media and free time activities
- 9 Residual categories
- 99 Residual categories
    - 997 Response unidentifiable
      - 99777 Response unidentifiable
    - 998 Response outside scope
      - 99888 Response outside scope
    - 999 Not stated
      - 99999 Not stated

## **Appendix C**

### **'Who for' classification**

#### **Code description**

- 1 Own household (including self)
  - 10 Own household (including self) nfd
  - 11 Household member aged 0–13
  - 12 Household member aged 14+ with illness or disability
- 2 Another household or individual
  - 20 Another household or individual nfd
  - 21 Non-household member aged 0–13
  - 22 Non-household member aged 14+ with illness or disability
- 3 Organisation or group
  - 30 Organisation or group nfd
  - 31 Non-profit organisation
  - 32 Government organisation
- 7 Response unidentifiable
  - 77 Response unidentifiable