

The Post-Apartheid Income and Expenditure Series (PIES)

Metadata

Development Policy Research Unit, University of Cape Town

December 22, 2016

Version 1.0



Contents

1	Introduction	1
2	The Original Datasets	3
3	Item Matching	4
3.1	Challenges and Process	4
3.2	Income Items	6
3.3	Expenditure Items	8
3.3.1	Food (_fo)	8
3.3.2	Non-Alcoholic Beverages (_nb)	19
3.3.3	Alcoholic beverages (_al):	22
3.3.4	Tobacco products (_to)	23
3.3.5	Clothing and footwear (_cl)	24
3.3.6	Housing, water, electricity, gas and other fuels (_ho)	26
3.3.7	Household fuel (_fu)	30
3.3.8	Furniture and equipment (_fe)	31
3.3.9	Health services and medical requisites (_he)	39
3.3.10	Transport (_tr)	42
3.3.11	Communication for household purposes (_tc)	49
3.3.12	Recreation, entertainment and sport (_re)	51
3.3.13	Education (_ed)	54
3.3.14	Goods and services for routine household maintenance (_hm)	57
3.3.15	Computer and telecommunication equipment (_ct)	61
3.3.16	Newspapers, books and stationery (_np)	63
3.3.17	Restaurants and hotels (_rh)	64
3.3.18	Personal care (_pc)	67
3.3.19	Personal effects n.e.c. (_pe)	69
3.3.20	Membership fees, remittances, donations, gifts and maintenance (_fg)	70
3.3.21	Finance, insurance and banking (_fc)	71
3.3.22	Other expenditure (_ot)	73
3.3.23	All other unmatched expenditure (_xx)	74
3.4	Other items	75
3.4.1	Debts (_de)	75
3.4.2	Incomplete matches	76
4	Weights	77
5	Inflation Adjustments	78

6	The Do-Files and Data Files	80
7	Using PIES	82
8	Bibliography	83
A	Data Descriptives	85

1 Introduction

The Income and Expenditure Survey (IES) is one of the various nationally representative household surveys conducted by Statistics South Africa. Collecting detailed information on the incomes and expenditures of individuals and households in South Africa, the IES represents a key part of the suite of data available to researchers and policymakers. Critically, the main purpose of the survey in collecting detailed information on expenditures is for the updating and reweighting of the Consumer Price Index, which is used to monitor the general price level within the South African economy. As the most comprehensive survey of household incomes and expenditures in South Africa, the IESs are also extensively used in the analysis of poverty and inequality, amongst other topics.

At the time of writing, four IESs—conducted in 1995, 2000, 2005/2006 and 2010/11—have been published by Statistics South Africa. In addition, the 2008/2009 Living Conditions Survey (LCS) also contains a detailed income and expenditure module. Over the 15-year period from 1995 to 2010, there have been two major methodological changes that have complicated comparisons over time, both of which were implemented for the first time in the 2005/2006 survey. First, while the 1995 and 2000 surveys used the recall method to collect income and expenditure information from respondents, Statistics South Africa implemented the diary method from 2005/2006 onwards. Second, in line with international best practice, Statistics South Africa implemented the Classification of Individual Consumption According to Purpose (COICOP), replacing the Standard Trade Classification (STC) system that had been in place prior to 2005. The implementation of the COICOP classification meant that a number of the detailed expenditure items were shifted to new categories and sub-categories, complicating comparisons over time. At the same time that these changes were introduced, the survey went from being collected during a single visit to the household, to being collected over the course of six visits to the household.

Smaller changes in the surveys have also been implemented over time and, although the changes are relatively minor, they complicate the comparability of data from one survey to the next. One example is the simplification of the section on clothing and footwear, which significantly reduced the number of expenditure items within these categories. General information on the IES-type surveys conducted by Statistics South Africa during the post-apartheid era is detailed in Table 1.

The main objective of the Post-Apartheid Income and Expenditure Series (PIES) dataset is to try and ameliorate some of the inconsistencies that have resulted from these alterations in the survey structure, by standardising, matching, and adjusting both the information in the dataset, as well as the sampling weights. The result is a consolidated, time-consistent and item-comparable dataset that provides more accurate and nuanced interpretations of the income and consumption profiles of the South African households to be used for research and informing policies.

To this end, three sets of changes are made to the IESs in incorporating them within the PIES dataset. First, we systematically reassign and categorise the income and expenditure items from the two classification systems. Second, for a time-consistent projected population series, weights are recalculated at the margins using the population estimates from the model developed by the Actuarial Society of South Africa (ASSA). Finally, we adjust items for inflation.

Table 1: General Information on IES-type Surveys since 1995

	IES 1995	IES 2000	IES 2005/06	LCS 2008/09	IES 2010/11
Survey period	Oct 1995	Oct 2000	Sep 2005 - Aug 2006	Sep 2008 - Aug 2009	Sep 2010 - Aug 2011
Links to other surveys	October Household Survey 1995	Labour Force Survey 2000:2	n.a.	IES a module within LCS 2008/09	n.a.
Sample frame	Census 1991	Census 1996	Census 2001	Census 2001	Census 2001
Sample	29 582 households	26 263 households	21 144 households	25 075 households	25 328 households
Questionnaires	One	One	One main; four weekly diaries	One main; four weekly diaries	One main; two weekly diaries
Methodology	Recall	Recall	Recall and diary	Recall and diary	Recall and diary
Visits per household	One	One	Six	Six	Four
Classification system	Standard Trade Classification	Standard Trade Classification	Classification of Individual Consumption According to Purpose	Classification of Individual Consumption According to Purpose	Classification of Individual Consumption According to Purpose
<i>Expenditure data collection approach</i>					
Goods	Payment	Payment	Aquisition	Acquisition and payment	Acquisition
Services	Payment	Payment	Payment	Payment	Payment
Own production	Consumption	Consumption	Consumption	Consumption	Consumption

Source: Statistics South Africa (2008c, 2011, 2012a,b), and Yu (2008, p.5).

This document provides an overview of the procedures involved in creating the PIES data and describes in detail the variables contained in the PIES and the rationale for matching them according to the item definitions presented in the questionnaire. It further provides details on the adjusted person and household weights, as well as on the item-level deflation factors used.

The structure of this document is as follows. Section 2 provides details on the original data files used in constructing the PIES dataset. Section 3 discusses the process of matching items across surveys and lays out the key principles followed in this process. The section then provides detailed information on the matching of income, expenditure and other items. Section 4 details the adjustments made to the original sampling weights, while section 5 provides information on the specific inflation adjustments made. The final section (section 6) discusses the *Stata*[®] do-files and other files that form part of the PIES release.

2 The Original Datasets

The original Income and Expenditure Survey microdatasets are obtainable from Statistics South Africa, although not via the Nesstar download facility on their website. To ensure reproducibility of the results, the microdatasets as downloaded from DataFirst at the University of Cape Town. For each of the four years, the following datasets were downloaded:

1. For IES 1995:
 - IES 1995.dta
2. For IES 2000:
 - IES 2000 Domestic_v2_2001weights.dta
 - IES 2000 General_v2_2001weights.dta
 - IES 2000 Person_v2_2001weights.dta
 - IES 2000 Products_v2_2001weights.dta
3. For IES 2005/06:
 - ies 2005-2006 house_info_v2.1.dta
 - ies 2005-2006 person_income_v2.1_resshaped_datafirst.dta
 - ies 2005-2006 person_income_v2.1.dta
 - ies 2005-2006 person_info_v2.1.dta
 - ies 2005-2006 purchase_place_v2.1.dta
 - ies 2005-2006 supported_persons_v2.1.dta
 - ies 2005-2006 total_v2.1.dta
4. For IES 2010/11:
 - IES 2010-2011 House_info_v1.dta
 - IES 2010-2011 Person_Income_v1.dta
 - IES 2010-2011 Person_info_v1.dta
 - IES 2010-2011 Total_v1.dta

For the latter three surveys, the individual datasets can be merged using unique household and/or person identifiers.

All microdata manipulations are conducted using the *Stata*[®] software package. The *Stata*[®] do-files that can be used to recreate the final PIES dataset run off these datasets. However, should the user have altered the filenames, an Excel spreadsheet (Filenames.xlsx) is provided that allows the user to input their own filenames. Before running any do-files, the user should edit the filenames in this spreadsheet. Assuming the datasets have not been altered in any other way, the do-files should run correctly.

3 Item Matching¹

3.1 Challenges and Process

There are a variety of challenges and constraints in aligning the four IES datasets. The first challenge is that the surveys span a 15-year period that was characterised by an opening up of the South African economy and rapid technological change. Consequently, Statistics South Africa was forced to add items to the questionnaire for new products and remove items for obsolete products. In both instances, these changes mean that consistent detailed expenditure items across the four surveys are not always possible.

The second challenge is the change in the classification system used by Statistics South Africa, from the Standard Trade Classification (STC) to the Classification of Individual Consumption according to Purpose (COICOP). While some categories were not impacted by this change, others saw significant change. In the construction of the PIES dataset, we tried to stay as close as possible to the structure of the COICOP classification, although this was not always possible.

The overarching objective governing the matching of items across surveys is comparability. In other words, the definition used to construct the item must remain as constant as possible across the surveys. Given changing questionnaires, this is the only way to ensure that comparability is maintained.

In order to match the individual items across the four surveys every effort was made to ensure that we err on the side of caution and not force any matches. In other words, where there was any reason not to make a particular match, the match was not made in almost every instance. A number of different situations were encountered in attempting to make the matches. Perhaps the four key situations are:

1. The most straightforward matches were for items whose descriptions were identically phrased across all four surveys: in these instances, items were matched without any concerns. For example, all four surveys have the item *Bacon*, meaning that the *Bacon* item can be included as is in the PIES dataset. Importantly, though, this does not, though, apply to the ‘other’ or ‘all other items’ categories.
2. A second type of situation that was relatively straightforward to deal with occurred when encountering items that are aggregated in some surveys and disaggregated in others. Provided that there is a direct and clear link between the categories across all four surveys, these items are matched and are included in the PIES dataset in the aggregated form. For example, the 1995 and 2000 datasets include the item *Mealie rice and samp*, while the 2005/06 and 2010/11 datasets have separate items for *Mealie rice* and *Samp*. In the case of the latter two datasets, these two items are aggregated and the PIES dataset therefore includes the item *Mealie rice and samp*.

¹In this document, names of variables, expenditure items and expenditure categories are typeset as **variable name**, *expenditure item name* and “Expenditure Category Name” respectively.

3. In some instances, items appear in one or more surveys but do not have an equivalent counterpart in at least one other survey. Here some level of discretion was required. For example, in the 1995 dataset there is an item for *Shampoo*, while the other three surveys had items for *Shampoo and conditioners*. Very strictly speaking, these items should not be matched; however, closer consideration of the questionnaire suggests that respondents were unlikely to report spending on conditioners in any other item within the category and, for the sake of preserving detail, the match was made across these items. Another example is the matched variable `cds_mu`, which covers “CDs/DVDs/VCDs/Blu-Ray discs (music/movies/blank; not games/software”, a set of items subject to significant technological change over the period. In 1995, for example, DVDs did not exist, and the item in the survey covered *Magnetic tapes and disks*, while magnetic tapes were not mentioned in the latter two surveys. In this instance, the decision was made to create the match because, even though the items changed over time, had DVDs, for example, existed in 1995, they would have been included under *Magnetic tapes and disks*, while the same would have been true for magnetic tapes in later years.
4. Because of the above, catch-all *other expenditure* items present a unique challenge and have had to be considered on a case-by-case basis. Obviously, with changes in the range of items within a given category, the *other expenditure* items will vary in coverage and are therefore not considered directly comparable. This is further complicated by movements of items across categories, particular in the switch from STC to COICOP that occurred with the 2005/06 IES. In certain instances, *other expenditure* items are considered comparable where it seems unlikely that sub-items would have been categorised elsewhere in one or more of the surveys. This is particularly true within food and beverage categories. Thus, for example, the variable `othergrain_gr` is considered comparable since all expenditures on grain products that are not matched would have originally been classified in the *Other grain products* item, and not elsewhere.

Items where matches were deemed not possible were not, however, omitted from the PIES dataset. Instead, a set of items is included that consolidated various types of unmatched items. These include items for unmatched goods, unmatched expenditures on financial services, unmatched expenditures on taxes, and unmatched debts. Although these items are created for each of the surveys, they are not comparable across surveys in and of themselves. If, however, we assume that total expenditure is comparable across the surveys (i.e. that each survey indeed correctly captured total expenditure), and if all our other matches are correct, then at least the `Unmatchedexp` variable (*TOTAL: All other unmatched expenditure*) should be comparable over time.

In the end, the overall result of the matching process is a loss of detail. At best, matches were direct and the level of detail is preserved; in many instances, though, items are combined into less detailed variables, while unmatched items are consolidated in a single catch-all variable.

3.2 Income Items

Income (_inc):

Main source sections:

1995	2000	2005/06	2010/11
22.1 Regular Income	24.1 Regular Income	19.1 Regular income for the previous month	18 Particulars of Income
22.2 Other Income	24.2 Other Income	19.2 Regular income for the 11 months prior to the survey month	1 Household composition and particulars of each person in the household
		19.3 Other income for the past 12 month, including the survey month	

Matched variables:

p_wages_inc: Salary, wages; income from business - IND
 p_oap_inc: Social Grants: Old age pension; war veterans grants - IND
 p_dg_inc: Social Grants: Disability grant - IND
 p_othgrants_inc: Social Grants: Family and other allowances (incl CSG) - IND
 p_Work_inc: SUBTOTAL: Income from work - IND
 p_Grants_inc: SUBTOTAL: Social grants - IND
 wages_inc: Salary, wages; income from business
 oap_inc: Social Grants: Old age pension; war veterans grants
 dg_inc: Social Grants: Disability grant
 othgrants_inc: Social Grants: Family and other allowances (incl CSG)
 Work_inc: SUBTOTAL: Income from work
 Grants_inc: SUBTOTAL: Social grants
 Allother_inc: SUBTOTAL: All other income
 TOTAL_INC: TOTAL: All income

Notes:

All four of the surveys include for information on incomes at both the individual and the household level. For example, a particular survey may ask individual respondents about their wage or salary income, while asking households about their income received from boarders. We have tried to keep as much of the detail on both individual and household incomes in the final dataset.

Unfortunately, the 2010/11 IES saw the introduction of a significant change in the extent to which the survey tries to collect detailed income data, with Statistics South Africa no longer trying

to collect any detail beyond wages and social grants. This has resulted in a significant loss of detail in the aligned PIES dataset. Specifically, the 2010/11 IES asks:

- Individuals about their wage/salary income;
- Individuals whether or not they receive particular social grants; and
- Individuals how much income they receive from all other sources, including income from investments and in the form of remittances.

In the 2005/06 dataset, income on data is located in two different files, one for individuals and the other for households. Individual-level income data is recorded in 16 variables in nominal terms. The household-level income data includes variables that sum incomes across all individuals within each household for each of these 16 variables; these values are, though, recorded in real terms. According to the survey metadata, the conversion to real values is done at the household level and real values at the individual level are not included in the released dataset. While investigation of the data suggests that the conversion factors used across income items are identical, the individual-level income data includes no imputations, while the household-level income data does include imputations. Instead of trying to resolve these differences between the individual- and household-level income data, we have decided not to deflate the individual-level data or remove imputed values from the household-level data, leaving the decision on how to deal with this issue to the user.

Variables with the `p_` prefix are individual-level incomes. The variables `p_wages_inc` and `wages_inc` consist of all income earned from employment or self-employment. The need to combine wage/salary income with business income arises from the decision in the 2010 IES to combine these two income types in a single question (“What is ...’s total salary/wage and/or income from business for the 12 months prior to the survey period? Including overtime, allowances and bonuses, before any tax or deductions.”). In terms of income from social grants, it is only possible to create two detailed pairs of variables that are consistent over time: the first pair (`p_oap_inc` and `oap_inc` captures income from the Old Age Pension and the War Veterans’ Grant, and the second pair (`p_dg_inc` and `dg_inc`) captures income from the Disability Grant. Income from all other grants is consolidated within the `p_othgrants_inc` and `othgrants_inc` variables. All other income (i.e. non-grant, non-employment income) is included within the `Allother_inc` variable; this variable is created at the household level only, since it includes both individual-level and household-level items, depending on the survey.

3.3 Expenditure Items

3.3.1 Food (_fo)

Grain products (_gr):

Main source sections:

1995	2000	2005/06	2010/11
3.1 Cereal products	5.1: Cost of grain products	Diary (Bread and cereals)	Diary (Bread and cereals)

Matched variables:

cakeflour_gr: Cake flour; self-raising flour

breadflour_gr: Bread flour

mealimeal_gr: Mealie meal; maize flour

sorghummeal_gr: Sorghum meal/powder

rice_gr: Rice

samp_gr: Mealie rice; samp

whitebread_gr: White bread

brownbread_gr: Brown & wholewheat bread

pasta_gr: Spaghetti; macaroni; other pasta

otherflour_gr: Corn flour; other meal and flour

cereals_gr: Breakfast cereals (incl taystee wheat; mabella; cornflakes; puffed rice; muesli)

otherbread_gr: Other bread (incl garlic bread; other bread loaves; bread rolls)

otherbaked_gr: Other baked products (incl rusks; biscuits; crackers; cakes; tarts; vetkoek)

babyfood_gr: Baby food (predominantly grain)

othergrain_gr: Other grain products (incl sandwiches, pies, excl meat/fruit pies)

Grain_fo: SUBTOTAL: Grain products (_gr)

Notes:

Items in this sub-category are relatively easily matched, with the exception of **othergrain_fo**. In 2005/2006, the *Sandwiches* item was introduced and, since sandwiches would not have been reported elsewhere within this sub-category, it was included within **othergrain_fo**. The **cereals_gr** variable was a single item in 1995, two items in 2000 (*Oats, tastee wheat, mabella* and *Corn flakes and other prepared breakfast cereals, muesli*) and six items thereafter (*Taystee wheat, Mabella, Corn flakes, Puffed rice, Muesli* and *Other baked cereals*). It is only in 2000 that oats is mentioned, but it seems unlikely that expenditure on oats would have been reported anywhere else. Similarly, the **otherbaked_gr** variable includes eight items—*Rusks, Marie biscuits, Other biscuits, Crackers, Other baked products, Cakes, Tarts*, and *Other (Vetkoek, Fat cakes)*—from 2005/2006 onwards, all of which are consistent with the descriptors in 1995 and 2000.

Meat products (_me):

Main source sections:

1995	2000	2005/06	2010/11
3.2 Meat	5.2: Cost of meat and meat products	Diary (Meat)	Diary (Meat)

Matched variables:

beef_me: Beef & veal (incl heads & feet)

mutton_me: Mutton, lamb & goat (incl heads & feet)

pork_me: Pork (incl heads & feet)

poultry_me: Poultry (incl heads & feet)

boerewors_me: Boerewors

sausage_me: Other sausages (pork, beef, chicken, game etc)

coldmeats_me: Cold meats (viennas, polony, ham, other processed meat)

biltong_me: Biltong & dried sausages

bacon_me: Bacon

babyfood_me: Baby food (predominantly meat)

othermeat_me: Other meat & meat products

Meat_fo: SUBTOTAL: Meat products (_me)

Notes:

Most meat items match well. The 1995 survey distinguishes bulk purchases of meat, but these are combined with normal purchases within each meat type. Later surveys typically have more detailed items: three items are combined to create the **sausage_me** variable from 2005/2006 onwards and four to create the **coldmeats_me** variable. The residual **othermeat_me** variable is somewhat messy: the *Meat pastes, canned and frozen meat dishes* item is discontinued in 2005/2006, while *Mopane worms* and *Meat spread (Marmite)* are introduced. Marmite, though, is not an example of a meat spread—it is a yeast extract (and is promoted as “100% vegetarian”)²—but this item is kept within this category.

²See <http://www.unilever.co.uk/brands-in-action/detail/Marmite/293688/>. Similarly, Bovril is used as an example for *Vegetable spread* and, although it now has a vegetarian variety, is a meat extract.

Fish and other seafood (_fi):

Main source sections:

1995	2000	2005/06	2010/11
3.3 Fish and other seafood	5.2: Cost of fish and other seafood	Diary (Fish)	Diary (Fish)

Matched variables:

freshfish_fi: Fresh or chilled fish

otherfish_fi: Canned, dried, smoked fish; fish paste

Fish_fo: SUBTOTAL: Fish & other seafood (_fi)

Notes:

Much of the detail in this subcategory is lost due to inconsistent aggregates across surveys. The only consistently-named item is *Fresh or chilled fish*. All other items are consolidated within the **otherfish_fi** variable due to Statistics South Africa disaggregating and then reaggregating items over time. For example, the 1995 *Smoked, dried and canned fish, fish paste* can be matched to separate *Smoked fish*, *Dried fish*, *Canned tuna*, *Canned pilchards*, *Other canned fish* and *Fish paste* in the datasets from 2005/2006 onwards, but the 2000 dataset uses 'Fish paste' as an example for *Other fish and fish products*, which in turn overlaps other categories in the other years.

Milk, cheese and eggs (_mi):

Main source sections:

1995	2000	2005/06	2010/11
3.5 Milk, milk substitutes, cheese and eggs	5.5: Cost of milk, milk substitutes, cheese and eggs	Diary (Milk, cheese and eggs)	Diary (Milk, cheese and eggs)

Matched variables:

`freshmilk_mi`: Fresh milk (full cream, low fat)

`longlifemilk_mi`: Longlife milk (full cream, low fat)

`condensedmilk_mi`: Condensed milk; evaporated milk

`powderedmilk_mi`: Powdered milk; Whiteners (eg Cremora)

`cheese_mi`: Cheese and cottage cheese

`cream_mi`: Cream and yoghurt

`sourmilk_mi`: Sour milk; maas; buttermilk

`eggs_mi`: Eggs (incl egg powder)

`babyfood_mi`: Baby food (predominantly milk)

`othermilk_mi`: Other milk and cheese products (incl milk substitutes, eg soya milk)

`Milk_fo`: SUBTOTAL: Milk, cheese and eggs (_mi)

Notes:

Most items in this subcategory match well across the surveys, with the COICOP items typically separating out aggregated items in the earlier surveys. *Prepared custard (e.g. Ultramel)* is introduced as a separate item in 2005/06 and listed within the “Milk, cheese and eggs” sub-category. It is unclear, though, where this type of item would have been reported in earlier IESs. For example, it may have been reported as part of *Other milk and cheese products (including milk substitutes e.g. soya milk)* or as part of *Custard powder, instant and other puddings*, which is in the “Other Food” sub-category. However, it was decided to include *Prepared custard (e.g. Ultramel)* and the similarly new item, *Amageu*, within `othermilk_mi`. The 1995 and 2000 IESs include a reference to egg powder in the item description of eggs, while no reference is made to egg powder in the later surveys.

Fats and oils (_fa):

Main source sections:

1995	2000	2005/06	2010/11
3.4 Butter, fats, oils and margarine	5.4: Cost of butter, fats, oils and margarine	Diary (Oils and fats)	Diary (Oils and fats)

Matched variables:

butter_fa: Butter and butter oil

margarine_fa: Margarine and medium, low fat spreads

cookingoil_fa: Cooking and salad oils (excl. salad dressing)

peanutbutter_fa: Peanut butter

otherfats_fa: Other fats and oils (eg lard)

Fats_fo: SUBTOTAL: Oils and fats (_fa)

Notes:

Items in this subcategory match relatively well. For **butter_fa**, the item descriptors from 2005/2006 onwards do not include reference to 'butter oil (ghee)'. The **cookingoil_fa** variable consists of *Cooking and salad oils (excluding salad dressing)* up to 2000, after which it consists of separate items for *Olive oils* and *Edible oils (e.g. cooking oils)*. The residual **otherfats_fa** variable consists of *Other fats and oils (lard etc)* until 2000, and separate items for *Cooking fat, vegetable (e.g. Holsum)* and *Other edible animal fats (e.g. lard etc)*. In the case of **margarine_fa**, the broadly described item used until 2000 is separated into three items from 2006/2006 onwards. *Peanut butter* is a separate item in each of the surveys.

Vegetables (_ve):

Main source sections:

1995	2000	2005/06	2010/11
3.6 Vegetables	5.6: Cost of vegetables	Diary (Vegetables)	Diary (Vegetables)

Matched variables:

lettuce_ve: Lettuce (fresh)
cabbage_ve: Cabbage (fresh)
mealies_ve: Green mealies (fresh)
tomatoes_ve: Tomatoes (fresh)
carrots_ve: Carrots (fresh)
greenbeans_ve: Green beans (fresh)
pumpkin_ve: Pumpkin, marrows, gem squash (fresh)
frozenpeas_ve: Peas (frozen)
frozenscarrots_ve: Carrots (frozen)
driedpeas_ve: Dried peas, beans, lentils
cannedveg_ve: Canned vegetables
frozenbeans_ve: Frozen beans
otherveg_ve: All other vegetables & vegetable products
popcorn_ve: Pop corn, kernels & prepared
crisps_ve: Potato crisps, other chips
babyfood_ve: Baby food (predominantly veg)
Vegetables_fo: SUBTOTAL: Vegetables (_ve)

Notes:

The items within this subcategory can be matched with varying degrees of success. Some items are consistent across all surveys: lettuce_ve, cabbage_ve, mealies_ve, tomatoes_ve, carrots_ve, greenbeans_ve, frozenpeas_ve, frozenscarrots_ve, frozenbeans_ve and babyfood_ve. Five other variables—pumpkin_ve, driedpeas_ve, cannedveg, popcorn_ve and crisps_ve—are comprised of single items in 1995 and 2000 that are separated into multiple items in the later surveys. The items comprising the latter two variables in 1995 and 2000 are moved to “Vegetables” from “Other food products” and “Cost of other food products” respectively. Unfortunately, inconsistent wording (often related to whether the vegetables are fresh or frozen) means that a number of items are collapsed into the otherveg_ve variable: eight item in 1995, 12 in 2000 and 24 in the later surveys.

It should be noted that the COICOP code 01176110 is assigned to *Vegetable spreads* and Bovril and Fray Bentos are used as examples, neither of which are vegetable-based.³

³See <http://www.unilever.co.uk/brands-in-action/detail/Bovril/293591/> for Bovril.

Fruit and nuts (_fr):

Main source sections:

1995	2000	2005/06	2010/11
3.7 Fruit and nuts	5.7: Cost of fruit and nuts	Diary (Fruits)	Diary (Fruits)

Matched variables:

oranges_fr: Oranges

citrus_fr: Other citrus fruit

bananas_fr: Bananas

subtropical_fr: Other subtropical fruit

apples_fr: Apples

deciduous_fr: Other deciduous fruit

otherfruits_fr: Other fruits (incl strawberries, watermelon, melon)

driedfruit_fr: Dried fruit

nuts_fr: Nuts

cannedfruit_fr: Nuts

babyfood_fr: Baby food (predominantly fruit)

otherfruitprod_fr: All other fruit and nut products, excl peanut butter (e.g. lemon juice)

Fruit_fo: SUBTOTAL: Fruit and Nuts (_fr)

Notes:

Just four items matched consistently across all four surveys, namely **oranges_fr**, **bananas_fr**, **apples_fr** and **babyfood_fr**. A number of variables consist of single items in 1995 and 2000 that were disaggregated into more detailed items in the later surveys. These variables and their component items in the surveys from 2005/2006 onwards are: **citrus_fr** (*Oranges, Naartjies, Grapefruit, Lemons* and *Other citrus*); **deciduous_fr** (*Pears, Apricots, Peaches, Plums, Grapes, Cherries* and *Other stone fruit*); **subtropical_fr** (*Avocados, Guava, Mango, Pawpaw, Pineapple* and *Other tropical fruit*); **driedfruit_fr** (*Dried peaches, Dried prunes, Raisins, Dates, Other dried fruit* and *Assorted dried fruit*); **nuts_fr** (*Coconut, Almonds, Pecan nuts, Walnuts, Peanuts* and *Other nuts*); and **cannedfruit_fr** (*Canned pears, Canned peaches, Canned guavas, Canned fruit cocktail* and *Canned granadilla pulp*).

The final remaining variable, **otherfruitprod_fr**, consists of two items that do not appear directly comparable. In 1995 and 2000, the item *Other fruit and nut products, excluding peanut butter but including wild fruit* is the catch-all ‘other’ item at the end of the “Fruit and Nuts” category. In 2005/2006 and 2010/2011, the item *Other, specify (Lemon juice)* is also the final item within the “Fruit and Nuts” category. As such, both these items appear to be catch-all ‘other’ items and so

are used to construct `otherfruitprod_fr`. If users are uncomfortable with this match, this variable should be merged into the `allotherfood_fn` variable, which is described below.

Sugar, jam, honey, chocolate and confectionery (_su):

Main source sections:

1995	2000	2005/06	2010/11
3.9 Sugar, sugar products and sweeteners	5.8: Cost of sugar, sugar products and sweeteners	Diary (Sugar, jam, honey, chocolate and confectionery)	Diary (Sugar, jam, honey, chocolate and confectionery)
3.10 Syrup, jam and related products	5.9 Cost of syrup, jam and related products		

Matched variables:

whitesugar_su: White sugar

brownsugar_su: Brown sugar

othersugar_su: Other sugar products (icing sugar etc)

sweeteners_su: Sweeteners

honey_su: Syrup & honey

jams_su: Jam

chocolates_su: Chocolate

othersweets_su: Other sweets incl health bars

jelly_su: Jelly powder

icecream_su: Ice-cream

Sugar_fo: SUBTOTAL: Sugar, jam, honey, chocolate & confectionery (_su)

Notes:

This subcategory merges two separate subcategories from the 1995 and 2000 surveys into a single subcategory that is aligned to later surveys. Four items matched consistently across the surveys, yielding the **whitesugar_su**, **brownsugar_su**, **sweeteners_su** and **jelly_su** variables. Another seven variables were constructed using more broadly specified items in the 1995 and 2000 surveys that were disaggregated into more detailed items in later surveys. These variables and their component items in the surveys from 2005/2006 onwards are: **othersugar_su** (*Icing sugar*, *Castor sugar*, *Other sugar* and *Other sugar products*); **honey_su** (*Honey* and *Golden syrup*); **jams_su** (*Smooth apricot jam*, *Smooth peach jam*, *Melon and ginger jam*, *Other jam*, *Preserves*, and *Marmalade*); **chocolates_su** (*Milk chocolate plain slabs*, *Milk chocolate whole nut slabs*, *Bar with filling* and *Other chocolates*); **othersweets_su** (*Toffees*, *Glucose sweets*, *Health bars*, and *Other sweets*); and **icecream_su** (*Full cream ice cream*, *Sorbet*, *Frozen yoghurt*, and *Other edible ices and ice cream*).

One item from the 1995 and 2000 surveys—*Other syrup, jam and related products*—was deemed unmatchable as there is no comparable item in the later surveys. This item is consequently removed from this subcategory and is included in the **allotherfood_fo** variable, which is described below.

Food not elsewhere classified (_fn):

Main source sections:

1995	2000	2005/06	2010/11
3.11 Other food products	5.8: Cost of other food products	Diary (Food products n.e.c.)	Diary (Food products n.e.c.)

Matched variables:

vinegar_fn: Vinegar

saltpepper_fn: Salt & pepper

spices_fn: Herbs & spices

soups_fn: Canned soup, soup powders & meat extract cubes

custard_fn: Custard powder & Instant pudding powder

yeast_fn: Yeast, baking powder and bicarbonate of soda

chutney_fn: Chutney, pickles, sauces, mustard, tomato sauce & mayonnaise

allotherfood_fn: All other food (incl all unmatched food items)

Foodnec_fo: SUBTOTAL: Food not elsewhere classified (_fn) Food: TOTAL: Food (_fo)

Notes:

Within this subcategory, all remaining food items (excluding those purchased from restaurants etc.) are classified. Only one item, *Vinegar*, is consistent across all surveys. A number of other variables—*saltpepper_fn*, *spices_fn*, *soups_fn*, *custards_fn*, and *yeast_fn*—are comprised of single broadly-defined items in earlier surveys that are disaggregated into more detailed items in later surveys. For the most part, these matches are straightforward to make. *Herbs and spices* in 1995 and 2000 are matched with seven items—*Curry powder*, *Chicken spice*, *Steak and chops spice*, *Chilli powder*, *Cinnamon*, *Cloves* and *Other salt and spices (e.g. Aromat)* in later surveys to create the *spices_fn* variable. In the case of *custard_fn*, the item *Custard powder, instant and other puddings* found in the 1995 and 2000 surveys is matched with two items, namely *Custard powder* and *Instant pudding powder*, from 2005/2006 onwards. No reference to ‘other puddings’ is found in the later surveys.

In the case of *chutney_fn*, the match was slightly less straightforward. In 1995 and 2000, the item is broadly named *Chutney, pickles, sauces, mustard, tomato sauce and mayonnaise*. Matched to this aggregate were the individual items for *Chutney*, *Pickles*, *Atchaar*, *Mustard*, *Tomato sauce*, *Mayonnaise*, *Salad dressing* and *Other sauces and condiments*.

The final variable in this subcategory, *allotherfood_fn*, is essentially a catch-all category for all remaining food items within the various surveys. Assuming that all other matches are valid and assuming that no items reported within the “Food” category have moved to other categories, this

residual variable should be consistent across surveys, although no guarantee can be made that this is the case.

- In 1995, this variable consists of *Oven-ready dishes/meals*, *Other syrup, jam and related products* and *Other food products*.
- In 2000, it consists of *Oven-ready dishes/meals (mainly meat/fish/poultry)*, *Oven-ready dishes (mainly vegetables)*, *Other syrup, jam and related products*, and *Other food products*.
- In 2005/2006, it consists of *Ice cubes*, *Soya products (excl soy milk)*, *Food hampers*, *Other food products*, and *Unclassified expenditures on Food*.
- In 2010/2011, it consists of *Ice cubes*, *Soya products (excl soy milk)*, *Food hampers*, *Other food products*, and *Unclassified expenditures on Food*.

The variable `Food` totals all the food subcategories (i.e. all variables with the `_fo` suffix).

3.3.2 Non-Alcoholic Beverages (_nb)

Coffee, tea and cocoa (_co):

Main source sections:

1995	2000	2005/06	2010/11
3.10 Coffee, tea and cocoa	5.10: Cost of coffee, tea and cocoa	Diary (Coffee, tea and cocoa)	Diary (Coffee, tea and cocoa)

Matched variables:

`instantcoffee_co`: Instant coffee
`groundcoffee_co`: Ground coffee & coffee beans
`ceylontea_co`: Ceylon tea (leaves & bags)
`rooibostea_co`: Rooibos & herbal teas (leaves & bags)
`cocoa_co`: Cocoa & other warm drinks
`Coffee_nb`: SUBTOTAL: Coffee, tea and cocoa (_co)

Notes:

The items in this subcategory generally match well. *Instant coffee* is an item in all the surveys and forms the `instantcoffee_co` variable. For the other four variables, broadly defined single items in the two earlier surveys are matched with detailed disaggregated items in later surveys. *Ground coffee and coffee beans* in 1995 and 2000 is matched with *Ground coffee* and *Coffee beans* from 2005/2006 onwards to form the `groundcoffee_co` variable.

The `ceylontea_co` variable consists of *Tea (loose and tea bags)* in 1995, *Ceylon tea (loose and tea bags)* in 2000, and *Tea leaves*, *Tagged tea bags* and *Tagless tea bags* from 2005/2006 onwards. Ceylon tea (or simply 'tea') is distinguished from other teas in the construction of the `rooibostea_co` variable. In the 1995 and 2000 surveys, *Rooibos and herbal teas (loose and tea bags)* is matched to *Rooibos tea leaves*, *Rooibos tea bags*, *Herbal tea not from food service place* and *Other tea* from 2005/2006 onwards. Although an option for 'other tea' does not exist prior to 2005/2006, it would seem that expenditure on such tea would have been reported against the items comprising the `rooibostea_co` variable. Should users feel that expenditures on 'other tea' were not likely to have been reported consistently against one of the `rooibostea_co`-related items, but would have at least been reported against a tea-related item, the two tea-related variables in this dataset can be collapsed. Alternatively, the tea-related variables might be collapsed with the `cocoa_co` variable if users feel that 'other tea' may have been reported against different items across all three variables over time.

Finally, `cocoa_co` is comprised of *Cocoa and other warm drinks* in 1995, *Cocoa and other hot drinks* in 2000, and *Cocoa powder*, *Powdered chocolate* and *Other hot drinks* from 2005/2006 onwards.

Mineral water, soft drinks, fruit and vegetable juices (_cd):

Main source sections:

1995	2000	2005/06	2010/11
4.1 Non-alcoholic beverages	6.1 Cost of non-alcoholic beverages	Diary (Mineral waters, soft drinks, fruit and vegetable juices)	Diary (Mineral waters, soft drinks, fruit and vegetable juices)

Matched variables:

`softdrinks_cd`: Soft drinks

`springwater_cd`: Mineral/spring water

`juice_cd`: Fruit juices, nectar, fruit drinks, concentrates & dairy fruit juice mixtures

`othcooldrink_cd`: Other cooldrinks (incl flavoured syrups)

`Colddrink_nb`: SUBTOTAL: Mineral water, soft drinks, fruit and vegetable juices (_cd)

`Nonalcoholic`: TOTAL: Non-Alcoholic Beverages

Notes:

This subcategory covers those non-alcoholic beverages consumed ‘off-site’ (i.e. the beverages are not consumed at the place of purchase). Two items—that form the `softdrinks_cd` and `springwater_cd` variables respectively—are consistent across all the surveys. The matching for the two remaining variables is, though, not as clean. The `juice_cd` variable consists of two items, namely *Fruit juices, nectar, fruit drinks, concentrates and dairy mixtures (fruit juice mixtures)* and *Fruit squashes, including in powder form*, in 1995 and 2000. These items are matched, from 2005/2006 onwards, with *Fruit juices, Concentrates and drink powders, Vegetable juices* and *Fruit and vegetable juices*.

This is clearly not a perfect match: there is no mention of vegetable juice in the 1995 and 2000 surveys, nor is there mention of dairy fruit juice mixtures after 2000. Given that *Fruit juices, nectar, fruit drinks, concentrates and dairy mixtures (fruit juice mixtures)* actually comes from the ‘Fruit and Nuts’ subcategory in the 1995 and 2000 surveys, it is not inconceivable that vegetable juices would have been reported under *Other vegetable products* within the ‘Vegetables’ subcategory. However, even in the later surveys where there is a separate *Vegetable juices* item, its unweighted mean across households is less than 40 cents per annum (in nominal terms) and it is therefore unlikely to materially impact the matched variables. In the case of dairy mixtures, it seems most likely that expenditure would have been recorded against *Other milk products*. The COICOP guidelines (United Nations Statistics Division, n.d.) suggest that dairy fruit mixtures would be included within the ‘Milk, cheese and eggs’ subcategory.⁴ There is, therefore, no disentangling these items from the *Other milk products* item. As a result, the `juice_cd` variable should arguably be collapsed into the

⁴Dairy fruit mixtures would be covered by “yoghurt, cream, milk-based desserts, milk-based beverages and other similar milk-based products” (United Nations Statistics Division, n.d.).

othermilk_mi variable, which includes *Other milk products* from the later COICOP-based surveys. *Other milk products*, though, has an unweighted average of R7.18 in 2010/2011 (i.e. less than 60 cents per month per household, of which only a proportion would relate to dairy fruit mixtures) and collapsing the **juice_cd** and **othermilk_mi** variables would come at a relatively high cost in terms of loss of detail and the creation of an unclassifiable hybrid food-beverage variable and, as a result, the decision was made to keep them separate.

The **othercooldrink_cd** variable is comprised of the residual item *Other cool drinks (incl flavoured syrups)* in 1995 and 2000, and *Other (e.g. Energade, Lucozade, ice tea etc)* in the later surveys. Again, this is not a particularly clean match, but there are no other items that match or overlap with these.

The variable **Nonalcoholic** totals all subcategories that cover non-alcoholic beverages consumed off-site (i.e. all items with the **_nb** suffix. Note that non-alcoholic beverages purchased from and consumed at restaurants, hotels, cafes and other similar establishments are covered in the ‘Restaurants and Hotels’ category.

3.3.3 Alcoholic beverages (_al):

Main source sections:

1995	2000	2005/06	2010/11
4.2 Alcoholic beverages	6.2 Cost of alcoholic beverages	Diary (Alcoholic beverages)	Diary (Alcoholic beverages)

Matched variables:

spirits_al: Spirits (such as brandy; whisky gin; liqueurs)

fortifiedwine_al: Fortified wines (sherry, port etc)

sorghumbeer_al: Sorghum beer (traditional or pre-packed)

otheralcbev_al: All other alcoholic beverages

Alcohol: TOTAL: Alcoholic beverages (_al)

Notes:

A significant amount of detail is lost in the matching of alcoholic beverages due to changing coverage of items over time. Two variables—**spirits_al** and **fortifiedwine_al**—each consist of single items that are consistent across each of the surveys. The **sorghumbeer_al** variable consists of a single item in 1995 (*Sorghum beer*) and, from 2000 onwards, of two separate items for bottled and traditional sorghum beer respectively.

Unfortunately, all other alcoholic beverages, including beer, cider and wine, are collapsed into the **otheralcbev_al** variable. This is due to two specific changes in item coverage over time. First, cider is originally included with beer in 1995 (*Beer, dark beer and cider*) and again in 2000 (*Beer (lager, cider etc)*), but is then reported with spirit coolers from 2005/2006 onwards (*Spirit coolers (cider, hooch etc)*). Spirit coolers would have been reported under *Other spirits (incl liqueur)* or *Other alcoholic beverages* in 1995 and 2000. This then requires that items covering beer, other spirits and other alcoholic beverages be collapsed into a single variable.

The second change relates to sparkling wine. In 1995, there was a single wine-related item, *Table wines (excl sparkling wine)*, meaning that sparkling wine would have been reported against *Other alcoholic beverages*. From 2000 onwards, however, sparkling wine is included (*Table wines (incl sparkling wine)*), while cooking wines are separated out into a new category. This implies that the items covering table wines, cooking wines and other alcoholic beverages be collapsed into a single variable. Since *Other alcoholic beverages* overlaps with both the cider and sparkling wine aggregates, all four or five items—depending on the survey—need to be collapsed into a single variable.

The variable **Alcohol** totals all variables related to alcoholic beverages (i.e. all variables with the **_al** suffix). Note that alcoholic beverages purchased from and consumed at restaurants, hotels, cafes and other similar establishments are covered in the ‘Restaurants and Hotels’ category.

3.3.4 Tobacco products (_to)

Main source sections:

1995	2000	2005/06	2010/11
5: Cigarettes, cigars, tobacco and smokers' requisites	7: Cigarettes, cigars, tobacco and other items for smoking (e.g. dagga and smokers' requisites)	Diary	Diary

Matched variables:

cigarettes_to: Cigarettes

cigars_to: Cigars & cigarillos

tobaccos_to: Pipe, cigarette and chewing tobacco; snuff; other smoked items

Tobacco: TOTAL: Cigarettes, cigars, tobacco & smokers' requisites (_to)

Notes:

This straightforward set of items is relatively easily grouped. *Cigarettes* (**cigarettes_to**) and *Cigars and cigarillos* (**cigars_to**) are consistently asked across all four surveys. The third variable (**tobacco_to**) covers tobacco, snuff, chewing tobacco and other items smoked. The *Other items smoked* item was included from 2000 onwards, and in that year only dagga was given as a specific example. It is impossible in the IESs to gauge the extent to which individuals accurately reported this kind of expenditure and, while there seems to be no reason to expect the level of accuracy to vary across surveys, it is possible that the explicit example in 2000 may have increased the level of reporting for the simple reason that individuals may not have considered dagga to be covered by the questionnaire.

Since reported expenditure on items such as dagga is likely to be very low and since legally smoked items within *Other items smoked* would have logically been recorded under *Pipe and cigarette tobacco, snuff etc* in 1995, we merge these variables to create the **tobaccos_to** variable.

The *Smokers' requisites* item is not included in this category due to the fact that, although the COICOP code lists have a code for the item, there was no specific question probing this type of expenditure in 2005/06 (it would have needed to have been reported in the diary). At the same time, no household reported any expenditure against the item. Thus, a consistent match across the surveys could not be achieved in this instance.

The variable **Tobacco** totals all variables in this category (i.e. all variables with the **_to** suffix).

3.3.5 Clothing and footwear (_cl)

Main source sections:

1995	2000	2005/06	2010/11
10: Clothing and footwear	12: Clothing and footwear purchases	9: Clothing and footwear	10: Clothing and footwear

Matched variables:

`clothes_cl`: Clothing (men's, women's, boys', girls')

`babyclothes_cl`: Baby clothes

`shoes_cl`: Shoes (men's, women's, boys', girls')

`babyschoes_cl`: Baby shoes

`material_cl`: Material for clothing

`knittingwool_cl`: Knitting wool & yarns

`sewingcotton_cl`: Patterns, trimming lace, sewing cotton etc

`clothingrepairs_cl`: Labour cost for making/knitting of clothing & repairs/alterations to clothing

`clothinghire_cl`: Cost of the hire of clothing

`Clothing`: TOTAL: Clothing and footwear (_cl)

Notes:

The 'Clothing and Footwear' category loses significant detail in the process of matching items across surveys. The 1995 items are extremely detailed, disaggregating expenditure by gender and age and type of clothing/footwear. In contrast, the 2000 data disaggregates only by age and gender. Unfortunately, the 2005/2006 survey saw the re-introduction of some detail, but in a way that was not compatible with the 2000 IES items. Specifically, the introduction of *Sports clothing* essentially creates an overlap with each of the items in 2000 pertaining to clothing, while the same problem occurs with *Sports footwear*. Consequently, between four (2000) and 38 (1995) items pertaining to expenditures on clothes for adults and children are collapsed into a single `clothes_cl` variable, and between four (2000) and 24 (1995) items pertaining to expenditures on footwear for adults and children are collapsed into a single `shoes_cl` variable.

In the case of five variables, namely `babyschoes_cl`, `material_cl`, `knittingwool_cl`, `sewingcotton_cl` and `clothinghire_cl`, each variable consists of a single consistent item across all surveys. *Infants' clothing* is a single item from 2000 onwards, but in 1995 there are three relevant items—*Infants' nappies (non-disposable)*, *Infants' babygrows* and *Infants other clothing*—and these are collapsed to form the `babyclothes_cl` variable. The `clothingrepairs_cl` variable consists of a single item in 1995 and 2000 (*Amount paid for the making or knitting of clothing and repairs to clothing*), which from 2005/2006 onwards is separated into *Labour cost for making or knitting of clothing and re-*

pairs/alterations to clothing and *Specially made-up clothes (eg clothes made by dressmakers and tailors)*.

Unfortunately, the above list of variables is not necessarily exhaustive in each of the years in terms of the original set of items within this category. In 2005/2006 and 2010/2011, there are three items that are deemed unmatchable: *Cleaning of clothing*, *Repair of footwear* and *Cost of hire of shoes*. In the first two instances, there are no equivalent or similar items in the earlier surveys and matches are, therefore, not possible. In the case of the *Cost of hire of shoes*, although there is no equivalent item in the earlier surveys, it is possible that this type of expenditure may have been included within the *Cost of hire of clothing*, which forms the `clothinghire_cl` variable across each survey. However, this is not a certainty and the *Cost of hire of shoes* is considered unmatchable. These unmatchable items form part of the `unmatchedexp` variable, which is discussed below and which is included in the PIES dataset for the sake of completeness.

The variable `Clothing` totals all variables in this category (i.e. all variables with the `_cl` suffix).

3.3.6 Housing, water, electricity, gas and other fuels (_ho)

Main source sections:

1995	2000	2005/06	2010/11
1: Cost of housing (monthly)	3: Cost of housing (monthly)	4: Housing	5: Housing

Matched variables:

rent_ho: Total rent paid or, if rented free, total rent household would pay
levy_ho: Levy paid (sectional title or share-holding scheme)
lodging_ho: Boarding/lodging paid (permanent only)
repayment_ho: Mortgage bond repayment (capital plus interest)
mortgagesubsidy_ho: Subsidy &/or value of reduction in mortgage bond instalment
rates_ho: Assessment rates & taxes
hservices_ho: Household services, incl water, electricity, sanitation
addcapital_ho: Additional capital payments in respect of mortgage bond
addother_ho: Other additional payments i.r.o. mortgage bond (transfer costs, registration)
maintenance_ho: Maintenance & repair of buildings, swimming pools etc (plumbers, electricians)
alterations_ho: Additions & alterations
buildingmaterials_ho: Building materials not included previously (e.g. for building houses)
communalserv_ho: Contribution to communal provision of services
landaccess_ho: Payment for right to access land
Housing: TOTAL: Housing and housing services (_ho)

Notes:

The “Housing” category is one of the more problematic categories.

- Rent:** The 2000 survey has problems of inconsistencies in the first three rent-related items in the survey. The survey asks for *Total monthly rent paid for this dwelling unit* and subsequently disaggregates this amount into the *Amount paid-or value of rent if rented free* and the *Cash subsidy or value of reduced rent if the dwelling unit belongs to your employer*. Technically, in the way that Statistics South Africa set up the questionnaire, these two latter sub-items should sum to the total monthly rent stipulated in the first item. Of the 26 263 households in the compiled 2000 dataset, 4 525 do not conform to this requirement. Of these, 4 470 households have no information in either of the two sub-items. For these households, the logical approach is to trust the information provided in the first item and discard the information in the two sub-items as incomplete. For the remaining 55 households, there is no clear approach that can be applied consistently. For some households, the two sub-items as well as the first item have

identical values; for some households, the sum of the values of the sub-items is less than the first item; for some households, the value of one of the sub-items exceeds the value of the first item; and for some households, there appear to have been misunderstandings of the wording of the three items or errors in transcription of the data from the questionnaire.⁵ For the sake of consistency, it is again assumed that the value of the first item is correct, allowing a match of this item across the surveys.

- **Mortgage bond repayments:** Each survey asks respondents that own their dwellings to report on repayments of mortgage bonds, in aggregate and separately for the capital and interest components of these repayments. However, in 2000, there are problems in resolving these three values for many households—the datasets of the other surveys do not include the aggregated item and errors are therefore undetectable. Of the 26 263 households in the compiled 2000 dataset, the sum of the capital and interest components is different from the total value in 1 213 of them. For 955 of these households, this is due to the capital and interest components both being zero. For the remaining 258 households, a substantial proportion appear to have misunderstood the reference to capital and reported the total value of the mortgage bond.⁶ Since the aggregate repayment value appears to be more reliable, the individual capital and interest components can not be matched across the surveys. Statistics South Africa (2008*d*, p.25) notes also that, in 2005/2006, “respondents were generally unable to report their capital and interest payments separately”.

The *rent_ho* variable is constructed on the basis of a match between two items—*Total rent paid for this dwelling unit* and *Rent paid for garage and/or domestic worker’s room, if rented separately*—in the 1995 and 2000 surveys, and the *Rent dwelling* item in the COICOP-based surveys. This latter item is the total of four items covering payments by the household, estimated rent if the dwelling is occupied rent-free, any subsidy, and separate rent paid for a garage or domestic worker’s room.

The *repayment_ho* variable is constructed as the sum of the *Interest on mortgage bonds* and *Monthly capital repayments* items in the 1995, 2005/2006 and 2010/2011 surveys. As noted above, the 2000 data has significant problems. As a result, the single *Monthly mortgage bond instalment for the last month* item is used in this match.

While each of the surveys collects detailed information on household services such as water, electricity, sanitation and refuse removal, the matching of items is complicated by the fact that respondents have the option of reporting amounts in a VAT exclusive or inclusive form. The only indicator of whether amounts are VAT inclusive or exclusive would be whether the *Value Added Tax*, *VAT* item has a non-negative value. While it might be technically possible to pro-rate the VAT amount to the various other items in the relevant section of the questionnaires, there are two complications. First, some items listed in these sections do not attract VAT (e.g. *Assessment rates and taxes* or water purchased from neighbours) and, second, there is nothing preventing households

⁵The very confusing wording is, fortunately, addressed in later surveys.

⁶Using the unweighted data, the value of the 99th percentile of non-zero mortgage bond repayments is R6 000, while 142 of these 258 households report the capital component of their repayments to be in excess of this.

from reporting some amounts inclusive of VAT and others exclusive of VAT. Thus, for example, while municipal accounts may record VAT on charges for municipal services separately, VAT on electricity payments may not be as easily accessible. This possibility is certainly suggested by the fact that reported VAT amounts are often not 14 percent of the values reported against any of the other individual items, nor of the values of any combination of items.

In order to ensure consistency across surveys as well as across households, these household services items can not be matched. The `hservices_ho` variable is therefore constructed by collapsing seven or eight items, depending on the survey. These are:

- In 1995 and 2000, *Water (including basic levies, water bought from tankers, kiosks or neighbours; Electricity (including basic levies); Electricity pre-payment cards (koopkrug, E-cards); Gas supplied by public networks; Sanitary service; Removal of refuse; and Value Added Tax (VAT).*
- In 2005/2006 and 2010/2011, *Water and Electricity; Water; Electricity; Prepaid electricity; Gas⁷; Sanitation; Refuse removal; and VAT on utilities.*

The `maintenance_ho` variable consists of a single item in 1995 and 2000, namely *Repair and maintenance of existing buildings, swimming pools etc (plumbers and electricians)*. From 2005/2006 onwards, this item is split into three new items: *Maintenance and repair of dwelling (existing buildings, swimming pools etc; including paints, wallpaper, etc); Services for maintenance and repair of dwelling (plumbers, electricians, carpenters); and Labour and material for maintenance and repair of dwelling*. It is argued that, in the later surveys, expenditures recorded against any of these three items would have logically been recorded under the single item in 1995 and 2000 and, hence, the match is made.

The `alterations_ho` variable covers addition and alterations to the dwelling. In 1995, this was a single item: *Additions and alterations (including installation of security systems, built-in furniture, solar energy systems, swimming pools and garden layouts)*. This exact item exists in the 2000 survey but, in addition, there are two further relevant items, namely *Security structures (including fences, electronic gates)* and *Security systems (including alarms, panic buttons)*. The latter item appears to be a subset of the original item. The former item, although not specifically referred to in the description of the original item, would arguably have been covered by it in the 1995 survey. These three items in the 2000 survey are, therefore, matched to the original 1995 item. The COICOP-based surveys have five relevant items: *Improvements, additions and alterations (including built-in furniture, solar energy systems, swimming pools and garden layouts; Labour and material for improvements, additions and alterations; Services for improvements, additions and alterations (carpenters, electricians, etc); Security structures (including fences, electronic gates); and Security systems (including alarms, panic buttons)*. These five items are matched to create the `alterations_ho` variable in the COICOP-based surveys.⁸

⁷This item is distinct from gas purchased in cylinders, which falls within the “Household fuel” category, and is therefore deemed equivalent to the *Gas supplied by public networks* item in the first two IESs.

⁸The *Security services (including reaction services and neighbourhood watch)* item, first introduced in 2000 in the same section of the questionnaire as the items covering security systems and security structures, is not matched in

A number of variables, though, are constructed on the basis of straightforward matches of single items across the four surveys. These include `rates_ho`, `levy_ho`, `lodging_ho`, `mortgagesubsidy_ho`, `addcapital_ho`, `addother_ho`, `buildingmaterials_ho`, `communalserv_ho` and `landaccess_ho`.

A number of items within “Housing” can not be matched and are therefore included within the `unmatchedexp` variable. However, despite a match being impossible, the `imputedrent` variables are maintained in the final dataset. Items related to imputed rent exist in all the surveys except the 2000 IES. In 1995, the survey asks households that own their dwellings to “[state] the estimated reasonable monthly rent for which this dwelling-unit could be let unfurnished” (question 3.3.1). It also asks for the “[estimated] value of the dwelling (excluding site)” (question 3.4). The 2005/2006 IES asks of households that own their dwellings, “If you were to rent this dwelling, how much would you pay for it per month?” (question 4.8). The questionnaire also asks all respondents for the value of the dwelling unit (question 4.4). In 2010/2011, respondents who own their dwellings are asked to provide the value of the dwelling unit (questions 5.5.4 and 5.5.5). These respondents are also asked, “If you were to rent this dwelling, how much would you pay for it per month?”

In the COICOP-based surveys, the questions around the value of the dwelling are used to derive estimates of imputed rent, the annual value of imputed rent being calculated as seven percent of the dwelling value. These estimates are deemed by Statistics South Africa (2008*d*, p.25) to be more credible than respondents’ estimates of the rental values of their homes. As noted, none of these items were included in the 2000 survey. In the 1995 survey, both questions were asked but estimates of imputed rent based on the value of the dwelling were not included in the published dataset. The PIES dataset, therefore, includes `imputedrent` and `imputedrent7` that matches these items across the 1995, 2005/2006 and 2010/2011 surveys, with `imputedrent7` for 1995 calculated as seven percent of the estimated value of the dwelling as reported by households. However, these two items do not form part of any of the calculated aggregates, such as the `Housing` variable.

The variable `Housing` totals all variables in this category (i.e. all variables with the `_ho` suffix).

creating the `alterations_ho` variable as it is extremely difficult to argue that, in 1995, these types of expenditures would have been recorded within *Additions and alterations* (including installation of security systems, built-in furniture, solar energy systems, swimming pools and garden layouts).

3.3.7 Household fuel (_fu)

Main source sections:

1995	2000	2005/06	2010/11
9: Household fuel	11: Household fuel purchases	Diary	Diary

Matched variables:

firewood_fu: Firewood

charcoal_fu: Charcoal

paraffin_fu: Paraffin

gascylinders_fu: Gas in cylinders (incl gas for heating purposes)

candles_fu: Candles

coal_fu: Coal (incl anthracite)

meths_fu: Methylated spirits; fuel for lawnmowers & generators for heating

dung_fu: Dung

drycells_fu: Dry-cells (batteries)

recharging_fu: Recharging of rechargeable cells

otherhhfuel_fu: Other household fuel (incl petrol & diesel for household use)

Fuel: TOTAL: Household fuel (_fu)

Notes:

Within this category, matches are relatively straightforward and wording is generally consistent across questionnaires. *Recharging of wet cells* in the 1995 survey was changed to *Recharging of rechargeable cells* in subsequent surveys, while from 2005/2006 onwards *Firewood* was changed to *Firewood bought*—neither of these changes should have an impact on comparability. The `otherhhfuel_fu` variable consists of *Other household fuel* and, from 2000 onwards, *Petrol for household use (not transport)* and *Diesel for household use (not transport)*. These expenditures would, in 1995, have been included under *Other household fuel* and these items are, therefore, collapsed. From 1995 to 2005/06, the variable also includes *Crop waste* but, although there is a code for this item in the 2010/11 dataset, the dataset contains no expenditure against this item.

The variable `Fuel` totals all variables in this category (i.e. all variables with the `_fu` suffix).

3.3.8 Furniture and equipment (_fe)

Furniture and floor coverings (_ff)

Main source sections:

1995	2000	2005/06	2010/11
11.1: Furniture, fixtures and floor coverings	13.1: Cost of furniture, fixtures and floor coverings	11.1: Value of furniture, fixtures and floor coverings	12.1: Value of furniture and floor coverings

Matched variables:

beds_ff: Bed bases & mattresses

diningfurn_ff: Dining room furniture

loungefurn_ff: Lounge furniture

kitchenfurn_ff: Kitchen furniture

gardenfurn_ff: Garden & patio furniture

looserugs_ff: Loose carpets & rugs

bedroomfurn_ff: Other bedroom furniture

upholstering_ff: Upholstering; repairs to furniture, furnishings & floor coverings

otherfurn_ff: Other furniture, furnishings & floor coverings

Furniture_fe: SUBTOTAL: Furniture and floor coverings (_ff)

Notes:

For the most part, matches within this subcategory are relatively straightforward. Seven of the variables within this subcategory were the result of direct matches of single items that were consistent across all surveys. These variables are: **beds_ff**, **diningfurn_ff**, **loungefurn_ff**, **kitchenfurn_ff**, **gardenfurn_ff**, **looserugs_ff**, and **bedroomfurn_ff**.

In 1995 and 2000, there is a single item for *Upholstering and other repair costs* with respect to furniture, furnishings and floor coverings. In 2005/2006, this single item is disaggregated into four items: *Upholstering*, *Repairs to furniture*, *Repairs to furnishings*, and *Repairs to floor coverings*. This is consistent with the single item in earlier surveys and the match is thus made. In 2010/2011, only two of these four items are retained, namely *Upholstering* and *Repairs to furniture*. The naming of these items suggests that a match is not possible, but further inspection of the questionnaire reveals that the latter item specifically covers floor coverings

The final variable, **otherfurn_ff**, covers all remaining items within this subcategory. In 1995 and 2000, the items are *Other loose floor coverings*, *Other furniture, fixtures and floor coverings (eg ornaments, paintings and other works of art)* and *Other loose items of furniture*. In 2005/2006, the relevant items are *Other (eg ornaments, paintings and other works of art)*, *Other furniture*, *Fitted carpets*, *Tiles*, *Other floor coverings (excluding bathroom and door mats)*, *Other loose items of furniture*

(eg beanbags, mirrors), and *Study desks, bookshelves and other study furniture*. In 2010/2011, though, there are just three items, namely *Other (eg ornaments; paintings and other works of art)*, *Other floor coverings (excluding bathroom and door mats)* and *Study desks, bookshelves and other study furniture*. None of these items are consistent over time, but are merged due to the consistency of the scope of the subcategory. However, should users feel uncomfortable with this match, it should be excluded from this subcategory and collapsed into the `unmatchedexp` variable, described below.

The variable `Furniture_fe` totals all variables in this subcategory (i.e. all variables with the `_ff` suffix).

Household textiles (_tx)

Main source sections:

1995	2000	2005/06	2010/11
11.2 Household textiles	13.2: Cost of household textiles	10: Household textiles	11: Household textiles

Matched variables:

blankets_tx: Blankets & travelling rugs

bedlinen_tx: Sheets & pillowcases; duvets & duvet covers; duvet packs

curtains_tx: Curtains (incl making & hanging charges) & material for curtains

pillows_tx: Pillows & cushions

tablelinen_tx: Table & bathroom linen (eg tablecloths, napkins; towels, facecloths)

othertextiles_tx: Other household textiles

Textiles: TOTAL: Household Textiles (_tx)

Notes:

Items within the ‘Household Textiles’ subcategory align relatively well. Three variables, namely **blankets_tx**, **curtains_tx** and **pillows_tx**, are constructed on the basis of single items that are consistent across the surveys.

For the remaining three variables, the item matches are relatively straightforward. The **bedlinen_tx** variable consists of two items—*Sheets and pillow cases* and *Duvets and duvet covers*—in 1995 and 2000. These same items are used for this variable in the later surveys, but a third item, *Duvet packs (eg package including pillow cases and sheets)*, first introduced in 2005/2006 is included. Although this is a new item in the survey, expenditures on duvet packs in 1995 and 2000 would arguably have been included within *Duvets and duvet covers* or, though less likely, potentially split across this item and *Sheets and pillow cases*.

The **othertextiles_tx** variable covers *Other household textiles (eg blinds) and repairs* in 1995 and 2000. From 2005/2006 onwards, this variable is constructed by re-aggregating the detailed component items of *Other household textiles* and *Value of repairs to household textiles*.

The variable **Textiles_fe** totals all variables in this subcategory (i.e. all variables with the **_tx** suffix).

Appliances (_ap)

Main source sections:

1995	2000	2005/06	2010/11
11.3: Appliances	13.3: Cost of appliances	11.4: Value of appliances	12.2 Value of appliances

Matched variables:

`washingmachine_ap`: Washing machines, dishwashers, tumble dryers
`paraffinstove_ap`: Paraffin stoves & heaters
`hotplate_ap`: Hotplates
`gasstove_ap`: Gas stoves & heaters
`sewingmachine_ap`: Sewing machines, overlockers, knitting machines (electric)
`sewingnonelec_ap`: Sewing machines & knitting machines (non-electric)
`irons_ap`: Irons
`kettles_ap`: Kettles, percolators, coffee makers
`foodmixer_ap`: Food mixers, processors & similar accessories
`fryingpan_ap`: Frying pans & woks
`toaster_ap`: Toasters, waffle irons & sandwich toasters
`appliance_repairs_ap`: Repairs of electrical & non-electrical appliances
`vacuum_ap`: Vacuum cleaners; polishers & carpet cleaning machines
`fridge_ap`: Refrigerators, deep freezers, fridge/freezer combinations
`stove_ap`: Stoves & ovens, incl microwave ovens
`lawnmower_ap`: Power driven garden tools (lawnmowers, edge trimmers)
`otherappl_ap`: All other appliances (incl. refrigerators, freezers, stoves etc; electric and non-electric)
`Appliances_fe`: SUBTOTAL: Household appliances (_ap)

Notes:

In each survey, the questionnaire distinguishes between electrical and non-electrical appliances. As far as possible, this distinction has been maintained and non-electric appliances are identified in the variable name and/or the variable description. For 14 of the variables—`washingmachine_ap`, `paraffinstove_ap`, `hotplate_ap`, `gasstove_ap`, `sewingmachine_ap`, `sewingnonelec_ap`, `irons_ap`, `kettles_ap`, `foodmixer_ap`, `fryingpan_ap`, `toaster_ap`, `vacuum_ap`, `fridge_ap` and `stove_ap`—matches involved single items that are consistent across surveys. There are some slight wording changes over time—e.g. percolators are specifically mentioned in the item originally described as *Kettles*, *coffee makers*—although these are unlikely to have a material impact on the classification of these expenditures in different years.

The **appliancerepairs_ap** variable consists of a single item that covers repairs to both electrical and non-electrical appliances in 1995 and 2000, and two separate items for repairs to electrical and non-electrical appliances from 2005/2006 onwards.

The **lawnmower_ap** variable consists of *Petrol-driven lawnmowers and edge trimmers* and *Electrically-operated lawnmowers and edge trimmers* in 1995 and 2000, and *Power-driven garden tools* in the COICOP-based surveys.

The **otherappl_ap** variable includes various electric and non-electric appliances. In 1995, this variable consists of *Other electrical appliances (eg heaters, electric blankets, lamps, aircons and fans)* and *Other non-electrical appliances (eg refrigerators, gas lamps, safes)*. In 2000, to these two items is added *Coal, wood and anthracite stoves*, which previously would have been included within *Other non-electrical appliances*. From 2005/2006 onwards, *Non-electrical refrigerators* and *Heaters and air-conditioners* are separated out from the original broader items and are, therefore, included within this match.

The variable **Appliances_fe** totals all variables in this subcategory (i.e. all variables with the **_ap** suffix).

Musical instruments, audiovisual equipment and accessories (_mu)

Main source sections:

1995	2000	2005/06	2010/11
18.1: Instruments, equipment and accessories	20.1: Cost of instruments, equipment and accessories	11.7: Musical instruments, sound equipment and accessories	12.4: Value of musical instruments, audio visual equipment and accessories
18.3: Licences, rental and other service charges	20.4 Cost of licences, rental and other service charges		

Matched variables:

musicalinstr_mu: Pianos, organs & other musical instruments
tvsv_mu: TV sets, decoders, VCR/DVD/Blu-Ray players, aerials, satellite dishes
tvlicence_mu: TV licences
paytv_mu: Subscription to pay-TV channels
tvrental_mu: Television rental
decoderrent_mu: Rent for decoder, video equipment, tapes
radios_mu: Radios, tape recorders, CD players, sound systems & similar equipment
cds_mu: CDs/DVDs/VCDs/Blu-Ray discs (music/movies/blank; not games/software)
Musical_fe: SUBTOTAL: Musical instruments, audiovisual equipment and accessories (_mu)

Notes:

Generally, the matches within this subcategory are relatively straightforward. However, this is one of the areas in which technological change has had a significant impact on the types of expenditure over time.

Several variables consist of single items that are consistent across all the surveys. These are **musicalinstr_mu**, **tvlicence_mu**, **tvrental_mu**, **decoderrent_mu** and **radios_mu**.

In 1995, the **tvsv_mu** variable consists of a single item, *Television sets, decoders, video recorders, aerials, and satellite dishes*. From 2000 onwards, *Aerials and satellite dishes* are recorded separately, while DVD players are added to create the *Television sets, decoders, video recorders, DVD players* item.

The **paytv_mu** variable is constructed using a single item from each survey and, although the item description changes over time, its scope is argued to remain consistent. In 1995, the item is *M-Net subscription*, changing to *Subscription to pay-TV channels and internet* in 2000, and to *Subscription to pay-TV channels* from 2005/2006 onwards. Technically, the inclusion of internet subscription in the item in 2000 renders the match invalid. However, internet subscription is specifically covered earlier in the questionnaire (*Subscription to Internet/Beltel*, part 17.1) and its inclusion within a section

covering charges related to televisions is strange. Given relatively low levels of household access to the internet in 2000 and the earlier coverage of internet subscription in the questionnaire, the match is made. Should users feel uncomfortable with this match, the `paytv_mu` and `internet_tc` variables should be collapsed into a single new variable or into the *allotherexp* variable.

The `cds_mu` variable is also impacted by changing technology over time. In 1995 and 2000, the variable consists of a single item, namely *Magnetic tapes and compact disks*. In 2005/2006, the variable covers three items, having eliminated magnetic tapes and introduced DVDs, Blu-ray disks and VCDs. In the case of all three of these items, software and games are excluded, but unrecorded and pre-recorded disks are included. Since magnetic tapes, CDs, DVDs, Blu-ray disks and VCDs displace each other but serve the same purpose, the match is made.

The variable `Musical_fe` totals all variables in this subcategory (i.e. all variables with the `_mu` suffix).

Other household equipment (_eq)

Main source sections:

1995	2000	2005/06	2010/11
11.4: Other household equipment	13.4: Cost of other household equipment	11.1: Other household equipment 5: Swimming pool and garden equipment	12.5: Value of other household equipment 6.2: Garden equipment and requisites

Matched variables:

`kitchenware_eq`: Kitchen utensils & cookingware; Cutlery; Tableware

`gardenequip_eq`: Gardening hand tools (spades, hoses, watering cans)

`Equipment_fe`: SUBTOTAL: Other household equipment (_eq)

Notes:

The `kitchenware_eq` variable consists of a number of items in the later surveys, matched to one or two items in the earlier surveys, as Statistics South Africa increased the level of detail at which expenditures were collected. The 1995 survey collects expenditure data on *Kitchen and tableware (metal, glass and plastic)*, which is matched to *Kitchen cookingware* and *Tableware (cutlery, crockery, including plastics)* in 2000. In the 2005/2006 data, these are matched to *Glass and crystal ware, tableware (including household or toilet articles of porcelain, ceramic stoneware, china etc)*; *Cutlery flatware and silverware*; and *Kitchen and domestic utensils (non-electrical utensils, such as frying pans saucepans etc)* made of *Enamel, Aluminum, iron, steel* and *Plastic*. The 2010/2011 data distinguishes between *Glass and crystal ware; tableware (including household or toilet articles of porcelain; ceramic stoneware; china etc)*; *Cutlery flatware and silverware* and *Kitchen and domestic utensils (non-electrical utensils; such as frying pans saucepans etc)*.

The `gardenequip_eq` variable consists of a single item—*Gardening equipment (watering cans, hoses, spades)*—in 1995 and 2000. For the COICOP-based surveys, three separate items are merged to create this variable: *Garden hand tools (such as spades)*, *Garden water sprinkler* and *Other garden equipment*.

The variable `Equipment_fe` totals all variables in this subcategory (i.e. all variables with the `_eq` suffix). The variable `Furnequip` totals all variables in this category (i.e. all variables with the `_fe` suffix).

3.3.9 Health services and medical requisites (_he)

Main source sections:

1995	2000	2005/06	2010/11
12: Health services and medical requisites	14: Health services and medical requisites	15: Health services and medical requisites	3: Health

Matched variables:

medaidself_he: Medical aid contribution paid by household member

medaidemp_he: Medical aid contribution paid by employer

hospitalflatrate_he: Flat rate in respect of services & medicine obtained at hospital/clinic

medequip_he: Therapeutic appliances & equipment (like spectacles & hearing aids)

tradhealers_he: Consultations of traditional healers

otherhealth_he: All other health and medical expenditure

Health: TOTAL: Health Service and Medical Requisites (_he)

Notes:

Much detail is lost in the process of matching items within this category, due largely to the considerable changes in the questionnaires that have occurred over time. One of the changes relates to what may perhaps be referred to as the lens through which this category is viewed. In 1995, the dominant lens seems to have been membership (or not) of medical aid schemes. Thus, data is collected separately for members and non-members of medical aid schemes. The COICOP-based surveys, in contrast, use a public-private lens instead, while the 2000 survey is somewhere in between. Thus, households' expenditures are recorded separately depending on whether the expenditure took place within the public or the private health sector. This shift, along with inconsistencies in questionnaire structure within surveys, means that item matches are extremely difficult to make.

There are two variables related to medical aid contributions—**medaidself_he** and **medaidemp_he**—that are constructed on the basis of a clean match. In the case of the former, the item *Subscriptions and premiums in connection with medical aid schemes and medical provident schemes paid by yourself (member)* that exists in the 1995 and 2000 surveys is matched with the COICOP-based items *Subscriptions and premiums in connection with medical aid schemes and medical provident schemes paid by yourself (private sector)* and *Subscriptions and premiums in connection with medical aid schemes and medical provident schemes paid by yourself (public sector)*. The **medaidemp_he** variable is constructed identically using the items related to contributions paid for by employers.

The **hospitalflatrate_he** variable is constructed similarly from single items in 1995 and 2000, and two separate public/private items in the COICOP-based surveys. In 1995 and 2000, the item is *Flat rate in respect of services and medicine obtained at hospital/clinic (non-member)* and the only substantive wording difference in the COICOP-based surveys is the public/private sector qualifiers.

The `medequip_he` variable matches a pair of items for medical aid members and non-members in 1995 and 2000, with a pair of items for the public and private sectors in 2005/2006 and 2010/2011. The former pair of items is *Therapeutic appliances and equipment, like contact lenses, dentures, crutches etc. (member)* and *Therapeutic appliances and equipment (spectacles, contact lenses, dentures, crutches etc.) (non-member)*. In the later surveys, the items are *Therapeutic appliances and equipment (like spectacles and hearing aids) in private institutions* and *Therapeutic appliances and equipment (like spectacles and hearing aids) in public institutions*.

Finally, the `tradhealers_he` consists of *Traditional healers (sangoma, inyanga) (non-member)* in 1995 and 2000, and the items *Consultations of traditional healers in private institutions/work places* and *Consultations of traditional healers in public institutions* in the COICOP-based surveys.

No other clean matches are possible within this category. This means that the `otherhealth_he` variable consists of nine items in 1995, 12 items in 2000, 25 items in 2005/2006 and 35 items in 2010/2011. The much higher number of items in later surveys is primarily the result of the questionnaire asking for expenditures against increasingly disaggregated expenditure items. In each year, the items included within this variable are:

- In 1995: *Medicines purchased without a prescription; Medical services paid by yourself; Medicine paid by yourself (member); Health services and medicine not covered by medical schemes, paid by yourself (member); Doctors, dentists, psychiatrists, specialists, opticians, nurses, homeopaths, paediatricians etc. (non-member); Hospitals, nursing-homes, clinics etc, incl. ambulance services (non-member); Therapists (physiotherapists etc) (non-member); Medicines, ointments, disinfectants, bandages purchased on prescription (non-member); and Medicines, ointments, disinfectants, bandages purchased without prescription (non-member).*
- In 2000: *Medicines purchased without a prescription (member); Medical services, incl traditional healers paid by yourself (member); Medicine with a prescription paid by yourself (member); Health services and medicine not covered by medical schemes paid by yourself (member); Doctors, dentists, psychiatrists, specialists, opticians, nurses, homeopaths, paediatricians etc (private sector); Doctors, dentists, psychiatrists, specialists, opticians, nurses, homeopaths, paediatricians etc. (public sector); Hospitals, nursing-homes, clinics etc, incl ambulance services (private sector); Hospitals, nursing-homes, clinics etc, incl. ambulance services (public sector); Therapists (physiotherapists et) (non-member); Medicines, ointments, disinfectants, bandages purchased on prescription (non-member); Medicines, ointments, disinfectants, bandages purchased without prescription (non-member); and Condoms and other contraceptives (excl tablets and injections).*
- In 2005/2006: *Medicine purchased without prescription in private institutions; Medicine purchased without prescription in public institutions; Medical services in private institutions; Medical services in public institutions; Medicine purchased with prescription in private institutions; Medicine purchased with prescription in public institutions; Pharmacy dispensing fees in private institutions; Pharmacy dispensing fees in public institutions; Pharmacy service fees in private*

institutions; Pharmacy service fees in public institutions; Other medical products (bandages, syringes, knee supports etc) in private institutions; Other medical products (bandages, syringes, knee supports etc) in public institutions; Condoms, strings and other contraceptives, (excluding tablets and injections); Other medical services in private institutions; Other medical services in public institutions; Dental service (service of dentists include oral-hygienists) in private institutions; Dental service (service of dentists include oral-hygienists) in public institutions; Medical analysis laboratories and X-ray service in private institutions; Medical analysis laboratories and X-ray service in public institutions; Service of medical auxiliaries (freelance nurse, midwives, freelance optometrist, physiotherapist, speech therapist etc) in private institutions; Service of medical auxiliaries (freelance nurse, midwives, freelance optometrist, physiotherapist, speech therapist etc) in public institutions; Non hospital service (ambulance service other than hospital) in public institutions; Non hospital service (ambulance service other than hospital) in private institutions; Hospital service fees (eg wards, beds and theatre fees) in private institutions; and Hospital service fees (eg wards, beds and theatre fees) in public institutions.

- In 2010/2011: *Medicine purchased without prescription in private institutions; Medicine purchased without prescription in public institutions; Medical services in private institutions; Medical services in public institutions; Medicine purchased with prescription in private institutions; Medicine purchased with prescription in public institutions; Traditional herbs; medicine in private sector; Traditional herbs; medicine in public sector; Pharmacy dispensing fees in private institutions; Pharmacy dispensing fees in public institutions; Other medical products (bandages; syringes; knee supports etc) in private institutions; Other medical products (bandages; syringes; knee supports etc) in public institutions; Condoms; strings and other contraceptives; (excluding tablets and injections); Other medical services in private institutions; Other medical services in public institutions; Doctors surgical procedure based interventions private sector; Doctors surgical procedure based interventions public sector; Dental service (service of dentists include oral-hygienists) in private institutions; Dental service (service of dentists include oral-hygienists) in public institutions; Medical analysis laboratories and X-ray service in private institutions; Medical analysis laboratories and X-ray service in public institutions; Service of medical auxiliaries (freelance nurse; midwives; freelance optometrist; physiotherapist; speech therapist etc) in private institutions; Service of medical auxiliaries (freelance nurse; midwives; freelance optometrist; physiotherapist; speech therapist etc) in public institutions; Non hospital service (ambulance service other than hospital) in public institutions; Non hospital service (ambulance service other than hospital) in private institutions; Hospital service fees (eg wards; beds and theatre fees) in private institutions; and Hospital service fees (eg wards; beds and theatre fees) in public institutions.*

The variable **Health** totals all variables in this category (i.e. all variables with the **_he** suffix).

3.3.10 Transport (_tr)

Private vehicles purchased (_pv)

Main source sections:

1995	2000	2005/06	2010/11
13.1: Private vehicles purchased	15.1.1: Cost of private vehicles purchased	16.1.1: Value of new private vehicles acquired 16.1.2: Value of used private vehicles acquired	15.1.1: Value of new private vehicles acquired 15.1.2: Value of used private vehicles acquired

Matched variables:

newcars_pv: New motor cars, station wagons & minibuses
newbakkies_pv: New bakkies & four-wheel drive vehicles
newmotorbikes_pv: New motorcycles & scooters
newbicycles_pv: New bicycles
usedcars_pv: Used motor cars, station wagons & minibuses
usedbakkies_pv: Used bakkies & four-wheel drive vehicles
usedmotorbikes_pv: Used motorcycles & scooters
usedbicycles_pv: Used bicycles
Vehicles_tr: SUBTOTAL: Purchase of private vehicles (_pv)

Notes:

Matches within this subcategory are straightforward and clean. Expenditures related to the purchase of private vehicles are categorised by type of vehicle and whether the vehicle is new or used. The result is two sets of four variables, one for new vehicles and one for used vehicles.

The **newcars_pv** and **usedcars_pv** variables consist of a single item in each year except 2010/2011, when the broad grouping of cars, station wagons and minibuses is split into three individual items. Similarly, the *New bakkies and four-wheel drive vehicles* and *Used bakkies and four-wheel drive vehicles* items are split into two separate items from 2005/2006 onwards.

The remaining four variables—**newmotorbikes_pv**, **newbicycles_pv**, **usedmotorbikes_pv** and **usedbicycles_pv**—are each constructed from a single expenditure item that is consistent across all surveys.

There are, though, two groups of items that are not matched in this subcategory. The first item—*Caravans and trailers, including motorised caravans*—is included in this subcategory in the original datasets in 1995, 2000 and 2005/2006. However, there is no reference to these types of vehicles in the 2010/2011 IES, nor is there a residual ‘other’ item within this subcategory. This means that this

item is unmatchable; in 2010/2011, expenditures on these items would not have been included within any of the transport-related subcategories and would, as a result, have needed to have been recorded under “Other expenditure” (section 17.6). This item is, therefore, included within the **allotherexp** variable, which is discussed in more detail below.

The second set of items—*New animal-drawn vehicles*, *Used animal-drawn vehicles*, *Horse*, *Donkey* and *Other private modes of transport*—exists only in the 2005/2006 survey and has no counterpart in any of the other surveys. Again, since there is no residual ‘other’ item within this subcategory, it would seem that expenditures of this type would have needed to have been recorded under “Other expenditure” (section 17.6) and this item is consequently included within the **allotherexp** variable.

The variable **Vehicles_tr** totals all variables in this subcategory (i.e. all variables with the **texttt_tr** suffix).

Running costs (_rc)

Main source sections:

1995	2000	2005/06	2010/11
13.1.2: Running costs	15.1.2: Running costs	16.1.6.2: Other running costs	15.1.4.1: Transport running costs

Matched variables:

carfuel_rc: Motor car fuel
 newtyres_rc: New tyres & tubes
 retreads_rc: Retreaded tyres
 spareparts_rc: Spare parts & accessories purchased for private repair, maintenance, cleaning
 carbatteries_rc: Car batteries
 oilgrease_rc: Oil & grease
 parkingfees_rc: Parking fees
 trafficfines_rc: Traffic fines
 tollfees_rc: Toll fees
 vehiclemaint_rc: Vehicle maintenance & lubrication services
 vehicleinstal_rc: Installation of air conditioning & security systems
 panelbeating_rc: Panel-beating repairs (incl repairs to others' vehicles), paid by self
 panelbeatingins_rc: Panel-beating repairs (incl repairs to others' vehicles), paid by insurer
 vehiclerepair_rc: Other repair work (incl repairs to others' vehicles), paid by self
 vehiclerepairins_rc: Other repair work (incl repairs to others' vehicles), paid by insurer
 vehiclelicence_rc: Licenses & registration fees (incl that of motorcycles)
 otherrunning_rc: All other vehicle running costs
 Runningcosts_tr: SUBTOTAL: Running costs (_rc)

Notes:

The majority of item matches within this subcategory are straightforward, with variables each constructed on the basis of a single consistent item found in each of the surveys. This is the case for carfuel_rc, newtyres_rc, retreads_rc, carbatteries_rc, oilgrease_rc, parkingfees_rc, trafficfines_rc, tollfees_rc, vehiclemaint_rc, panelbeating_rc, panelbeatingins_rc, vehiclerepair_rc, vehiclerepairins_rc, and vehiclelicence_rc.

The spareparts_rc variable is also constructed from a single item, although this item changes slightly in its wording over time. In the 1995 and 2000 surveys, the item is *Spare parts and accessories purchased for private repair and installation*, changing to *Spare parts, maintenance and cleaning materials, accessories purchased for private repair and installation* from 2005/2006 onwards. In 2010/11, the item *Cleaning material for transport running costs* was introduced and is added to

the `spareparts_rc` variable. Similarly, the items that comprise `vehicleinstal_rc` change slightly over time: from *Installation of air-conditioning and security systems* in 1995, to *Installation of air-conditioning* and *Installation of security systems* in 2000, to *Air-conditioner for cars including installation* and *Security systems for cars including installation* from 2005/2006 onwards. This match is made since it seems probable that the items in the earlier surveys do not refer only to the cost of installation, but would include also the cost of the equipment installed. Should users not be comfortable with either of these matches, these items should be collapsed into `otherrunning_rc` as this subcategory is clearly separable from other (sub-)categories.

The `otherrunning_rc` variable is essentially a residual item, constructed from a number of different items in each of the surveys. These are:

- In 1995, *Driving lessons* and *Other transport running costs*;
- In 2000, *Driving lessons*, *Car wash and valet services* and *Other transport running costs*;
- In 2005/2006, *Driving lessons, driving tests and driving licences*, *Car wash*, *Valet services* and *Other*;
- In 2010/2011, *Driving lessons, driving tests and driving licences*, *Driving licences*⁹, *Car wash*, *Valet services* and *Other*.

Although each survey has an item covering expenditure on driving lessons, the addition of driving tests and licences from 2005/2006 onwards renders a match invalid. It should be noted that operating costs associated with animal-powered transport are included in the 2005/2006 survey in a separate section (section 16.1.8). However, in line with the decision taken with respect to animal-drawn vehicles, these expenditures are included within the `allotherexp` variable discussed below.

The variable `Runningcosts_tr` totals all variables in this subcategory (i.e. all variables with the `texttt_rc` suffix).

⁹It is not clear what would be recorded against this item, given that this is a subset of the previous item.

Public and hired transport (_pt)

Main source sections:

1995	2000	2005/06	2010/11
13.2: Public and hired transport	15.2: Cost of public and hired transport	16.2: Public and hired transport	15.2: Value of public and hired transport

Matched variables:

bus_pt: Bus (education & non-education)
train_pt: Train (education & non-education)
cab_pt: Metered taxi (education & non-education)
taxi_pt: Taxis & rented vehicles (education & non-education)
otherpublic_pt: Other public & hired transport (education & non-education)
discountedfares_pt: Value of reduced transport tariffs (education & non-education)
furnitureremovals_pt: Furniture removal & transport of goods (education & non-education)
busaway_pt: Bus (away from home)
trainaway_pt: Train (away from home)
taxiaway_pt: Taxi, incl. metered & minibus (away from home)
shipaway_pt: Boat/ship (away from home)
planeaway_pt: Aircraft (away from home)
rentedaway_pt: Rented vehicles (away from home)
otheraway_pt: Other transport (away from home)
Publictransport_tr: SUBTOTAL: Public and hired transport (_pt)
Transport: TOTAL: Transport (_tr)

Notes:

Matches within this subcategory are relatively good. While the COICOP-based surveys include much detail on the nature of the expenditure on public transport—by mode of transport and by purpose (i.e. whether for educational purposes or not)—the items in the earlier surveys had much less detail. Fortunately, however, the increase in the level of detail is generally related to a disaggregation of items in earlier surveys, rather than reaggregations.

In the cases of **bus_pt**, **train_pt**, **cab_pt**, **discountedfares_pt** and **furnitureremovals_pt**, single items in the 1995 and 2000 surveys are matched to pairs of items in the COICOP-based surveys. Thus, for example, the 1995 and 2000 item *Bus (including school bus)* is matched to *Bus (including school bus), for educational purposes* and *Bus (including school bus), for non-educational purposes* in 2005/2006 and 2010/2011.

The **taxi_pt** variable includes non-metered taxis (e.g. minibus taxis) and rented vehicles, since the 1995 survey combines taxis and rented vehicles in a single item. The 2000 survey has two separate

items, *Taxi*, *other* and *Rented vehicle*. The COICOP-based surveys have three pairs of items, each pair consisting of one item for educational purposes and one for non-educational purposes. These pairs are *Minibus taxi/combi (including 30-seaters, e.g. Iveco)*; *Other (including bakkies used as taxis)*; and *Rented vehicles*.

The `otherpublic_pt` variable covers all remaining public and hired transport. In 1995 and 2000, this variable is comprised of a single residual ‘other’ item. In the COICOP-based surveys, there are again pairs of items with one item of the pair separating out expenditure for educational purposes. These pairs are: *Aircraft*; *Boat/ship*; *Lift clubs*; and *Other (e.g. horse, trailer)*.

Seven variables cover transport expenditure while individuals are away from home. This is typically referred to as ‘holiday’ in the earlier questionnaires, particularly in 1995 and 2000, but the COICOP-based questionnaires are clearer in specifying that these items include expenditures related to transport when away from home for funerals, wedding, and other events. For five of these variables—`busaway_pt`, `trainaway_pt`, `shipaway_pt`, `planeaway_pt`, and `rentedaway_pt`—matches are of single items that are consistent across surveys. For `taxiaway_pt`, a single item in 1995 and 2000 (*Taxi transport for holidays*) is matched to three disaggregated items in the COICOP-based surveys. These three items are *Metered cab while on holiday*, *Minibus taxi (including 30 seaters, eg Iveco)*, and *Other (Including bakkies used as taxis)*. Finally, the `otheraway_pt` variable is a residual variable within the set of items covering public and hired transport away from home. In 1995, only a single item exists (*Other public and hired transport for holidays*), while the other years have this or an equivalent item combined with *Supporting services (e.g. parking) while away from home*. In making this match, it is assumed that expenditures related to these supporting services would, in 1995, have been recorded within the *Other public and hired transport for holidays* item.

It should be noted that, in the 2005/2006 data, there is a set of items that have no counterpart anywhere in any of the other datasets. These items relate essentially to animal-powered transport, referred to collectively in the questionnaire as ‘Other private modes of transport’ and ‘Operational value of other modes of transport’. The specific items are:

- *New animal drawn vehicles* and *Used animal drawn vehicles*, which would ordinarily have been classified within the “Private Vehicles Purchased” subcategory (these are discussed above);
- *Horse*, *Donkey*, and *Other private modes of transport (animals)*, which fall under ‘Other private modes of transport’ in the questionnaire; and
- *Saddles*, *Horse shoes*, *Veterinary costs*, *Foods/feeds*, and *Other cost for other modes of transport*, which fall under ‘Operational value of other modes of transport’ in the questionnaire and are akin to expenditures in the “Running Costs” subcategory (discussed above).

None of the other surveys have any equivalent item or set of items; nor is there a residual ‘other’ item within the “Transport” subcategories where such expenditures may have been reported. In the other surveys, therefore, it would seem that expenditures related to these items would have been recorded in the final ‘other’ item and these items in 2005/2006 are consequently collapsed into the `alloptherexp` variable discussed below.

The variable **Publictransport_tr** totals all variables in this subcategory (i.e. all variables with the **_pt** suffix). The variable **Transport** totals all variables in this category (i.e. all variables with the **_tr** suffix).

3.3.11 Communication for household purposes (_tc)

Main source sections:

1995	2000	2005/06	2010/11
15: Communication for household purposes (monthly)	17.1: Cost of communication for household purposes	17.v: Communication for household purposes	16.2: Communication for household purposes

Matched variables:

telephony_tc: Telephony costs (incl phone rental, phone calls; landline & mobile)

internet_tc: Internet subscriptions & costs

postage_tc: Postage (stamps, packages, other)

postbox_tc: Other communication (post box rental, courier services, telegrams etc)

Communication: TOTAL: Communication for household purposes (_tc)

Notes:

Impacted by technological changes over the period, this category loses much of its detail in the process of matching. Mobile telephony is only fleetingly mentioned in 1995 (*Link to the cellular telephone network*) and expenditure on mobile phonecalls is not reported separately. The situation is only marginally better in 2000 and it is only in 2005/2006 that expenditures related to mobile telephony are fully separated from those on landline telephony.

However, more important than technological changes is the inconsistent manner in which the data is collected from household to household, a problem that impacts all the surveys. This issue relates to the fact that VAT is recorded separately only where accounts are available and this occurs for expenditures on both landline and mobile telephony. This means that expenditures on, for example, telephone calls may or may not include VAT. One option might be to pro-rate VAT to the other expenditure items, but amounts reported for VAT are often not proportional to expenditure against these other items (i.e. sometimes VAT seems to be separated from a household's private landline calls, but not from its mobile phonecalls; other times the VAT amount has no obvious relationship to the sum of expenditure on any permutation of items). The only option, then, is to collapse these various items.

The **telephony_tc** variable, then, consists of a number of items in each year.

- In 1995, it consists of *Telephone rental and installation*, *Telephone calls from private phone*, *Telephone calls from public phones*, *VAT* and *Link to the cellular telephone network*.
- in 2000, it consists of *Telephone rental and installation*, *Telephone calls from private phone*, *Telephone calls from public phones*, *Telephone calls from cellular phones*, *VAT (only if telephone account is available)*, *Connection to the cellular telephone network* and *Rent for cellular telephone network*.

- In 2005/2006 and 2010/2011, it consists of *Installation*, *Rental landline*, *Connection to the network for a landline*, *Private calls*, *Calls from public phones*, *Calls (including phone cards)*, *VAT (only if telephone account is available)*, *VAT on calls (only if telephone account is available)*, *Connection to the network for a cellphone*, and *Rental cellphone*.

The `internet_tc` variable consists of a single item in 1995 and 2000, namely *Subscription to internet/Beltel*. In 2005/2006, the item is described as *Internet subscription and other costs*, to which is added, in 2010/2011, the item *Other internet costs*.

The remaining two variables—`postage_tc` and `postbox_tc`—are closely related. The 1995 and 2000 surveys have two items in this section of the questionnaire that remain: *Postage* and *Other (telegrams, courier services, renting of post boxes, etc)*. The later surveys have six remaining items: *Stamps*, *Packages*, *Courier services* and *Other* (together called ‘Postage’); *Post box rental* and *Other (e.g. telegrams)*. Using the 1995 division of items, we match 2005/2006 and 2010/2011 items *Stamps*, *Packages* and *Other* to the 1995 and 2000 item *Postage*; and the 2005/2006 and 2010/2011 items *Courier services*, *Post box rental* and *Other (e.g. telegrams)* to the 1995 item *Other (telegrams, courier services, renting of post boxes, etc)*. Given the lack of further detail on the *Postage* item, it is possible that this match may be invalid. However, our view is that there is sufficient detail in the descriptions of the 1995 and 2000 ‘other’ item to be reasonably confident of the match. Should users, though, be uncomfortable with these matches, it is recommended that the `postage_tc` and `postbox_tc` variables be collapsed into a single variable.

The variable `Communication` totals all variables in this category (i.e. all variables with the `_tc` suffix).

3.3.12 Recreation, entertainment and sport (_re)

Main source sections:

1995	2000	2005/06	2010/11
18: Recreation, entertainment and sport	20: Recreation, entertainment and sport	12: Recreation, entertainment and sport	13: Recreation, entertainment and sport

Matched variables:

photography_re: Photography (cameras, video cameras, projectors, flashes & film)
 aircraft_re: Boats (incl outboard motors), aircraft, go-carts
 sportsequip_re: Sports equipment (tennis rackets & balls, rifles & ammunition, fishing rods etc)
 campingequip_re: Camping equipment (tents, sleeping bags, etc)
 poolmaintenance_re: Pool & garden maintenance (excl wages, incl chemicals, pool equipment, repairs)
 gardenringreq_re: Gardening requirements (excl equipment): seeds, plants, fertilizer, sprays
 petfood_re: Pets (purchase of pets, foods/feeds & other requisites)
 petlicences_re: Pet licences
 petcare_re: Pet care (eg doggy parlour; kennels & veterinary costs)
 flowers_re: Bouquets & cut flowers for household use
 toysgames_re: Hobbies, toys & games (incl software games)
 tickets_re: Admission charges (cinemas, theatres, concerts, swimming pools, sports events)
 recreationlessons_re: Fees for lessons connected with recreation, entertainment & sport
 photoprints_re: Film development & photo prints
 libraryfees_re: Library fees & fines
 Recreation: TOTAL: Recreation, entertainment and sport (_re)

Notes:

Matches in this category are generally simple, despite the fact that there is overlap between this and other categories as the questionnaire changes from year to year. In the case of six variables—*aircraft_re*, *petlicences_re*, *petcare_re*, *flowers_re*, *recreationlessons_re*, and *photoprints_re*—matches were of single items that were consistently worded across surveys.

The *sportsequip_re* variable is constructed from between one and three items, depending on the survey. In 1995, the item *Sports equipment (tennis rackets and balls, rifles and ammunition, fishing rods, etc)* forms the basis for this variable. In 2000, the questionnaire separates out *Rifles and ammunition*, leaving a *Tennis rackets and balls, fishing rods, etc* item. These two items are merged to create the match. The COICOP-based surveys provide further disaggregation, creating separate *Firearms and ammunition* and *Firearms and ammunition (for security services)* items, the

latter actually being asked in the “Housing” category in both surveys. These two items are merged with the *Tennis rackets and balls, fishing rods, etc* item to create the match.

The `campingequip_re` variable consists of a single item in 1995, 2005/2006 and 2010/2011, and two items in 2000. There are very slight wording changes, but these are unlikely to have materially impacted on the reported expenditures. The COICOP-based surveys have a single item described as *Camping equipment (tents, sleeping bags, etc)*. In 2000, the item is *Camping equipment (tents etc)*, while data on *Sleeping bags* is collected in section 13.2 of the questionnaire (“Household Textiles”). In 1995, the item is simply *Camping equipment* and there is no reference to sleeping bags in the questionnaire at all.

The `poolmaintenance_re` variable combines items relating to pool and garden maintenance. Although there are two items in each of the surveys that would ordinarily have been matched individually across the surveys to create two variables, there is a change in the wording from 2000 onwards that renders such a match invalid. In 1995, *Swimming pool equipment, repairs and chemicals* and *Garden and swimming-pool maintenance (excl. gardeners’ wages)*. In 2000, ‘chemicals’ are shifted out of the former item and into the second item. Thus, the two items are *Swimming pool equipment and repairs of equipment* and *Garden and swimming pool maintenance (excl. wages of persons who maintain pools but incl. chemicals)*. Since wages of gardeners are included in section 4 (“Domestic Workers”) of the 2000 questionnaire, the match is valid. The situation in the 2005/2006 and 2010/2011 datasets is identical to the 2000 dataset.

The `gardeningreq_re` variable is constructed from a single item in 1995, 2005/2006 and 2010/2011, and from two items in 2000. In 1995, the item is *Gardening requirements (excl. gardening equipment; e.g. seeds, plants, including shrubs and trees, fertilizer, plant and pest spray remedies)*. In the COICOP-based surveys, this is simplified to *Seed, plants, shrubs, and trees, fertilizer, plant and pest spray remedies*. In 2000, the item is split into two: *Gardening requirements (excl. gardening equipment)* and *Seeds, plants, shrubs and trees, fertilizer, plant and pest spray remedies*.

The `petfood_re` variable covers purchases of pets, pet food and other requisites. In 1995 and 2000, these expenditures are recorded in a single item, *Pets (purchase of pets, foods/feeds and other requisites)*. The COICOP-based surveys, though, disaggregate this item. In 2005/2006, there are separate items for *Purchase of pets*, *Pet food/feeds and other requisites* and *Purchase of watch dogs* (the latter is collected in section 4 on “Housing”). In 2010/2011, a further two items are added, namely *Purchase of herding dogs* and *Purchase of hunting dogs*.

Various admission charges are grouped to form the `tickets_re` variable. The single item *Admission charges (cinemas, theatres, concerts, swimming pools, sports events)* that exists in the 1995 and 2000 datasets is disaggregated into five items in the COICOP-based surveys. These are: *Admission charges: cinemas, theatres, concerts, festivals*, *Admission charges: sports*, *Admission charges: museums and zoos etc*, *Admission charges: amusement parks*, and *Admission charges: other*.

The matching of items to create the `libraryfees_re` variable involves a single item in 1995–*Library fees and fines*—that is disaggregated in varying ways in later surveys. Thus, in 2000, there are three items that collect data for the past week, the past month or the past 12 months. In

2005/2006, expenditures on *Library fees and fines* is collected separately for academic and non-academic purposes and, if for academic purposes, respondents are asked to report separately the amount they paid themselves and the amount paid by means of a grant or non-refundable bursary. There are a further two items in the 2005/2006 data that are included in the match, namely *Library services for academic purposes (paid by individual)* and *Library services for academic purposes (paid by grant)*.¹⁰ In 2010/2011, there is only a single *Library fees and fines* item.¹¹

The match that creates the `toysgames_re` variable is slightly messy. In 1995 and 2000, the item is *Net expenditure on hobbies, toys and games*, which seems to imply that it has been offset against a corresponding income. However, both surveys include an income item *Net income from hobbies, sidelines and part-time activities*—the only income item related to hobbies—and a corresponding expenditure item *Net loss on expenditure incurred in obtaining income or additional income by working for your own account, including part-time farming but excluding dwellings*, to which loss-making respondents are directed (i.e. respondents are meant to fill in one item or the other, but not both). The 2005/2006 and 2010/2011 items are far less ambiguous: *Hobbies* and *Toys and games, video games (including software games)*. This is arguably not a particularly robust match: should users feel uncomfortable with this match, the `toysgames_re` variable should be collapsed into the `allotherexp` variable.

The variable `Recreation` totals all variable in this category (i.e. all variables with the `_re` suffix).

¹⁰Since there are no questions in the questionnaire that refer to ‘library services’, these two items (COICOP codes 09422400 and 09422401) must come from the diary.

¹¹The description for this item is listed as *Library fees and fines (for non-academic purposes)*. However, the only related question in the 2010/2011 questionnaire makes no reference to ‘non-academic purposes’, nor is there an ‘academic purposes’ counterpart item. It would therefore seem that this COICOP code has been re-used as is from the 2005/2006 set of codes without amending the description.

3.3.13 Education (_ed)

Main source sections:

1995	2000	2005/06	2010/11
16: Education	18: Education	13: Education and training	2.4: Expenditures for education and training for public and private institutions

Matched variables:

daycare_ed: Tuition: Day-care mothers, creches & playgroups (self)
 daycaregrant_ed: Tuition: Day-care mothers, creches & playgroups (grant)
 schoolfees_ed: Tuition: Primary & secondary schools (self)
 schoolfeesgrant_ed: Tuition: Primary & secondary schools (grant)
 postschool_ed: Tuition: Tertiary/college/educ not definable by level/private tuition (self)
 postschoolgrant_ed: Tuition: Tertiary/college/educ not definable by level/private tuition (grant)
 othertuition_ed: All other tuition costs (self)
 othertuitiongrant_ed: All other tuition costs (grant)
 hostel_ed: Boarding fees, all institutions (self)
 hostelgrant_ed: Boarding fees, all institutions (grant)
 textbooks_ed: Textbooks (self)
 textbooksgrant_ed: Textbooks (grant)
 Education: TOTAL: Education (_ed)

Notes:

Matches within the “Education” category typically involve multiple items within a survey, more so than is the case in other categories. This is the result of the introduction of separate variables in the COICOP-based surveys for expenditures related to public and private educational institutions. Across all the surveys, a further distinction is made between expenditures paid by the respondent (or their household) and those paid by means of grants or non-refundable bursaries. This distinction is maintained throughout the matching process. For the sake of brevity, then, only the matches for those items relating to expenditures paid by the respondent is described; matches for the corresponding items funded by grants are made identically.

A number of variables are constructed using single items in 1995 and 2000, which are disaggregated by institutional sector (public or private) in the COICOP-based surveys. For example, *daycare_ed* consists of tuition and attendance fees for *Day-care mothers, crèches and playgroups (self)* in 1995 and 2000, and from 2005/2006 onwards it consists of tuition and attendance fees for *Day-care mothers, crèches and playgroups in public institutions (self)* and *Day-care mothers, crèches and playgroups in*

private institutions (self). The same types of matches are made for `daycaregrant_ed`, `textbooks_ed`, and `textbooksgrant_ed`.

The `schoolfees_ed` variable is comprised of tuition and attendance fees for *Schools (self)* in 1995; for *Public schools including model C schools (self)* and *Private schools (self)* in 2000; and in the COICOP-based surveys for *Primary education, including literacy programmes for students too old for primary school (self)* and *Secondary education, including out-of-school secondary education for adults and young people (self)*, both being disaggregated into items relating to public schools and private schools (for a total of four items). The same type of match is made for `schoolfeesgrant_ed`.

Due to inconsistencies between the surveys, partly linked to changes in the education system over time, expenditures related to all post-secondary education are collapsed into a single variable. The `postschool_ed` variable consists of tuition and attendance fees for *Teachers' training, agricultural and technical colleges, and technikons (self)* and *Universities (self)* in 1995 and 2000. In 2005/2006, it consists of *Tertiary education in public institutions (self)*, *Tertiary education in private institutions (self)*, *Vocational training in public institutions (self)*, *Vocational training in private institutions (self)*, *Computer certification schools, public (self)*, *Computer certification schools, private (self)*, *Other education not definable by level (including language classes) in public institutions (self)*, and *Other education not definable by level (including language classes) in private institutions (self)*. The same type of match is made for `postschoolgrant_ed`. Where users feel that this is not a particularly robust match, this pair of variables should be collapsed with the `othertuition_ed` and `othertuitiongrant_ed` variables, described below.

The `othertuition_ed` variable consists of all remaining tuition items collected in the surveys. In each survey, this variable includes tuition and attendance fees for pre-primary schools. In 1995 and 2000, the matched items are *Pre-primary schools, after-school centres etc. (self)* and *Private tuition in subjects of an educational nature (self)*. From 2005/2006 onwards, the items are *Other tuition fees for private institutions (self)*, *Other tuition fees for public institutions (self)*, *Pre-primary education in public institutions (self)* and *Pre-primary education in private institutions (self)*. The same type of match is made for `othertuitiongrant_ed`.

The `hostel_ed` variable covers boarding fees across all types of educational institutions. The 1995 and 2000 surveys do not distinguish between different types of institutions; the single item that is matched in these surveys is *Boarding fees: schools, teacher training and technical colleges, technikons, universities, etc. (self)*. The COICOP-based surveys, however, differentiate by institution type. The six items that are matched are *Public school boarding fees (self)*; *Boarding fees at public teachers' training and technical colleges, technikons (self)*; *Public university boarding fees (self)*; *Private school boarding fees (self)*; *Boarding fees at private teachers' training and technical colleges, technikons (self)*; and *Private university boarding fees (self)*. The same type of match is made for `hostelgrant_ed`.

The remaining items within the “Education” category in each of the questionnaires can, unfortunately, not be matched either individually or collectively. Although this seems like a well-contained and closed category in theory—education-related expenses seem easily identified as such—in practice this does not seem to be the case. For example, expenses related to field trips are specifically collected

from 2000 onwards, but it is not clear that these expenditures would have been recorded against the residual ‘other’ item in 1995. In the COICOP-based surveys, it is indicated that expenditure on junior laptops should be reported against the *Other* item. However, this is not the case in the earlier surveys and it seems implausible that respondents in these surveys would have chosen to report purchases of these devices in the “Education” category (as opposed to the “Computer and Telecommunication Equipment” category). These unmatched items, which are collapsed into the `allothexp` variable, are:

- In 1995, *Other education expenses (self)*, *Non-tuition expenses (e.g. contributions to sports grounds) (self)*, *Other education expenses (grant)* and *Non-tuition expenses (e.g. contributions to sports grounds) (grant)*;
- In 2000, *Other education expenses (self)*, *Fieldtrips (self)*, *Non-tuition expenses (e.g. contributions to sports grounds) (self)*, *Other education expenses (grant)*, *Fieldtrips (grant)* and *Non-tuition expenses (e.g. contributions to sports grounds) (grant)*;
- In 2005/2006, *Excursions, public institutions (self)*, *Excursions, private institutions (self)*, *Non-tuition expenses (e.g. contributions to sports grounds), public institutions (self)*, *Non-tuition expenses (e.g. contributions to sports grounds), private institutions (self)*, *Excursions, public institutions (grant)*, *Excursions, private institutions (grant)*, *Non-tuition expenses (e.g. contributions to sports grounds), public institutions (grant)*, and *Non-tuition expenses (e.g. contributions to sports grounds), private institutions (grant)*;
- In 2010/2011, *Excursions, public institutions (self)*, *Excursions, private institutions (self)*, *Excursions, public institutions (grant)*, and *Excursions, private institutions (grant)*.

The variable `Education` totals all variables in this category (i.e. all variables with the `_ed` suffix).

3.3.14 Goods and services for routine household maintenance (_hm)

Non-durable household goods (_hg)

Main source sections:

1995	2000	2005/06	2010/11
7: Other household consumer goods (monthly)	9.1: Cost of other household consumer goods (monthly)	Diary (Non-durable household goods)	Diary (Non-durable household goods)

Matched variables:

washingpowder_hg: Soap (not toilet soap), washing powders, liquid detergents & bleaches, dishwasher tablets

polishes_hg: Floor, shoe & furniture polish

scourers_hg: Scouring powders, pot scourers

insecticides_hg: Insecticides (indoor), pesticides, drain & toilet cleansers, air freshener etc

matches_hg: Matches

brooms_hg: Brooms, brushes, feather dusters, etc

plasticbags_hg: Packaging materials (plastic bags & sachets, foil, wax paper etc)

paperplates_hg: Paper serviettes, disposable dinner ware (plates, cups etc)

Hhgoods_hm: SUBTOTAL: Non-durable household goods (_hg)

Notes:

For the most part, matches made in this subcategory are relatively straightforward. In fact, all variables listed within this subcategory are constructed from a single consistent item across all surveys. There are some minor changes to the descriptions of some of the items over time—for example, pesticides are specifically mentioned only from 2005/2006 onwards in the description of the item that forms the **insecticides_hg** variable.

However, within the questionnaires, the main source sections listed above are rather ‘messy’ outside of these matched items. This occurs as new items are introduced over time with little direct connection to existing items. For example, the 2000 IES sees the introduction of *Scissors*, *needles*, *pins*, which has no forerunner in the 1995 survey. Furthermore, while the COICOP-based surveys classify this item within the “Non-Durable Household Goods” subcategory, the 2000 survey classifies it within “Clothing and Footwear”. Where this expenditure would have been recorded in 1995 is unclear, although the original 1995 *Other household consumer goods* item includes, as an example, pins. Similarly, the *Dishcloths (wash and dry)* item is first introduced in 2000, with no clear forerunner in 1995, while *Fire lighters* is introduced in 2005/2006. Even the residual *Other household consumer goods* item is not necessarily consistent, given that we do not know where expenditures in terms of these newly introduced items would have been classified in 1995 or, in the case of *Fire lighters*, 2000.

For this reason, these items cannot be included within this subcategory while also trying to maintain consistency.

The variable `Hhgoods_hm` totals all variables in this subcategory (i.e. all variables with the `_hg` suffix).

Domestic services and household articles (_hs)

Main source sections:

1995	2000	2005/06	2010/11
2: Domestic workers (monthly)	4: Domestic workers (monthly)	7: Domestic workers (monthly)	8: Domestic workers (monthly)
8: Household services (monthly)	10: Household services (monthly)	????	????

Matched variables:

`domesticworker_hs`: Cash wage incl transport allowance: General domestic worker

`childminder_hs`: Cash wage incl transport allowance: Childminder/nanny

`cook_hs`: Cash wage incl transport allowance: Cook

`chauffeur_hs`: Cash wage incl transport allowance: Chauffeur

`clotheswasher_hs`: Cash wage incl transport allowance: Clothes washer/ironer

`gardener_hs`: Cash wage incl transport allowance: Gardener

`otherdworker_hs`: Cash wage incl transport allowance: Other domestic workers

`laundryservices_hs`: Laundry service for HH textiles/carpets; nappy services (incl launderettes)

`fumigation_hs`: Fumigation & cleaning services (incl for upholstery, swimming pool, window cleaning etc)

`Hhservices_hm`: SUBTOTAL: Domestic services and household articles (_hs)

`Hhmaint`: TOTAL: Goods and services for household maintenance (_hm)

Notes:

This subcategory consists of cash wages paid to domestic workers as well as various other household services. Matching of these items is straightforward, but matches are non-exhaustive of the Household Services sections of the questionnaires.

The IES microdatasets vary in the level of included detail relating to domestic workers. Each of the surveys asks, across a variety of types of domestic workers, the number of domestic workers; the total number of hours usually worked; the cash wage including transport allowance paid; contributions to personnel funds (e.g. pension or medical aid); and the estimated value of free food, free accommodation and free clothing and other free services provided to domestic workers. The 1995 and 2000 datasets include all of this information, but later datasets include only the total cash wage for each type of domestic worker.

For `domesticworker_hs`, `childminder_hs`, `cook_hs`, `chauffeur_hs`, `clotheswasher_hs` and `gardener_hs`, the matches were of single items that were consistent across all surveys apart from minor wording changes related to the childminder item. The `otherdworker_hs` is constructed from a single *Cash wage incl transport allowance: Other domestic workers* item in 1995 and 2000. In 2005/2006, an

additional item for wages for babysitters is introduced, to which is added items relating to minders of the elderly or sick, herders and firewood and water collectors in 2010/2011.

The `laundryservices_hs` and `fumigation_hs` variables are constructed from single items that are consistent across the surveys.

The variable `Hhservices_hm` totals all variables in this subcategory (i.e. all variables with the `_hs` suffix). The variable `Hhmaint` totals all variables in this category (i.e. all variables with the `_hm` suffix).

3.3.15 Computer and telecommunication equipment (_ct)

Main source sections:

1995	2000	2005/06	2010/11
14: Computer and telecommunication equipment	16.1: Cost of computer and telecommunication equipment	17.1: Computer and telecommunication equipment	16.1: Computer and telecommunication equipment

Matched variables:

`computers_ct`: Computers, software, calculators, disks & consumables

`phones_ct`: Phones (incl mobile phones), fax machines, answering machines

`twowayradio_ct`: Two-way radios

`Computer`: TOTAL: Computer and telecommunication equipment (_ct)

Notes:

Virtually all detail is lost within this category during the matching process. This is essentially the result of the design of the 1995 questionnaire that has only three, very broad items within this category. Fortunately, the items in later questionnaires are generally disaggregations of these broad items, meaning that further collapsing of items during the matching process is not required.

The variable `computers_ct` consists of one item in 1995, six items in 2000, eight items in 2005/2006 and 12 items in 2010/2011. These are:

- In 1995, *Personal computers, software, calculators, diskettes and consumable goods*;
- In 2000, *Personal computers; Software; Calculators; Diskettes and consumable goods; Printers; and Modems*;
- In 2005/2006, *Personal desktop computers (excl laptops); Parts and upgrading of computers; Laptops and palmtops; Software; Calculators; Diskettes, CDs, flash disks and other consumable goods; Printers, scanners, copiers; and Modems*; and
- In 2010/2011, *Personal desktop computers (excl laptops); Laptops, notebooks, tablets; Software; Calculators; Computer parts; Flash disks and portable external hard drives; CDs, DVDs, Blu-ray disks; Other consumables; Printers, scanners, copiers; and Modems and routers*.

As can be seen, new expenditure items are added over time. These include printers, modems, and computer parts. However, it would seem that any expenditures on these new items would have been included within the single broad item in 1995, rather than elsewhere in the questionnaire. In that sense, the impact of the addition of newer items on the consistency of the constructed variables is

limited by the extent to which these types of expenditure are confined to “Computer and telecommunication equipment” category.

All communication equipment is covered within the **phones_ct** variable. This includes all types of telephones—including mobile, cordless, and car phones—as well as fax machines, answering machines and pagers. The variable is constructed from a single item in 1995, three items in 2000, five items in 2005/2006 and four items in 2010/2011.

Two-way radios is the only item in this category that is consistent across all surveys and forms the **twowayradio_ct** variable.

The variable **Computer** totals all variables in this category (i.e. all variables with the **_ct** suffix).

3.3.16 Newspapers, books and stationery (_np)

Main source sections:

1995	2000	2005/06	2010/11
17: Reading matter and stationery	19.1: Cost of reading matter and stationery	14.1: Reading material and stationery equipment	14.1: Reading material and stationery

Matched variables:

newspapers_np: Newspapers

magazines_np: Magazines & periodicals

books_np: Books (excl for academic purposes)

stationery_np: Stationery

Reading: TOTAL: Newspapers, books and stationery (_np)

Notes:

The matches within this category are straightforward, with the only complication encountered in constructing the **stationery_np** variable.

In all years except 2000, a single item that is consistent across all surveys forms the basis of the matches in creating the **newspapers_np**, **magazines_np** and **books_np** variables. In 2000, there are three items in each instance, relating to expenditures in the past week, the past month and the past year. This does not cause any issues in terms of the matching.¹²

The **stationery_np** variable collapses items relating to stationery expenditures for educational and for non-educational purposes. This is due to the fact that the 2010/2011 survey does not separate stationery expenditures according to purpose.¹³

The variable **Reading** totals all variable in this category (i.e. all variables with the **_np** suffix).

¹²In the COICOP code list, the description for expenditures on books is *Books (excluding those in 1614)* for both 2005/2006 and 2010/2011. The reference to “1614” does not make much sense, with section 16 being ‘Transport’ in 2005/2006 and “Computer and telecommunication equipment” in 2010/2011. Both surveys, though, do ask for expenditures on textbooks within the “Education” category, in line with earlier surveys. It is assumed, therefore, that the reference to “1614” is incorrect.

¹³Despite this, Statistics South Africa uses the identical COICOP code (09541100) for *Stationery (excluding those for academic purposes)* in the 2005/06 data and for *Stationery* in 2010/11, while continuing to label it (incorrectly) as *Stationery (excluding those for academic purposes)* in the latter dataset.

3.3.17 Restaurants and hotels (_rh)

Main source sections:

1995	2000	2005/06	2010/11
1: Housing	3: Cost of housing	6.1: Expenditure when away from home	7.1: Expenditure when away from home
3: Food (monthly)	5.13: Cost of meals and snacks purchased and consumed away from home or purchased as take-aways (monthly)	Diary (Meals in restaurants, cafés, canteens and the like)	Diary (Meals in restaurants, cafés, canteens and the like)
4: Alcoholic and non-alcoholic beverages (monthly)	6.1: Cost of non-alcoholic beverages (monthly) 6.2 Cost of alcoholic beverages (monthly)	Diary (Beverages in restaurants, cafés, canteens and the like)	Diary (Beverages in restaurants, cafés, canteens and the like)

Matched variables:

`netexphome_rh`: Expenses incurred as owner of holiday home, after deduction of letting income

`hotels_rh`: Hotels, motels, boarding fees

`holidayrent_rh`: Rent paid for holiday flat/house, private house, caravan etc

`eatingout_rh`: Meals, snacks consumed in restaurants etc; take-aways

`softdrinkson_rh`: Soft drinks (consumed on-site)

`springwateron_rh`: Mineral/spring water (consumed on-site)

`juiceon_rh`: Fruit squashes/juices (consumed on-site)

`spiritson_rh`: Spirits (consumed on-site)

`fortifiedwineon_rh`: Fortified wine (consumed on-site)

`sorghumbeeron_rh`: Sorghum beer (consumed on-site)

`otheralcbevon_rh`: Other alcoholic beverages (consumed on-site)

`Restaurant`: TOTAL: Restaurants and hotels (_rh)

Notes:

Matches of expenditure items within this category are somewhat more complex than is the case in most other categories. The first thing to note is that this category—which is broadly aligned to the COICOP structure—draws items from across a number of sections within the questionnaires. This is particularly true of the 1995 and 2000 surveys. There are broadly three components that make up this category, namely expenditures on accommodation, on food and on beverages. However, corresponding subcategory totals were not constructed in the final dataset.

Straightforward matches of single items that are consistent across surveys are possible in the cases of `softdrinkon_rh`, `springwateron_rh`, `spiritson_rh`, `fortifiedwineon_rh`, `netexphome_rh` and

holidayrent_rh. The variable **sorghumbeeron_rh** is constructed from a single item in 1995 (*Sorghum beer, consumed on-site*), and from two items in later surveys namely *Sorghum beer (bottled), consumed on-site* (or *Sorghum beer (pre-packed) from food service places* from 2005/2006 onwards) and *Sorghum beer (traditional), consumed on-site* (or *Sorghum beer (traditional) from food service places* from 2005/2006 onwards).

The **hotels_rh** variable consists of a single item in 1995, 2000 and 2005/2006, namely *Hotel, motel and/or boarding fees (paying for yourself)*. The 2010/2011 survey splits this item by type of establishment, yielding the five items *Hotels*, *Bed and breakfast*, *Guest house*, *Lodges* and *Motels*. There is, though, one slight issue related to wording. In the 1995 and 2000 surveys, the item is asked under the heading ‘Holiday accommodation’, while this is not the case in the later surveys. In fact, the later surveys note that this item should include expenditures incurred for holidays, as well as funerals, weddings and other events. It is not clear to what extent this wording impacts on the comparability of these items. Given that there is no other place in the 1995 and 2000 surveys where expenditure on non-holiday-related accommodation could have been recorded (apart from the final *All other expenditure* item), this match is made. However, should users feel uncomfortable with this match, this variable should be collapsed into the **allotherexp** variable.

The **otheralcbevon_rh** variable captures all alcoholic beverages—apart from spirits, fortified wine and sorghum beer—purchased from food service places. In each year, the exact items differ, but there is always an ‘other’ item amongst these. In 1995, this variable consists of *Other spirits (including liqueur), consumed on-site*; *Table wines (excluding sparkling wine), consumed on-site*; *Beer, dark beer and cider, consumed on-site* and *Other alcoholic beverages, consumed on-site*. In 2000, the items are *Other spirits (including liqueur), consumed on-site*; *Table wines (including sparkling wine), consumed on-site*; *Beer (lager, cider etc), consumed on-site*; *Cooking wines, consumed on-site*; and *Other alcoholic beverages, consumed on-site*. In the COICOP-based surveys, the items are *Table wines (including sparkling wine) from food service places*; *Cooking wines from food service places*; *Spirit coolers (cider, hooch etc) from food service places*; *Clear beer purchased from food service places*; and *Other (e.g. mampoer, home-brewed) from food service places*. The shifts in classification of items such as sparkling wine and cider necessitate the creation of the **otheralcbevon_rh** variable.

The **eatingout_rh** variable is constructed on the basis of a messy match. Statistics South Africa’s method of collecting data on meals from restaurants and hotels etc. and take-away meals has changed significantly over time and the variables included in the original datasets have inconsistent descriptions. In 1995 and 2000, there are three relevant items, namely *Meals and snacks (consumed in hotels, restaurants etc.)*; *Take-away meals purchased for home or elsewhere*; and *Meals and delicacies enjoyed in staff cafeterias*, collected using the recall method. However, in 2005/2006, this type of expenditure is collected via the diary, which results in nine different items. These are: *Burger*, *Burger and chips*, *Curry and rice*, *Pap and meat*, *Other prepared meals-11121150*, *Other prepared meals-11121160*, *Other prepared meals-11121170*, *Other prepared meals-11121180*, and *Other prepared meals-11121190*. No further description of these other prepared meal codes is given. In 2010/2011, Statistics South Africa includes in the original data a single item called *Burger*. Without any further documentation from

Statistics South Africa, it can only be assumed that this single variable actually includes expenditures on all types of meals from food service places rather than simply *Burger[s]*.¹⁴ A further complication is the introduction of items for a range of non-alcoholic beverages (particularly hot beverages, such as tea and coffee) in 2005/2006 that have no counterpart in the earlier surveys. In the 1995 and 2000 surveys, therefore, it is unclear where expenditure on a cup of coffee at a restaurant would have been classified. There are two feasible options: either in the residual *All other expenditure* item at the end of the questionnaire, or it might have been included within one of the three meal-related items. Given the existence of these meal-related items and the similarity of the nature of the purchases, it is assumed that hot beverage purchases were included in the meal-related items pre-2005/2006. The same assumption is made for the residual non-alcoholic (cold) beverages in those surveys. Should users feel uncomfortable with this match, this variable should be collapsed into the `allotherexpenditure` variable given its potential overlap with the *All other expenditure* item.

The variable `Restaurant` totals all variable in this category (i.e. all variables with the `_rh` suffix).

¹⁴Indeed, this rationalisation of items may be related to the rationalisation of indicator products for the Consumer Price Index. If burgers were chosen as the indicator product for meals purchased from food service places, it is quite possible that this decision found its way into the coding of the IES data in the form of the name of the item, even though the item is actually far broader in scope.

3.3.18 Personal care (_pc)

Main source sections:

1995	2000	2005/06	2010/11
6: Personal care (monthly)	8: Personal care (monthly)	Diary (Personal care)	Diary (Personal care)

Matched variables:

hairdressingm_pc: Hairdressing, beauty care & other personal care services - Male
 hairdressingf_pc: Hairdressing, beauty care & other personal care services - Female
 pcareappliances_pc: Personal care electrical appliances (hairdryers, shavers, etc)
 hairpieces_pc: Hair pieces
 shampoo_pc: Shampoo & conditioners
 hairspray_pc: Sprays
 otherhairprep_pc: Other hair preparations
 dnappies_pc: Disposable nappies
 tissues_pc: Tissues
 santowels_pc: Sanitary towels, tampons
 toothpaste_pc: Toothpaste, toothbrushes, mouthwash, dental floss
 shaving_pc: Shaving soap & cream, razors & razor blades. aftershave lotions
 skincream_pc: Skin creams, cleansers & lotions; perfumes
 deodorant_pc: Powder (incl. baby powder) & deodorants
 makeup_pc: Make-up preparations, not shown elsewhere (eg lipstick, eye shadow etc)
 toiletpaper_pc: Toilet paper
 soap_pc: Body soap, bubble bath, bath oils & bath salts
 Personalcare: TOTAL: Personal care (_pc)

Notes:

For the most part, matches within the “Personal Care” category are clean. Several variables are constructed on the basis of matches of consistently worded items across all surveys. These include *toiletpaper_pc*, *santowels_pc*, *tissues_pc*, *dnappies_pc*, *hairspray_pc* and *deodorant_pc*.

For another set of variables, matches are made using single variables in each year, despite slight wording changes over time. This is true of:

- *hairpieces_pc*: the 1995 item *Wigs, pieces and hair extensions* is matched to *Hair pieces* in subsequent surveys;
- *shampoo_pc*: the 1995 item *Shampoo* is matched to *Shampoo and conditioners* in subsequent surveys;

- **otherhairprep_pc**: the 1995 item *Other hair preparations* is matched to *Hair care preparations (mousse, relaxers, gels etc)* in subsequent surveys; and
- **skincream_pc**: the 1995 and 2000 *Skin creams and lotions (incl. baby lotion), perfumes and colognes* is matched to *Skin creams and lotions (incl. baby lotions), facial cleansers and toners, perfumes and colognes*.

The **hairedressingm_pc** and **hairedressingf_pc** variables are constructed from single variables in each survey that appear to be consistent, although it is not possible to determine with certainty given that this item was collected through the diaries in the COICOP-based surveys. In 1995 and 2000, the matched items are *Hairedressing, beauty care and other personal care services*, while in the COICOP-based surveys the items are described as *Hairedressing salons and personal grooming establishment*; one set of items is for men and boys, while the other is for women and girls. Since there are no other personal care services listed in the questionnaire, these matches are considered valid.

In the case of two variables, single aggregated items in the 1995 survey are matched with two disaggregated items in subsequent surveys. The variable **toothpaste_pc** consists of a match between *Toothpaste, toothbrushes, mouthwash, dental floss* in 1995 and *Toothpaste, toothbrushes, electrical toothbrushes* and *Mouthwash and dental floss* in later surveys. The **shaving_pc** variable consists of *Shaving soap and cream, razor blades and aftershave lotion* in 1995, and *Shaving soap and cream, aftershave lotions* and *Razors and razor blades* in subsequent surveys.

For **pcareappliances_pc**, single aggregated items in 1995 and 2000 are matched with three disaggregated items in the 2005/2006 and 2010/2011 surveys. In the earlier two surveys, the matched item is *Personal care electrical appliances (hairdryers, shavers etc)*, which is matched to *Hairdryers, Shavers* and *Other personal care electrical appliances (eg hot brush, vibrator, etc)*.

In 1995, two items—*Lipsticks and nail care preparations* and *Make-up preparations not shown elsewhere*—are merged to create the **makeup_pc** variable. In subsequent surveys, these two items are matched to *Make-up preparations not shown elsewhere (lipstick, eyeshadow etc)*

The **soap_pc** variable consists of *Toilet soap, bath oils and bath salts* in 1995, which is matched to *Body soap (incl. Sunlight, liquid soap)* and *Bubble bath, bath oils and bath salts* in subsequent surveys.

The variable **Personalcare** totals all variable in this category (i.e. all variables with the **_pc** suffix).

3.3.19 Personal effects n.e.c. (_pe)

Main source sections:

1995	2000	2005/06	2010/11
19.1: Miscellaneous expenditure—Goods	21.1: Cost of miscellaneous goods	11.13: Miscellaneous goods	12.6: Value of miscellaneous goods

Matched variables:

watches_pe: Watches & personal jewellery

bags_pe: Handbags, travelling bags, school bags

miscgoods_pe: Other misc. goods & repairs (incl. articles for babies; umbrellas, sunglasses)

Personaleffects: TOTAL: Personal effects n.e.c. (_pe)

Notes:

Matches within the “Personal effects n.e.c.” category are straightforward. Both **watches_pe** and **bags_pe** are constructed from single variables that are consistently worded across surveys. The remaining variable, **miscgoods_pe**, is constructed from two items in 1995 and 2000, five items in 2005/2006 and three items in 2010/2011. In 1995 and 2000, the two items are *Prams, pushcarts, carrycots, sitting chairs, etc.* and *Other miscellaneous goods (umbrellas, pocket-knives, sunglasses etc.), incl. repairs*. These are matched, in 2005/2006, to *Prams and push-carts, Car seats for babies, Carry-cot toys etc., Value of repairs to miscellaneous items*, and *Other (umbrellas, pocket-knives, sunglasses, etc.) including repairs*. In 2010/2011, these five items are consolidated into three items: *Prams and push-carts, Value of repairs to miscellaneous items* and *Other (umbrellas; pocket-knives; sunglasses; etc.) including repairs*.

The variable **Personaleffects** totals all variables in this category (i.e. all variables with the **_pe** suffix).

3.3.20 Membership fees, remittances, donations, gifts and maintenance (_fg)

Main source sections:

1995	2000	2005/06	2010/11
19.2: Membership fees, remittance and members' fees, donations, gifts and maintenance	21.2: Cost of membership fees, remittance and members' fees, donations, gifts and maintenance	18.2: Professional and membership fees	17.2: Professional and membership fees
		18.5: Remittances, gifts and maintenance	17.4: Remittances, gifts and maintenance

Matched variables:

remittances_fg: Maintenance of family/dependents living elsewhere, incl alimony (cash & in-kind)

memberfees_fg: Membership fees (unions, associations, societies)

gymfees_fg: Membership fees for gymnasiums; health; sport & social clubs

exhhgifts_fg: Gifts to non-household members (cash & in-kind)

Feesandgifts: TOTAL: Membership fees, remittances, donations, gifts (_fg)

Notes:

Matches in the sections of the questionnaires listed above are relatively difficult given changing wording over time and shifts of items across questionnaire sections. Within this category, there are four variables in the matched dataset. Two variables are constructed on the basis of single items in each dataset that are consistently worded across surveys. These are **memberfees_fg** and **gymfees_fg**.

The remaining two variables—**remittances_fg** and **exhhgifts_fg**—are constructed by matching single items in 1995 and 2000 to pairs of items that disaggregate cash and in-kind values in the COICOP-based surveys. Thus, **remittances_fg** consists of *Maintenance of family member and dependents living elsewhere (including alimony paid to ex-wife, children)* in 1995; *Maintenance of/remittance to family member and dependents living elsewhere (including alimony paid to ex-wife, children)* in 2000; and *Cash maintenance of/remittance to family members and dependants living elsewhere (including alimony/palimony paid to ex-wife/ex-husband, children)* and *In-kind maintenance of/remittance to family members and dependants living elsewhere (including alimony/palimony paid to ex-wife/ex-husband, children)* from 2005/2006 onwards. Similarly, the **exhhgifts_fg** variable consists of *Gifts for persons who are not members of this household (including cash gifts)* in 1995 and 2000, and *Gifts to persons who are not members of this household (excluding cash gifts) in kind* and *Gifts to persons who are not members of this household (excluding cash gifts)* from 2005/2006 onwards.

The variable **Feesandgifts** totals all variables in this category (i.e. all variables with the **_fg** suffix).

3.3.21 Finance, insurance and banking (_fc)

Main source sections:

1995	2000	2005/06	2010/11
19.4: Finance, insurance, etc	21.4: Cost of finance, insurance, etc.	18.1: Finance and banking 18.4: Personal insurance and other investments	17.1: Finance and banking 17.3: Personal insurance

Matched variables:

bankcharges_fc: Bank charges
otherinterest_fc: Interest & finance charges
overdraftrepaid_fc: Repayments on loans & overdrafts (excl. instalments shown elsewhere)
funeralpolicy_fc: Funeral policies
medinsurance_fc: Medical insurance
bldginsurance_fc: Insurance of buildings
lifeinsurancemd_fc: Life insurance covering mortgage debt
continsurance_fc: Insurance on contents of dwellings (excl. package insurance)
carinsurance_fc: Insurance for private transport (excl. package insurance)
pkginsurance_fc: Package insurance (comprehensive insurance)
pensionself_fc: Contributions to pension, provident & annuity funds (self-paid)
pensionemp_fc: Contributions to pension, provident & annuity funds (paid by employer)
stokvel_fc: Contributions to stokvel
Finance: TOTAL: Finance and bank charges, Insurance (_fc)

Notes:

Within the “Finance, insurance and banking” category, the matches that were possible to make are straightforward, each entailing matches of single items that are consistent across surveys. Although the descriptions of a number of items are identical across all surveys, there are slight changes in the descriptions of others that are, though, not considered significant. Within the latter group are the following variables:

- **bankcharges_fc**, consisting of *Bank and building society charges (cheque books, service charges etc)* in 1995, *Bank charges (cheque books, service charges etc)* in 2000 and *Bank charges* in 2005/2006 and 2010/2011;
- **otherinterest_fc**, consisting of *Interest/finance charges not shown elsewhere* in 1995, *Interest/finance charges not shown elsewhere* in 2000 and *Interest or finance charges* in 2005/2006 and 2010/2011;

- **overdraftrepaid_fc**, consisting of *Repayments on personal and overdraft loans (including credit cards, but excluding instalments shown elsewhere)* in 1995 and 2000, and *Repayment on loans and overdrafts* in 2005/2006 and 2010/2011;
- **lifeinsurancemd_fc**, consisting of *Insurance covering mortgage debt* in 1995 and 2000, and *Life insurance covering mortgage debt* in 2005/2006 and 2010/2011;
- **carinsurance**, consisting of *Insurance of motor vehicle (excluding package insurance)* in 1995 and 2000, and *Insurance for private transport* in 2005/2006 and 2010/2011;
- **pkginsurance_fc**, consisting of *Package insurance (comprehensive insurance)* in 1995 and 2000, and *Package insurance* in 2005/2006 and 2010/2011;
- **pensionsself_fc**, consisting of *Contributions to pension, provident and annuity funds (paid by self)* in 1995 and 2000, and *Contribution to pension, provident and annuity funds* in 2005/2006 and 2010/2011; and
- **pensionemp_fc**, consisting of *Contributions to pension, provident and annuity funds (paid by employer)* in 1995 and 2000, and *Employer contribution to pension, provident and annuity funds* in 2005/2006 and 2010/2011.

The variable **Finance** totals all variables in this category (i.e. all variables with the **_fc** suffix).

3.3.22 Other expenditure (_ot)

Main source sections:

1995	2000	2005/06	2010/11
19.5: Other expenditure	21.5: Cost of other expenditure	18.6: Other expenditure	17.5: Other expenditure

Matched variables:

`professionals_ot`: Professional fees (legal fees, architects, etc.)

`funeralexp_ot`: Funeral expenses

`gravestones_ot`: Gravestones and maintenance of graves (excl unveiling)

`Otherexp`: TOTAL: All other expenditure (_ot)

Notes:

The first three variables in this category—`professionals_ot`, `funeralexp_ot` and `gravestones_ot` are created through matches of single items in each dataset that are consistently worded over time.

The variable `Otherexp` totals all variables in this category (i.e. all variables with the `_ot` suffix).

3.3.23 All other unmatched expenditure (_xx)

Main source sections:

1995	2000	2005/06	2010/11
n.a.	n.a.	n.a.	n.a.

Matched variables:

`unmatchedgoods_xx`: All remaining unmatched expenditure on goods

`unmatchedfinancial_xx`: All remaining unmatched expenditure on financial services

`unmatchedtax_xx`: All remaining unmatched expenditure on taxes

`unmatchedother_xx`: All remaining unmatched expenditure

`Unmatchedexp`: TOTAL: All other unmatched expenditure (_xx)

Notes:

The variables within this category are composed of all remaining expenditure items across all expenditure categories that were not successfully matched in any of the categories detailed above. Items have been disaggregated into expenditures on goods (`unmatchedgoods_xx`), on financial services (`unmatchedfinancial_xx`), and on taxes (`unmatchedtax_xx`). All remaining unmatched items are combined within the `unmatchedother_xx` variable.

The specific items from the original surveys included within this category are not listed here given their large number; details can be found in the Excel spreadsheets that form part of the data release.

It is important to note that none of the four variables in this category are matched across the four surveys, and that the ‘all other expenditure’ variable typically included in each survey forms part of the `unmatchedother_xx` item. The four variables are, therefore, not comparable across surveys. If we assume that each survey indeed captures *all* expenditure, the `Unmatchedexp` total should be consistent across surveys; if not, then the aggregate is not consistent across surveys. We have included these variables so that the user can decide whether or not to include them.

3.4 Other items

3.4.1 Debts (_de)

Main source sections:

1995	2000	2005/06	2010/11
21: Debts	23: Debts	18.8: Debts	17.7: Debts

Matched variables:

bond_de: Bond (outstanding amount)
carfinance_de: Motor vehicle loan (outstanding amount)
hirepurchase_de: Furniture & appliances (outstanding amount)
overdraft_de: Bank overdraft, credit cards (outstanding amount)
retailacc_de: Retail store accounts (outstanding amount)
familyloan_de: Loans from family/friends (outstanding amount)
Debts: TOTAL: Debts (_de)

Notes:

Matches of variables within “Debts” are straightforward, although the accuracy of reported figures of debts is notoriously poor. In the cases of five variables—**carfinance_de**, **hirepurchase_de**, **overdraft_de**, **retailacc_de** and **familyloan_de**—matches consist of single items in each dataset that are consistently worded over time.

The **bond_de** variable is constructed from a single item in each survey up to 2005/2006 and from two items in the 2010/2011 survey. The single item is *Bond* in 1995 and 2000, and *Bond for the main dwelling unit* in 2005/2006. These items are matched against *Bond for the main dwelling unit* and *Other bonds* in 2010/2011. The latter item has no counterpart in the 2005/2006 survey and, as a result of the introduction of the ‘main dwelling unit’ specification, this match is technically invalid. In the 2010/2011 dataset, only 467 households report non-zero values for *Bond for the main dwelling unit*, while 97 households report non-zero values for *Other bonds*. Of these, only 49 households report non-zero values for both items. In the 2005/2006 dataset, though, 1 260 households report non-zero values for *Bond for the main dwelling unit*, more than twice the combined number of non-zero responses across both bond-related items in 2010/2011. It would seem, therefore, that irrespective of the accuracy of reporting against these items in 2005/2006, there seems to be justification for significant concerns with the accuracy in 2010/2011.

The variable **Debts** totals all variables in this category (i.e. all variables with the **_de** suffix).

3.4.2 Incomplete matches

Incompletely matched items:

`_imputedrent_out`: Imputed rent (estimated rental value of owner-occupied housing)
`_imputedrent7_out`: Imputed rent (7% of dwelling value)
`_imputedrent_in`: Imputed rent on owner-occupied housing
`_dissaving_in`: Net withdrawals from savings

Notes:

Only three of the four surveys—IES 1995, 2005/06 and 2010/11—include information on imputed rent. Although these items could not be matched, they could not be included within the `Unmatchedexp` category as households in 2000 given the nature of the item (respondents would not include imputed rent as an expenditure within ‘all other expenditure’). The items `_imputedrent_out` and `_imputedrent7_out` are constructed on the basis of the original variables that view imputed rent from the expenditure (outflow) side, while `_imputedrent_in` is constructed on the basis of the original variable that views imputed rent from the income (inflow) side. The latter variable was only included in the 2005/06 and 2010/11 datasets and is identical to the `_imputedrent_out` variable in those two years (in the other years, the `_imputedrent_in` variable is left missing. The `_imputedrent7_out` variable for 1995 is constructed by ourselves as 7 percent of the value of the dwelling unit as reported by the household; in 2005/06 and 2010/11, this item is included as part of the original dataset.

Net withdrawals from savings (`_dissaving_in`) is only found in the first three surveys and is listed as an income. No data on dissaving or savings withdrawals is available in the IES 2010/11. This item, though, remains problematic given that the questionnaire does not ask clear and exhaustive questions around flows into and out of savings.

These items, then, are included separately in the matched dataset, even though they are not matched across all four surveys.

4 Weights

The PIES dataset includes two sets of weight variables. The first weight variable—**weight_orig**—is the original weight variable released by Statistics South Africa in each of the four original micro-datasets. In the 1995 IES, this was published as a household weight, while in the latter three IESs the published weights are both household and individual weights.

The second weight variable—**weight**—is a cross entropy weight created using the approach detailed in Branson and Wittenberg (2014) and the Actuarial Society of South Africa’s (ASSA) 2008 model for the South African population. The cross entropy weights are the preferred weights. As noted by Kerr et al. (2016), the original weights are problematic for analyses over time: “First, the auxiliary data used as a benchmark in the post-stratification adjustment are unreliable and inconsistent over time and hence result in temporal inconsistencies even at the aggregate level. Second, since the adjustments were made at the person level until 2003, there is no hierarchical consistency between the person and household weighted series until 2003. Thus estimates at the household and person level may disagree.”

Population estimates within the ASSA 2008 model are mid-year estimates—for the calendar year starting 1 July—and these are adjusted assuming constant growth rates to agree with the periods in which the IESs are based, namely October 1995 (IES 1995), October 2000 (IES 2000), March 2006 (mid-point of IES 2005/06) and March 2011 (mid-point of IES 2010/11).

5 Inflation Adjustments

Three versions of the final PIES dataset are provided. The first is a nominal dataset in which no price adjustments have been made. The other two are real datasets, in which expenditures, incomes and other monetary values have been deflated using two different methods, which will be described in more detail below.

Deflation of nominal amounts requires price indices and these were obtained from Statistics South Africa's CPI publications (Statistics South Africa, 1997, 2002, 2008a). The exact price indices used are included in the Excel file included with the PIES files (*Consumer Price Indices*, in the Data folder), but are reproduced here for convenience.

Table 2: PIES Deflators (June 2016 = 100)

Category	1995		2000		2005		2010	
	CPI Weight	Index	CPI Weight	Index	CPI Weight	Index	CPI Weight	Index
Food								
- Grain products	3.31	21.2	4.34	29.7	4.34	39.5	3.08	64.7
- Meat	5.33	23.9	6.23	32.3	6.23	49.8	4.59	73.1
- Fish and other seafood	0.80	22.3	0.70	32.8	0.70	47.2	0.66	67.8
- Milk, cheese and eggs	1.90	20.0	2.10	29.4	2.10	43.8	1.79	66.6
- Fats and oils	0.85	19.3	0.84	27.1	0.84	36.2	0.53	70.8
- Fruit and nuts	1.08	24.7	1.13	33.7	1.13	54.3	0.47	80.3
- Vegetables	1.80	18.6	2.18	33.0	2.18	43.6	1.63	64.1
- Sugar	0.59	21.8	0.62	30.5	0.62	41.9	0.77	63.2
- Other	1.64	22.7	3.74	32.6	3.74	46.3	0.75	68.7
Non-Alcoholic Beverages								
- Hot beverages	0.72	26.4	1.14	34.8	1.14	42.3	0.34	65.7
- Cold beverages	0.82	26.0	1.13	39.1	1.13	57.1	1.07	80.8
Alcoholic Beverages	1.18	21.2	1.52	30.7	1.52	49.6	3.29	68.8
Cigarettes, cigars and tobacco	0.95	10.5	1.21	26.3	1.21	45.2	2.29	75.4
Clothing and footwear	4.76	77.6	3.64	83.5	3.64	73.9	4.11	80.1
All other items	74.27	31.5	69.48	44.1	69.48	55.1	74.63	76.0
Total CPI	100.00	29.5	100.00	41.0	100.00	52.9	100.00	74.8
Base Period	Oct 1995		Oct 2000		Mar 2006		Mar 2011	

Source: Statistics South Africa (1997, 2002, 2008a), and own calculations.

¹ Deflators are for particular geographic areas that vary over time. These are 'Metropolitan Areas' (1995); 'Metropolitan and Other Urban Areas' (2000, 2005); and 'All Urban Areas' (2010). These geographies correspond with those in the official CPI at the time.

Unfortunately, since the structure of the IESs and that of the CPI are linked, the CPI has undergone the same types of significant changes as the IESs have over the past 20 years. Critically, the switch to the COICOP classification system creates a break in the detailed price indices published by Statistics South Africa: indices existing prior to the switch are discontinued in December 2008, while new indices are introduced in January 2008. This overlapping period was used to link the old and new headline CPI series, but this is not possible for the detailed subindices.

There are, though, some expenditure categories that were not significantly impacted by the change in classification system. These are the categories related to Food; Non-alcoholic beverages; Alcoholic beverages; Cigarettes, cigars and tobacco; and Clothing and footwear. The switch to the COICOP

classification saw the ‘Hot beverages’ category (including coffee, tea and cocoa) shifted from Food to Non-alcoholic beverages, a shift that is replicated in the PIES dataset.

Items within the categories and subcategories detailed in the table are deflated according to the indices presented. Subcategory and category totals are then recalculated. For items that are not classified within food, beverages, tobacco products, or clothing and footwear, deflation is done using the calculated ‘All other items’ index. Since the total CPI is calculated as the weighted sum of the (sub)category price indices, it is possible to calculate a price index for all items not included in the five categories specified in the table. Price indices are rebased to June 2016, using the average index values in the overlapping period (2008).

These price indices are used to calculate expenditures. For incomes, debts and incomplete matches, a household-specific deflator is used, calculated on the basis of the implicit deflator determined by each household’s expenditure pattern. In other words, the ratio between nominal and real household expenditure for a given household is used to deflate income, debts and incomplete matches. However, since two total expenditure variables are provided in the dataset—`TOTAL_EXP_incl` and `TOTAL_EXP_excl`—this results in two possible deflators. The PIES dataset uses the former expenditure variable, but the code for deflating using the latter variable is included in the do-files.¹⁵

¹⁵Code is located in the ‘40 Compiling.do’ do-file. For details on the do-files, see section 6

6 The Do-Files and Data Files

The PIES release includes a *Stata*® project file and 36 *Stata*® do-files. The files are as follows:

- Project file: PIES.stpr
- Master do-file: 00 IES Alignment Master.do
- Filename allocation: 01 Filenames 1995.do; 02 Filenames 2000.do; 03 Filenames 2005.do; 04 Filenames 2010.do
- File merging: 11 Merging 1995.do; 12 Merging 2000.do; 13 Merging 2005.do; 14 Merging 2010.do
- Merging in of Recalibrated Weights: 21 Weights 1995.do; 22 Weights 2000.do; 23 Weights 2005.do; 24 Weights 2010.do
- IES Alignment: 31 Align 1995.do; 31-01 Household Income Alignment Code 1995.do; 31-02 Expenditure Alignment Code 1995.do; 31-03 Debt Alignment Code 1995.do; 31-04 Incomplete Matches Code 1995.do; 32 Align 2000.do; 32-01 Household Income Alignment Code 2000.do; 32-02 Expenditure Alignment Code 2000.do; 32-03 Debt Alignment Code 2000.do; 32-04 Incomplete Matches Code 2000.do; 33 Align 2005.do; 33-01 Household Income Alignment Code 2005.do; 33-02 Expenditure Alignment Code 2005.do; 33-03 Debt Alignment Code 2005.do; 33-04 Incomplete Matches Code 2005.do; 34 Align 2010.do; 34-01 Household Income Alignment Code 2010.do; 34-02 Expenditure Alignment Code 2010.do; 34-03 Debt Alignment Code 2010.do; 34-04 Incomplete Matches Code 2010.do
- PIES Compilation: 40 Compiling.do

The release also includes a number of Excel files:

- Filenames.xlsx—This file contains the names of the individual data files for each of the IESs. This allows users to reconstruct the PIES data using datasets with different filenames (but not different variable names) from the datasets as downloaded from DataFirst.
- IES Income Matching.xlsx—This file contains detail for the matching process for income and generates the appropriate *Stata*® code to create the matched variables. This code is then saved in the Household Income Alignment Code do-files (files numbered 3*-01). Edits to the IES Income Matching.xlsx file will potentially affect the matching process.
- IES Expenditure Matching.xlsx—This file contains detail for the matching process for expenditures and debts, as well as for unmatched items. The file generates appropriate *Stata*® code to create the matched variable. This code is then saved in the Expenditure Alignment, Debt Alignment and Incomplete Matches do-files (files numbered 3*-02, 3*-03, and 3*-04 respectively). Edits to the IES Expenditure Matching file will potentially affect the matching process.

The PIES release includes the IES microdatasets as downloaded from DataFirst. However, should users wish to re-download the data directly from DataFirst, the datasets can be found here:

- IES 1995: <https://www.datafirst.uct.ac.za/dataportal/index.php/catalog/264>
- IES 2000: <https://www.datafirst.uct.ac.za/dataportal/index.php/catalog/267>
- IES 2005/06: <https://www.datafirst.uct.ac.za/dataportal/index.php/catalog/331>
- IES 2010/11: <https://www.datafirst.uct.ac.za/dataportal/index.php/catalog/316>

It is possible to recompile the PIES datasets from scratch by running the master do-file, 00 IES Alignment Master.do. In order for the file to run correctly, users should update the global macros specifying file locations. These global macros are:

- PROJECTDIR: main directory/folder
- DOFILEDIR: directory/folder containing the PIES do-files
- DATADIR: directory/folder containing population and CPI, as well as being the directory/folder to which new datasets will be saved
- ORIGDATADIR: directory/folder containing original IES datasets.

7 Using PIES

In using the PIES dataset, it is important to remember that the key objective of the effort was to try to ameliorate some of the inconsistencies that have resulted from changes in the survey structure, by standardising, matching, and adjusting both the information in the dataset, including the sampling weights. The resulting dataset goes as far as we believe possible towards achieving this without making real changes to the information provided by households.

It is important to note at the outset that the alignment of Statistics South Africa's Income and Expenditure Surveys for the 15-year period cannot 'fix' the problems with the various datasets. Thus, for example, the significant declines in both income and expenditure observed between the 1995 IES and the 2000 IES, or the rapid increases observed between the 2000 IES and the 2005/06 IES, highlighted by Yu (2008), cannot be 'corrected'. Relatedly, the declines in expenditures on food observed during the switch to the diary method of data collection carry through into the PIES dataset.

In updating the weights of the Consumer Price Index, Statistics South Africa does not rely solely on the IES data. Statistics South Africa (2008*b*), for example, reports some of the adjustments made to the original data in respect of expenditures on food and non-alcoholic beverages, personal care, restaurants, alcoholic beverages and tobacco in compiling the 2006 CPI weights. Similar information was provided during the updating of the weights that were implemented in January 2013 (Statistics South Africa, 2012*c*). One option in compiling the PIES data, therefore, would be to use the adjustment factors reported in CPI-related documentation to adjust the expenditures reported by households. However, the decision was taken not to implement these adjustments in compiling the PIES dataset for two reasons. First, detailed information on these adjustments is not available for each dataset, while it is possible that 'minor' adjustments were not reported. Second, since their focus is on the CPI, Statistics South Africa does not make adjustments on the income side; adjusting expenditure while leaving income unchanged would have significant impacts on the difference between household income and expenditure for many households.

In essence, this means that users of the PIES data wishing to perform an analysis of particular incomes or expenditures over time will encounter the same problems in this dataset in terms of comparability over time as they would encounter in using the original IES datasets. Insofar as the user feels the IES datasets are comparable over time, he or she is free to use the PIES data.

What the PIES dataset does allow is a consistent replication of a given analysis across multiple years. It is also well-suited to analyses that involve the detailed disaggregations, rather than high-level aggregates. Users do not need to make any substantive changes to code that runs correctly on data for a particular year so that it can run correctly on data for another year. Users also do not need to spend significant amounts of time determining whether or not items in different surveys are worded consistently.

8 Bibliography

- Branson, N. and Wittenberg, M. (2014), ‘Reweighting South African national household survey data to create a consistent series over time: A cross-entropy estimation approach’, *South African Journal of Economics* **82**(1), 19–38.
URL: <http://dx.doi.org/10.1111/saje.12017>
- Kerr, A., Lam, D. and Wittenberg, M. (2016), ‘South Africa - Post Apartheid Labour Market Series 1993-2015’, Metadata documentation, generated June 27, 2016.
URL: <http://www.datafirst.uct.ac.za/dataportal/index.php>
- Statistics South Africa (1997), ‘Consumer price index: 1995 weights (Metropolitan areas)’, Statistical Release P0141.5.
URL: <http://www.statssa.gov.za/>
- Statistics South Africa (2002), ‘Consumer price index (CPI): 2000 weights (Historical metropolitan and other urban areas)’, Statistical Release P0141.5.
URL: <http://www.statssa.gov.za/>
- Statistics South Africa (2008a), ‘Consumer price index: 2008 weights (Primary and secondary urban areas)’, Statistical Release P0141.5.
URL: <http://www.statssa.gov.za/>
- Statistics South Africa (2008b), *Explanatory Note on the 2006 Consumer Price Index Weights*, Statistics South Africa, Pretoria.
URL: <http://www.statssa.gov.za/>
- Statistics South Africa (2008c), *Income and expenditure of households 2005/2006*, Statistical Release P0100, Statistics South Africa, Pretoria.
URL: <http://www.statssa.gov.za/>
- Statistics South Africa (2008d), *Income and expenditure of households 2005/2006: Analysis of results*, Statistics South Africa, Pretoria.
- Statistics South Africa (2011), *Living Conditions of Households in SA: 2008/2009*, Statistical Release P0310, Statistics South Africa, Pretoria.
- Statistics South Africa (2012a), *Income and Expenditure of Households 2010/2011*, Statistical Release P0100, Statistics South Africa, Pretoria.
- Statistics South Africa (2012b), ‘Income and expenditure of households 2010/2011: Metadata’, Report No. P0100. Pretoria: Statistics South Africa.
- Statistics South Africa (2012c), ‘Updating the weights of the CPI’.
URL: <http://www.statssa.gov.za/>

United Nations Statistics Division (n.d.), 'COICOP (Classification of Individual Consumption according to Purpose)', Detailed structure and explanatory notes.

URL: <http://unstats.un.org/unsd/cr/registry/regct.asp>

Yu, D. (2008), 'The comparability of Income and Expenditure Surveys 1995, 2000 and 2005/2006', Stellenbosch Economic Working Papers No. 11/08.

A Data Descriptives

Table 3: Descriptive Statistics for 1995 IES Data within PIES

Variable	Obs	Nominal			Real1			Real2		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
cakeflour_gr	29 582	109.4	0	14 400	371.1	0	48 863	515.5	0	67 884
breadflour_gr	29 582	105.3	0	36 000	357.4	0	122 158	496.6	0	169 710
mealmeal_gr	29 582	347.0	0	24 000	1 177.4	0	81 438	1 635.7	0	113 140
sorghummeal_gr	29 582	13.4	0	8 640	45.5	0	29 318	63.2	0	40 730
rice_gr	29 582	165.8	0	8 400	562.8	0	28 503	781.8	0	39 599
samp_gr	29 582	60.1	0	4 200	204.0	0	14 252	283.4	0	19 800
whitebread_gr	29 582	244.4	0	16 560	829.4	0	56 193	1 152.3	0	78 067
brownbread_gr	29 582	205.8	0	8 640	698.4	0	29 318	970.3	0	40 730
pasta_gr	29 582	48.3	0	15 552	163.9	0	52 772	227.7	0	73 315
otherflour_gr	29 582	12.1	0	9 600	41.0	0	32 575	57.0	0	45 256
cereals_gr	29 582	75.6	0	21 984	256.4	0	74 598	356.2	0	103 636
otherbread_gr	29 582	22.2	0	3 600	75.4	0	12 216	104.7	0	16 971
otherbaked_gr	29 582	43.5	0	14 640	147.5	0	49 677	204.9	0	69 015
babyfood_gr	29 582	37.9	0	4 800	128.6	0	16 288	178.7	0	22 628
othergrain_gr	29 582	11.7	0	21 600	39.7	0	73 295	55.1	0	101 826
Grain_fo	29 582	1 502.5	0	36 000	5 098.5	0	122 158	7 083.2	0	169 710
beef_me	29 582	499.6	0	105 600	1 695.1	0	358 329	2 091.7	0	442 158
mutton_me	29 582	404.5	0	96 000	1 372.4	0	325 754	1 693.5	0	401 962
pork_me	29 582	107.3	0	12 000	364.0	0	40 719	449.1	0	50 245
poultry_me	29 582	385.2	0	15 120	1 307.2	0	51 306	1 613.1	0	63 309
boerewors_me	29 582	140.4	0	7 200	476.5	0	24 432	587.9	0	30 147
sausage_me	29 582	18.5	0	6 000	62.9	0	20 360	77.6	0	25 123
coldmeats_me	29 582	67.5	0	8 376	229.0	0	28 422	282.6	0	35 071
biltong_me	29 582	21.3	0	9 600	72.3	0	32 575	89.2	0	40 196
bacon_me	29 582	26.0	0	2 400	88.4	0	8 144	109.1	0	10 049
babyfood_me	29 582	8.8	0	3 600	29.8	0	12 216	36.7	0	15 074
othermeat_me	29 582	70.9	0	16 800	240.5	0	57 007	296.8	0	70 343
Meat_fo	29 582	1 750.0	0	110 460	5 938.1	0	374 820	7 327.3	0	462 508
freshfish_fi	29 582	86.0	0	7 200	291.7	0	24 432	385.2	0	32 270
otherfish_fi	29 582	147.5	0	7 920	500.5	0	26 875	661.1	0	35 497
Fish_fo	29 582	233.4	0	7 920	792.1	0	26 875	1 046.3	0	35 497
freshmilk_mi	29 582	232.3	0	54 000	788.1	0	183 237	1 159.2	0	269 515
longlifemilk_mi	29 582	26.8	0	2 880	90.8	0	9 773	133.6	0	14 374
condensedmilk_mi	29 582	17.8	0	4 200	60.5	0	14 252	89.0	0	20 962
powderedmilk_mi	29 582	53.2	0	3 000	180.5	0	10 180	265.5	0	14 973
cheese_mi	29 582	72.8	0	7 860	247.1	0	26 671	363.4	0	39 229
cream_mi	29 582	27.0	0	3 024	91.4	0	10 261	134.5	0	15 093
sourmilk_mi	29 582	45.7	0	18 000	155.0	0	61 079	228.0	0	89 838
eggs_mi	29 582	114.6	0	4 200	389.0	0	14 252	572.1	0	20 962
babyfood_mi	29 582	37.9	0	3 600	128.7	0	12 216	189.3	0	17 968
othermilk_mi	29 582	4.2	0	2 304	14.1	0	7 818	20.8	0	11 499
Milk_fo	29 582	632.2	0	55 860	2 145.3	0	189 548	3 155.5	0	278 798
butter_fa	29 582	58.8	0	10 800	199.5	0	36 647	304.0	0	55 851
margarine_fa	29 582	96.6	0	7 200	327.9	0	24 432	499.7	0	37 234
cookingoil_fa	29 582	111.9	0	4 632	379.6	0	15 718	578.5	0	23 954
peanutbutter_fa	29 582	36.5	0	1 800	123.7	0	6 108	188.5	0	9 309
otherfats_fa	29 582	13.5	0	1 812	45.8	0	6 149	69.8	0	9 371
Fats_fo	29 582	317.2	0	11 040	1 076.5	0	37 462	1 640.6	0	57 092
lettuce_ve	29 582	13.6	0	3 000	46.2	0	10 180	73.2	0	16 150
cabbage_ve	29 582	63.5	0	4 800	215.6	0	16 288	342.1	0	25 840

Source: Own calculations.

Descriptive Statistics for 1995 IES Data within PIES (cont.)

Variable	Obs	Nominal			Real1			Real2		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
mealies_ve	29 582	9.0	0	2 400	30.5	0	8 144	48.4	0	12 920
tomatoes_ve	29 582	90.5	0	3 000	307.1	0	10 180	487.3	0	16 150
carrots_ve	29 582	30.1	0	2 592	102.2	0	8 795	162.1	0	13 954
greenbeans_ve	29 582	21.6	0	3 360	73.3	0	11 401	116.2	0	18 088
pumpkin_ve	29 582	35.5	0	4 032	120.4	0	13 682	191.1	0	21 706
frozenpeas_ve	29 582	14.1	0	2 040	47.7	0	6 922	75.7	0	10 982
frozencarrots_ve	29 582	8.9	0	2 400	30.2	0	8 144	47.9	0	12 920
driedpeas_ve	29 582	20.9	0	2 040	71.1	0	6 922	112.7	0	10 982
cannedveg_ve	29 582	26.2	0	9 744	88.8	0	33 064	140.8	0	52 456
frozenbeans_ve	29 582	20.8	0	4 620	70.5	0	15 677	111.9	0	24 871
otherveg_ve	29 582	143.6	0	11 880	487.3	0	40 312	773.1	0	63 955
popcorn_ve	29 582	6.7	0	2 544	22.7	0	8 632	36.0	0	13 695
crisps_ve	29 582	22.0	0	3 240	74.8	0	10 994	118.7	0	17 442
babyfood_ve	29 582	7.5	0	1 800	25.5	0	6 108	40.5	0	9 690
Vegetables_fo	29 582	534.5	0	29 160	1 813.9	0	98 948	2 877.7	0	156 980
oranges_fr	29 582	47.0	0	6 000	159.6	0	20 360	190.1	0	24 249
citrus_fr	29 582	9.1	0	3 600	30.8	0	12 216	36.7	0	14 550
bananas_fr	29 582	51.2	0	4 800	173.6	0	16 288	206.8	0	19 399
subtropical_fr	29 582	19.0	0	3 600	64.4	0	12 216	76.7	0	14 550
apples_fr	29 582	67.0	0	4 920	227.2	0	16 695	270.6	0	19 884
deciduous_fr	29 582	22.9	0	2 400	77.5	0	8 144	92.4	0	9 700
otherfruits_fr	29 582	11.6	0	13 200	39.5	0	44 791	47.0	0	53 348
driedfruit_fr	29 582	8.0	0	2 700	27.2	0	9 162	32.4	0	10 912
nuts_fr	29 582	7.7	0	1 680	26.3	0	5 701	31.3	0	6 790
cannedfruit_fr	29 582	22.8	0	8 400	77.4	0	28 503	92.2	0	33 949
babyfood_fr	29 582	9.1	0	1 560	31.0	0	5 293	36.9	0	6 305
otherfruitprod_fr	29 582	2.4	0	2 160	8.1	0	7 329	9.6	0	8 730
Fruit_fo	29 582	277.8	0	20 004	942.6	0	67 879	1 122.7	0	80 847
whitesugar_su	29 582	269.0	0	8 580	913.0	0	29 114	1 234.9	0	39 383
brownsugar_su	29 582	18.4	0	11 340	62.5	0	38 480	84.5	0	52 051
othersugar_su	29 582	5.6	0	2 400	19.0	0	8 144	25.7	0	11 016
sweeteners_su	29 582	9.0	0	2 400	30.4	0	8 144	41.1	0	11 016
honey_su	29 582	20.9	0	2 724	71.0	0	9 243	96.1	0	12 503
jams_su	29 582	51.6	0	6 000	175.3	0	20 360	237.1	0	27 540
chocolates_su	29 582	45.6	0	3 456	154.7	0	11 727	209.3	0	15 863
othersweets_su	29 582	10.4	0	3 600	35.4	0	12 216	47.9	0	16 524
jelly_su	29 582	18.9	0	2 400	64.2	0	8 144	86.9	0	11 016
icecream_su	29 582	34.9	0	8 520	118.3	0	28 911	160.1	0	39 107
Sugar_fo	29 582	484.4	0	13 236	1 643.8	0	44 913	2 223.6	0	60 754
vinegar_fn	29 582	22.5	0	4 800	76.4	0	16 288	99.2	0	21 144
saltpepper_fn	29 582	44.2	0	7 464	149.9	0	25 327	194.7	0	32 879
spices_fn	29 582	35.7	0	2 880	121.0	0	9 773	157.1	0	12 687
soups_fn	29 582	32.1	0	11 004	108.9	0	37 340	141.4	0	48 473
custard_fn	29 582	22.8	0	6 720	77.3	0	22 803	100.3	0	29 602
yeast_fn	29 582	30.1	0	10 032	102.3	0	34 041	132.8	0	44 191
chutney_fn	29 582	56.3	0	36 000	191.1	0	122 158	248.1	0	158 582
allotherfood_fn	29 582	25.1	0	36 000	85.2	0	122 158	110.6	0	158 582
Foodnec_fo	29 582	268.8	0	36 432	912.2	0	123 624	1 184.2	0	160 485
Food	29 582	6 001.0	0	213 300	20 363.1	0	723 784	27 661.0	0	965 424
instantcoffee_co	29 582	116.5	0	5 760	395.4	0	19 545	442.0	0	21 852
groundcoffee_co	29 582	16.8	0	3 360	56.8	0	11 401	63.5	0	12 747
ceylonatea_co	29 582	92.7	0	4 800	314.5	0	16 288	351.6	0	18 210
rooibostea_co	29 582	23.2	0	4 800	78.6	0	16 288	87.9	0	18 210
cocoa_co	29 582	11.8	0	2 400	40.1	0	8 144	44.9	0	9 105
Coffee_nb	29 582	260.9	0	6 480	885.4	0	21 988	990.0	0	24 584

Source: Own calculations.

Descriptive Statistics for 1995 IES Data within PIES (cont.)

Variable	Obs	Nominal			Real1			Real2		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
softdrinks_cd	29 582	141.7	0	18 000	480.8	0	61 079	544.8	0	69 206
springwater_cd	29 582	8.3	0	2 760	28.2	0	9 365	31.9	0	10 612
juice_cd	29 582	87.2	0	7 200	295.9	0	24 432	335.3	0	27 682
othcooldrink_cd	29 582	2.4	0	372	8.0	0	1 262	9.1	0	1 430
Colddrink_nb	29 582	239.6	0	18 104	812.9	0	61 432	921.1	0	69 606
Nonalcoholic	29 582	500.5	0	18 890	1 698.3	0	64 099	1 911.0	0	72 585
spirits_al	29 582	74.2	0	14 760	251.7	0	50 085	350.3	0	69 697
fortifiedwine_al	29 582	3.8	0	2 400	12.9	0	8 144	18.0	0	11 333
sorghumbeer_al	29 582	17.4	0	8 400	59.1	0	28 503	82.2	0	39 665
otheralcbev_al	29 582	198.8	0	51 600	674.7	0	175 093	938.8	0	243 656
Alcohol	29 582	294.2	0	59 400	998.4	0	201 560	1 389.4	0	280 487
cigarettes_to	29 582	308.5	0	18 000	1 046.8	0	61 079	2 936.5	0	171 336
cigars_to	29 582	3.1	0	5 844	10.4	0	19 830	29.0	0	55 627
tobaccos_to	29 582	19.7	0	5 400	66.9	0	18 324	187.6	0	51 401
Tobacco	29 582	331.3	0	18 000	1 124.0	0	61 079	3 153.1	0	171 336
clothes_cl	29 582	1 106.1	0	101 713	3 753.3	0	345 139	1 424.7	0	131 013
babyclothes_cl	29 582	35.8	0	6 000	121.4	0	20 360	46.1	0	7 728
shoes_cl	29 582	423.1	0	61 090	1 435.7	0	207 295	545.0	0	78 688
babysshoes_cl	29 582	5.8	0	2 789	19.6	0	9 464	7.4	0	3 592
material_cl	29 582	25.1	0	13 000	85.3	0	44 112	32.4	0	16 745
knittingwool_cl	29 582	4.5	0	4 000	15.3	0	13 573	5.8	0	5 152
sewingcotton_cl	29 582	3.9	0	2 500	13.2	0	8 483	5.0	0	3 220
clothingrepairs_cl	29 582	4.1	0	5 000	13.9	0	16 966	5.3	0	6 440
clothinghire_cl	29 582	0.8	0	5 750	2.8	0	19 511	1.1	0	7 406
Clothing	29 582	1 609.2	0	115 711	5 460.5	0	392 638	2 072.8	0	149 043
firewood_fu	29 582	635.9	0	49 440	2 157.9	0	167 763	2 019.3	0	156 989
charcoal_fu	29 582	47.9	0	18 108	162.5	0	61 445	152.1	0	57 499
paraffin_fu	29 582	857.6	0	66 960	2 910.0	0	227 213	2 723.1	0	212 621
gascylinders_fu	29 582	325.9	0	81 600	1 105.8	0	276 891	1 034.8	0	259 108
candles_fu	29 582	364.6	0	72 000	1 237.3	0	244 315	1 157.8	0	228 625
coal_fu	29 582	170.4	0	31 680	578.2	0	107 499	541.0	0	100 595
meths_fu	29 582	35.7	0	57 600	121.2	0	195 452	113.4	0	182 900
dung_fu	29 582	17.4	0	6 000	59.2	0	20 360	55.4	0	19 052
drycells_fu	29 582	24.3	0	11 088	82.3	0	37 625	77.0	0	35 208
recharging_fu	29 582	7.1	0	10 800	24.1	0	36 647	22.6	0	34 294
otherhhfuel_fu	29 582	8.4	0	29 568	28.5	0	100 332	26.7	0	93 889
Fuel	29 582	2 495.2	0	110 400	8 467.0	0	374 617	7 923.2	0	350 558
beds_ff	29 582	192.7	0	54 000	653.7	0	183 237	611.7	0	171 469
diningfurn_ff	29 582	147.7	0	70 000	501.2	0	237 529	469.0	0	222 274
loungefurn_ff	29 582	185.3	0	35 000	628.8	0	118 764	588.4	0	111 137
kitchenfurn_ff	29 582	97.1	0	40 000	329.6	0	135 731	308.4	0	127 014
gardenfurn_ff	29 582	10.7	0	10 000	36.3	0	33 933	34.0	0	31 753
looserugs_ff	29 582	36.3	0	40 000	123.2	0	135 731	115.3	0	127 014
bedroomfurn_ff	29 582	111.7	0	35 000	378.9	0	118 764	354.6	0	111 137
upholstering_ff	29 582	10.1	0	6 000	34.3	0	20 360	32.1	0	19 052
otherfurn_ff	29 582	37.5	0	35 000	127.1	0	118 764	119.0	0	111 137
Furniture_fe	29 582	829.0	0	98 350	2 813.1	0	333 728	2 632.4	0	312 295
blankets_tx	29 582	61.4	0	11 000	208.3	0	37 326	195.0	0	34 929
bedlinen_tx	29 582	82.6	0	20 000	280.3	0	67 865	262.3	0	63 507
curtains_tx	29 582	55.9	0	27 035	189.6	0	91 737	177.4	0	85 846
pillows_tx	29 582	7.2	0	5 000	24.6	0	16 966	23.0	0	15 877
tablelinen_tx	29 582	26.3	0	15 000	89.2	0	50 899	83.5	0	47 630
othertextiles_tx	29 582	3.7	0	11 800	12.7	0	40 041	11.9	0	37 469
Textiles_fe	29 582	237.1	0	43 900	804.7	0	148 965	753.0	0	139 398
washingmachine_ap	29 582	42.6	0	11 199	144.7	0	38 001	135.4	0	35 561

Source: Own calculations.

Descriptive Statistics for 1995 IES Data within PIES (cont.)

Variable	Obs	Nominal			Real1			Real2		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
paraffinstove_ap	29 582	8.8	0	15 588	29.8	0	52 894	27.9	0	49 497
hotplate_ap	29 582	7.6	0	6 000	25.8	0	20 360	24.1	0	19 052
gasstove_ap	29 582	10.8	0	15 000	36.6	0	50 899	34.3	0	47 630
sewingmachine_ap	29 582	11.8	0	10 000	40.2	0	33 933	37.6	0	31 753
sewingnonelec_ap	29 582	3.2	0	3 500	10.8	0	11 876	10.1	0	11 114
irons_ap	29 582	11.8	0	15 500	40.1	0	52 596	37.5	0	49 218
kettles_ap	29 582	7.2	0	3 067	24.3	0	10 407	22.8	0	9 739
foodmixer_ap	29 582	4.3	0	3 500	14.6	0	11 876	13.6	0	11 114
fryingpan_ap	29 582	5.3	0	3 369	18.1	0	11 432	16.9	0	10 698
toaster_ap	29 582	3.9	0	2 695	13.1	0	9 145	12.2	0	8 558
appliancerepairs_ap	29 582	8.1	0	25 000	27.4	0	84 832	25.6	0	79 384
vacuum_ap	29 582	20.3	0	8 000	69.0	0	27 146	64.6	0	25 403
fridge_ap	29 582	111.5	0	28 000	378.3	0	95 011	354.0	0	88 910
stove_ap	29 582	57.2	0	15 000	194.2	0	50 899	181.7	0	47 630
lawnmower_ap	29 582	13.8	0	10 000	46.8	0	33 933	43.8	0	31 753
otherappl_ap	29 582	17.1	0	8 000	57.9	0	27 146	54.2	0	25 403
Appliances_fe	29 582	345.3	0	74 950	1 171.7	0	254 325	1 096.4	0	237 992
musicalinstr_mu	29 582	17.9	0	54 991	60.7	0	186 599	56.8	0	174 616
tvsv_mu	29 582	97.4	0	22 000	330.5	0	74 652	309.3	0	69 858
tvlicence_mu	29 582	70.2	0	7 200	238.3	0	24 432	223.0	0	22 863
paytv_mu	29 582	41.4	0	12 000	140.4	0	40 719	131.4	0	38 104
tvrental_mu	29 582	4.9	0	2 400	16.6	0	8 144	15.6	0	7 621
decoderrent_mu	29 582	5.3	0	3 550	17.8	0	12 046	16.7	0	11 272
radios_mu	29 582	62.7	0	50 000	212.8	0	169 663	199.2	0	158 767
cds_mu	29 582	14.7	0	10 000	49.7	0	33 933	46.5	0	31 753
Musical_fe	29 582	314.4	0	55 171	1 066.9	0	187 210	998.3	0	175 187
kitchenware_eq	29 582	23.6	0	10 000	80.1	0	33 933	75.0	0	31 753
gardenequip_eq	29 582	7.0	0	5 000	23.7	0	16 966	22.1	0	15 877
Equipment_fe	29 582	30.6	0	10 000	103.8	0	33 933	97.1	0	31 753
Furnequip	29 582	1 756.4	0	183 487	5 960.0	0	622 621	5 577.3	0	582 635
washingpowder_hg	29 582	186.1	0	14 400	631.5	0	48 863	591.0	0	45 725
polishes_hg	29 582	77.3	0	3 660	262.3	0	12 419	245.5	0	11 622
scourers_hg	29 582	20.0	0	3 000	67.8	0	10 180	63.4	0	9 526
insecticides_hg	29 582	35.9	0	18 000	121.9	0	61 079	114.1	0	57 156
matches_hg	29 582	32.5	0	60 000	110.4	0	203 596	103.3	0	190 521
brooms_hg	29 582	20.5	0	13 200	69.7	0	44 791	65.3	0	41 915
plasticbags_hg	29 582	14.1	0	7 200	47.8	0	24 432	44.8	0	22 863
paperplates_hg	29 582	9.6	0	9 600	32.4	0	32 575	30.3	0	30 483
Hhgoods_hm	29 582	396.0	0	82 800	1 343.9	0	280 963	1 257.6	0	262 919
domesticworker_hs	29 582	355.3	0	72 000	1 205.7	0	244 315	1 128.3	0	228 625
childminder_hs	29 582	12.9	0	30 720	43.8	0	104 241	41.0	0	97 547
cook_hs	29 582	4.6	0	30 000	15.6	0	101 798	14.6	0	95 260
chauffeur_hs	29 582	3.1	0	48 000	10.6	0	162 877	9.9	0	152 417
clotheswasher_hs	29 582	39.9	0	24 000	135.3	0	81 438	126.6	0	76 208
gardener_hs	29 582	70.3	0	86 400	238.6	0	293 178	223.3	0	274 350
otherdworker_hs	29 582	46.5	0	108 000	157.8	0	366 473	147.6	0	342 937
laundryservices_hs	29 582	10.9	0	9 600	36.9	0	32 575	34.6	0	30 483
fumigation_hs	29 582	14.4	0	14 400	48.8	0	48 863	45.7	0	45 725
Hhservices_hm	29 582	557.9	0	116 160	1 893.2	0	394 162	1 771.6	0	368 848
Hhmaint	29 582	954.0	0	117 000	3 237.1	0	397 012	3 029.2	0	371 516
telephony_tc	29 582	750.7	0	96 000	2 547.2	0	325 754	2 383.6	0	304 833
internet_tc	29 582	4.6	0	18 720	15.6	0	63 522	14.6	0	59 442
postage_tc	29 582	39.8	0	42 000	135.0	0	142 517	126.3	0	133 365
postbox_tc	29 582	16.4	0	28 800	55.5	0	97 726	52.0	0	91 450
Communication	29 582	811.4	0	96 000	2 753.4	0	325 754	2 576.6	0	304 833

Source: Own calculations.

Descriptive Statistics for 1995 IES Data within PIES (cont.)

Variable	Obs	Nominal			Real1			Real2		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
computers_ct	29 582	76.9	0	70 000	261.1	0	237 529	244.3	0	222 274
phones_ct	29 582	31.4	0	30 000	106.5	0	101 798	99.6	0	95 260
twowayradio_ct	29 582	3.8	0	5 500	12.9	0	18 663	12.1	0	17 464
Computer	29 582	112.1	0	100 000	380.5	0	339 327	356.1	0	317 535
newcars_pv	29 582	563.2	0	380 000	1 911.0	0	1 289 442	1 788.3	0	1 206 632
newbakkies_pv	29 582	104.4	0	190 000	354.3	0	644 721	331.5	0	603 316
newmotorbikes_pv	29 582	8.9	0	260 000	30.4	0	882 250	28.4	0	825 590
newbicycles_pv	29 582	6.5	0	7 000	22.1	0	23 753	20.7	0	22 227
usedcars_pv	29 582	496.5	0	360 326	1 684.7	0	1 222 683	1 576.5	0	1 144 160
usedbakkies_pv	29 582	86.4	0	100 000	293.2	0	339 327	274.4	0	317 535
usedmotorbikes_pv	29 582	7.0	0	25 000	23.9	0	84 832	22.4	0	79 384
usedbicycles_pv	29 582	2.2	0	3 600	7.4	0	12 216	6.9	0	11 431
Vehicles_tr	29 582	1 275.2	0	574 000	4 327.0	0	1 947 736	4 049.1	0	1 822 649
carfuel_rc	29 582	749.5	0	300 000	2 543.4	0	1 017 980	2 380.1	0	952 604
newtyres_rc	29 582	69.9	0	86 000	237.1	0	291 821	221.9	0	273 080
retreads_rc	29 582	11.8	0	14 400	39.9	0	48 863	37.3	0	45 725
spareparts_rc	29 582	45.0	0	40 000	152.7	0	135 731	142.9	0	127 014
carbatteries_rc	29 582	9.3	0	4 000	31.6	0	13 573	29.6	0	12 701
oilgrease_rc	29 582	19.7	0	18 000	66.8	0	61 079	62.5	0	57 156
parkingfees_rc	29 582	14.0	0	19 288	47.4	0	65 449	44.4	0	61 246
traffiffines_rc	29 582	8.8	0	12 000	30.0	0	40 719	28.0	0	38 104
tollfees_rc	29 582	5.6	0	6 000	19.0	0	20 360	17.8	0	19 052
vehiclemaint_rc	29 582	62.0	0	29 200	210.4	0	99 083	196.9	0	92 720
vehicleinstal_rc	29 582	5.3	0	8 000	18.0	0	27 146	16.8	0	25 403
panelbeating_rc	29 582	20.8	0	18 000	70.5	0	61 079	66.0	0	57 156
panelbeatingins_rc	29 582	30.4	0	65 000	103.1	0	220 562	96.5	0	206 398
vehiclerepair_rc	29 582	22.7	0	19 250	76.9	0	65 320	71.9	0	61 125
vehiclerepairsins_rc	29 582	3.7	0	14 000	12.6	0	47 506	11.8	0	44 455
vehiclelicence_rc	29 582	32.6	0	9 500	110.5	0	32 236	103.4	0	30 166
otherrunning_rc	29 582	6.2	0	8 000	20.9	0	27 146	19.6	0	25 403
Runningcosts_tr	29 582	1 117.2	0	448 100	3 790.9	0	1 520 523	3 547.4	0	1 422 873
bus_pt	29 582	19.5	0	5 000	66.3	0	16 966	62.0	0	15 877
train_pt	29 582	4.3	0	3 300	14.5	0	11 198	13.5	0	10 479
cab_pt	29 582	12.3	0	3 608	41.8	0	12 243	39.1	0	11 457
taxi_pt	29 582	21.9	0	4 200	74.2	0	14 252	69.4	0	13 336
otherpublic_pt	29 582	4.0	0	14 500	13.5	0	49 202	12.6	0	46 043
discountedfares_pt	29 582	11.7	0	3 752	39.6	0	12 732	37.0	0	11 914
furnitureremovals_pt	29 582	4.3	0	20 000	14.7	0	67 865	13.8	0	63 507
busaway_pt	29 582	13.8	0	9 000	46.8	0	30 539	43.8	0	28 578
trainaway_pt	29 582	3.8	0	8 000	13.0	0	27 146	12.2	0	25 403
taxiaway_pt	29 582	22.0	0	15 480	74.5	0	52 528	69.7	0	49 154
shipaway_pt	29 582	4.0	0	26 000	13.7	0	88 225	12.8	0	82 559
planeaway_pt	29 582	33.0	0	32 000	112.0	0	108 585	104.8	0	101 611
rentedaway_pt	29 582	5.6	0	28 800	18.8	0	97 726	17.6	0	91 450
otheraway_pt	29 582	18.4	0	180 012	62.3	0	610 829	58.3	0	571 601
Publictransport_tr	29 582	178.5	0	194 512	605.6	0	660 031	566.7	0	617 643
Transport	29 582	2 570.8	0	595 073	8 723.5	0	2 019 242	8 163.2	0	1 889 563
newspapers_np	29 582	89.2	0	91 980	302.6	0	312 113	283.2	0	292 068
magazines_np	29 582	47.2	0	45 360	160.2	0	153 919	149.9	0	144 034
books_np	29 582	30.2	0	216 000	102.6	0	732 946	96.0	0	685 875
stationery_np	29 582	39.5	0	100 000	134.1	0	339 327	125.5	0	317 535
Reading	29 582	206.2	0	216 635	699.6	0	735 101	654.7	0	687 891
rent_ho	29 582	989.7	0	67 200	3 358.5	0	228 028	3 142.8	0	213 383
levy_ho	29 582	50.7	0	18 600	171.9	0	63 115	160.9	0	59 061
lodging_ho	29 582	6.5	0	11 988	22.1	0	40 678	20.7	0	38 066

Source: Own calculations.

Descriptive Statistics for 1995 IES Data within PIES (cont.)

Variable	Obs	Nominal			Real1			Real2		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
repayment_ho	29 582	2 070.4	0	170 388	7 025.5	0	578 172	6 574.3	0	541 041
mortgagesubsidy_ho	29 582	190.8	0	60 000	647.6	0	203 596	606.0	0	190 521
rates_ho	29 582	316.8	0	30 000	1 074.9	0	101 798	1 005.9	0	95 260
hservices_ho	29 582	1 480.8	0	31 416	5 024.8	0	106 603	4 702.1	0	99 757
addcapital_ho	29 582	53.0	0	60 000	179.8	0	203 596	168.2	0	190 521
addother_ho	29 582	93.8	0	60 000	318.2	0	203 596	297.8	0	190 521
maintenance_ho	29 582	151.6	0	156 000	514.3	0	529 350	481.3	0	495 354
alterations_ho	29 582	56.8	0	110 000	192.9	0	373 259	180.5	0	349 288
buildingmaterials_ho	29 582	4.1	0	9 999	14.1	0	33 929	13.2	0	31 750
communalserv_ho	29 582	1.5	0	999	5.2	0	3 390	4.9	0	3 172
landaccess_ho	29 582	24.2	0	25 000	82.2	0	84 832	76.9	0	79 384
Housing	29 582	5 490.9	0	266 840	18 632.0	0	905 460	17 435.4	0	847 310
netexphhome_rh	29 582	409.8	0	14 600	1 390.6	0	49 542	1 301.3	0	46 360
hotels_rh	29 582	14.2	0	8 400	48.2	0	28 503	45.2	0	26 673
holidayrent_rh	29 582	9.9	0	86 000	33.5	0	291 821	31.3	0	273 080
eatingout_rh	29 582	293.8	0	64 800	996.9	0	219 884	932.8	0	205 763
softdrinkson_rh	29 582	37.7	0	12 000	127.9	0	40 719	119.7	0	38 104
springwateron_rh	29 582	3.0	0	1 776	10.2	0	6 026	9.6	0	5 639
spiritson_rh	29 582	19.8	0	18 000	67.0	0	61 079	62.7	0	57 156
fortifiedwineon_rh	29 582	1.0	0	3 000	3.3	0	10 180	3.1	0	9 526
sorghumbeeron_rh	29 582	4.4	0	3 360	14.9	0	11 401	14.0	0	10 669
otheralcbevon_rh	29 582	61.6	0	14 400	209.1	0	48 863	195.6	0	45 725
Restaurant	29 582	855.1	0	90 490	2 901.6	0	307 057	2 715.3	0	287 337
medaidself_he	29 582	578.9	0	200 000	1 964.4	0	678 654	1 838.2	0	635 069
medaidemp_he	29 582	564.5	0	72 000	1 915.4	0	244 315	1 792.4	0	228 625
hospitalflatrate_he	29 582	15.5	0	14 290	52.7	0	48 490	49.3	0	45 376
medequip_he	29 582	21.5	0	12 000	72.9	0	40 719	68.2	0	38 104
tradhealers_he	29 582	6.5	0	4 800	22.2	0	16 288	20.8	0	15 242
otherhealth_he	29 582	237.1	0	52 400	804.5	0	177 807	752.8	0	166 388
Health	29 582	1 424.0	0	200 000	4 832.0	0	678 654	4 521.7	0	635 069
photography_re	29 582	14.9	0	13 000	50.4	0	44 112	47.2	0	41 280
aircraft_re	29 582	4.3	0	30 000	14.7	0	101 798	13.7	0	95 260
sportsequip_re	29 582	10.0	0	15 000	33.8	0	50 899	31.6	0	47 630
campingequip_re	29 582	3.8	0	10 000	13.0	0	33 933	12.2	0	31 753
poolmaintenance_re	29 582	26.0	0	17 840	88.2	0	60 536	82.5	0	56 648
gardenringreq_re	29 582	18.6	0	37 000	63.1	0	125 551	59.0	0	117 488
petfood_re	29 582	39.1	0	36 000	132.7	0	122 158	124.2	0	114 313
petlicences_re	29 582	2.1	0	5 000	7.3	0	16 966	6.8	0	15 877
petcare_re	29 582	6.3	0	4 000	21.4	0	13 573	20.0	0	12 701
flowers_re	29 582	3.7	0	3 000	12.4	0	10 180	11.6	0	9 526
toysgames_re	29 582	11.1	0	12 000	37.7	0	40 719	35.3	0	38 104
tickets_re	29 582	12.2	0	4 000	41.2	0	13 573	38.6	0	12 701
recreationlessons_re	29 582	4.3	0	6 000	14.6	0	20 360	13.7	0	19 052
photoprints_re	29 582	5.5	0	2 000	18.6	0	6 787	17.4	0	6 351
libraryfees_re	29 582	1.7	0	4 320	5.6	0	14 659	5.3	0	13 718
Recreation	29 582	163.5	0	38 400	554.8	0	130 302	519.1	0	121 933
daycare_ed	29 582	36.7	0	24 000	124.7	0	81 438	116.7	0	76 208
daycaregrant_ed	29 582	1.6	0	5 400	5.3	0	18 324	4.9	0	17 147
schoolfees_ed	29 582	194.0	0	60 000	658.3	0	203 596	616.0	0	190 521
schoolfeesgrant_ed	29 582	13.1	0	38 590	44.6	0	130 946	41.7	0	122 537
postschool_ed	29 582	183.5	0	54 000	622.7	0	183 237	582.7	0	171 469
postschoolgrant_ed	29 582	36.4	0	24 000	123.6	0	81 438	115.6	0	76 208
othertuition_ed	29 582	35.6	0	27 000	120.8	0	91 618	113.0	0	85 734
othertuitiongrant_ed	29 582	2.4	0	18 000	8.0	0	61 079	7.5	0	57 156
hostel_ed	29 582	47.9	0	36 000	162.7	0	122 158	152.2	0	114 313

Source: Own calculations.

Descriptive Statistics for 1995 IES Data within PIES (cont.)

Variable	Obs	Nominal			Real1			Real2		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
hostelgrant_ed	29 582	12.1	0	30 000	41.0	0	101 798	38.4	0	95 260
textbooks_ed	29 582	39.4	0	13 600	133.8	0	46 148	125.2	0	43 185
textbooksgrant_ed	29 582	2.9	0	10 000	9.8	0	33 933	9.1	0	31 753
Education	29 582	605.7	0	113 000	2 055.1	0	383 439	1 923.2	0	358 814
hairdressingm_pc	29 582	77.2	0	9 600	261.9	0	32 575	245.0	0	30 483
hairdressingf_pc	29 582	135.9	0	18 000	461.2	0	61 079	431.6	0	57 156
pcareappliances_pc	29 582	19.6	0	9 600	66.4	0	32 575	62.1	0	30 483
hairpieces_pc	29 582	7.3	0	8 400	24.8	0	28 503	23.2	0	26 673
shampoo_pc	29 582	62.9	0	3 600	213.3	0	12 216	199.6	0	11 431
hairspray_pc	29 582	44.0	0	5 040	149.3	0	17 102	139.7	0	16 004
otherhairprep_pc	29 582	11.7	0	7 800	39.7	0	26 467	37.1	0	24 768
dnappies_pc	29 582	22.5	0	15 360	76.4	0	52 121	71.5	0	48 773
tissues_pc	29 582	31.5	0	5 988	106.8	0	20 319	99.9	0	19 014
santowels_pc	29 582	44.7	0	8 400	151.7	0	28 503	141.9	0	26 673
toothpaste_pc	29 582	84.5	0	5 868	286.8	0	19 912	268.4	0	18 633
shaving_pc	29 582	48.4	0	5 400	164.3	0	18 324	153.8	0	17 147
skincream_pc	29 582	104.3	0	11 988	353.8	0	40 678	331.1	0	38 066
deodorant_pc	29 582	36.9	0	3 360	125.2	0	11 401	117.2	0	10 669
makeup_pc	29 582	42.4	0	5 400	143.9	0	18 324	134.7	0	17 147
toiletpaper_pc	29 582	95.2	0	4 080	323.2	0	13 845	302.4	0	12 955
soap_pc	29 582	90.5	0	4 560	307.1	0	15 473	287.4	0	14 480
Personalcare	29 582	959.5	0	34 560	3 255.7	0	117 271	3 046.7	0	109 740
watches_pe	29 582	75.4	0	50 000	255.9	0	169 663	239.5	0	158 767
bags_pe	29 582	23.6	0	11 000	80.2	0	37 326	75.0	0	34 929
miscgoods_pe	29 582	17.3	0	9 649	58.8	0	32 742	55.1	0	30 639
Personaleffects	29 582	116.4	0	50 000	395.0	0	169 663	369.6	0	158 767
remittances_fg	29 582	197.6	0	144 400	670.4	0	489 988	627.4	0	458 520
memberfees_fg	29 582	26.8	0	15 600	91.0	0	52 935	85.1	0	49 535
gymfees_fg	29 582	17.6	0	20 160	59.7	0	68 408	55.9	0	64 015
exhhgifts_fg	29 582	92.0	0	40 000	312.1	0	135 731	292.1	0	127 014
Feesandgifts	29 582	334.0	0	145 500	1 133.2	0	493 720	1 060.5	0	462 013
bankcharges_fc	29 582	88.1	0	112 500	298.9	0	381 743	279.7	0	357 227
otherinterest_fc	29 582	62.6	0	204 000	212.3	0	692 227	198.6	0	647 771
overdraftrepaid_fc	29 582	131.9	0	360 000	447.5	0	1 221 576	418.8	0	1 143 125
funeralpolicy_fc	29 582	124.7	0	90 000	423.3	0	305 394	396.1	0	285 781
medinsurance_fc	29 582	70.3	0	80 000	238.4	0	271 461	223.1	0	254 028
bldginsurance_fc	29 582	111.4	0	500 000	377.9	0	1 696 634	353.6	0	1 587 673
lifeinsurancemd_fc	29 582	30.5	0	86 000	103.6	0	291 821	97.0	0	273 080
continsurance_fc	29 582	100.8	0	250 000	342.1	0	848 317	320.1	0	793 837
carinsurance_fc	29 582	115.9	0	80 000	393.1	0	271 461	367.9	0	254 028
pkginsurance_fc	29 582	128.0	0	146 000	434.3	0	495 417	406.4	0	463 601
pensionself_fc	29 582	362.7	0	100 000	1 230.6	0	339 327	1 151.6	0	317 535
pensionemp_fc	29 582	199.1	0	42 000	675.5	0	142 517	632.1	0	133 365
stokvel_fc	29 582	20.7	0	36 000	70.3	0	122 158	65.8	0	114 313
Finance	29 582	1 546.5	0	609 400	5 247.7	0	2 067 857	4 910.7	0	1 935 056
professionals_ot	29 582	30.7	0	110 000	104.3	0	373 259	97.6	0	349 288
funeralexp_ot	29 582	63.4	0	55 000	215.1	0	186 630	201.3	0	174 644
gravestones_ot	29 582	15.7	0	12 000	53.2	0	40 719	49.7	0	38 104
Otherexp	29 582	109.8	0	110 000	372.5	0	373 259	348.6	0	349 288
unmatchedgoods_xx	29 582	62.3	0	35 500	211.3	0	120 461	197.7	0	112 725
unmatchedfinancial_xx	29 582	1 167.0	0	776 800	3 959.8	0	2 635 890	3 705.5	0	2 466 609
unmatchedtax_xx	29 582	5 175.0	0	2 969 285	17 560.2	0	10 100 000	16 432.5	0	9 428 509
unmatchedother_xx	29 582	4 404.0	0	4 232 271	14 944.0	0	14 400 000	13 984.3	0	13 400 000
Unmatchedexp	29 582	10 808.3	0	4 472 317	36 675.3	0	15 200 000	34 320.0	0	14 200 000
TOTAL_EXP_excl	29 582	29 247.6	1 172	1 429 926	99 245.1	3 977	4 852 122	101 318.1	4 509	4 772 025

Source: Own calculations.

Descriptive Statistics for 1995 IES Data within PIES (cont.)

Variable	Obs	Nominal			Real (single deflator)			Real (multiple deflators)		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
TOTAL_EXP_incl	29 582	40 055.9	1 172	4 919 497	135 920.4	3 977	16 700 000	135 638.1	4 509	15 600 000
wages_inc	29 582	29 641.8	0	4 960 000	100 582.6	0	16 800 000	99 906.5	0	15 800 000
oap_inc	29 582	1 004.5	0	350 000	3 408.4	0	1 187 644	3 627.9	0	1 119 607
dg_inc	29 582	222.6	0	120 000	755.4	0	407 192	810.2	0	414 380
othgrants_inc	29 582	110.2	0	75 000	374.1	0	254 495	393.9	0	244 794
Work_inc	29 582	29 641.8	0	4 960 000	100 582.6	0	16 800 000	99 906.5	0	15 800 000
Grants_inc	29 582	1 337.3	0	350 000	4 537.9	0	1 187 644	4 832.0	0	1 119 607
Allother_inc	29 582	8 717.0	0	3 093 944	29 579.2	0	10 500 000	29 697.8	0	9 848 468
TOTAL_INC	29 582	39 696.2	0	4 960 000	134 699.7	0	16 800 000	134 436.2	0	15 800 000
p_wages_inc	29 582	20 977.6	0	4 960 000	71 182.6	0	16 800 000	70 561.2	0	15 800 000
p_oap_inc	29 582	730.9	0	350 000	2 480.2	0	1 187 644	2 645.4	0	1 119 607
p_dg_inc	29 582	127.9	0	72 000	433.9	0	244 315	467.4	0	245 268
p_othgrants_inc	29 582	76.5	0	75 000	259.5	0	254 495	272.3	0	244 794
p_Work_inc	29 582	20 977.6	0	4 960 000	71 182.6	0	16 800 000	70 561.2	0	15 800 000
p_Grants_inc	29 582	935.2	0	350 000	3 173.5	0	1 187 644	3 385.2	0	1 119 607
bond_de	29 582	3 711.0	0	3 000 000	12 592.5	0	10 200 000	12 271.1	0	9 667 702
carfinance_de	29 582	1 123.7	0	1 000 000	3 812.9	0	3 393 268	3 698.9	0	3 204 404
hirepurchase_de	29 582	156.4	0	165 000	530.7	0	559 889	530.6	0	547 737
overdraft_de	29 582	337.0	0	687 000	1 143.7	0	2 331 175	1 104.4	0	2 217 486
retailacc_de	29 582	94.0	0	400 000	318.9	0	1 357 307	316.2	0	1 271 001
familyloan_de	29 582	119.3	0	200 000	404.9	0	678 654	396.5	0	666 526
Debts	29 582	5 541.4	0	3 001 200	18 803.6	0	10 200 000	18 317.7	0	9 671 569
_unmatcheddebts	29 582	0.0	0	0	0.0	0	0	0.0	0	0
_dissaving_in	29 582	252.9	0	780 000	858.3	0	2 646 749	835.8	0	2 582 579
_imputedrent_in	0	0.0	0	0	0.0	0	0	0.0	0	0
_imputedrent_out	29 582	4 163.4	0	117 600	14 127.6	0	399 048	14 199.8	0	487 086
_imputedrent7_out	29 582	3 412.8	0	245 000	11 580.6	0	831 351	11 631.8	0	804 882

Source: Own calculations.

Table 4: Descriptive Statistics for 2000 IES Data within PIES

Variable	Obs	Nominal			Real1			Real2		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
cakeflour_gr	26 263	105.5	0	22 032	257.3	0	53 725	354.7	0	74 084
breadflour_gr	26 263	62.2	0	12 000	151.8	0	29 262	209.3	0	40 351
mealimeal_gr	26 263	417.0	0	132 588	1 016.9	0	323 315	1 402.2	0	445 834
sorghummeal_gr	26 263	7.9	0	6 552	19.2	0	15 977	26.5	0	22 031
rice_gr	26 263	215.3	0	9 360	525.1	0	22 824	724.1	0	31 474
samp_gr	26 263	53.6	0	67 680	130.6	0	165 037	180.1	0	227 578
whitebread_gr	26 263	319.0	0	24 000	778.0	0	58 524	1 072.8	0	80 701
brownbread_gr	26 263	381.2	0	97 440	929.6	0	237 607	1 281.8	0	327 647
pasta_gr	26 263	56.4	0	4 800	137.6	0	11 705	189.8	0	16 140
otherflour_gr	26 263	4.6	0	3 600	11.1	0	8 779	15.3	0	12 105
cereals_gr	26 263	119.1	0	3 600	290.5	0	8 779	400.6	0	12 105
otherbread_gr	26 263	24.3	0	3 348	59.3	0	8 164	81.8	0	11 258
otherbaked_gr	26 263	53.0	0	12 480	129.3	0	30 432	178.3	0	41 965
babyfood_gr	26 263	15.0	0	4 440	36.6	0	10 827	50.5	0	14 930
othergrain_gr	26 263	4.4	0	3 684	10.8	0	8 983	14.9	0	12 388
Grain_fo	26 263	1 838.7	0	135 960	4 483.6	0	331 538	6 182.7	0	457 173
beef_me	26 263	456.8	0	86 400	1 113.9	0	210 686	1 412.9	0	267 238
mutton_me	26 263	303.5	0	9 600	740.0	0	23 410	938.6	0	29 693
pork_me	26 263	72.8	0	8 400	177.6	0	20 483	225.3	0	25 981
poultry_me	26 263	558.1	0	21 600	1 361.0	0	52 672	1 726.4	0	66 809
boerewors_me	26 263	204.0	0	39 012	497.4	0	95 131	630.9	0	120 665
sausage_me	26 263	38.7	0	7 200	94.4	0	17 557	119.7	0	22 270
coldmeats_me	26 263	93.1	0	6 504	227.1	0	15 860	288.1	0	20 117
biltong_me	26 263	22.8	0	4 800	55.6	0	11 705	70.5	0	14 847
bacon_me	26 263	30.8	0	5 880	75.0	0	14 338	95.2	0	18 187
babyfood_me	26 263	3.7	0	2 292	9.1	0	5 589	11.6	0	7 089
othermeat_me	26 263	44.9	0	12 120	109.4	0	29 555	138.8	0	37 488
Meat_fo	26 263	1 829.2	0	87 540	4 460.6	0	213 466	5 657.9	0	270 764
freshfish_fi	26 263	87.1	0	19 584	212.3	0	47 755	265.6	0	59 748
otherfish_fi	26 263	183.1	0	9 600	446.4	0	23 410	558.5	0	29 288
Fish_fo	26 263	270.1	0	19 584	658.7	0	47 755	824.2	0	59 748
freshmilk_mi	26 263	243.3	0	14 760	593.4	0	35 992	829.0	0	50 283
longlifemilk_mi	26 263	43.5	0	6 000	106.1	0	14 631	148.2	0	20 440
condensedmilk_mi	26 263	7.1	0	2 160	17.3	0	5 267	24.2	0	7 359
powderedmilk_mi	26 263	61.1	0	7 560	149.0	0	18 435	208.2	0	25 755
cheese_mi	26 263	77.4	0	3 600	188.8	0	8 779	263.7	0	12 264
cream_mi	26 263	57.9	0	9 000	141.1	0	21 946	197.2	0	30 660
sourmilk_mi	26 263	40.0	0	3 600	97.6	0	8 779	136.4	0	12 264
eggs_mi	26 263	146.2	0	23 448	356.4	0	57 178	497.9	0	79 881
babyfood_mi	26 263	49.5	0	12 000	120.8	0	29 262	168.8	0	40 881
othermilk_mi	26 263	6.8	0	3 000	16.5	0	7 315	23.0	0	10 220
Milk_fo	26 263	732.8	0	23 868	1 786.9	0	58 202	2 496.4	0	81 312
butter_fa	26 263	33.4	0	5 400	81.4	0	13 168	123.1	0	19 911
margarine_fa	26 263	91.4	0	4 464	222.9	0	10 885	337.0	0	16 460
cookingoil_fa	26 263	133.1	0	5 400	324.5	0	13 168	490.6	0	19 911
peanutbutter_fa	26 263	34.8	0	1 008	84.9	0	2 458	128.4	0	3 717
otherfats_fa	26 263	11.8	0	2 868	28.9	0	6 994	43.6	0	10 575
Fats_fo	26 263	304.5	0	5 652	742.5	0	13 782	1 122.7	0	20 840
lettuce_ve	26 263	20.6	0	1 800	50.2	0	4 389	62.3	0	5 448
cabbage_ve	26 263	73.6	0	3 000	179.5	0	7 315	222.8	0	9 080

Source: Own calculations.

Descriptive Statistics for 2000 IES Data within PIES (cont.)

Variable	Obs	Nominal			Real1			Real2		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
mealies_ve	26 263	15.2	0	4 800	37.0	0	11 705	46.0	0	14 527
tomatoes_ve	26 263	109.0	0	5 040	265.8	0	12 290	329.9	0	15 254
carrots_ve	26 263	39.3	0	3 000	95.9	0	7 315	119.1	0	9 080
greenbeans_ve	26 263	22.4	0	3 000	54.6	0	7 315	67.8	0	9 080
pumpkin_ve	26 263	39.4	0	6 000	96.1	0	14 631	119.3	0	18 159
frozenpeas_ve	26 263	12.0	0	1 920	29.2	0	4 682	36.2	0	5 811
frozencarrots_ve	26 263	5.9	0	600	14.5	0	1 463	18.0	0	1 816
driedpeas_ve	26 263	19.8	0	2 484	48.3	0	6 057	60.0	0	7 518
cannedveg_ve	26 263	23.8	0	4 200	58.0	0	10 242	72.0	0	12 711
frozenbeans_ve	26 263	10.5	0	1 920	25.7	0	4 682	31.9	0	5 811
otherveg_ve	26 263	226.0	0	7 560	551.1	0	18 435	684.0	0	22 881
popcorn_ve	26 263	6.8	0	3 000	16.5	0	7 315	20.5	0	9 080
crisps_ve	26 263	36.8	0	6 480	89.7	0	15 801	111.4	0	19 612
babyfood_ve	26 263	9.5	0	2 160	23.1	0	5 267	28.6	0	6 537
Vegetables_fo	26 263	670.7	0	18 720	1 635.5	0	45 649	2 029.8	0	56 657
oranges_fr	26 263	50.2	0	3 600	122.5	0	8 779	149.1	0	10 687
citrus_fr	26 263	8.4	0	840	20.6	0	2 048	25.0	0	2 494
bananas_fr	26 263	75.0	0	4 800	182.8	0	11 705	222.6	0	14 249
subtropical_fr	26 263	19.1	0	2 760	46.7	0	6 730	56.8	0	8 193
apples_fr	26 263	78.1	0	7 200	190.4	0	17 557	231.8	0	21 374
deciduous_fr	26 263	23.5	0	5 940	57.2	0	14 485	69.7	0	17 634
otherfruits_fr	26 263	12.6	0	2 400	30.7	0	5 852	37.4	0	7 125
driedfruit_fr	26 263	9.1	0	1 500	22.2	0	3 658	27.0	0	4 453
nuts_fr	26 263	12.7	0	2 400	30.9	0	5 852	37.6	0	7 125
cannedfruit_fr	26 263	18.4	0	8 196	44.8	0	19 986	54.5	0	24 331
babyfood_fr	26 263	12.6	0	10 200	30.8	0	24 873	37.5	0	30 280
otherfruitprod_fr	26 263	1.9	0	1 704	4.5	0	4 155	5.5	0	5 059
Fruit_fo	26 263	321.5	0	11 940	784.0	0	29 116	954.5	0	35 445
whitesugar_su	26 263	251.1	0	24 000	612.3	0	58 524	822.4	0	78 609
brownsugar_su	26 263	26.0	0	6 480	63.5	0	15 801	85.3	0	21 225
othersugar_su	26 263	3.9	0	1 920	9.4	0	4 682	12.6	0	6 289
sweeteners_su	26 263	6.6	0	1 920	16.1	0	4 682	21.6	0	6 289
honey_su	26 263	14.0	0	2 040	34.1	0	4 975	45.8	0	6 682
jams_su	26 263	38.8	0	1 200	94.7	0	2 926	127.2	0	3 930
chocolates_su	26 263	49.1	0	4 200	119.6	0	10 242	160.7	0	13 757
othersweets_su	26 263	20.5	0	3 600	50.1	0	8 779	67.3	0	11 791
jelly_su	26 263	12.3	0	4 920	30.0	0	11 997	40.3	0	16 115
icecream_su	26 263	36.0	0	5 760	87.8	0	14 046	117.9	0	18 866
Sugar_fo	26 263	458.3	0	24 000	1 117.6	0	58 524	1 501.1	0	78 609
vinegar_fn	26 263	19.7	0	2 400	48.0	0	5 852	60.3	0	7 364
saltpepper_fn	26 263	51.5	0	3 720	125.5	0	9 071	157.9	0	11 414
spices_fn	26 263	50.7	0	3 600	123.6	0	8 779	155.5	0	11 046
soups_fn	26 263	54.9	0	1 644	134.0	0	4 009	168.6	0	5 044
custard_fn	26 263	16.9	0	2 400	41.2	0	5 852	51.9	0	7 364
yeast_fn	26 263	24.9	0	7 680	60.8	0	18 728	76.5	0	23 565
chutney_fn	26 263	76.4	0	4 800	186.4	0	11 705	234.5	0	14 728
allotherfood_fn	26 263	21.1	0	12 600	51.5	0	30 725	64.8	0	38 661
Foodnec_fo	26 263	316.1	0	18 696	770.9	0	45 590	970.0	0	57 366
Food	26 263	6 742.0	0	152 664	16 440.4	0	372 270	21 739.4	0	494 862
instantcoffee_co	26 263	96.0	0	2 760	234.0	0	6 730	275.7	0	7 930
groundcoffee_co	26 263	15.5	0	4 200	37.7	0	10 242	44.4	0	12 068
ceylonatea_co	26 263	84.4	0	24 240	205.9	0	59 109	242.6	0	69 647
rooibostea_co	26 263	31.7	0	2 400	77.4	0	5 852	91.2	0	6 896
cocoa_co	26 263	11.1	0	24 600	27.0	0	59 987	31.8	0	70 681
Coffee_nb	26 263	238.7	0	25 392	582.0	0	61 918	685.7	0	72 957

Source: Own calculations.

Descriptive Statistics for 2000 IES Data within PIES (cont.)

Variable	Obs	Nominal			Real1			Real2		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
softdrinks_cd	26 263	226.6	0	32 400	552.5	0	79 007	579.6	0	82 882
springwater_cd	26 263	10.2	0	7 200	24.9	0	17 557	26.1	0	18 418
juice_cd	26 263	97.4	0	4 800	237.5	0	11 705	249.1	0	12 279
othcooldrink_cd	26 263	1.4	0	300	3.5	0	732	3.6	0	767
Colddrink_nb	26 263	335.5	0	32 880	818.2	0	80 178	858.4	0	84 110
Nonalcoholic	26 263	574.2	0	33 012	1 400.2	0	80 500	1 544.1	0	84 489
spirits_al	26 263	75.0	0	36 000	182.9	0	87 786	244.2	0	117 196
fortifiedwine_al	26 263	5.6	0	8 400	13.6	0	20 483	18.2	0	27 346
sorghumbeer_al	26 263	17.0	0	30 000	41.5	0	73 155	55.4	0	97 663
otheralcbev_al	26 263	233.1	0	60 000	568.3	0	146 310	758.7	0	195 326
Alcohol	26 263	330.7	0	104 400	806.3	0	254 579	1 076.4	0	339 867
cigarettes_to	26 263	375.0	0	20 160	914.5	0	49 160	1 425.2	0	76 611
cigars_to	26 263	3.6	0	9 600	8.8	0	23 410	13.7	0	36 482
tobaccos_to	26 263	35.8	0	12 000	87.4	0	29 262	136.1	0	45 602
Tobacco	26 263	414.5	0	20 160	1 010.7	0	49 160	1 575.1	0	76 611
clothes_cl	26 263	629.5	0	30 000	1 535.1	0	73 155	753.5	0	35 910
babyclothes_cl	26 263	40.9	0	9 000	99.7	0	21 946	49.0	0	10 773
shoes_cl	26 263	284.6	0	14 000	694.1	0	34 139	340.7	0	16 758
babysshoes_cl	26 263	8.8	0	9 000	21.4	0	21 946	10.5	0	10 773
material_cl	26 263	17.4	0	12 000	42.4	0	29 262	20.8	0	14 364
knittingwool_cl	26 263	2.2	0	4 800	5.3	0	11 705	2.6	0	5 746
sewingcotton_cl	26 263	4.7	0	9 600	11.5	0	23 410	5.7	0	11 491
clothingrepairs_cl	26 263	4.1	0	12 000	10.0	0	29 262	4.9	0	14 364
clothinghire_cl	26 263	3.1	0	3 200	7.6	0	7 803	3.7	0	3 830
Clothing	26 263	995.4	0	33 000	2 427.2	0	80 470	1 191.5	0	39 501
firewood_fu	26 263	47.4	0	33 600	115.6	0	81 933	107.6	0	76 268
charcoal_fu	26 263	13.2	0	2 856	32.1	0	6 964	29.9	0	6 483
paraffin_fu	26 263	165.1	0	11 520	402.6	0	28 091	374.7	0	26 149
gascylinders_fu	26 263	31.9	0	7 200	77.9	0	17 557	72.5	0	16 343
candles_fu	26 263	36.7	0	9 216	89.4	0	22 473	83.3	0	20 919
coal_fu	26 263	22.6	0	3 600	55.2	0	8 779	51.4	0	8 172
meths_fu	26 263	4.8	0	8 400	11.6	0	20 483	10.8	0	19 067
dung_fu	26 263	1.0	0	2 880	2.5	0	7 023	2.4	0	6 537
drycells_fu	26 263	16.0	0	3 000	38.9	0	7 315	36.2	0	6 810
recharging_fu	26 263	3.6	0	4 200	8.8	0	10 242	8.2	0	9 533
otherhfhfuel_fu	26 263	23.2	0	222 000	56.6	0	541 346	52.7	0	503 913
Fuel	26 263	365.5	0	222 000	891.2	0	541 346	829.6	0	503 913
beds_ff	26 263	90.7	0	36 000	221.3	0	87 786	206.0	0	81 716
diningfurn_ff	26 263	75.9	0	25 000	185.0	0	60 962	172.2	0	56 747
loungefurn_ff	26 263	127.1	0	35 000	309.9	0	85 347	288.4	0	79 446
kitchenfurn_ff	26 263	40.2	0	48 000	98.1	0	117 048	91.3	0	108 954
gardenfurn_ff	26 263	6.3	0	31 000	15.4	0	75 593	14.3	0	70 366
looserugs_ff	26 263	26.0	0	21 000	63.4	0	51 208	59.0	0	47 667
bedroomfurn_ff	26 263	91.3	0	30 000	222.6	0	73 155	207.2	0	68 096
upholstering_ff	26 263	4.4	0	12 000	10.8	0	29 262	10.1	0	27 239
otherfurn_ff	26 263	15.6	0	12 000	38.1	0	29 262	35.5	0	27 239
Furniture_fe	26 263	477.5	0	94 500	1 164.5	0	230 438	1 084.0	0	214 503
blankets_tx	26 263	53.4	0	6 000	130.2	0	14 631	121.2	0	13 619
bedlinen_tx	26 263	71.7	0	9 800	174.8	0	23 897	162.7	0	22 245
curtains_tx	26 263	29.1	0	34 000	71.0	0	82 909	66.1	0	77 176
pillows_tx	26 263	3.6	0	2 000	8.7	0	4 877	8.1	0	4 540
tablelinen_tx	26 263	3.2	0	4 000	7.9	0	9 754	7.3	0	9 080
othertextiles_tx	26 263	2.0	0	9 000	4.8	0	21 946	4.4	0	20 429
Textiles_fe	26 263	162.9	0	40 000	397.3	0	97 540	369.8	0	90 795
washingmachine_ap	26 263	42.0	0	25 000	102.3	0	60 962	95.2	0	56 747

Source: Own calculations.

Descriptive Statistics for 2000 IES Data within PIES (cont.)

Variable	Obs	Nominal			Real1			Real2		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
paraffinstove_ap	26 263	3.4	0	2 800	8.4	0	6 828	7.8	0	6 356
hotplate_ap	26 263	7.5	0	4 500	18.2	0	10 973	17.0	0	10 214
gasstove_ap	26 263	5.7	0	7 000	13.9	0	17 069	12.9	0	15 889
sewingmachine_ap	26 263	4.3	0	6 000	10.4	0	14 631	9.6	0	13 619
sewingnonelec_ap	26 263	0.4	0	1 600	1.0	0	3 902	0.9	0	3 632
irons_ap	26 263	10.0	0	700	24.4	0	1 707	22.7	0	1 589
kettles_ap	26 263	7.0	0	1 400	17.1	0	3 414	15.9	0	3 178
foodmixer_ap	26 263	5.4	0	3 500	13.2	0	8 535	12.3	0	7 945
fryingpan_ap	26 263	3.3	0	3 000	8.1	0	7 315	7.5	0	6 810
toaster_ap	26 263	5.6	0	28 650	13.5	0	69 863	12.6	0	65 032
appliancerepairs_ap	26 263	4.2	0	2 500	10.2	0	6 096	9.5	0	5 675
vacuum_ap	26 263	10.8	0	10 000	26.2	0	24 385	24.4	0	22 699
fridge_ap	26 263	98.8	0	21 000	240.8	0	51 208	224.2	0	47 667
stove_ap	26 263	50.7	0	10 000	123.7	0	24 385	115.1	0	22 699
lawnmower_ap	26 263	7.6	0	18 050	18.5	0	44 015	17.2	0	40 971
otherappl_ap	26 263	10.7	0	8 000	26.1	0	19 508	24.3	0	18 159
Appliances_fe	26 263	277.2	0	34 600	675.9	0	84 372	629.2	0	78 538
musicalinstr_mu	26 263	16.6	0	35 000	40.6	0	85 347	37.8	0	79 446
tvsv_mu	26 263	109.6	0	26 000	267.3	0	63 401	248.8	0	59 017
tvlicence_mu	26 263	72.8	0	11 760	177.5	0	28 677	165.2	0	26 694
paytv_mu	26 263	74.6	0	222 280	182.0	0	542 029	169.4	0	504 548
tvrental_mu	26 263	5.4	0	9 180	13.2	0	22 385	12.3	0	20 837
decoderrent_mu	26 263	26.8	0	8 400	65.3	0	20 483	60.8	0	19 067
radios_mu	26 263	66.7	0	30 000	162.7	0	73 155	151.5	0	68 096
cds_mu	26 263	16.5	0	8 000	40.1	0	19 508	37.4	0	18 159
Musical_fe	26 263	389.0	0	222 488	948.7	0	542 536	883.1	0	505 020
kitchenware_eq	26 263	28.3	0	13 000	68.9	0	31 700	64.1	0	29 508
gardenequip_eq	26 263	6.8	0	3 010	16.6	0	7 340	15.4	0	6 832
Equipment_fe	26 263	35.1	0	13 400	85.5	0	32 676	79.6	0	30 416
Furnequip	26 263	1 341.7	0	222 938	3 271.8	0	543 633	3 045.6	0	506 042
washingpowder_hg	26 263	232.2	0	8 976	566.3	0	21 888	527.1	0	20 374
polishes_hg	26 263	79.3	0	3 000	193.3	0	7 315	179.9	0	6 810
scourers_hg	26 263	23.0	0	1 800	56.1	0	4 389	52.2	0	4 086
insecticides_hg	26 263	38.5	0	6 000	93.9	0	14 631	87.4	0	13 619
matches_hg	26 263	25.9	0	4 320	63.0	0	10 534	58.7	0	9 806
brooms_hg	26 263	9.6	0	3 600	23.3	0	8 779	21.7	0	8 172
plasticbags_hg	26 263	12.7	0	3 540	30.9	0	8 632	28.8	0	8 035
paperplates_hg	26 263	6.0	0	1 440	14.5	0	3 511	13.5	0	3 269
Hhgoods_hm	26 263	427.1	0	11 880	1 041.4	0	28 969	969.4	0	26 966
domesticworker_hs	26 263	555.6	0	120 000	1 354.9	0	292 619	1 261.2	0	272 385
childminder_hs	26 263	12.8	0	28 800	31.1	0	70 229	29.0	0	65 372
cook_hs	26 263	5.1	0	15 924	12.5	0	38 831	11.7	0	36 146
chauffeur_hs	26 263	5.2	0	30 000	12.6	0	73 155	11.7	0	68 096
clotheswasher_hs	26 263	30.7	0	15 924	74.9	0	38 831	69.7	0	36 146
gardener_hs	26 263	105.0	0	69 600	256.2	0	169 719	238.4	0	157 983
otherdworker_hs	26 263	18.1	0	93 840	44.1	0	228 828	41.1	0	213 005
laundryservices_hs	26 263	19.7	0	8 640	48.0	0	21 069	44.6	0	19 612
fumigation_hs	26 263	19.3	0	54 000	47.1	0	131 679	43.9	0	122 573
Hhservices_hm	26 263	771.5	0	120 000	1 881.4	0	292 619	1 751.3	0	272 385
Hhmaint	26 263	1 198.6	0	121 080	2 922.8	0	295 253	2 720.7	0	274 837
telephony_tc	26 263	823.7	0	72 000	2 008.5	0	175 572	1 869.6	0	163 431
internet_tc	26 263	16.4	0	12 000	39.9	0	29 262	37.1	0	27 239
postage_tc	26 263	6.0	0	2 400	14.7	0	5 852	13.7	0	5 448
postbox_tc	26 263	3.7	0	5 000	9.0	0	12 192	8.4	0	11 349
Communication	26 263	849.8	0	72 000	2 072.1	0	175 572	1 928.8	0	163 431

Source: Own calculations.

Descriptive Statistics for 2000 IES Data within PIES (cont.)

Variable	Obs	Nominal			Real1			Real2		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
computers_ct	26 263	177.0	0	42 680	431.5	0	104 075	401.7	0	96 878
phones_ct	26 263	108.5	0	14 400	264.5	0	35 114	246.3	0	32 686
twowayradio_ct	26 263	0.2	0	2 800	0.6	0	6 828	0.6	0	6 356
Computer	26 263	285.7	0	45 500	696.7	0	110 952	648.5	0	103 279
newcars_pv	26 263	541.5	0	213 000	1 320.4	0	519 400	1 229.1	0	483 484
newbakkies_pv	26 263	148.5	0	170 000	362.1	0	414 544	337.1	0	385 879
newmotorbikes_pv	26 263	5.6	0	75 000	13.7	0	182 887	12.8	0	170 241
newbicycles_pv	26 263	5.1	0	5 000	12.4	0	12 192	11.5	0	11 349
usedcars_pv	26 263	545.6	0	132 000	1 330.4	0	321 881	1 238.4	0	299 624
usedbakkies_pv	26 263	154.1	0	250 000	375.7	0	609 624	349.7	0	567 469
usedmotorbikes_pv	26 263	9.8	0	16 000	23.8	0	39 016	22.2	0	36 318
usedbicycles_pv	26 263	2.2	0	5 000	5.4	0	12 192	5.0	0	11 349
Vehicles_tr	26 263	1 412.3	0	250 000	3 443.9	0	609 624	3 205.8	0	567 469
carfuel_rc	26 263	1 156.5	0	300 000	2 820.2	0	731 549	2 625.1	0	680 963
newtyres_rc	26 263	97.8	0	48 000	238.5	0	117 048	222.0	0	108 954
retreads_rc	26 263	12.8	0	15 000	31.3	0	36 577	29.1	0	34 048
spareparts_rc	26 263	61.9	0	30 000	151.0	0	73 155	140.5	0	68 096
carbatteries_rc	26 263	13.6	0	2 300	33.1	0	5 609	30.8	0	5 221
oilgrease_rc	26 263	37.4	0	18 300	91.2	0	44 624	84.9	0	41 539
parkingfees_rc	26 263	23.8	0	12 000	58.1	0	29 262	54.1	0	27 239
trafficroads_rc	26 263	21.2	0	6 000	51.8	0	14 631	48.2	0	13 619
tollfees_rc	26 263	16.3	0	14 690	39.7	0	35 822	37.0	0	33 344
vehiclemaint_rc	26 263	134.9	0	30 000	328.9	0	73 155	306.1	0	68 096
vehicleinstal_rc	26 263	12.2	0	8 000	29.8	0	19 508	27.7	0	18 159
panelbeating_rc	26 263	35.0	0	40 000	85.4	0	97 540	79.5	0	90 795
panelbeatingins_rc	26 263	26.8	0	45 000	65.5	0	109 732	60.9	0	102 145
vehiclerepair_rc	26 263	20.6	0	17 000	50.3	0	41 454	46.8	0	38 588
vehiclerepairs_rc	26 263	12.9	0	46 000	31.4	0	112 171	29.2	0	104 414
vehiclelicence_rc	26 263	26.6	0	30 000	64.8	0	73 155	60.3	0	68 096
otherrunning_rc	26 263	22.1	0	16 860	53.8	0	41 113	50.1	0	38 270
Runningcosts_tr	26 263	1 732.4	0	305 805	4 224.6	0	745 704	3 932.4	0	694 140
bus_pt	26 263	126.7	0	21 600	308.9	0	52 672	287.6	0	49 029
train_pt	26 263	39.0	0	8 640	95.2	0	21 069	88.6	0	19 612
cab_pt	26 263	24.9	0	10 800	60.7	0	26 336	56.5	0	24 515
taxi_pt	26 263	446.0	0	38 400	1 087.5	0	93 638	1 012.3	0	87 163
otherpublic_pt	26 263	16.1	0	20 000	39.3	0	48 770	36.6	0	45 398
discountedfares_pt	26 263	4.8	0	21 600	11.8	0	52 672	11.0	0	49 029
furnitureremovals_pt	26 263	4.9	0	14 000	11.9	0	34 139	11.1	0	31 778
busaway_pt	26 263	6.4	0	4 560	15.6	0	11 120	14.5	0	10 351
trainaway_pt	26 263	1.5	0	6 000	3.7	0	14 631	3.5	0	13 619
taxiaway_pt	26 263	8.0	0	15 000	19.5	0	36 577	18.1	0	34 048
shipaway_pt	26 263	0.1	0	1 600	0.3	0	3 902	0.3	0	3 632
planeaway_pt	26 263	42.3	0	25 000	103.0	0	60 962	95.9	0	56 747
rentedaway_pt	26 263	5.3	0	8 000	12.9	0	19 508	12.0	0	18 159
otheraway_pt	26 263	2.6	0	20 000	6.3	0	48 770	5.9	0	45 398
Publictransport_tr	26 263	728.6	0	42 000	1 776.8	0	102 417	1 653.9	0	95 335
Transport	26 263	3 873.4	0	333 885	9 445.2	0	814 177	8 792.1	0	757 878
newspapers_np	26 263	199.4	0	87 360	486.3	0	213 027	452.7	0	198 296
magazines_np	26 263	56.6	0	39 000	137.9	0	95 101	128.4	0	88 525
books_np	26 263	26.1	0	18 720	63.6	0	45 649	59.2	0	42 492
stationery_np	26 263	44.7	0	12 000	109.0	0	29 262	101.5	0	27 239
Reading	26 263	326.8	0	87 360	796.8	0	213 027	741.7	0	198 296
rent_ho	26 263	1 277.1	0	138 600	3 114.2	0	337 975	2 898.9	0	314 605
levy_ho	26 263	104.3	0	108 000	254.4	0	263 358	236.8	0	245 147
lodging_ho	26 263	14.3	0	52 800	35.0	0	128 753	32.5	0	119 850

Source: Own calculations.

Descriptive Statistics for 2000 IES Data within PIES (cont.)

Variable	Obs	Nominal			Real1			Real2		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
repayment_ho	26 263	2 351.3	0	2 280 000	5 733.7	0	5 559 770	5 337.2	0	5 175 319
mortgagesubsidy_ho	26 263	261.4	0	210 000	637.4	0	512 084	593.4	0	476 674
rates_ho	26 263	386.4	0	248 520	942.1	0	606 015	877.0	0	564 110
hservices_ho	26 263	1 632.6	0	601 248	3 981.1	0	1 466 140	3 705.8	0	1 364 759
addcapital_ho	26 263	312.6	0	200 000	762.2	0	487 699	709.5	0	453 975
addother_ho	26 263	51.9	0	78 000	126.5	0	190 203	117.8	0	177 050
maintenance_ho	26 263	260.6	0	200 000	635.5	0	487 699	591.6	0	453 975
alterations_ho	26 263	208.6	0	100 000	508.6	0	243 850	473.4	0	226 988
buildingmaterials_ho	26 263	81.5	0	80 000	198.8	0	195 080	185.1	0	181 590
communalserv_ho	26 263	4.3	0	70 800	10.5	0	172 646	9.8	0	160 707
landaccess_ho	26 263	2.2	0	20 000	5.4	0	48 770	5.0	0	45 398
Housing	26 263	6 949.2	0	2 283 600	16 945.5	0	5 568 548	15 773.8	0	5 183 491
netexphome_rh	26 263	11.1	0	40 000	27.2	0	97 540	25.3	0	90 795
hotels_rh	26 263	131.1	0	80 000	319.6	0	195 080	297.5	0	181 590
holidayrent_rh	26 263	49.0	0	30 000	119.4	0	73 155	111.1	0	68 096
eatingout_rh	26 263	515.1	0	42 000	1 256.0	0	102 417	1 169.2	0	95 335
softdrinkson_rh	26 263	71.7	0	17 280	174.8	0	42 137	162.7	0	39 223
springwateron_rh	26 263	7.6	0	7 200	18.5	0	17 557	17.2	0	16 343
spiritson_rh	26 263	29.6	0	24 000	72.2	0	58 524	67.2	0	54 477
fortifiedwineon_rh	26 263	3.4	0	6 000	8.3	0	14 631	7.7	0	13 619
sorghumbeeron_rh	26 263	16.4	0	24 000	39.9	0	58 524	37.1	0	54 477
otheralcbevon_rh	26 263	136.5	0	25 440	333.0	0	62 035	309.9	0	57 746
Restaurant	26 263	971.4	0	101 200	2 368.9	0	246 776	2 205.1	0	229 712
medaidself_he	26 263	683.6	0	95 000	1 667.0	0	231 657	1 551.7	0	215 638
medaidemp_he	26 263	485.8	0	72 000	1 184.6	0	175 572	1 102.7	0	163 431
hospitalflatrate_he	26 263	12.8	0	12 500	31.1	0	30 481	28.9	0	28 373
medequip_he	26 263	39.4	0	12 000	96.1	0	29 262	89.4	0	27 239
tradhealers_he	26 263	9.0	0	20 000	21.9	0	48 770	20.4	0	45 398
otherhealth_he	26 263	368.6	0	100 020	898.9	0	243 898	836.7	0	227 033
Health	26 263	1 599.1	0	151 300	3 899.5	0	368 944	3 629.9	0	343 432
photography_re	26 263	16.4	0	15 000	40.1	0	36 577	37.3	0	34 048
aircraft_re	26 263	15.3	0	85 000	37.2	0	207 272	34.6	0	192 940
sportsequip_re	26 263	13.7	0	15 000	33.5	0	36 577	31.1	0	34 048
campingequip_re	26 263	7.5	0	8 000	18.2	0	19 508	16.9	0	18 159
poolmaintenance_re	26 263	39.0	0	22 400	95.0	0	54 622	88.5	0	50 845
gardenringreq_re	26 263	24.1	0	40 000	58.7	0	97 540	54.7	0	90 795
petfood_re	26 263	53.6	0	30 000	130.7	0	73 155	121.7	0	68 096
petlicences_re	26 263	1.8	0	3 000	4.3	0	7 315	4.0	0	6 810
petcare_re	26 263	19.5	0	5 000	47.5	0	12 192	44.2	0	11 349
flowers_re	26 263	4.5	0	2 000	10.9	0	4 877	10.1	0	4 540
toysgames_re	26 263	8.6	0	7 200	21.1	0	17 557	19.6	0	16 343
tickets_re	26 263	20.4	0	12 000	49.7	0	29 262	46.3	0	27 239
recreationlessons_re	26 263	8.2	0	8 400	20.0	0	20 483	18.6	0	19 067
photoprints_re	26 263	11.1	0	5 000	27.1	0	12 192	25.3	0	11 349
libraryfees_re	26 263	1.0	0	2 000	2.3	0	4 877	2.2	0	4 540
Recreation	26 263	244.6	0	106 800	596.4	0	260 431	555.2	0	242 423
daycare_ed	26 263	93.1	0	25 000	227.0	0	60 962	211.3	0	56 747
daycaregrant_ed	26 263	10.1	0	25 000	24.6	0	60 962	22.9	0	56 747
schoolfees_ed	26 263	409.2	0	148 800	997.9	0	362 848	928.9	0	337 758
schoolfeesgrant_ed	26 263	28.5	0	50 000	69.4	0	121 925	64.6	0	113 494
postschool_ed	26 263	299.7	0	60 000	730.8	0	146 310	680.3	0	136 193
postschoolgrant_ed	26 263	85.5	0	100 000	208.5	0	243 850	194.1	0	226 988
othertuition_ed	26 263	87.3	0	60 000	212.9	0	146 310	198.2	0	136 193
othertuitiongrant_ed	26 263	3.5	0	7 500	8.4	0	18 289	7.9	0	17 024
hostel_ed	26 263	44.6	0	60 000	108.8	0	146 310	101.3	0	136 193

Source: Own calculations.

Descriptive Statistics for 2000 IES Data within PIES (cont.)

Variable	Obs	Nominal			Real1			Real2		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
hostelgrant_ed	26 263	5.2	0	15 500	12.6	0	37 797	11.7	0	35 183
textbooks_ed	26 263	42.3	0	12 000	103.1	0	29 262	95.9	0	27 239
textbooksgrant_ed	26 263	7.5	0	10 000	18.4	0	24 385	17.1	0	22 699
Education	26 263	1 116.4	0	149 150	2 722.4	0	363 702	2 534.1	0	338 552
hairdressingm_pc	26 263	64.4	0	21 600	157.0	0	52 672	146.1	0	49 029
hairdressingf_pc	26 263	136.8	0	21 600	333.5	0	52 672	310.5	0	49 029
pcareappliances_pc	26 263	14.8	0	15 600	36.1	0	38 041	33.6	0	35 410
hairpieces_pc	26 263	8.4	0	1 920	20.4	0	4 682	19.0	0	4 358
shampoo_pc	26 263	79.5	0	7 200	193.7	0	17 557	180.3	0	16 343
hairspray_pc	26 263	41.1	0	7 200	100.3	0	17 557	93.4	0	16 343
otherhairprep_pc	26 263	62.5	0	9 600	152.3	0	23 410	141.8	0	21 791
dnappies_pc	26 263	43.3	0	12 000	105.6	0	29 262	98.3	0	27 239
tissues_pc	26 263	18.0	0	1 200	44.0	0	2 926	41.0	0	2 724
santowels_pc	26 263	69.5	0	7 188	169.5	0	17 528	157.8	0	16 316
toothpaste_pc	26 263	96.6	0	6 360	235.7	0	15 509	219.4	0	14 436
shaving_pc	26 263	68.4	0	6 000	166.8	0	14 631	155.3	0	13 619
skincream_pc	26 263	175.0	0	18 000	426.8	0	43 893	397.3	0	40 858
deodorant_pc	26 263	86.4	0	12 000	210.7	0	29 262	196.1	0	27 239
makeup_pc	26 263	38.2	0	6 000	93.2	0	14 631	86.8	0	13 619
toiletpaper_pc	26 263	108.6	0	3 792	264.7	0	9 247	246.4	0	8 607
soap_pc	26 263	163.5	0	16 920	398.8	0	41 259	371.2	0	38 406
Personalcare	26 263	1 275.0	0	43 860	3 109.1	0	106 952	2 894.2	0	99 557
watches_pe	26 263	97.2	0	250 000	236.9	0	609 624	220.6	0	567 469
bags_pe	26 263	21.7	0	4 000	52.9	0	9 754	49.3	0	9 080
miscgoods_pe	26 263	19.4	0	7 000	47.2	0	17 069	44.0	0	15 889
Personaleffects	26 263	138.2	0	251 800	337.1	0	614 013	313.8	0	571 555
remittances_fg	26 263	714.4	0	360 000	1 742.1	0	877 858	1 621.6	0	817 156
memberfees_fg	26 263	57.3	0	62 520	139.7	0	152 455	130.1	0	141 913
gymfees_fg	26 263	47.4	0	27 100	115.5	0	66 083	107.5	0	61 514
exhhgifts_fg	26 263	119.2	0	56 000	290.6	0	136 556	270.5	0	127 113
Feesandgifts	26 263	938.2	0	360 000	2 287.9	0	877 858	2 129.7	0	817 156
bankcharges_fc	26 263	143.8	0	50 000	350.7	0	121 925	326.5	0	113 494
otherinterest_fc	26 263	31.7	0	438 600	77.4	0	1 069 524	72.0	0	995 568
overdraftrepaid_fc	26 263	228.3	0	3 000 000	556.7	0	7 315 486	518.2	0	6 809 631
funeralpolicy_fc	26 263	234.5	0	36 000	571.8	0	87 786	532.3	0	81 716
medinsurance_fc	26 263	143.3	0	100 000	349.4	0	243 850	325.3	0	226 988
bldginsurance_fc	26 263	116.3	0	156 000	283.7	0	380 405	264.1	0	354 101
lifeinsurancemd_fc	26 263	44.1	0	100 000	107.4	0	243 850	100.0	0	226 988
continsurance_fc	26 263	110.8	0	80 000	270.2	0	195 080	251.5	0	181 590
carinsurance_fc	26 263	222.9	0	112 800	543.5	0	275 062	505.9	0	256 042
pkginsurance_fc	26 263	133.0	0	100 000	324.3	0	243 850	301.9	0	226 988
pensionself_fc	26 263	618.3	0	97 200	1 507.8	0	237 022	1 403.5	0	220 632
pensionemp_fc	26 263	458.8	0	134 440	1 118.7	0	327 831	1 041.4	0	305 162
stokvel_fc	26 263	45.5	0	22 500	110.9	0	54 866	103.2	0	51 072
Finance	26 263	2 531.3	0	3 055 800	6 172.6	0	7 451 554	5 745.8	0	6 936 290
professionals_ot	26 263	63.7	0	180 000	155.4	0	438 929	144.6	0	408 578
funeralexp_ot	26 263	133.8	0	40 000	326.2	0	97 540	303.7	0	90 795
gravestones_ot	26 263	16.2	0	26 600	39.5	0	64 864	36.7	0	60 379
Otherexp	26 263	213.7	0	180 000	521.1	0	438 929	485.0	0	408 578
unmatchedgoods_xx	26 263	60.7	0	52 204	148.0	0	127 299	137.8	0	118 497
unmatchedfinancial_xx	26 263	2 115.6	0	1 512 000	5 158.8	0	3 687 005	4 802.1	0	3 432 054
unmatchedtax_xx	26 263	3 198.4	0	3 000 000	7 799.4	0	7 315 486	7 260.0	0	6 809 631
unmatchedother_xx	26 263	1 092.5	0	2 093 446	2 664.1	0	5 104 858	2 479.9	0	4 751 865
Unmatchedexp	26 263	6 467.2	0	4 072 220	15 770.3	0	9 930 089	14 679.9	0	9 243 438
TOTAL_EXP_excl	26 263	33 275.5	0	3 173 398	81 142.0	0	7 738 316	82 099.9	0	7 208 834

Source: Own calculations.

Descriptive Statistics for 2000 IES Data within PIES (cont.)

Variable	Obs	Nominal			Real (single deflator)			Real (multiple deflators)		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
TOTAL_EXP_incl	26 263	39 742.7	0	4 552 670	96 912.4	0	11 100 000	96 779.8	0	10 300 000
wages_inc	26 263	32 384.9	0	5 597 200	78 970.3	0	13 600 000	78 736.8	0	12 900 000
oap_inc	26 263	1 275.2	0	144 000	3 109.5	0	351 143	3 379.8	0	344 426
dg_inc	26 263	274.4	0	130 000	669.1	0	317 004	728.6	0	324 734
othgrants_inc	26 263	137.6	0	108 000	335.6	0	263 358	360.3	0	260 441
Work_inc	26 263	32 384.9	0	5 597 200	78 970.3	0	13 600 000	78 736.8	0	12 900 000
Grants_inc	26 263	1 687.2	0	144 000	4 114.3	0	351 143	4 468.7	0	344 426
Allother_inc	26 263	58 360.7	0	33 100 000	142 312.3	0	80 800 000	145 178.5	0	75 400 000
TOTAL_INC	26 263	92 432.8	0	38 100 000	225 397.0	0	92 900 000	228 120.9	0	86 700 000
p_wages_inc	26 263	23 040.4	0	5 555 200	56 184.0	0	13 500 000	55 939.7	0	12 800 000
p_oap_inc	26 263	942.2	0	100 000	2 297.5	0	243 850	2 505.1	0	235 007
p_dg_inc	26 263	142.8	0	130 000	348.3	0	317 004	378.6	0	324 734
p_othgrants_inc	26 263	77.1	0	96 000	188.0	0	234 096	198.3	0	234 135
p_Work_inc	26 263	23 040.4	0	5 555 200	56 184.0	0	13 500 000	55 939.7	0	12 800 000
p_Grants_inc	26 263	1 162.1	0	130 000	2 833.9	0	317 004	3 081.9	0	324 734
bond_de	26 263	7 478.0	0	1 500 000	18 235.0	0	3 657 743	17 727.1	0	3 509 389
carfinance_de	26 263	2 230.2	0	2 018 909	5 438.4	0	4 923 100	5 252.0	0	4 594 486
hirepurchase_de	26 263	338.8	0	130 000	826.0	0	317 004	832.7	0	298 420
overdraft_de	26 263	1 549.7	0	30 000 000	3 779.0	0	73 200 000	3 587.7	0	68 100 000
retailacc_de	26 263	241.4	0	320 000	588.6	0	780 319	589.8	0	747 989
familyloan_de	26 263	1 414.9	0	3 000 000	3 450.2	0	7 315 486	3 248.7	0	6 826 159
Debts	26 263	13 253.0	0	30 000 000	32 317.3	0	73 200 000	31 202.0	0	68 100 000
_unmatcheddebts	26 263	0.0	0	0	0.0	0	0	0.0	0	0
_dissaving_in	26 263	573.2	0	3 000 000	1 397.8	0	7 315 486	1 367.2	0	6 814 250
_imputedrent_in	0	0.0	0	0	0.0	0	0	0.0	0	0
_imputedrent_out	0	0.0	0	0	0.0	0	0	0.0	0	0
_imputedrent7_out	0	0.0	0	0	0.0	0	0	0.0	0	0

Source: Own calculations.

Table 5: Descriptive Statistics for 2005/06 IES Data within PIES

Variable	Obs	Nominal			Real1			Real2		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
cakeflour_gr	21 144	88.5	0	6 813	167.1	0	12 867	224.1	0	17 255
breadflour_gr	21 144	44.7	0	7 914	84.3	0	14 946	113.1	0	20 044
mealmeal_gr	21 144	372.6	0	15 835	703.7	0	29 906	943.7	0	40 105
sorghummeal_gr	21 144	9.1	0	6 661	17.1	0	12 580	22.9	0	16 870
rice_gr	21 144	192.1	0	11 245	362.7	0	21 237	486.5	0	28 480
samp_gr	21 144	26.9	0	2 637	50.7	0	4 980	68.0	0	6 679
whitebread_gr	21 144	255.5	0	46 018	482.6	0	86 909	647.2	0	116 548
brownbread_gr	21 144	353.7	0	68 005	668.0	0	128 433	895.9	0	172 234
pasta_gr	21 144	27.8	0	2 007	52.5	0	3 790	70.4	0	5 083
otherflour_gr	21 144	3.4	0	4 308	6.5	0	8 136	8.7	0	10 911
cereals_gr	21 144	83.7	0	14 374	158.1	0	27 147	212.0	0	36 405
otherbread_gr	21 144	35.6	0	3 084	67.3	0	5 824	90.3	0	7 811
otherbaked_gr	21 144	135.3	0	18 596	255.5	0	35 120	342.6	0	47 098
babyfood_gr	21 144	16.2	0	4 143	30.5	0	7 824	40.9	0	10 493
othergrain_gr	21 144	36.3	0	10 508	68.5	0	19 845	91.9	0	26 613
Grain_fo	21 144	1 681.3	0	119 819	3 175.4	0	226 288	4 258.3	0	303 462
beef_me	21 144	487.4	0	71 722	920.6	0	135 453	979.4	0	144 117
mutton_me	21 144	233.6	0	36 639	441.2	0	69 196	469.5	0	73 622
pork_me	21 144	49.5	0	7 793	93.5	0	14 718	99.5	0	15 659
poultry_me	21 144	818.6	0	14 390	1 545.9	0	27 177	1 644.8	0	28 915
boerewors_me	21 144	128.3	0	7 937	242.4	0	14 990	257.9	0	15 948
sausage_me	21 144	96.9	0	22 440	182.9	0	42 380	194.6	0	45 091
coldmeats_me	21 144	106.6	0	7 506	201.3	0	14 176	214.2	0	15 082
biltong_me	21 144	16.3	0	13 743	30.8	0	25 955	32.8	0	27 615
bacon_me	21 144	5.3	0	1 278	9.9	0	2 414	10.6	0	2 568
babyfood_me	21 144	1.2	0	1 562	2.2	0	2 950	2.4	0	3 139
othermeat_me	21 144	41.6	0	45 669	78.6	0	86 250	83.6	0	91 767
Meat_fo	21 144	1 985.3	0	79 955	3 749.4	0	151 002	3 989.3	0	160 660
freshfish_fi	21 144	17.5	0	4 932	33.1	0	9 314	37.2	0	10 451
otherfish_fi	21 144	267.1	0	99 626	504.5	0	188 152	566.1	0	211 106
Fish_fo	21 144	284.7	0	99 626	537.6	0	188 152	603.2	0	211 106
freshmilk_mi	21 144	220.0	0	13 466	415.5	0	25 432	502.4	0	30 753
longlifemilk_mi	21 144	77.1	0	5 965	145.6	0	11 265	176.1	0	13 623
condensedmilk_mi	21 144	4.9	0	2 066	9.3	0	3 902	11.2	0	4 718
powderedmilk_mi	21 144	57.5	0	3 824	108.5	0	7 222	131.3	0	8 733
cheese_mi	21 144	97.5	0	6 260	184.1	0	11 823	222.6	0	14 296
cream_mi	21 144	79.0	0	15 366	149.3	0	29 020	180.5	0	35 092
sourmilk_mi	21 144	58.9	0	3 642	111.1	0	6 878	134.4	0	8 317
eggs_mi	21 144	160.2	0	13 986	302.5	0	26 414	365.8	0	31 941
babyfood_mi	21 144	75.7	0	13 561	143.0	0	25 611	173.0	0	30 970
othermilk_mi	21 144	19.1	0	17 045	36.0	0	32 191	43.6	0	38 927
Milk_fo	21 144	849.9	0	17 576	1 605.1	0	33 194	1 940.9	0	40 139
butter_fa	21 144	11.8	0	1 842	22.2	0	3 479	32.5	0	5 091
margarine_fa	21 144	81.4	0	8 025	153.7	0	15 156	225.0	0	22 181
cookingoil_fa	21 144	142.1	0	3 781	268.5	0	7 141	392.9	0	10 451
peanutbutter_fa	21 144	21.1	0	1 319	39.9	0	2 491	58.3	0	3 646
otherfats_fa	21 144	5.1	0	48 152	9.6	0	90 939	14.0	0	133 093
Fats_fo	21 144	261.5	0	48 152	493.9	0	90 939	722.8	0	133 093
lettuce_ve	21 144	11.2	0	949	21.2	0	1 792	25.7	0	2 177
cabbage_ve	21 144	44.2	0	1 669	83.4	0	3 152	101.3	0	3 829

Source: Own calculations.

Descriptive Statistics for 2005/06 IES Data within PIES (cont.)

Variable	Obs	Nominal			Real1			Real2		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
mealies_ve	21 144	9.3	0	4 905	17.6	0	9 264	21.4	0	11 253
tomatoes_ve	21 144	85.0	0	4 353	160.6	0	8 221	195.1	0	9 987
carrots_ve	21 144	17.5	0	1 118	33.0	0	2 111	40.1	0	2 565
greenbeans_ve	21 144	5.3	0	1 732	9.9	0	3 271	12.1	0	3 974
pumpkin_ve	21 144	25.2	0	3 540	47.5	0	6 686	57.7	0	8 122
frozenpeas_ve	21 144	1.5	0	794	2.9	0	1 500	3.5	0	1 822
frozenscarrots_ve	21 144	0.9	0	721	1.7	0	1 362	2.1	0	1 654
driedpeas_ve	21 144	43.1	0	3 555	81.3	0	6 714	98.8	0	8 156
cannedveg_ve	21 144	57.1	0	2 619	107.8	0	4 946	130.9	0	6 009
frozenbeans_ve	21 144	0.3	0	637	0.5	0	1 203	0.7	0	1 461
otherveg_ve	21 144	226.6	0	37 173	427.9	0	70 204	519.8	0	85 284
popcorn_ve	21 144	4.3	0	1 668	8.1	0	3 150	9.8	0	3 827
crisps_ve	21 144	63.0	0	12 940	119.0	0	24 438	144.6	0	29 687
babyfood_ve	21 144	6.1	0	2 772	11.6	0	5 235	14.1	0	6 360
Vegetables_fo	21 144	600.5	0	37 384	1 134.0	0	70 603	1 377.6	0	85 768
oranges_fr	21 144	21.6	0	1 631	40.9	0	3 080	39.8	0	3 002
citrus_fr	21 144	5.9	0	1 871	11.2	0	3 534	10.9	0	3 444
bananas_fr	21 144	39.0	0	7 716	73.7	0	14 572	71.8	0	14 202
subtropical_fr	21 144	26.5	0	2 970	50.0	0	5 609	48.8	0	5 467
apples_fr	21 144	43.8	0	2 304	82.7	0	4 351	80.6	0	4 241
deciduous_fr	21 144	26.4	0	2 289	49.9	0	4 323	48.7	0	4 213
otherfruits_fr	21 144	11.8	0	1 769	22.3	0	3 341	21.7	0	3 256
driedfruit_fr	21 144	8.1	0	5 942	15.4	0	11 222	15.0	0	10 937
nuts_fr	21 144	15.8	0	7 692	29.8	0	14 527	29.0	0	14 158
cannedfruit_fr	21 144	6.6	0	2 050	12.5	0	3 872	12.2	0	3 773
babyfood_fr	21 144	12.2	0	2 570	23.0	0	4 854	22.4	0	4 730
otherfruitprod_fr	21 144	1.6	0	921	3.1	0	1 739	3.0	0	1 695
Fruit_fo	21 144	219.5	0	8 379	414.5	0	15 824	404.0	0	15 423
whitesugar_su	21 144	215.6	0	10 080	407.2	0	19 037	514.4	0	24 046
brownsugar_su	21 144	25.3	0	3 221	47.9	0	6 083	60.5	0	7 684
othersugar_su	21 144	2.6	0	1 981	4.9	0	3 741	6.2	0	4 726
sweeteners_su	21 144	2.0	0	1 427	3.7	0	2 695	4.7	0	3 404
honey_su	21 144	4.5	0	1 118	8.5	0	2 111	10.7	0	2 667
jams_su	21 144	18.0	0	3 037	34.1	0	5 736	43.0	0	7 245
chocolates_su	21 144	54.9	0	21 043	103.7	0	39 741	131.0	0	50 198
othersweets_su	21 144	46.7	0	11 404	88.3	0	21 537	111.5	0	27 204
jelly_su	21 144	4.4	0	4 496	8.3	0	8 491	10.5	0	10 725
icecream_su	21 144	25.5	0	10 287	48.2	0	19 428	60.9	0	24 540
Sugar_fo	21 144	399.6	0	22 778	754.8	0	43 018	953.4	0	54 337
vinegar_fn	21 144	5.7	0	805	10.7	0	1 520	12.3	0	1 739
saltpepper_fn	21 144	17.9	0	1 881	33.8	0	3 552	38.6	0	4 063
spices_fn	21 144	45.0	0	2 634	85.0	0	4 975	97.2	0	5 689
soups_fn	21 144	64.2	0	30 211	121.2	0	57 056	138.6	0	65 248
custard_fn	21 144	4.3	0	1 307	8.1	0	2 468	9.3	0	2 823
yeast_fn	21 144	13.8	0	3 747	26.1	0	7 077	29.8	0	8 093
chutney_fn	21 144	102.7	0	6 505	194.0	0	12 285	221.9	0	14 049
allotherfood_fn	21 144	752.6	0	425 574	1 421.4	0	803 732	1 625.5	0	919 137
Foodnec_fo	21 144	1 006.2	0	425 574	1 900.3	0	803 732	2 173.1	0	919 137
Food	21 144	7 288.5	0	447 343	13 764.9	0	844 845	16 422.5	0	966 878
instantcoffee_co	21 144	59.7	0	14 851	112.7	0	28 047	141.2	0	35 140
groundcoffee_co	21 144	7.0	0	3 378	13.3	0	6 380	16.6	0	7 993
ceylonatea_co	21 144	53.4	0	2 031	100.9	0	3 836	126.4	0	4 806
rooibostea_co	21 144	17.4	0	1 585	32.8	0	2 993	41.1	0	3 750
cocoa_co	21 144	10.1	0	7 801	19.1	0	14 733	23.9	0	18 459
Coffee_nb	21 144	147.6	0	15 006	278.8	0	28 340	349.3	0	35 507

Source: Own calculations.

Descriptive Statistics for 2005/06 IES Data within PIES (cont.)

Variable	Obs	Nominal			Real1			Real2		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
softdrinks_cd	21 144	274.5	0	19 516	518.4	0	36 858	481.0	0	34 199
springwater_cd	21 144	15.7	0	3 941	29.7	0	7 443	27.6	0	6 906
juice_cd	21 144	148.7	0	5 390	280.9	0	10 179	260.6	0	9 445
othcooldrink_cd	21 144	11.3	0	3 940	21.4	0	7 441	19.9	0	6 904
Colddrink_nb	21 144	450.3	0	19 808	850.3	0	37 409	789.0	0	34 711
Nonalcoholic	21 144	597.9	0	20 756	1 129.1	0	39 199	1 138.3	0	36 954
spirits_al	21 144	75.0	0	26 836	141.7	0	50 682	151.1	0	54 054
fortifiedwine_al	21 144	2.4	0	4 363	4.6	0	8 240	4.9	0	8 788
sorghumbeer_al	21 144	8.0	0	4 573	15.0	0	8 636	16.0	0	9 211
otheralcbev_al	21 144	190.3	0	39 394	359.3	0	74 399	383.2	0	79 348
Alcohol	21 144	275.7	0	39 394	520.7	0	74 399	555.3	0	79 348
cigarettes_to	21 144	4 084.2	0	363 300	7 713.3	0	686 123	9 045.0	0	804 577
cigars_to	21 144	2.3	0	16 063	4.3	0	30 336	5.1	0	35 574
tobaccos_to	21 144	37.2	0	4 744	70.3	0	8 959	82.4	0	10 506
Tobacco	21 144	4 123.7	0	364 080	7 787.9	0	687 596	9 132.4	0	806 305
clothes_cl	21 144	1 273.0	0	63 010	2 404.1	0	119 000	1 722.0	0	85 237
babyclothes_cl	21 144	101.2	0	8 714	191.2	0	16 457	137.0	0	11 788
shoes_cl	21 144	545.6	0	71 559	1 030.5	0	135 145	738.1	0	96 802
babysshoes_cl	21 144	17.5	0	10 850	33.1	0	20 491	23.7	0	14 677
material_cl	21 144	19.7	0	29 638	37.2	0	55 974	26.7	0	40 093
knittingwool_cl	21 144	3.8	0	4 218	7.2	0	7 966	5.2	0	5 706
sewingcotton_cl	21 144	3.5	0	5 368	6.5	0	10 138	4.7	0	7 262
clothingrepairs_cl	21 144	25.5	0	6 806	48.2	0	12 854	34.5	0	9 207
clothinghire_cl	21 144	1.5	0	4 725	2.9	0	8 924	2.0	0	6 392
Clothing	21 144	1 991.4	0	113 526	3 761.0	0	214 403	2 693.9	0	153 573
firewood_fu	21 144	23.2	0	8 640	43.8	0	16 317	42.1	0	15 693
charcoal_fu	21 144	4.6	0	1 800	8.7	0	3 399	8.4	0	3 269
paraffin_fu	21 144	153.5	0	18 000	290.0	0	33 995	278.9	0	32 694
gascylinders_fu	21 144	28.4	0	10 560	53.5	0	19 943	51.5	0	19 180
candles_fu	21 144	25.7	0	2 400	48.6	0	4 533	46.7	0	4 359
coal_fu	21 144	16.3	0	5 040	30.8	0	9 518	29.6	0	9 154
meths_fu	21 144	1.4	0	13 763	2.7	0	25 993	2.6	0	24 998
dung_fu	21 144	0.4	0	4 320	0.7	0	8 159	0.7	0	7 846
drycells_fu	21 144	13.0	0	3 656	24.6	0	6 905	23.6	0	6 640
recharging_fu	21 144	3.5	0	15 925	6.6	0	30 076	6.3	0	28 925
otherhfhfuel_fu	21 144	9.3	0	23 269	17.6	0	43 945	17.0	0	42 264
Fuel	21 144	279.4	0	23 269	527.7	0	43 945	507.5	0	42 264
beds_ff	21 144	284.1	0	32 722	536.6	0	61 798	516.0	0	59 433
diningfurn_ff	21 144	150.1	0	49 488	283.5	0	93 462	272.7	0	89 886
loungefurn_ff	21 144	272.5	0	39 669	514.6	0	74 918	494.9	0	72 051
kitchenfurn_ff	21 144	107.5	0	54 500	202.9	0	102 928	195.2	0	98 989
gardenfurn_ff	21 144	14.8	0	17 839	28.0	0	33 690	26.9	0	32 401
looserugs_ff	21 144	17.1	0	19 943	32.4	0	37 664	31.1	0	36 223
bedroomfurn_ff	21 144	119.1	0	35 765	224.9	0	67 545	216.3	0	64 960
upholstering_ff	21 144	23.3	0	12 220	44.0	0	23 079	42.3	0	22 195
otherfurn_ff	21 144	117.0	0	33 281	220.9	0	62 854	212.5	0	60 449
Furniture_fe	21 144	1 105.5	0	97 857	2 087.8	0	184 811	2 007.9	0	177 739
blankets_tx	21 144	107.0	0	8 595	202.1	0	16 232	194.3	0	15 611
bedlinen_tx	21 144	182.0	0	12 791	343.7	0	24 157	330.5	0	23 232
curtains_tx	21 144	97.5	0	83 786	184.1	0	158 237	177.1	0	152 182
pillows_tx	21 144	9.6	0	2 947	18.1	0	5 566	17.4	0	5 353
tablelinen_tx	21 144	21.8	0	7 543	41.2	0	14 246	39.6	0	13 700
othertextiles_tx	21 144	5.9	0	14 737	11.2	0	27 832	10.8	0	26 767
Textiles_fe	21 144	423.8	0	92 066	800.4	0	173 874	769.7	0	167 221
washingmachine_ap	21 144	64.7	0	15 429	122.1	0	29 139	117.5	0	28 024

Source: Own calculations.

Descriptive Statistics for 2005/06 IES Data within PIES (cont.)

Variable	Obs	Nominal			Real1			Real2		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
paraffinstove_ap	21 144	5.3	0	1 097	10.0	0	2 072	9.6	0	1 992
hotplate_ap	21 144	10.8	0	2 287	20.4	0	4 319	19.6	0	4 154
gasstove_ap	21 144	10.4	0	11 917	19.6	0	22 506	18.9	0	21 645
sewingmachine_ap	21 144	8.5	0	7 902	16.0	0	14 924	15.4	0	14 353
sewingnonelec_ap	21 144	1.1	0	3 926	2.0	0	7 415	1.9	0	7 131
irons_ap	21 144	22.2	0	8 974	42.0	0	16 948	40.4	0	16 300
kettles_ap	21 144	18.5	0	4 461	34.9	0	8 425	33.6	0	8 103
foodmixer_ap	21 144	4.6	0	3 918	8.7	0	7 399	8.3	0	7 116
fryingpan_ap	21 144	8.4	0	4 929	15.9	0	9 309	15.3	0	8 953
toaster_ap	21 144	5.1	0	2 181	9.7	0	4 119	9.3	0	3 961
appliancerepairs_ap	21 144	20.1	0	7 436	38.0	0	14 044	36.6	0	13 506
vacuum_ap	21 144	11.0	0	15 911	20.7	0	30 049	19.9	0	28 899
fridge_ap	21 144	223.8	0	18 119	422.6	0	34 219	406.4	0	32 910
stove_ap	21 144	110.1	0	21 911	208.0	0	41 381	200.0	0	39 797
lawnmower_ap	21 144	18.2	0	25 064	34.4	0	47 335	33.1	0	45 524
otherappl_ap	21 144	25.1	0	21 097	47.4	0	39 843	45.6	0	38 319
Appliances_fe	21 144	567.9	0	26 000	1 072.5	0	49 103	1 031.4	0	47 224
musicalinstr_mu	21 144	16.9	0	49 000	31.8	0	92 541	30.6	0	88 999
tvsv_mu	21 144	352.1	0	44 759	665.0	0	84 531	639.5	0	81 296
tvlicence_mu	21 144	65.3	0	4 400	123.4	0	8 310	118.6	0	7 992
paytv_mu	21 144	162.7	0	9 280	307.2	0	17 526	295.4	0	16 855
tvrental_mu	21 144	2.3	0	4 576	4.4	0	8 642	4.2	0	8 311
decoderrent_mu	21 144	9.3	0	5 808	17.6	0	10 969	16.9	0	10 549
radios_mu	21 144	70.0	0	10 678	132.2	0	20 166	127.1	0	19 395
cds_mu	21 144	81.1	0	18 740	153.1	0	35 392	147.2	0	34 038
Musical_fe	21 144	759.6	0	51 924	1 434.7	0	98 063	1 379.7	0	94 310
kitchenware_eq	21 144	105.5	0	11 601	199.2	0	21 909	191.6	0	21 071
gardenequip_eq	21 144	21.0	0	13 252	39.7	0	25 028	38.2	0	24 070
Equipment_fe	21 144	126.5	0	13 252	239.0	0	25 028	229.8	0	24 070
Furnequip	21 144	2 983.3	0	247 049	5 634.3	0	466 573	5 418.7	0	448 718
washingpowder_hg	21 144	313.9	0	11 168	592.7	0	21 092	570.1	0	20 285
polishes_hg	21 144	33.7	0	5 888	63.6	0	11 120	61.2	0	10 694
scourers_hg	21 144	8.1	0	1 204	15.2	0	2 274	14.6	0	2 187
insecticides_hg	21 144	34.6	0	3 554	65.4	0	6 712	62.9	0	6 455
matches_hg	21 144	12.4	0	4 802	23.5	0	9 069	22.6	0	8 722
brooms_hg	21 144	7.0	0	8 673	13.2	0	16 380	12.7	0	15 753
plasticbags_hg	21 144	23.3	0	5 464	44.1	0	10 319	42.4	0	9 924
paperplates_hg	21 144	7.7	0	2 661	14.6	0	5 026	14.0	0	4 833
Hhgoods_hm	21 144	440.8	0	13 436	832.4	0	25 375	800.6	0	24 404
domesticworker_hs	21 144	820.4	0	60 454	1 549.5	0	114 173	1 490.2	0	109 803
childminder_hs	21 144	33.9	0	36 000	64.1	0	67 989	61.6	0	65 387
cook_hs	21 144	17.9	0	54 408	33.8	0	102 754	32.5	0	98 822
chauffeur_hs	21 144	13.1	0	47 694	24.7	0	90 074	23.8	0	86 627
clotheswasher_hs	21 144	34.4	0	19 301	65.0	0	36 452	62.5	0	35 057
gardener_hs	21 144	182.3	0	60 315	344.3	0	113 910	331.1	0	109 551
otherdworker_hs	21 144	18.3	0	50 450	34.6	0	95 279	33.2	0	91 633
laundryservices_hs	21 144	3.6	0	8 461	6.7	0	15 979	6.5	0	15 368
fumigation_hs	21 144	25.2	0	84 000	47.5	0	158 641	45.7	0	152 570
Hhservices_hm	21 144	1 149.1	0	125 744	2 170.1	0	237 478	2 087.1	0	228 390
Hhmaint	21 144	1 589.8	0	126 970	3 002.5	0	239 794	2 887.6	0	230 617
telephony_tc	21 144	1 641.7	0	930 374	3 100.4	0	1 757 090	2 981.8	0	1 689 849
internet_tc	21 144	61.9	0	17 434	117.0	0	32 926	112.5	0	31 666
postage_tc	21 144	12.7	0	12 000	24.0	0	22 663	23.1	0	21 796
postbox_tc	21 144	21.2	0	5 600	40.1	0	10 576	38.5	0	10 171
Communication	21 144	1 737.5	0	930 494	3 281.5	0	1 757 316	3 155.9	0	1 690 067

Source: Own calculations.

Descriptive Statistics for 2005/06 IES Data within PIES (cont.)

Variable	Obs	Nominal			Real1			Real2		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
computers_ct	21 144	257.6	0	95 677	486.5	0	180 694	467.9	0	173 779
phones_ct	21 144	231.5	0	22 000	437.2	0	41 549	420.5	0	39 959
twowayradio_ct	21 144	0.6	0	4 246	1.1	0	8 019	1.1	0	7 712
Computer	21 144	489.7	0	111 157	924.8	0	209 929	889.4	0	201 896
newcars_pv	21 144	3 151.8	0	747 342	5 952.5	0	1 411 418	5 724.7	0	1 357 406
newbakkies_pv	21 144	947.3	0	499 589	1 789.1	0	943 516	1 720.7	0	907 409
newmotorbikes_pv	21 144	29.9	0	113 818	56.5	0	214 955	54.4	0	206 729
newbicycles_pv	21 144	5.2	0	14 237	9.8	0	26 888	9.5	0	25 859
usedcars_pv	21 144	1 555.1	0	394 225	2 936.9	0	744 527	2 824.6	0	716 036
usedbakkies_pv	21 144	711.6	0	357 205	1 343.9	0	674 612	1 292.5	0	648 796
usedmotorbikes_pv	21 144	6.9	0	99 589	13.1	0	188 082	12.6	0	180 885
usedbicycles_pv	21 144	6.1	0	99 589	11.4	0	188 082	11.0	0	180 885
Vehicles_tr	21 144	6 414.0	0	772 253	12 113.3	0	1 458 465	11 649.8	0	1 402 652
carfuel_rc	21 144	1 909.1	0	188 532	3 605.5	0	356 059	3 467.5	0	342 433
newtyres_rc	21 144	139.2	0	25 402	263.0	0	47 974	252.9	0	46 138
retreads_rc	21 144	9.3	0	4 916	17.5	0	9 284	16.8	0	8 929
spareparts_rc	21 144	141.5	0	33 248	267.2	0	62 792	257.0	0	60 389
carbatteries_rc	21 144	21.4	0	14 290	40.4	0	26 988	38.8	0	25 955
oilgrease_rc	21 144	49.2	0	13 412	92.9	0	25 330	89.4	0	24 360
parkingfees_rc	21 144	38.7	0	11 340	73.1	0	21 417	70.3	0	20 597
traffiffines_rc	21 144	64.3	0	11 397	121.4	0	21 524	116.8	0	20 701
tollfees_rc	21 144	53.7	0	63 650	101.4	0	120 208	97.5	0	115 608
vehiclemaint_rc	21 144	146.2	0	46 168	276.2	0	87 192	265.6	0	83 855
vehicleinstal_rc	21 144	31.8	0	28 403	60.0	0	53 641	57.7	0	51 589
panelbeating_rc	21 144	48.4	0	58 993	91.5	0	111 413	88.0	0	107 150
panelbeatingins_rc	21 144	77.5	0	71 304	146.3	0	134 664	140.7	0	129 510
vehiclerepair_rc	21 144	19.2	0	17 566	36.2	0	33 175	34.9	0	31 905
vehiclerepairsins_rc	21 144	2.8	0	7 664	5.3	0	14 474	5.1	0	13 920
vehiclelicence_rc	21 144	54.4	0	12 623	102.8	0	23 840	98.9	0	22 927
otherrunning_rc	21 144	102.1	0	13 382	192.9	0	25 273	185.5	0	24 306
Runningcosts_tr	21 144	2 908.9	0	196 361	5 493.7	0	370 844	5 283.5	0	356 653
bus_pt	21 144	221.5	0	25 300	418.3	0	47 781	402.2	0	45 953
train_pt	21 144	55.2	0	19 800	104.3	0	37 394	100.3	0	35 963
cab_pt	21 144	27.2	0	12 600	51.4	0	23 796	49.5	0	22 886
taxi_pt	21 144	1 036.7	0	116 196	1 958.0	0	219 446	1 883.0	0	211 048
otherpublic_pt	21 144	67.7	0	60 000	127.8	0	113 315	122.9	0	108 979
discountedfares_pt	21 144	1.2	0	1 100	2.2	0	2 077	2.1	0	1 998
furnitureremovals_pt	21 144	13.7	0	30 000	25.8	0	56 658	24.8	0	54 489
busaway_pt	21 144	62.4	0	30 002	117.9	0	56 661	113.4	0	54 493
trainaway_pt	21 144	30.4	0	15 000	57.4	0	28 329	55.2	0	27 245
taxiaway_pt	21 144	294.5	0	36 000	556.1	0	67 989	534.8	0	65 387
shipaway_pt	21 144	1.0	0	18 000	1.9	0	33 995	1.9	0	32 694
planeaway_pt	21 144	116.5	0	70 000	220.1	0	132 201	211.7	0	127 142
rentedaway_pt	21 144	18.9	0	12 804	35.7	0	24 181	34.3	0	23 256
otheraway_pt	21 144	2.9	0	12 000	5.5	0	22 663	5.3	0	21 796
Publictransport_tr	21 144	1 949.8	0	116 996	3 682.3	0	220 957	3 541.4	0	212 501
Transport	21 144	11 272.6	0	836 304	21 289.3	0	1 579 430	20 474.6	0	1 518 989
newspapers_np	21 144	168.9	0	73 040	319.0	0	137 942	306.8	0	132 663
magazines_np	21 144	67.4	0	23 999	127.3	0	45 324	122.4	0	43 590
books_np	21 144	33.0	0	8 800	62.4	0	16 620	60.0	0	15 984
stationery_np	21 144	82.3	0	20 644	155.4	0	38 988	149.5	0	37 496
Reading	21 144	351.6	0	73 940	664.0	0	139 642	638.6	0	134 298
rent_ho	21 144	2 003.4	0	306 000	3 783.5	0	577 907	3 638.8	0	555 791
levy_ho	21 144	257.4	0	101 280	486.2	0	191 276	467.6	0	183 956
lodging_ho	21 144	15.0	0	32 400	28.3	0	61 190	27.2	0	58 849

Source: Own calculations.

Descriptive Statistics for 2005/06 IES Data within PIES (cont.)

Variable	Obs	Nominal			Real1			Real2		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
repayment_ho	21 144	3 100.1	0	2 735 444	5 854.9	0	5 166 116	5 630.8	0	4 968 420
mortgagesubsidy_ho	21 144	84.3	0	114 607	159.3	0	216 445	153.2	0	208 162
rates_ho	21 144	608.7	0	116 820	1 149.6	0	220 624	1 105.6	0	212 182
hservices_ho	21 144	2 222.7	0	564 000	4 197.7	0	1 065 161	4 037.0	0	1 024 400
addcapital_ho	21 144	826.5	0	868 536	1 560.9	0	1 640 303	1 501.1	0	1 577 532
addother_ho	21 144	215.3	0	861 158	406.7	0	1 626 369	391.1	0	1 564 132
maintenance_ho	21 144	876.2	0	481 034	1 654.7	0	908 473	1 591.4	0	873 708
alterations_ho	21 144	1 693.8	0	3 027 692	3 199.0	0	5 718 051	3 076.6	0	5 499 233
buildingmaterials_ho	21 144	77.6	0	68 153	146.6	0	128 713	141.0	0	123 787
communalserv_ho	21 144	4.0	0	7 200	7.5	0	13 598	7.3	0	13 077
landaccess_ho	21 144	7.6	0	36 000	14.3	0	67 989	13.7	0	65 387
Housing	21 144	11 992.6	0	3 178 836	22 649.0	0	6 003 499	21 782.3	0	5 773 758
netexphhome_rh	21 144	7.4	0	82 500	13.9	0	155 808	13.4	0	149 846
hotels_rh	21 144	207.8	0	73 000	392.4	0	137 867	377.4	0	132 591
holidayrent_rh	21 144	91.9	0	40 000	173.6	0	75 543	167.0	0	72 652
eatingout_rh	21 144	578.9	0	61 950	1 093.4	0	116 998	1 051.5	0	112 521
softdrinkson_rh	21 144	12.2	0	4 104	23.0	0	7 751	22.2	0	7 454
springwateron_rh	21 144	1.0	0	1 394	1.8	0	2 633	1.8	0	2 532
spiritson_rh	21 144	14.3	0	12 000	27.0	0	22 663	25.9	0	21 796
fortifiedwineon_rh	21 144	2.4	0	4 164	4.6	0	7 864	4.4	0	7 563
sorghumbeeron_rh	21 144	6.9	0	2 400	13.0	0	4 533	12.5	0	4 359
otheralcbevon_rh	21 144	151.9	0	16 535	286.9	0	31 228	275.9	0	30 033
Restaurant	21 144	1 074.6	0	83 632	2 029.6	0	157 946	1 951.9	0	151 902
medaidself_he	21 144	1 403.5	0	161 170	2 650.5	0	304 383	2 549.1	0	292 735
medaidemp_he	21 144	871.6	0	101 640	1 646.2	0	191 956	1 583.2	0	184 610
hospitalflatrate_he	21 144	34.9	0	41 800	65.9	0	78 943	63.4	0	75 922
medequip_he	21 144	26.9	0	71 116	50.7	0	134 309	48.8	0	129 169
tradhealers_he	21 144	28.6	0	12 000	54.1	0	22 663	52.0	0	21 796
otherhealth_he	21 144	846.1	0	589 751	1 598.0	0	1 113 794	1 536.8	0	1 071 172
Health	21 144	3 211.6	0	592 453	6 065.4	0	1 118 897	5 833.3	0	1 076 079
photography_re	21 144	56.3	0	19 981	106.3	0	37 736	102.2	0	36 292
aircraft_re	21 144	2.7	0	14 750	5.1	0	27 857	4.9	0	26 791
sportsequip_re	21 144	14.3	0	14 375	26.9	0	27 148	25.9	0	26 109
campingequip_re	21 144	16.0	0	20 000	30.3	0	37 772	29.2	0	36 326
poolmaintenance_re	21 144	72.3	0	51 129	136.6	0	96 561	131.4	0	92 866
gardenringreq_re	21 144	63.7	0	43 000	120.2	0	81 209	115.6	0	78 101
petfood_re	21 144	183.2	0	38 500	345.9	0	72 710	332.7	0	69 928
petlicences_re	21 144	2.1	0	2 100	3.9	0	3 966	3.8	0	3 814
petcare_re	21 144	39.8	0	45 000	75.2	0	84 986	72.3	0	81 734
flowers_re	21 144	17.7	0	9 900	33.5	0	18 697	32.2	0	17 981
toysgames_re	21 144	61.4	0	35 000	116.0	0	66 100	111.6	0	63 571
tickets_re	21 144	122.9	0	13 730	232.0	0	25 930	223.2	0	24 938
recreationlessons_re	21 144	30.1	0	50 000	56.8	0	94 429	54.7	0	90 816
photoprints_re	21 144	17.6	0	8 800	33.3	0	16 620	32.0	0	15 984
libraryfees_re	21 144	3.9	0	5 197	7.4	0	9 815	7.2	0	9 439
Recreation	21 144	704.0	0	76 949	1 329.6	0	145 325	1 278.7	0	139 763
daycare_ed	21 144	119.8	0	32 400	226.2	0	61 190	217.6	0	58 849
daycaregrant_ed	21 144	4.6	0	6 050	8.7	0	11 426	8.4	0	10 989
schoolfees_ed	21 144	611.2	0	330 000	1 154.2	0	623 233	1 110.1	0	599 383
schoolfeesgrant_ed	21 144	49.0	0	50 000	92.5	0	94 429	88.9	0	90 816
postschool_ed	21 144	641.9	0	419 701	1 212.3	0	792 641	1 165.9	0	762 308
postschoolgrant_ed	21 144	101.7	0	57 000	192.2	0	107 649	184.8	0	103 530
othertuition_ed	21 144	85.5	0	132 000	161.5	0	249 293	155.3	0	239 753
othertuitiongrant_ed	21 144	10.9	0	20 000	20.6	0	37 772	19.8	0	36 326
hostel_ed	21 144	139.2	0	88 000	262.9	0	166 195	252.8	0	159 836

Source: Own calculations.

Descriptive Statistics for 2005/06 IES Data within PIES (cont.)

Variable	Obs	Nominal			Real1			Real2		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
hostelgrant_ed	21 144	16.8	0	97 010	31.7	0	183 212	30.5	0	176 200
textbooks_ed	21 144	75.4	0	13 000	142.4	0	24 552	136.9	0	23 612
textbooksgrant_ed	21 144	8.4	0	160 181	15.8	0	302 515	15.2	0	290 939
Education	21 144	1 864.3	0	420 647	3 521.0	0	794 427	3 386.2	0	764 026
hairdressingm_pc	21 144	4.7	0	4 438	8.9	0	8 382	8.6	0	8 061
hairdressingf_pc	21 144	40.3	0	16 337	76.0	0	30 854	73.1	0	29 673
pcareappliances_pc	21 144	5.6	0	5 732	10.6	0	10 825	10.2	0	10 411
hairpieces_pc	21 144	6.4	0	4 335	12.0	0	8 187	11.6	0	7 874
shampoo_pc	21 144	25.2	0	6 788	47.6	0	12 820	45.7	0	12 329
hairspray_pc	21 144	7.3	0	1 380	13.8	0	2 606	13.3	0	2 507
otherhairprep_pc	21 144	32.0	0	6 716	60.5	0	12 684	58.2	0	12 198
dnappies_pc	21 144	82.9	0	8 611	156.6	0	16 263	150.6	0	15 640
tissues_pc	21 144	10.4	0	3 516	19.7	0	6 640	19.0	0	6 386
santowels_pc	21 144	23.0	0	2 763	43.5	0	5 218	41.8	0	5 018
toothpaste_pc	21 144	49.1	0	2 784	92.7	0	5 258	89.1	0	5 057
shaving_pc	21 144	14.4	0	3 642	27.2	0	6 878	26.2	0	6 615
skincaream_pc	21 144	150.9	0	13 847	285.0	0	26 151	274.1	0	25 150
deodorant_pc	21 144	55.4	0	7 609	104.6	0	14 370	100.6	0	13 820
makeup_pc	21 144	16.9	0	14 159	31.9	0	26 740	30.7	0	25 717
toiletpaper_pc	21 144	62.6	0	2 612	118.2	0	4 933	113.6	0	4 744
soap_pc	21 144	94.8	0	8 454	179.0	0	15 966	172.2	0	15 355
Personalcare	21 144	682.0	0	29 565	1 287.9	0	55 836	1 238.6	0	53 699
watches_pe	21 144	137.8	0	67 686	260.3	0	127 831	250.3	0	122 939
bags_pe	21 144	66.9	0	8 030	126.3	0	15 165	121.5	0	14 585
miscgoods_pe	21 144	47.6	0	7 623	89.9	0	14 397	86.5	0	13 846
Personaleffects	21 144	252.3	0	69 956	476.5	0	132 118	458.3	0	127 062
remittances_fg	21 144	2 085.6	0	279 149	3 938.8	0	527 196	3 788.0	0	507 022
memberfees_fg	21 144	102.9	0	64 524	194.4	0	121 859	186.9	0	117 196
gymfees_fg	21 144	76.4	0	12 840	144.3	0	24 249	138.8	0	23 321
exhhgifts_fg	21 144	434.9	0	149 763	821.3	0	282 840	789.9	0	272 016
Feesandgifts	21 144	2 699.8	0	279 649	5 098.7	0	528 141	4 903.6	0	507 930
bankcharges_fc	21 144	586.0	0	72 000	1 106.8	0	135 978	1 064.4	0	130 775
otherinterest_fc	21 144	224.9	0	422 280	424.7	0	797 511	408.4	0	766 992
overdraftrepaid_fc	21 144	1 007.1	0	700 252	1 902.1	0	1 322 485	1 829.3	0	1 271 876
funeralpolicy_fc	21 144	615.3	0	60 000	1 162.0	0	113 315	1 117.6	0	108 979
medinsurance_fc	21 144	533.0	0	193 260	1 006.6	0	364 988	968.1	0	351 020
bldginsurance_fc	21 144	357.3	0	66 000	674.8	0	124 647	649.0	0	119 877
lifeinsurancemd_fc	21 144	732.7	0	2 389 074	1 383.8	0	4 511 967	1 330.8	0	4 339 304
continsurance_fc	21 144	596.3	0	1 800 000	1 126.1	0	3 399 451	1 083.0	0	3 269 362
carinsurance_fc	21 144	489.2	0	240 000	923.9	0	453 260	888.5	0	435 915
pkginsurance_fc	21 144	696.7	0	1 200 000	1 315.8	0	2 266 301	1 265.4	0	2 179 574
pensionself_fc	21 144	1 413.8	0	300 458	2 670.1	0	567 440	2 567.9	0	545 725
pensionemp_fc	21 144	1 055.5	0	188 287	1 993.3	0	355 596	1 917.0	0	341 988
stokvel_fc	21 144	231.8	0	40 401	437.8	0	76 301	421.0	0	73 381
Finance	21 144	8 539.6	0	4 204 768	16 127.7	0	7 941 058	15 510.5	0	7 637 170
professionals_ot	21 144	95.1	0	86 160	179.5	0	162 720	172.7	0	156 493
funeralexp_ot	21 144	395.4	0	82 800	746.8	0	156 375	718.2	0	150 391
gravestones_ot	21 144	40.6	0	30 000	76.6	0	56 658	73.7	0	54 489
Otherexp	21 144	531.1	0	86 160	1 003.0	0	162 720	964.6	0	156 493
unmatchedgoods_xx	21 144	129.3	0	124 604	244.2	0	235 325	234.9	0	226 320
unmatchedfinancial_xx	21 144	7 574.2	0	9 196 772	14 304.6	0	17 400 000	13 757.2	0	16 700 000
unmatchedtax_xx	21 144	5 601.8	0	1 297 706	10 579.5	0	2 450 827	10 174.6	0	2 357 039
unmatchedother_xx	21 144	4 741.7	0	3 026 180	8 955.2	0	5 715 196	8 612.5	0	5 496 487
Unmatchedexp	21 144	18 047.1	0	9 465 113	34 083.5	0	17 900 000	32 779.2	0	17 200 000
TOTAL_EXP_excl	21 144	64 533.1	76	4 455 500	121 876.1	144	8 414 586	121 222.9	138	8 095 846

Source: Own calculations.

Descriptive Statistics for 2005/06 IES Data within PIES (cont.)

Variable	Obs	Nominal			Real (single deflator)			Real (multiple deflators)		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
TOTAL_EXP_incl	21 144	82 580.2	76	10 100 000	155 959.6	144	19 000 000	154 002.1	138	18 300 000
wages_inc	21 144	55 788.2	0	5 263 286	105 360.6	0	9 940 158	103 836.8	0	9 575 800
oap_inc	21 144	1 865.4	0	418 885	3 522.9	0	791 100	3 647.0	0	843 326
dg_inc	21 144	821.3	0	68 022	1 551.1	0	128 465	1 612.1	0	125 261
othgrants_inc	21 144	1 538.0	0	246 065	2 904.7	0	464 714	2 989.1	0	450 864
Work_inc	21 144	55 788.2	0	5 263 286	105 360.6	0	9 940 158	103 836.8	0	9 575 800
Grants_inc	21 144	4 224.7	0	418 885	7 978.8	0	791 100	8 248.2	0	843 326
Allother_inc	21 144	9 392.6	0	5 128 819	17 738.7	0	9 686 206	17 566.0	0	9 673 314
TOTAL_INC	21 144	69 405.5	0	5 263 286	131 078.0	0	9 940 158	129 651.0	0	9 882 044
p_wages_inc	21 144	36 994.1	0	3 600 000	69 866.4	0	6 798 903	68 743.5	0	6 573 245
p_oap_inc	21 144	1 373.3	0	388 500	2 593.6	0	733 715	2 690.7	0	782 153
p_dg_inc	21 144	387.7	0	66 000	732.2	0	124 647	761.6	0	121 538
p_othgrants_inc	21 144	242.6	0	238 000	458.2	0	449 483	461.5	0	436 087
p_Work_inc	21 144	36 994.1	0	3 600 000	69 866.4	0	6 798 903	68 743.5	0	6 573 245
p_Grants_inc	21 144	2 003.6	0	388 500	3 783.9	0	733 715	3 913.8	0	782 153
bond_de	21 144	21 616.6	0	7 253 992	40 824.8	0	13 700 000	39 815.1	0	13 300 000
carfinance_de	21 144	6 272.4	0	996 960	11 845.9	0	1 882 843	11 524.4	0	1 823 917
hirepurchase_de	21 144	658.5	0	75 474	1 243.7	0	142 539	1 240.1	0	140 049
overdraft_de	21 144	902.2	0	1 656 691	1 703.9	0	3 128 800	1 660.5	0	2 983 634
retailacc_de	21 144	489.2	0	49 848	923.8	0	94 142	914.6	0	93 703
familyloan_de	21 144	159.6	0	3 554 180	301.5	0	6 712 368	297.3	0	6 444 409
Debts	21 144	30 098.5	0	7 512 339	56 843.6	0	14 200 000	55 452.0	0	13 700 000
_unmatcheddebts	21 144	2 068.9	0	2 523 077	3 907.3	0	4 765 043	3 872.0	0	4 795 984
_dissaving_in	21 144	1 068.4	0	1 123 988	2 017.8	0	2 122 746	1 976.9	0	2 047 193
_imputedrent_in	21 144	7 188.8	0	546 000	13 576.6	0	1 031 167	13 400.8	0	990 002
_imputedrent_out	21 144	8 946.8	0	408 480	16 896.9	0	771 449	16 788.5	0	742 300
_imputedrent7_out	21 144	7 188.8	0	546 000	13 576.7	0	1 031 167	13 400.9	0	990 002

Source: Own calculations.

Table 6: Descriptive Statistics for 2010/11 IES Data within PIES

Variable	Obs	Nominal			Real1			Real2		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
cakeflour_gr	25 328	167.5	0	12 082	224.0	0	16 158	259.0	0	18 682
breadflour_gr	25 328	56.6	0	19 156	75.6	0	25 618	87.5	0	29 621
mealimeal_gr	25 328	674.8	0	53 964	902.5	0	72 169	1 043.5	0	83 445
sorghummeal_gr	25 328	8.2	0	14 579	10.9	0	19 497	12.6	0	22 544
rice_gr	25 328	396.7	0	14 290	530.6	0	19 111	613.5	0	22 097
samp_gr	25 328	49.6	0	5 598	66.3	0	7 486	76.7	0	8 656
whitebread_gr	25 328	408.6	0	24 999	546.4	0	33 432	631.8	0	38 656
brownbread_gr	25 328	643.7	0	40 779	860.8	0	54 536	995.3	0	63 057
pasta_gr	25 328	60.5	0	8 467	80.9	0	11 323	93.6	0	13 093
otherflour_gr	25 328	8.3	0	5 392	11.0	0	7 211	12.8	0	8 338
cereals_gr	25 328	172.2	0	11 113	230.3	0	14 862	266.3	0	17 184
otherbread_gr	25 328	50.5	0	18 955	67.5	0	25 349	78.1	0	29 310
otherbaked_gr	25 328	180.6	0	13 861	241.6	0	18 537	279.3	0	21 433
babyfood_gr	25 328	20.3	0	16 007	27.2	0	21 407	31.4	0	24 752
othergrain_gr	25 328	18.3	0	10 793	24.5	0	14 434	28.3	0	16 689
Grain_fo	25 328	2 916.3	0	55 122	3 900.1	0	73 717	4 509.5	0	85 236
beef_me	25 328	760.4	0	119 957	1 017.0	0	160 424	1 040.0	0	164 057
mutton_me	25 328	256.5	0	63 589	343.0	0	85 041	350.7	0	86 966
pork_me	25 328	90.1	0	10 255	120.5	0	13 715	123.2	0	14 025
poultry_me	25 328	1 293.4	0	52 000	1 729.8	0	69 542	1 769.0	0	71 117
boerewors_me	25 328	219.0	0	42 362	292.9	0	56 653	299.6	0	57 936
sausage_me	25 328	57.8	0	14 154	77.3	0	18 929	79.0	0	19 357
coldmeats_me	25 328	237.0	0	29 126	316.9	0	38 952	324.1	0	39 834
biltong_me	25 328	18.7	0	17 374	25.0	0	23 235	25.6	0	23 761
bacon_me	25 328	26.7	0	7 148	35.7	0	9 559	36.5	0	9 776
babyfood_me	25 328	0.4	0	2 805	0.6	0	3 751	0.6	0	3 836
othermeat_me	25 328	57.0	0	18 110	76.2	0	24 219	77.9	0	24 768
Meat_fo	25 328	3 017.1	0	121 357	4 034.9	0	162 297	4 126.2	0	165 972
freshfish_fi	25 328	35.6	0	11 846	47.6	0	15 842	52.5	0	17 461
otherfish_fi	25 328	235.7	0	22 100	315.3	0	29 555	347.5	0	32 575
Fish_fo	25 328	271.4	0	22 100	362.9	0	29 555	400.0	0	32 575
freshmilk_mi	25 328	339.4	0	18 532	453.9	0	24 784	509.5	0	27 819
longlifemilk_mi	25 328	128.4	0	12 463	171.7	0	16 667	192.8	0	18 709
condensedmilk_mi	25 328	6.0	0	4 329	8.0	0	5 789	9.0	0	6 498
powderedmilk_mi	25 328	79.9	0	18 898	106.8	0	25 273	119.9	0	28 368
cheese_mi	25 328	134.5	0	21 790	179.8	0	29 141	201.9	0	32 710
cream_mi	25 328	104.2	0	8 650	139.3	0	11 568	156.4	0	12 985
sourmilk_mi	25 328	91.1	0	5 470	121.8	0	7 315	136.7	0	8 211
eggs_mi	25 328	236.4	0	14 296	316.1	0	19 119	354.8	0	21 460
babyfood_mi	25 328	129.3	0	31 660	173.0	0	42 340	194.1	0	47 526
othermilk_mi	25 328	31.6	0	6 825	42.3	0	9 127	47.5	0	10 245
Milk_fo	25 328	1 280.7	0	32 905	1 712.7	0	44 005	1 922.5	0	49 395
butter_fa	25 328	21.7	0	4 547	29.0	0	6 081	30.7	0	6 419
margarine_fa	25 328	132.1	0	18 110	176.7	0	24 219	186.6	0	25 566
cookingoil_fa	25 328	285.8	0	12 770	382.2	0	17 078	403.4	0	18 027
peanutbutter_fa	25 328	38.5	0	23 057	51.5	0	30 835	54.4	0	32 550
otherfats_fa	25 328	3.0	0	3 521	4.1	0	4 709	4.3	0	4 971
Fats_fo	25 328	481.2	0	23 536	643.5	0	31 476	679.3	0	33 226
lettuce_ve	25 328	17.2	0	7 631	23.0	0	10 205	26.9	0	11 913
cabbage_ve	25 328	71.8	0	9 804	96.1	0	13 111	112.1	0	15 306

Source: Own calculations.

Descriptive Statistics for 2010/11 IES Data within PIES (cont.)

Variable	Obs	Nominal			Real1			Real2		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
mealies_ve	25 328	3.5	0	12 628	4.7	0	16 888	5.5	0	19 715
tomatoes_ve	25 328	131.4	0	28 748	175.8	0	38 446	205.2	0	44 881
carrots_ve	25 328	29.4	0	13 894	39.4	0	18 581	46.0	0	21 691
greenbeans_ve	25 328	5.2	0	1 881	7.0	0	2 516	8.2	0	2 937
pumpkin_ve	25 328	37.6	0	4 767	50.3	0	6 375	58.7	0	7 442
frozenpeas_ve	25 328	4.5	0	4 363	6.0	0	5 835	7.0	0	6 811
frozenscarrots_ve	25 328	1.2	0	810	1.6	0	1 083	1.9	0	1 265
driedpeas_ve	25 328	67.2	0	10 554	89.8	0	14 114	104.8	0	16 477
cannedveg_ve	25 328	91.7	0	15 790	122.6	0	21 117	143.2	0	24 651
frozenbeans_ve	25 328	1.1	0	1 082	1.5	0	1 447	1.7	0	1 689
otherveg_ve	25 328	333.4	0	14 515	445.9	0	19 412	520.5	0	22 660
popcorn_ve	25 328	7.3	0	13 239	9.7	0	17 705	11.4	0	20 668
crisps_ve	25 328	114.7	0	24 242	153.3	0	32 420	179.0	0	37 846
babyfood_ve	25 328	7.4	0	5 581	9.8	0	7 464	11.5	0	8 713
Vegetables_fo	25 328	924.6	0	34 461	1 236.5	0	46 086	1 443.5	0	53 800
oranges_fr	25 328	24.5	0	2 823	32.8	0	3 775	30.5	0	3 515
citrus_fr	25 328	7.1	0	4 100	9.4	0	5 483	8.8	0	5 105
bananas_fr	25 328	60.0	0	12 298	80.2	0	16 447	74.7	0	15 312
subtropical_fr	25 328	34.3	0	7 150	45.8	0	9 562	42.7	0	8 902
apples_fr	25 328	69.8	0	4 829	93.4	0	6 458	86.9	0	6 013
deciduous_fr	25 328	38.1	0	4 357	50.9	0	5 827	47.4	0	5 425
otherfruits_fr	25 328	18.7	0	6 390	25.1	0	8 546	23.3	0	7 956
driedfruit_fr	25 328	7.2	0	4 396	9.6	0	5 879	9.0	0	5 473
nuts_fr	25 328	19.5	0	8 472	26.1	0	11 330	24.3	0	10 548
cannedfruit_fr	25 328	6.2	0	3 549	8.3	0	4 746	7.8	0	4 419
babyfood_fr	25 328	13.5	0	17 314	18.1	0	23 155	16.8	0	21 558
otherfruitprod_fr	25 328	8.4	0	9 227	11.2	0	12 340	10.5	0	11 489
Fruit_fo	25 328	307.3	0	17 314	411.0	0	23 155	382.6	0	21 558
whitesugar_su	25 328	310.1	0	22 510	414.8	0	30 104	491.0	0	35 634
brownsugar_su	25 328	67.6	0	12 780	90.3	0	17 091	106.9	0	20 231
othersugar_su	25 328	4.4	0	5 399	5.8	0	7 220	6.9	0	8 547
sweeteners_su	25 328	2.3	0	4 838	3.1	0	6 470	3.6	0	7 659
honey_su	25 328	5.1	0	3 158	6.9	0	4 223	8.1	0	4 999
jams_su	25 328	23.6	0	23 681	31.6	0	31 670	37.4	0	37 488
chocolates_su	25 328	70.4	0	22 384	94.1	0	29 935	111.4	0	35 435
othersweets_su	25 328	59.4	0	7 127	79.4	0	9 531	94.0	0	11 282
jelly_su	25 328	4.5	0	2 983	6.0	0	3 989	7.2	0	4 722
icecream_su	25 328	41.6	0	7 669	55.6	0	10 256	65.8	0	12 140
Sugar_fo	25 328	589.0	0	29 893	787.7	0	39 977	932.4	0	47 322
vinegar_fn	25 328	8.5	0	2 251	11.3	0	3 010	12.3	0	3 277
saltpepper_fn	25 328	31.8	0	28 998	42.5	0	38 780	46.3	0	42 221
spices_fn	25 328	75.2	0	8 492	100.5	0	11 357	109.5	0	12 364
soups_fn	25 328	94.7	0	6 300	126.7	0	8 425	138.0	0	9 173
custard_fn	25 328	5.6	0	4 065	7.5	0	5 436	8.2	0	5 919
yeast_fn	25 328	18.1	0	2 024	24.1	0	2 707	26.3	0	2 947
chutney_fn	25 328	154.8	0	8 433	207.0	0	11 278	225.3	0	12 278
allotherfood_fn	25 328	675.0	0	570 061	902.7	0	762 371	982.8	0	830 009
Foodnec_fo	25 328	1 063.6	0	570 061	1 422.5	0	762 371	1 548.7	0	830 009
Food	25 328	10 851.2	0	588 099	14 511.9	0	786 494	15 944.7	0	856 338
instantcoffee_co	25 328	99.9	0	10 219	133.7	0	13 666	152.0	0	15 544
groundcoffee_co	25 328	16.5	0	21 240	22.0	0	28 405	25.0	0	32 308
ceylonatea_co	25 328	76.0	0	13 240	101.7	0	17 707	115.6	0	20 140
rooibostea_co	25 328	26.0	0	4 290	34.7	0	5 737	39.5	0	6 526
cocoa_co	25 328	13.4	0	4 588	17.9	0	6 136	20.3	0	6 979
Coffee_nb	25 328	231.8	0	21 240	309.9	0	28 405	352.5	0	32 308

Source: Own calculations.

Descriptive Statistics for 2010/11 IES Data within PIES (cont.)

Variable	Obs	Nominal			Real1			Real2		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
softdrinks_cd	25 328	408.1	0	32 456	545.8	0	43 405	505.1	0	40 164
springwater_cd	25 328	26.6	0	19 197	35.6	0	25 673	32.9	0	23 756
juice_cd	25 328	203.4	0	30 353	272.0	0	40 593	251.7	0	37 561
othcooldrink_cd	25 328	20.2	0	21 086	27.0	0	28 199	25.0	0	26 094
Colddrink_nb	25 328	658.3	0	32 456	880.4	0	43 405	814.7	0	40 164
Nonalcoholic	25 328	890.1	0	33 684	1 190.4	0	45 047	1 167.2	0	47 157
spirits_al	25 328	97.2	0	50 552	129.9	0	67 606	141.1	0	73 433
fortifiedwine_al	25 328	5.4	0	9 221	7.2	0	12 332	7.9	0	13 395
sorghumbeer_al	25 328	32.3	0	25 817	43.2	0	34 526	46.9	0	37 502
otheralcbev_al	25 328	416.2	0	50 031	556.6	0	66 909	604.5	0	72 676
Alcohol	25 328	551.0	0	53 563	736.9	0	71 632	800.4	0	77 807
cigarettes_to	25 328	455.6	0	43 164	609.3	0	57 725	604.0	0	57 229
cigars_to	25 328	1.9	0	7 769	2.5	0	10 390	2.5	0	10 301
tobaccos_to	25 328	38.7	0	5 852	51.8	0	7 826	51.3	0	7 759
Tobacco	25 328	496.2	0	43 164	663.6	0	57 725	657.9	0	57 229
clothes_cl	25 328	1 702.7	0	201 432	2 277.1	0	269 385	2 126.1	0	251 522
babyclothes_cl	25 328	148.7	0	30 465	198.9	0	40 742	185.7	0	38 041
shoes_cl	25 328	810.0	0	145 371	1 083.2	0	194 412	1 011.4	0	181 521
babysshoes_cl	25 328	35.5	0	20 205	47.5	0	27 021	44.3	0	25 229
material_cl	25 328	29.8	0	30 465	39.8	0	40 742	37.2	0	38 041
knittingwool_cl	25 328	4.0	0	5 074	5.4	0	6 786	5.0	0	6 336
sewingcotton_cl	25 328	2.6	0	3 049	3.5	0	4 078	3.3	0	3 807
clothingrepairs_cl	25 328	47.8	0	221 187	64.0	0	295 804	59.7	0	276 190
clothinghire_cl	25 328	2.3	0	4 062	3.0	0	5 432	2.8	0	5 072
Clothing	25 328	2 783.5	0	536 444	3 722.5	0	717 413	3 475.6	0	669 842
firewood_fu	25 328	17.5	0	21 756	23.4	0	29 095	23.0	0	28 622
charcoal_fu	25 328	6.8	0	2 689	9.0	0	3 596	8.9	0	3 538
paraffin_fu	25 328	103.8	0	12 581	138.9	0	16 825	136.6	0	16 551
gascylinders_fu	25 328	34.1	0	19 208	45.5	0	25 688	44.8	0	25 270
candles_fu	25 328	39.5	0	12 682	52.9	0	16 960	52.0	0	16 684
coal_fu	25 328	9.2	0	10 369	12.3	0	13 867	12.1	0	13 641
meths_fu	25 328	1.6	0	5 432	2.1	0	7 264	2.1	0	7 146
dung_fu	25 328	0.0	0	918	0.1	0	1 228	0.1	0	1 208
drycells_fu	25 328	9.4	0	17 593	12.5	0	23 528	12.3	0	23 145
recharging_fu	25 328	7.6	0	28 759	10.1	0	38 461	9.9	0	37 835
otherhfhfuel_fu	25 328	45.4	0	39 316	60.7	0	52 579	59.7	0	51 724
Fuel	25 328	274.8	0	39 316	367.5	0	52 579	361.5	0	51 724
beds_ff	25 328	232.9	0	39 412	311.5	0	52 708	306.5	0	51 850
diningfurn_ff	25 328	121.9	0	57 101	163.0	0	76 364	160.3	0	75 122
loungefurn_ff	25 328	235.9	0	81 158	315.5	0	108 537	310.4	0	106 771
kitchenfurn_ff	25 328	89.7	0	57 795	120.0	0	77 292	118.0	0	76 035
gardenfurn_ff	25 328	12.9	0	14 275	17.2	0	19 091	16.9	0	18 780
looserugs_ff	25 328	22.8	0	29 095	30.6	0	38 910	30.1	0	38 277
bedroomfurn_ff	25 328	97.2	0	39 413	130.0	0	52 709	127.8	0	51 851
upholstering_ff	25 328	9.4	0	19 034	12.6	0	25 455	12.4	0	25 041
otherfurn_ff	25 328	30.4	0	25 585	40.7	0	34 216	40.0	0	33 659
Furniture_fe	25 328	853.2	0	109 757	1 141.0	0	146 784	1 122.4	0	144 395
blankets_tx	25 328	167.3	0	9 905	223.8	0	13 246	220.1	0	13 031
bedlinen_tx	25 328	233.4	0	46 553	312.1	0	62 258	307.0	0	61 245
curtains_tx	25 328	124.5	0	88 078	166.5	0	117 791	163.8	0	115 875
pillows_tx	25 328	13.0	0	7 721	17.3	0	10 326	17.0	0	10 158
tablelinen_tx	25 328	8.9	0	4 963	11.8	0	6 637	11.7	0	6 529
othertextiles_tx	25 328	2.9	0	5 943	3.9	0	7 948	3.9	0	7 819
Textiles_fe	25 328	550.0	0	135 709	735.5	0	181 490	723.5	0	178 538
washingmachine_ap	25 328	83.4	0	11 792	111.6	0	15 770	109.8	0	15 513

Source: Own calculations.

Descriptive Statistics for 2010/11 IES Data within PIES (cont.)

Variable	Obs	Nominal			Real1			Real2		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
paraffinstove_ap	25 328	5.7	0	10 021	7.6	0	13 402	7.5	0	13 184
hotplate_ap	25 328	14.5	0	4 299	19.4	0	5 749	19.1	0	5 656
gasstove_ap	25 328	10.0	0	13 353	13.4	0	17 858	13.1	0	17 567
sewingmachine_ap	25 328	3.4	0	3 003	4.6	0	4 016	4.5	0	3 951
sewingnonelec_ap	25 328	0.8	0	4 467	1.0	0	5 974	1.0	0	5 877
irons_ap	25 328	26.5	0	7 860	35.5	0	10 512	34.9	0	10 341
kettles_ap	25 328	25.5	0	8 964	34.1	0	11 988	33.6	0	11 793
foodmixer_ap	25 328	6.1	0	4 999	8.1	0	6 685	8.0	0	6 577
fryingpan_ap	25 328	4.6	0	4 973	6.1	0	6 651	6.0	0	6 542
toaster_ap	25 328	5.7	0	2 458	7.6	0	3 287	7.5	0	3 234
appliancerepairs_ap	25 328	34.4	0	9 975	46.0	0	13 340	45.2	0	13 123
vacuum_ap	25 328	7.5	0	11 301	10.0	0	15 113	9.8	0	14 868
fridge_ap	25 328	247.6	0	29 780	331.1	0	39 826	325.7	0	39 178
stove_ap	25 328	141.0	0	29 780	188.5	0	39 826	185.4	0	39 178
lawnmower_ap	25 328	10.6	0	8 289	14.2	0	11 085	14.0	0	10 905
otherappl_ap	25 328	51.3	0	32 428	68.7	0	43 368	67.5	0	42 662
Appliances_fe	25 328	678.5	0	60 454	907.4	0	80 848	892.7	0	79 533
musicalinstr_mu	25 328	10.8	0	24 444	14.4	0	32 690	14.2	0	32 158
tvsv_mu	25 328	368.9	0	47 965	493.4	0	64 146	485.3	0	63 102
tvlicence_mu	25 328	46.4	0	259	62.1	0	346	61.1	0	341
paytv_mu	25 328	117.6	0	725	157.3	0	970	154.7	0	954
tvrental_mu	25 328	3.7	0	5 143	4.9	0	6 878	4.8	0	6 766
decoderrent_mu	25 328	5.0	0	5 160	6.7	0	6 901	6.6	0	6 788
radios_mu	25 328	35.5	0	10 737	47.4	0	14 359	46.7	0	14 126
cds_mu	25 328	86.7	0	18 052	116.0	0	24 142	114.1	0	23 749
Musical_fe	25 328	674.6	0	48 523	902.2	0	64 892	887.5	0	63 836
kitchenware_eq	25 328	116.1	0	39 950	155.3	0	53 427	152.7	0	52 558
gardenequip_eq	25 328	19.3	0	20 518	25.8	0	27 440	25.4	0	26 993
Equipment_fe	25 328	135.4	0	39 950	181.1	0	53 427	178.1	0	52 558
Furnequip	25 328	2 891.7	0	141 186	3 867.2	0	188 815	3 804.2	0	185 743
washingpowder_hg	25 328	451.5	0	21 980	603.9	0	29 395	594.0	0	28 917
polishes_hg	25 328	41.7	0	4 719	55.8	0	6 311	54.9	0	6 208
scourers_hg	25 328	9.1	0	2 521	12.2	0	3 371	12.0	0	3 317
insecticides_hg	25 328	40.7	0	19 231	54.5	0	25 719	53.6	0	25 300
matches_hg	25 328	12.5	0	2 001	16.8	0	2 676	16.5	0	2 633
brooms_hg	25 328	10.5	0	9 876	14.1	0	13 208	13.8	0	12 993
plasticbags_hg	25 328	29.4	0	10 084	39.3	0	13 486	38.6	0	13 266
paperplates_hg	25 328	9.4	0	15 674	12.5	0	20 962	12.3	0	20 621
Hhgoods_hm	25 328	604.9	0	28 492	809.0	0	38 104	795.8	0	37 484
domesticworker_hs	25 328	1 452.8	0	238 436	1 942.8	0	318 872	1 911.2	0	313 685
childminder_hs	25 328	60.8	0	57 629	81.3	0	77 070	79.9	0	75 816
cook_hs	25 328	5.6	0	24 663	7.5	0	32 983	7.3	0	32 446
chauffeur_hs	25 328	3.8	0	34 277	5.0	0	45 840	4.9	0	45 095
clotheswasher_hs	25 328	48.7	0	56 391	65.2	0	75 414	64.1	0	74 188
gardener_hs	25 328	233.7	0	61 241	312.5	0	81 901	307.4	0	80 568
otherdworker_hs	25 328	49.9	0	61 580	66.8	0	82 354	65.7	0	81 014
laundryservices_hs	25 328	2.3	0	15 498	3.0	0	20 726	3.0	0	20 389
fumigation_hs	25 328	13.6	0	29 120	18.2	0	38 944	17.9	0	38 310
Hhservices_hm	25 328	1 871.1	0	238 436	2 502.3	0	318 872	2 461.6	0	313 685
Hhmaint	25 328	2 476.0	0	239 843	3 311.3	0	320 754	3 257.4	0	315 536
telephony_tc	25 328	2 286.8	0	107 885	3 058.2	0	144 280	3 008.4	0	141 933
internet_tc	25 328	139.4	0	67 144	186.4	0	89 795	183.4	0	88 334
postage_tc	25 328	9.4	0	4 330	12.5	0	5 791	12.3	0	5 697
postbox_tc	25 328	19.3	0	5 059	25.8	0	6 766	25.4	0	6 656
Communication	25 328	2 454.8	0	122 689	3 283.0	0	164 078	3 229.6	0	161 409

Source: Own calculations.

Descriptive Statistics for 2010/11 IES Data within PIES (cont.)

Variable	Obs	Nominal			Real1			Real2		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
computers_ct	25 328	344.7	0	48 804	461.0	0	65 268	453.5	0	64 206
phones_ct	25 328	194.8	0	16 513	260.5	0	22 084	256.3	0	21 724
twowayradio_ct	25 328	0.7	0	1 596	0.9	0	2 134	0.9	0	2 100
Computer	25 328	540.2	0	57 198	722.4	0	76 494	710.6	0	75 249
newcars_pv	25 328	3 497.0	0	1 993 779	4 676.8	0	2 666 379	4 600.7	0	2 623 000
newbakkies_pv	25 328	1 096.6	0	1 993 356	1 466.6	0	2 665 814	1 442.7	0	2 622 443
newmotorbikes_pv	25 328	88.6	0	995 703	118.5	0	1 331 603	116.5	0	1 309 939
newbicycles_pv	25 328	3.5	0	19 888	4.6	0	26 597	4.5	0	26 164
usedcars_pv	25 328	1 967.9	0	599 612	2 631.7	0	801 891	2 588.9	0	788 845
usedbakkies_pv	25 328	567.7	0	846 106	759.1	0	1 131 539	746.8	0	1 113 130
usedmotorbikes_pv	25 328	3.4	0	27 872	4.5	0	37 275	4.5	0	36 668
usedbicycles_pv	25 328	1.1	0	10 008	1.4	0	13 384	1.4	0	13 166
Vehicles_tr	25 328	7 225.7	0	1 993 779	9 663.2	0	2 666 379	9 506.0	0	2 623 000
carfuel_rc	25 328	4 290.2	0	122 323	5 737.5	0	163 589	5 644.2	0	160 927
newtyres_rc	25 328	267.0	0	22 864	357.1	0	30 577	351.3	0	30 080
retreads_rc	25 328	11.5	0	5 916	15.4	0	7 912	15.1	0	7 783
spareparts_rc	25 328	167.7	0	45 542	224.2	0	60 906	220.6	0	59 915
carbatteries_rc	25 328	43.0	0	10 752	57.6	0	14 379	56.6	0	14 145
oilgrease_rc	25 328	59.7	0	13 653	79.8	0	18 259	78.5	0	17 962
parkingfees_rc	25 328	6.8	0	14 228	9.1	0	19 028	8.9	0	18 718
traffictines_rc	25 328	96.8	0	13 635	129.4	0	18 235	127.3	0	17 938
tollfees_rc	25 328	88.8	0	13 653	118.8	0	18 259	116.8	0	17 962
vehiclemaint_rc	25 328	322.1	0	11 432	430.7	0	15 289	423.7	0	15 040
vehicleinstal_rc	25 328	23.4	0	13 880	31.3	0	18 562	30.8	0	18 260
panelbeating_rc	25 328	37.7	0	27 387	50.5	0	36 626	49.7	0	36 030
panelbeatingins_rc	25 328	47.5	0	51 242	63.6	0	68 528	62.5	0	67 414
vehiclerepair_rc	25 328	18.5	0	34 131	24.7	0	45 645	24.3	0	44 902
vehiclerepairsins_rc	25 328	6.9	0	49 317	9.2	0	65 954	9.0	0	64 881
vehiclelicence_rc	25 328	105.8	0	17 148	141.4	0	22 933	139.1	0	22 560
otherrunning_rc	25 328	174.4	0	18 114	233.2	0	24 225	229.4	0	23 831
Runningcosts_tr	25 328	5 767.7	0	123 334	7 713.4	0	164 941	7 587.9	0	162 257
bus_pt	25 328	219.2	0	14 506	293.1	0	19 400	288.3	0	19 084
train_pt	25 328	60.3	0	10 194	80.7	0	13 633	79.4	0	13 411
cab_pt	25 328	61.5	0	10 174	82.2	0	13 606	80.9	0	13 385
taxi_pt	25 328	1 939.3	0	112 014	2 593.5	0	149 802	2 551.4	0	147 365
otherpublic_pt	25 328	107.9	0	40 694	144.2	0	54 422	141.9	0	53 537
discountedfares_pt	25 328	5.4	0	4 440	7.2	0	5 938	7.0	0	5 841
furnitureremovals_pt	25 328	6.6	0	15 235	8.8	0	20 375	8.7	0	20 043
busaway_pt	25 328	71.1	0	30 221	95.0	0	40 416	93.5	0	39 759
trainaway_pt	25 328	13.3	0	15 235	17.8	0	20 375	17.5	0	20 043
taxiaway_pt	25 328	263.7	0	68 723	352.7	0	91 907	347.0	0	90 411
shipaway_pt	25 328	12.4	0	30 412	16.6	0	40 671	16.3	0	40 010
planeaway_pt	25 328	202.7	0	101 940	271.1	0	136 329	266.7	0	134 112
rentedaway_pt	25 328	33.9	0	11 181	45.3	0	14 953	44.6	0	14 710
otheraway_pt	25 328	22.0	0	12 343	29.4	0	16 507	29.0	0	16 238
Publictransport_tr	25 328	3 019.2	0	121 413	4 037.8	0	162 372	3 972.1	0	159 730
Transport	25 328	16 012.6	0	2 080 698	21 414.4	0	2 782 620	21 066.1	0	2 737 350
newspapers_np	25 328	197.1	0	10 975	263.6	0	14 677	259.3	0	14 439
magazines_np	25 328	77.5	0	15 804	103.7	0	21 135	102.0	0	20 792
books_np	25 328	57.8	0	16 336	77.4	0	21 847	76.1	0	21 492
stationery_np	25 328	31.1	0	10 936	41.6	0	14 625	41.0	0	14 387
Reading	25 328	363.6	0	32 873	486.3	0	43 963	478.4	0	43 247
rent_ho	25 328	4 042.7	0	184 230	5 406.5	0	246 380	5 318.6	0	242 372
levy_ho	25 328	435.7	0	96 900	582.7	0	129 589	573.2	0	127 481
lodging_ho	25 328	9.8	0	48 000	13.1	0	64 193	12.9	0	63 148

Source: Own calculations.

Descriptive Statistics for 2010/11 IES Data within PIES (cont.)

Variable	Obs	Nominal			Real1			Real2		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
repayment_ho	25 328	4 731.4	0	1 229 814	6 327.6	0	1 644 691	6 224.6	0	1 617 934
mortgagesubsidy_ho	25 328	234.7	0	234 518	313.8	0	313 633	308.7	0	308 530
rates_ho	25 328	788.8	0	120 000	1 054.9	0	160 482	1 037.7	0	157 871
hservices_ho	25 328	4 255.1	0	121 210	5 690.6	0	162 100	5 598.0	0	159 463
addcapital_ho	25 328	670.1	0	853 651	896.1	0	1 141 630	881.5	0	1 123 056
addother_ho	25 328	74.3	0	101 852	99.4	0	136 212	97.8	0	133 996
maintenance_ho	25 328	1 367.7	0	312 277	1 829.1	0	417 624	1 799.3	0	410 829
alterations_ho	25 328	895.9	0	433 988	1 198.1	0	580 394	1 178.6	0	570 951
buildingmaterials_ho	25 328	203.2	0	513 333	271.8	0	686 506	267.4	0	675 337
communalserv_ho	25 328	7.1	0	43 616	9.6	0	58 330	9.4	0	57 381
landaccess_ho	25 328	2.4	0	8 817	3.2	0	11 791	3.1	0	11 600
Housing	25 328	17 719.0	0	1 815 464	23 696.5	0	2 427 910	23 311.0	0	2 388 410
netexphome_rh	25 328	6.0	0	50 273	8.1	0	67 233	7.9	0	66 139
hotels_rh	25 328	323.1	0	158 969	432.1	0	212 597	425.1	0	209 138
holidayrent_rh	25 328	87.0	0	61 852	116.3	0	82 718	114.4	0	81 372
eatingout_rh	25 328	1 621.3	0	259 236	2 168.3	0	346 689	2 133.0	0	341 049
softdrinkson_rh	25 328	91.1	0	61 433	121.8	0	82 157	119.9	0	80 821
springwateron_rh	25 328	5.0	0	3 242	6.7	0	4 336	6.6	0	4 265
spiritson_rh	25 328	9.1	0	15 470	12.2	0	20 689	12.0	0	20 352
fortifiedwineon_rh	25 328	1.2	0	30 310	1.7	0	40 535	1.6	0	39 876
sorghumbeeron_rh	25 328	4.9	0	40 744	6.5	0	54 489	6.4	0	53 602
otheralcbevonn_rh	25 328	67.5	0	39 999	90.3	0	53 493	88.8	0	52 622
Restaurant	25 328	2 216.4	0	259 236	2 964.0	0	346 689	2 915.8	0	341 049
medaidself_he	25 328	4 805.5	0	811 287	6 426.7	0	1 084 974	6 322.1	0	1 067 323
medaidemp_he	25 328	2 363.9	0	573 176	3 161.4	0	766 537	3 110.0	0	754 066
hospitalflatrate_he	25 328	169.9	0	33 180	227.2	0	44 373	223.5	0	43 651
medequip_he	25 328	31.8	0	20 165	42.6	0	26 968	41.9	0	26 529
tradhealers_he	25 328	24.7	0	9 163	33.1	0	12 254	32.5	0	12 055
otherhealth_he	25 328	1 078.1	0	546 110	1 441.8	0	730 340	1 418.4	0	718 458
Health	25 328	8 474.0	0	908 504	11 332.7	0	1 214 987	11 148.3	0	1 195 221
photography_re	25 328	62.9	0	19 522	84.1	0	26 108	82.8	0	25 683
aircraft_re	25 328	3.5	0	20 570	4.6	0	27 509	4.6	0	27 062
sportsequip_re	25 328	30.6	0	12 438	40.9	0	16 634	40.2	0	16 363
campingequip_re	25 328	25.4	0	20 254	34.0	0	27 087	33.4	0	26 646
poolmaintenance_re	25 328	103.1	0	40 364	137.8	0	53 981	135.6	0	53 103
gardenringreq_re	25 328	61.4	0	20 213	82.0	0	27 032	80.7	0	26 592
petfood_re	25 328	266.7	0	24 284	356.7	0	32 476	350.9	0	31 948
petlicences_re	25 328	1.2	0	5 069	1.6	0	6 779	1.6	0	6 669
petcare_re	25 328	36.9	0	42 446	49.4	0	56 765	48.6	0	55 842
flowers_re	25 328	9.2	0	8 099	12.3	0	10 831	12.1	0	10 655
toysgames_re	25 328	94.8	0	40 425	126.7	0	54 062	124.7	0	53 183
tickets_re	25 328	155.3	0	16 459	207.6	0	22 011	204.3	0	21 653
recreationlessons_re	25 328	38.3	0	50 320	51.3	0	67 295	50.4	0	66 201
photoprints_re	25 328	19.1	0	9 199	25.5	0	12 302	25.1	0	12 102
libraryfees_re	25 328	1.6	0	3 057	2.2	0	4 088	2.1	0	4 022
Recreation	25 328	909.8	0	93 973	1 216.8	0	125 675	1 197.0	0	123 630
daycare_ed	25 328	288.8	0	160 590	386.2	0	214 765	379.9	0	211 271
daycaregrant_ed	25 328	6.4	0	11 959	8.6	0	15 993	8.4	0	15 733
schoolfees_ed	25 328	1 139.8	0	213 396	1 524.3	0	285 385	1 499.5	0	280 742
schoolfeesgrant_ed	25 328	32.4	0	45 605	43.4	0	60 990	42.7	0	59 998
postschool_ed	25 328	1 043.7	0	224 777	1 395.8	0	300 605	1 373.1	0	295 715
postschoolgrant_ed	25 328	181.3	0	122 222	242.5	0	163 454	238.6	0	160 794
othertuition_ed	25 328	168.2	0	63 148	224.9	0	84 451	221.3	0	83 077
othertuitiongrant_ed	25 328	5.7	0	64 442	7.6	0	86 181	7.5	0	84 779
hostel_ed	25 328	83.4	0	99 994	111.5	0	133 727	109.7	0	131 551

Source: Own calculations.

Descriptive Statistics for 2010/11 IES Data within PIES (cont.)

Variable	Obs	Nominal			Real1			Real2		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
hostelgrant_ed	25 328	15.4	0	169 000	20.6	0	226 012	20.3	0	222 335
textbooks_ed	25 328	136.6	0	107 236	182.6	0	143 412	179.7	0	141 079
textbooksgrant_ed	25 328	7.6	0	35 867	10.2	0	47 967	10.0	0	47 186
Education	25 328	3 109.3	0	247 856	4 158.2	0	331 470	4 090.5	0	326 077
hairdressingm_pc	25 328	6.9	0	13 117	9.2	0	17 542	9.1	0	17 257
hairdressingf_pc	25 328	61.7	0	82 013	82.5	0	109 680	81.2	0	107 896
pcareappliances_pc	25 328	8.1	0	13 175	10.9	0	17 620	10.7	0	17 333
hairpieces_pc	25 328	11.2	0	9 182	14.9	0	12 280	14.7	0	12 080
shampoo_pc	25 328	37.8	0	31 200	50.6	0	41 725	49.7	0	41 046
hairspray_pc	25 328	14.5	0	7 800	19.4	0	10 431	19.1	0	10 262
otherhairprep_pc	25 328	37.0	0	9 723	49.5	0	13 003	48.7	0	12 792
dnappies_pc	25 328	208.7	0	41 108	279.2	0	54 976	274.6	0	54 081
tissues_pc	25 328	16.2	0	4 198	21.6	0	5 614	21.3	0	5 523
santowels_pc	25 328	38.6	0	11 532	51.6	0	15 422	50.8	0	15 171
toothpaste_pc	25 328	83.9	0	25 024	112.2	0	33 466	110.4	0	32 921
shaving_pc	25 328	15.6	0	10 401	20.9	0	13 910	20.5	0	13 683
skincream_pc	25 328	202.9	0	45 887	271.4	0	61 367	267.0	0	60 369
deodorant_pc	25 328	88.2	0	11 805	118.0	0	15 787	116.0	0	15 531
makeup_pc	25 328	21.8	0	32 777	29.1	0	43 834	28.7	0	43 121
toiletpaper_pc	25 328	109.0	0	17 901	145.8	0	23 940	143.5	0	23 550
soap_pc	25 328	152.8	0	29 720	204.4	0	39 746	201.0	0	39 099
Personalcare	25 328	1 115.0	0	83 012	1 491.1	0	111 016	1 466.9	0	109 210
watches_pe	25 328	139.9	0	67 866	187.1	0	90 761	184.0	0	89 284
bags_pe	25 328	125.2	0	29 086	167.4	0	38 898	164.7	0	38 265
miscgoods_pe	25 328	56.6	0	13 088	75.7	0	17 503	74.5	0	17 218
Personaleffects	25 328	321.7	0	87 257	430.2	0	116 693	423.2	0	114 795
remittances_fg	25 328	1 878.3	0	290 294	2 512.0	0	388 225	2 471.1	0	381 909
memberfees_fg	25 328	181.5	0	57 192	242.7	0	76 486	238.7	0	75 241
gymfees_fg	25 328	130.1	0	36 913	174.0	0	49 366	171.2	0	48 562
exhhgifts_fg	25 328	457.0	0	537 353	611.2	0	718 629	601.2	0	706 937
Feesandgifts	25 328	2 647.0	0	537 353	3 539.9	0	718 629	3 482.3	0	706 937
bankcharges_fc	25 328	1 083.1	0	145 970	1 448.5	0	195 213	1 424.9	0	192 037
otherinterest_fc	25 328	117.3	0	172 800	156.9	0	231 094	154.3	0	227 334
overdraftrepaid_fc	25 328	3 351.7	0	9 215 426	4 482.3	0	12 300 000	4 409.4	0	12 100 000
funeralpolicy_fc	25 328	1 381.6	0	695 559	1 847.6	0	930 205	1 817.6	0	915 072
medinsurance_fc	25 328	505.2	0	287 405	675.6	0	384 361	664.6	0	378 108
bldginsurance_fc	25 328	513.4	0	126 181	686.6	0	168 748	675.4	0	166 003
lifeinsurancemd_fc	25 328	253.3	0	122 981	338.8	0	164 469	333.3	0	161 793
continsurance_fc	25 328	272.5	0	126 245	364.4	0	168 834	358.5	0	166 087
carinsurance_fc	25 328	811.2	0	53 579	1 084.8	0	71 654	1 067.2	0	70 488
pkginsurance_fc	25 328	1 012.8	0	126 181	1 354.5	0	168 748	1 332.4	0	166 003
pensionself_fc	25 328	2 004.8	0	509 259	2 681.1	0	681 057	2 637.5	0	669 977
pensionemp_fc	25 328	1 713.7	0	511 968	2 291.8	0	684 680	2 254.5	0	673 541
stokvel_fc	25 328	299.9	0	97 716	401.0	0	130 680	394.5	0	128 554
Finance	25 328	13 320.3	0	9 356 617	17 813.9	0	12 500 000	17 524.1	0	12 300 000
professionals_ot	25 328	158.0	0	305 672	211.2	0	408 790	207.8	0	402 140
funeralexp_ot	25 328	545.6	0	102 954	729.7	0	137 686	717.8	0	135 446
gravestones_ot	25 328	86.4	0	104 347	115.6	0	139 548	113.7	0	137 278
Otherexp	25 328	790.0	0	305 672	1 056.5	0	408 790	1 039.3	0	402 140
unmatchedgoods_xx	25 328	179.6	0	50 996	240.1	0	68 199	236.2	0	67 090
unmatchedfinancial_xx	25 328	12.4	0	8 332	16.5	0	11 143	16.3	0	10 962
unmatchedtax_xx	25 328	396.0	0	226 836	529.6	0	303 359	521.0	0	298 424
unmatchedother_xx	25 328	1 314.6	0	1 052 206	1 758.1	0	1 407 167	1 729.5	0	1 384 274
Unmatchedexp	25 328	1 902.5	0	1 092 146	2 544.3	0	1 460 581	2 502.9	0	1 436 819
TOTAL_EXP_excl	25 328	91 208.1	0	9 772 185	121 977.1	0	13 100 000	121 552.1	0	12 900 000

Source: Own calculations.

Descriptive Statistics for 2010/11 IES Data within PIES (cont.)

Variable	Obs	Nominal		Real (single deflator)			Real (multiple deflators)			
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
TOTAL_EXP_incl	25 328	93 110.6	0	9 799 216	124 521.4	0	13 100 000	124 055.0	0	12 900 000
wages_inc	17 819	115 358.1	2	3 944 105	154 274.1	3	5 274 647	153 550.8	3	5 193 597
oap_inc	3	30 219.0	26 273	67 077	40 413.4	35 136	89 705	40 478.9	34 668	89 668
dg_inc	2 534	13 332.7	1 108	78 524	17 830.5	1 482	105 014	18 258.8	1 457	111 981
othgrants_inc	0	0.0	0	0	0.0	0	0	0.0	0	0
Work_inc	25 328	83 736.6	0	3 800 000	111 985.1	0	5 081 928	111 471.5	0	5 003 839
Grants_inc	25 328	5 558.5	0	94 440	7 433.6	0	126 299	7 608.6	0	130 366
Allother_inc	25 328	7 014.6	0	1 844 398	9 380.9	0	2 466 605	9 363.8	0	2 470 150
TOTAL_INC	25 328	96 309.6	0	3 806 228	128 799.6	0	5 090 257	128 430.3	0	5 012 040
p_wages_inc	25 328	54 163.0	0	2 000 000	72 434.8	0	2 674 699	72 077.5	0	2 637 404
p_oap_inc	25 328	1 761.3	0	25 320	2 355.5	0	33 862	2 413.5	0	35 088
p_dg_inc	25 328	550.8	0	13 200	736.6	0	17 653	757.0	0	20 016
p_othgrants_inc	25 328	13.5	0	12 750	18.1	0	17 051	18.2	0	17 057
p_Work_inc	25 328	54 163.0	0	2 000 000	72 434.8	0	2 674 699	72 077.5	0	2 637 404
p_Grants_inc	25 328	2 325.6	0	37 200	3 110.1	0	49 749	3 188.7	0	50 413
bond_de	25 328	8 248.7	0	7 186 667	11 031.4	0	9 611 085	10 910.8	0	9 489 932
carfinance_de	25 328	4 047.2	0	1 012 270	5 412.5	0	1 353 759	5 347.2	0	1 332 031
hirepurchase_de	25 328	717.1	0	49 571	959.0	0	66 294	957.8	0	65 532
overdraft_de	25 328	852.8	0	911 043	1 140.5	0	1 218 383	1 127.9	0	1 198 828
retailacc_de	25 328	697.5	0	115 399	932.8	0	154 329	935.5	0	160 723
familyloan_de	25 328	222.1	0	506 135	297.0	0	676 879	295.2	0	666 015
Debts	25 328	14 785.4	0	7 186 667	19 773.2	0	9 611 085	19 572.3	0	9 489 932
_unmatcheddebts	25 328	1 754.1	0	991 416	2 345.8	0	1 325 870	2 332.2	0	1 303 462
_dissaving_in	0	0.0	0	0	0.0	0	0	0.0	0	0
_imputedrent_in	25 328	19 148.9	0	561 186	25 608.8	0	750 502	25 524.3	0	758 500
_imputedrent_out	25 328	18 207.6	0	7 581 383	24 349.9	0	10 100 000	24 338.2	0	10 600 000
_imputedrent7_out	25 328	19 148.9	0	561 186	25 608.8	0	750 502	25 524.3	0	758 500

Source: Own calculations.