



**ASSESSING THE
QUALITY AND
INTER-TEMPORAL
COMPARABILITY OF
ABS HOUSEHOLD
INCOME DISTRIBUTION
SURVEY DATA**

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Abstract

The Australian Bureau of Statistics has conducted numerous surveys that are used to analyse poverty and the distribution of income amongst Australian households. Confidentialised unit record data for those surveys held since 1975 are available for the use and scrutiny of researchers. Recently, concerns have arisen over the reliability of these data to represent the circumstances of the population, and especially changes therein over time. This paper examines the quality and inter-temporal comparability of these survey data by comparing aggregates derived from the surveys to external data such as official population estimates, labour force data, the National Accounts and administrative data. We summarise the major changes to the survey data in an Appendix. Issues discussed include mis-reporting of income, and differences in scope, weighting procedures, definitions and collection methodology. The analysis suggests that uncritical use of the data may give rise to flawed estimates of the extent of poverty and inequality in Australia and how these have changed over time. There is scope to improve the comparability of the survey data, and the SPRC is pursuing this task in partnership with the ABS.

1 Introduction¹

Data collected by the Australian Bureau of Statistics (ABS) in its surveys of household income and expenditure are widely used to examine poverty, disadvantage and income distribution and how they have changed (ABS, 2002a; Barrett, Crossley and Worswick, 2000; Bray, 2001; Harding, Lloyd and Greenwell, 2001; Saunders, 2001). These data are also used to estimate how household living standards vary over time (Whiteford and Bond, 2000) and across the population (McColl, Pietsch and Gatenby, 2001). They also form the basis of microsimulation models that extrapolate how incomes change in response to changes in external economic and demographic conditions (Harding, 1996; Polette and Robinson, 1997). Modified data from the income surveys are used by the Luxembourg Income Study to compare patterns of economic inequality and poverty in Australia with those in other countries (Bradbury and Jäntti, 1999; OECD, 1998; Smeeding, 2000).

In all of these studies, the main focus is on what the estimates imply for the aggregate situation, as it applies to the economy as a whole or to the general population. However, the data themselves are based on samples of the population. In drawing implications for the population, it is necessary to apply a set of weights to the sample data so that they are representative of the population as a whole. It follows that the reliability of the reported data and the procedures used to weight the survey data play an important role in determining the aggregate picture.

Once the weights have been applied to the survey data, it becomes possible to assess the reliability of the data by comparing the weighted estimates with independent economy-wide data (derived for example from the Population Census and the National Accounts). The weighted data thus provide the basis for comparing the survey data with external benchmarks and the results of such comparisons are an important (though neglected) aspect of the overall reliability of the data and estimates derived from them.

These issues have come to the fore recently as a result of concern expressed over the accuracy of aspects of the data and the reliability of some of the research based upon them. The ABS has itself acknowledged that there are problems with some aspects of these data, identifying problems with some aspects of the quality of the reported income data for those at the lower end of the income distribution in some of the surveys (ABS; 2002a; 2002b). These concerns make it difficult to identify with precision how household income and its distribution has changed in recent years and over the longer-term - yet these are issues of intense policy interest.

The issues of quality and inter-temporal comparability of the survey data are not confined to a problem of under-reporting of income in the latest surveys. There are major differences in weighting (or benchmarking) methodologies between surveys as well as methodological, definitional and scope differences. Furthermore, under-reporting of income does not appear to be restricted to the bottom of the income

1 This paper is based on research conducted as part of a project funded under an Australian Research Council Strategic Partnerships with Industry – Research and Training (SPIRT) grant No. C00106830. It has involved close collaboration with the Industry Partner, the Australian Bureau of Statistics, and has benefited from comments and assistance provided by Jenny Harber, Leon Pietsch, Bob McColl, Jan Gatenby and other ABS staff. We also acknowledge the comments provided by an anonymous referee. Full responsibility for the paper rests with the authors.

distribution. This paper contributes to the important debate over data quality and comparability by examining how aggregated data from the household income and expenditure surveys compare with external sources.² While this is not the only way that these issues could be addressed, it provides a framework where the main issues can be identified and discussed. We draw on external data from the Australian System of National Accounts (ASNA), ABS population data, ABS Labour Force Survey (LFS) data and Department of Family and Community Services (FaCS) expenditure data.

Our starting point in these comparisons is to assume that the data from these external sources are correct, although differences in definitions between the survey data and the external data are crucial to these comparisons. The goal of the paper is to identify key areas of concern, as a precursor to trying to remove or reduce the impact of the underlying factors that give rise to them. While it is obviously desirable to quantify the effect of these issues on analyses of poverty and inequality, that is beyond the scope of the paper. The issues involved make this a significant task in itself, and it is the subject of further work being conducted by the SPRC in partnership with the ABS.

In undertaking this exercise, the paper focuses on the data derived from the following surveys:

- The *Income Distribution Surveys* (IDS) undertaken on a regular basis prior to 1994-95, specifically those relating to financial years 1981-82, 1985-86 and 1989-90;
- The *Survey of Income and Housings Costs* (SIHC) that replaced the IDS in 1994-95 that have been subsequently undertaken in 1995-96, 1996-97, 1997-98, 1999-2000 and 2000-01 (although the analysis that follows does not include data from the last two of these surveys because they have not been made available for public use); and
- The *Household Expenditure Surveys* (HES) conducted in 1975-76, 1984, 1988-89, 1993-94 and 1998-99.

Although in many respects the scope of these three surveys is similar, there are also a number of important differences between them. These relate to the purpose of each survey and the methodology used to conduct them, as well as to the more specific details of scope, coverage and definition of the data collected.

Differences across the three surveys and within each survey over time make it difficult to use the data to produce a consistent picture of how things have changed over a period when many other factors have also been changing. A detailed account of these differences is provided in the Appendix.

The paper highlights a number of areas where the existing data are not capable of providing a consistent picture of change over time. It also points to areas where amendments to the raw data may be necessary in order to allow a more informed comparison to be undertaken. Two specific areas of comparison between the survey data and external benchmark statistics are addressed, relating to population size and structure, and income level and composition, respectively. However, it will become

2 We have not shown standard errors in comparing these aggregates, as we believe that such standard errors would not show whether the issues have a significant effect on the various forms of analysis affected, but they could be interpreted to do so.

apparent that these are not independent of each other and results in one area depend in part on those in the other.

The analysis and results reported here extend earlier work that has been undertaken in the area. In addition to those that are cited later, important studies that provide a background to this paper include those undertaken within ABS (Blackburn and Harrison, 1992) and by independent researchers (Atkinson, Rainwater and Smeeding, 1995, Appendix 6).³

The paper is organised as follows: Section 2 outlines the need for caution in interpreting the material presented, while Section 3 discusses how well the survey data match with population data, in terms of overall size and its breakdown by age. These comparisons, while apparently straightforward, serve to highlight some of the difficulties involved in undertaking any such exercise using data from surveys conducted at different points in time. Section 4 then compares labour force aggregates with external data.

The remainder of the paper focuses on how well the survey data on incomes correspond to those derived from external sources.⁴ Section 5 considers the main income aggregates used in studies of household income and its distribution; gross and disposable income, while Section 6 explores in more detail the main income components, viz. wages and salaries, income from government transfer payments, income from self-employment and property income. The main conclusions are summarised in Section 7.

The Appendix documents the main changes in survey methodology, collection protocols and variable definitions that have occurred since the surveys began. Readers are urged to consult the material provided in the Appendix as this provides a background to the discussion of the overall comparability issue.

2 Initial Advice: Proceed With Caution!

It is important to emphasise at the outset that the fact that there are differences between the (weighted) survey data and those derived from other sources does not necessarily imply that the survey data are flawed. There are at least five explanations for such differences: First, they may reflect problems with the external data, though as stated above, we assume that such problems are insignificant. Second, they may be due to differences in the *scope* of the surveys and the data sources that they are compared with. Next, they may reflect differences in the *concepts* or definitions used to define categories of people or income.⁵ Only after standardising for these differences – a not insignificant task, in terms of its complexity – can any difference be attributed to the fourth and fifth reasons, which more directly reflect problems with the survey data themselves. The fourth reason relates to the appropriateness of

3 The analysis reported in Atkinson, Rainwater and Smeeding (1995) is primarily based on data documentation material provided to the Luxembourg Income Study by Bruce Bradbury.

4 Income data in the IDS and SIHC surveys are collected for two time-reference periods – the financial year preceding the date of interview (annual income), and a much shorter period centred around interview time (current income), which is recorded as income for a given week. For this paper, current income was annualised by dividing by seven and multiplying it by the number of days in the relevant year.

5 This raises the related question of whether or not the concepts used in the surveys (particularly as related to income) are appropriate for the type of analyses that draw upon these data, but this is beyond the scope of the paper.

weights allocated to the survey data generated by the *benchmarking* (weighting) procedure (as explained further below). The fifth reason relates to *misreporting* of income (and possibly other characteristics) by the survey respondents.

Therefore, the observed differences in the results presented cannot be assumed to reflect reporting errors (deliberate or otherwise). By way of illustrating this point, Table 1 summarises the differences between gross household income from the Australian System of National Accounts (ASNA) and those derived from SIHC 97-98 (ABS, 1999b: 62).

The results reveal a substantial difference between the 'raw' figures on total gross income – with the SIHC-based estimate of \$313.1 billion falling well below the corresponding ASNA figure of \$491.8 billion. However, when the differences in scope and definition between the two sources are adjusted for as far as is possible, the two figures decline to \$305.8 billion and \$342.3 billion, respectively, and the difference between them narrows from \$178.7 billion (36.3 per cent) to \$36.5 billion (10.7 per cent).⁶ Thus, a substantial portion of the difference between the 'raw' figures can be explained by differences in scope and definitional differences (the majority of which is due to definitional differences), although a considerable difference remains even after adjusting for these.

Notwithstanding the results in Table 1, the ABS has remained cautious over the reliability of the income data reported in the SIHC and the HES. A recent report acknowledges that investment income is 'significantly under-reported' in the current (1999-2000) SIHC and that the coverage of welfare transfer payments made through the social security system has also been low since the first SIHC was conducted in 1994-95 (ABS, 2002b: 5-6). If these reporting errors are concentrated on households whose incomes fall in the lowest two quintiles of the income distribution, they are expected to have had an impact on measures of poverty and income distribution.⁷ The report foreshadows attempts to rectify some of the problems that have been identified in the data.

Concern over whether extremely low recorded incomes accurately reflect living standards has also led ABS to shift its focus onto the income positions of deciles two and three in the first issue of *Measuring Australia's Progress* (ABS, 2002a: 40). Further, in relation to the 1998-99 HES, ABS reports that:

A comparison of the total HES income with corresponding figures in the Australian System of National Accounts (ASNA) suggests underestimation of income from investment and self-employment. As it is not known whether this can be attributed to conceptual differences, scope differences, understatement by respondents or to non-response, there is no basis for

6 Table 1 accounts for only the major measurable differences between the SIHC and the ASNA. Some of the remaining discrepancy may also be due to scope or definitional differences that are minor or unmeasurable. It should also be noted that the under-reporting of unincorporated enterprises items in Table 1 is due to a methodological difference (since the ASNA figures are adjusted for under-reporting), not a scope or definitional difference.

7 The fact that income is under-reported does not imply that the poverty rate will automatically be over-estimated, since this will only occur if the extent of under-reporting causes those who would otherwise be above the poverty line to fall below it.

Table 1: Impact of Selected Differences on Comparability of Gross Income between SIHC 97-98 and ASNA Household Income Account

| | ASNA | SIHC |
|--|---------|---------|
| | \$m | \$m |
| Total gross income estimates ^a | 491 823 | 313 073 |
| Selected scope differences | | |
| Current transfers to non-profit institutions | 9 951 | |
| Income of residents of non-private dwellings | 4 545 | |
| Differences in definition of income | | |
| Wages and salaries—income in kind | 4 016 | |
| Superannuation | | |
| Employers' contribution to superannuation | 23 048 | |
| Imputed interest on superannuation funds | 17 886 | |
| Regular superannuation receipts | | 6 271 |
| Workers' compensation | | |
| Employers' payment of premium | 5 035 | |
| Claims incurred | 5 100 | |
| Claims received | | 1 047 |
| Lump sum severance, etc., payments | 7 072 | |
| Dwellings | | |
| Owner-occupied, gross operating surplus | 35 684 | |
| Rented, interest payments and consumption of fixed capital | 7 348 | |
| Unincorporated enterprises, interest payments and consumption of fixed capital | 20 702 | |
| Interest: implicit financial services | 5 329 | |
| Under-reporting of unincorporated enterprises | 3 852 | |
| Total differences | 149 568 | 7 318 |
| Income estimates after deducting differences ^b | 342 255 | 305 755 |

Notes: a Published estimates of ASNA household sector income and SIHC household income.

b Sum of income components after quantifiable, non-comparable items have been deducted.

Source: Table A3.5 from ABS (1999b: 62)

making adjustments to the recorded figures. (ABS, 2001a: 44)

The ABS has also acknowledged that there were problems with the data on transfer incomes in HES 98-99 (particularly in relation to the receipt of veteran's benefits) and in the methods used to impute a value for business income where this is not available (ABS, 2002b: 7). This led to a re-release of the HES 98-99 CURF in September 2002 after correcting for these problems. The re-released data have been used in the analysis reported in this paper.

Clearly, the whole issue of the reliability of some of the reported survey data on incomes is currently under intense scrutiny within ABS and this may produce newly released data that will have an impact on some of the comparisons reported below. This should be borne in mind when assessing the material that follows.

It is important to emphasise that the overall aim of the analysis reported here is not to undermine the value of the existing survey data, nor to discourage their use in studies of household incomes, living standards, poverty and economic inequality. Instead, the aim is to alert users to some of the pitfalls that exist in the data and to warn against their uncritical use in describing current circumstances and past trends. By highlighting the complexity of this process, the paper also aims to caution researchers against dismissing the quality of the ABS survey data through unsophisticated comparisons with external aggregates.

Further research, being conducted in collaboration with ABS, is addressing how the impact of some of the acknowledged areas of non-comparability can be minimised in specific kinds of analysis (e.g. when studying trends over time or comparisons between specific groups). The analysis and results reported in this paper should be seen as contributing to the aims of this broader task.

2.1 The weighting systems of the surveys

Each survey's unit record data include a weight variable. When these weights are applied to the survey data, the sample should be representative of the in-scope population of Australia. In most cases, these weighting systems depend on certain aggregates from external sources, or 'benchmarks', which the weighted survey data aggregates will match. We now turn to the details of these weighting systems.

In relation to the IDS data, the weights were applied by the ABS at the (adult) person level for respondents to the survey (i.e. those aged 14 and over for IDS 82; and aged 15 and over for IDS 86 and IDS 90). They were designed to benchmark the survey data against the estimated resident population (ERP) disaggregated by age, sex, State and part of State (capital city versus rest of the State). The benchmark data used for IDS were those prevailing at the nearest quarter to that for which current income was collected in each survey. Since the IDS was replaced by the SIHC, benchmarking to ERP has been supplemented by benchmarking to household composition. Beginning with the SIHC 96-97, the data have also been benchmarked to 'pseudo labour force' benchmarks (based on averaging the monthly *Labour Force Statistics* over the SIHC survey period).⁸

Benchmarking has only been applied to the HES data since 1993-94. Prior to that year, the HES data were weighted at household level based on the sample size as a proportion of all households by State, adjusted for non-response. The HES 75-76, HES 84 and HES 88-89 data can thus be effectively regarded as not being benchmarked to any external aggregates. Since 1993-94, the weights applied to the HES data have been benchmarked using a similar method to SIHC 94-95 and SIHC 95-96, but benchmarks were also applied for children aged 0 to 14.

3 Assessing Population Estimates

In this section we compare the survey-based estimates of population aggregates with official ABS population estimates. Ratios are shown for both the current and annual periods even though the same (numerator) population estimates have been used for

8 The planned re-release of SIHC CURFs will apply 'pseudo labour force' benchmarks to SIHC 94-95 and SIHC 95-96, as applied in subsequent surveys.

both.⁹ This process results in the population ratios being higher for the annual income period than for the current income period.¹⁰

Figure 1 compares the survey-based estimates of the population with the official population estimates that are: ‘based on the *Census of Population and Housing* with updates from births and deaths registrations, overseas migration and interstate migration’ (ABS, 2000c: 2). It is clear that, as expected, the population estimate ratio is relatively stable at close to unity for the IDS/SIHC and the two latest HES surveys, although it is considerably lower (at around 0.90) for the earlier HES surveys, which are under-weighted. The slight difference between the IDS and SIHC ratios is due mainly to an overestimation of children in the former, not their differences in scope.¹¹

The ratios of population estimates have also been derived for various age groups. Figure 2 shows the ratios of population estimates for children under the age of 15, while Figure 3 shows the ratios of population estimates for people aged 65 and over. Figure 4 shows the ratios of population estimates for people of working age, i.e. between 15 and 64 years, inclusive. A number of observations can be made about these breakdowns. In general, the surveys provide less accurate estimates of the size of population groups (differentiated by age) than of the population as a whole. Children under 15 are over-estimated in the IDS surveys but not in SIHC, while they are slightly under-estimated in HES 84 and HES 88-89. However, in the earlier HES surveys, these ratios are much higher than for the other age groups. The estimated numbers of people aged 65 and over from each survey are lower than actual population numbers, partly due to the fact that institutionalised people are outside the scope of all of these surveys.

The comparisons in Figures 2, 3 and 4 indicate that the pre-1993 surveys tend to over-estimate the numbers of children aged under 15 and that all of the surveys under-estimate the numbers of people aged 65 and over. These latter inaccuracies are quite large, particularly for HES prior to the 1990s.¹² The working age population (aged 15

9 Thus for example, the weighted number of persons derived from SIHC 94-95 is divided by the average population over 1994-95 to produce the ratio relevant to current income, while the same numerator is divided by the average population over 1993-94 to produce the ratio relevant to annual income since the annual incomes reported in SIHC 94-95 refer to financial year 1993-94. Technically, the correct denominator for comparisons relevant to annual income analysis is different to this. Such a denominator would consist of the people in Australia in 1994-95 who could have received income in 1993-94 (notwithstanding other scope limitations).

10 For consistency with the analysis of income items that is presented later, all CURF records were included (i.e. records were not excluded on the basis of the financial exclusion flag).

11 Special dwellings were in scope for the IDS, but not for the SIHC. Special dwellings include hostels for the homeless, night shelters and refuges, licensed hotels and motels, hospitals and homes (general hospitals, other hospitals, convalescent homes, homes for the aged, retirement villages, homes for the handicapped, orphanages), religious and educational institutions (convents, monasteries, boarding schools, college and university residences), prisons and reformatories, boarding houses and other guest houses, private hotels, staff quarters, large construction camps, Aboriginal settlements, caravan parks and camping grounds. However, in hospitals and homes, and prisons and reformatories and boarding schools, only the live-in staff were interviewed. Other usual residents were considered to be institutionalised, and they were hence out of scope for all of the surveys.

12 These observations suggest that caution should be applied when interpreting the results of studies of the living standards of older people that utilise these data – see Whiteford and Bond (2000).

Figure 1: Ratio of the Population Estimated from the Income and Expenditure survey CURFs to official ABS population estimates

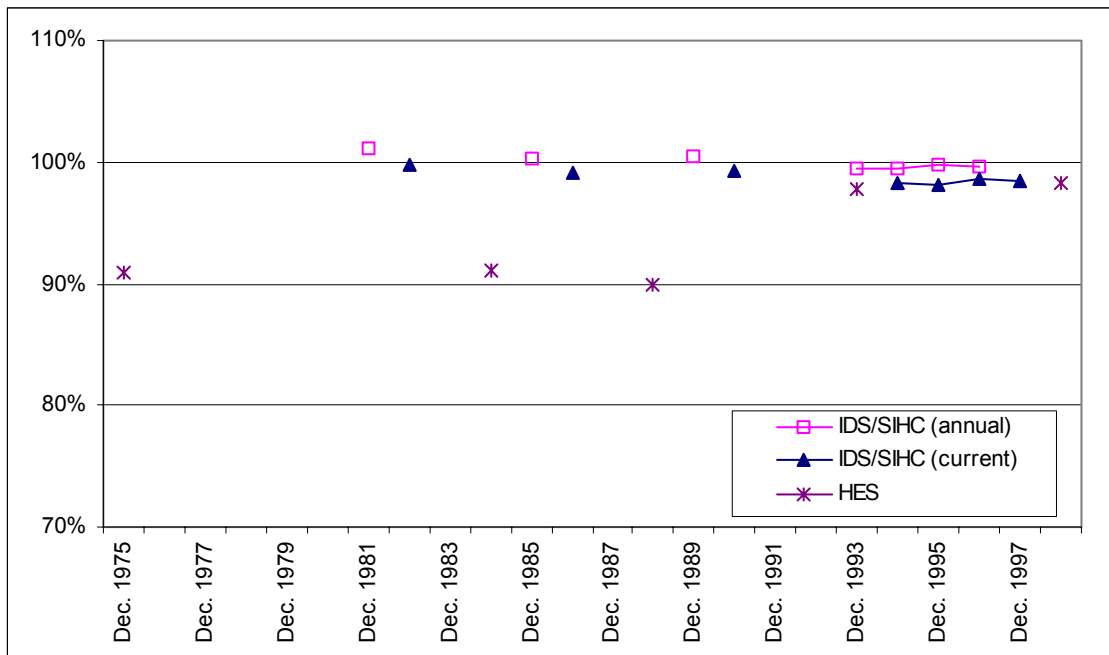
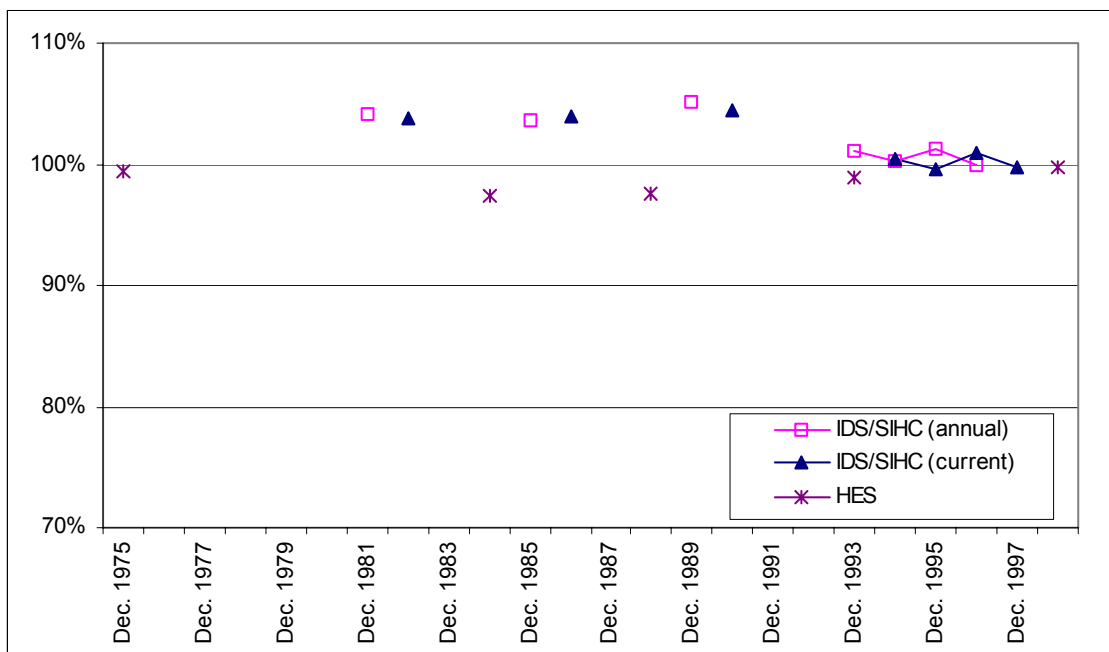


Figure 2: Ratio of the Child Population (aged under 15) Estimated from the Income and Expenditure Survey CURFs to Official ABS Population Estimates



to 64 years) was accurately estimated in all surveys except the early HES surveys. Even so, the comparisons indicate that the differences in population structure are substantial and may thus have potentially important consequences when the data are used to examine the circumstances of specific groups in the population.

Figure 3: Ratio of Aged Population (aged 65+) Estimated from the Income and Expenditure Survey CURFs to Official ABS Population Estimates

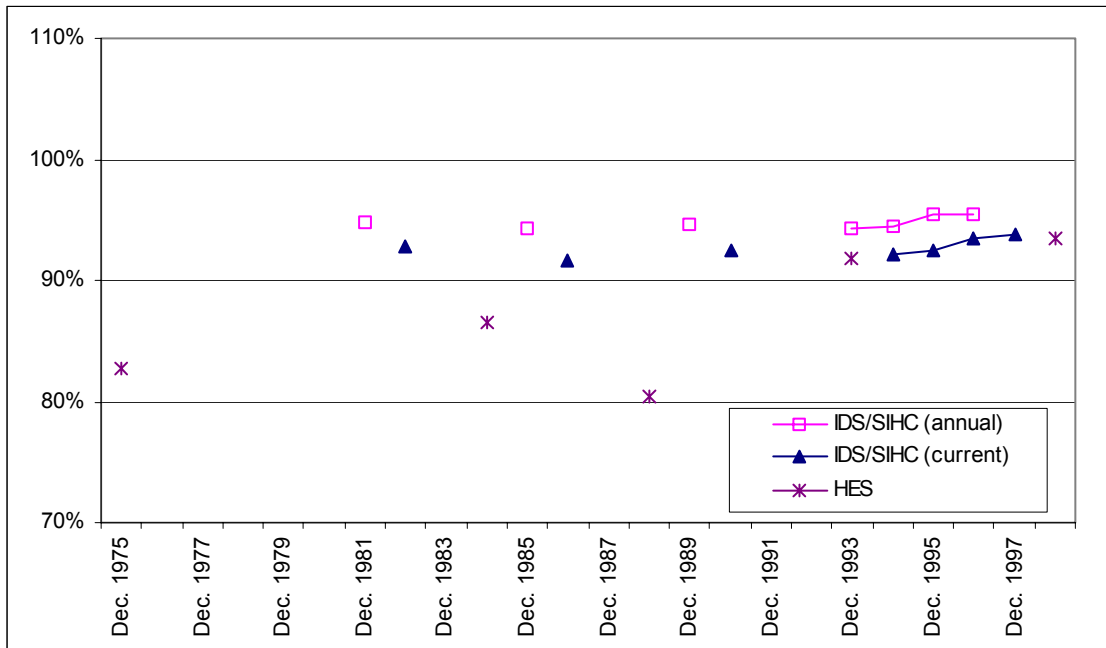
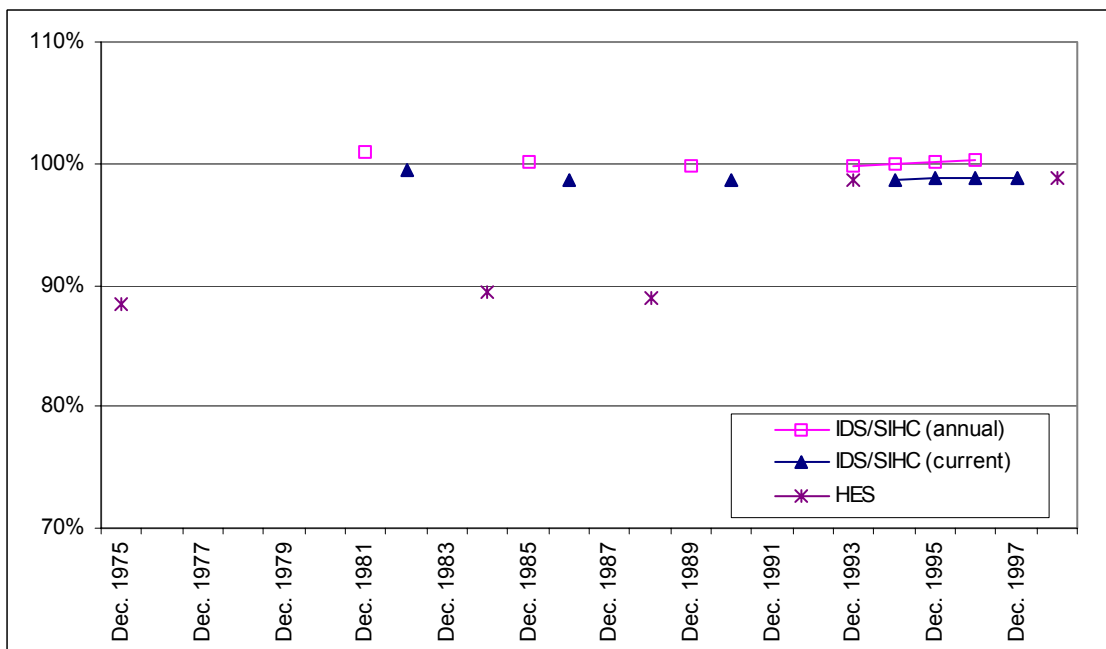


Figure 4: Ratio of Working Age Population (15-64) Estimated from the Income and Expenditure Survey CURFs to Official ABS Population Estimates



3.1 Financial exclusion flags

The benchmarking procedures applied to the income and expenditure surveys result in the weighted aggregate number of persons and households matching that of the external benchmarks. The population ratios discussed above reflect the appropriateness and comparability of the benchmarking procedures. The interpretation of these ratios is complicated in the case of the income surveys because of the existence of the ‘financial exclusion flags’. Each income survey’s unit record files include a financial exclusion flag variable that indicates whether each record should be excluded from analyses of annual income and/or current income. For example, persons who arrived in Australia after the end of the annual income period are flagged for exclusion from annual income analysis in all surveys. However, the criteria for exclusion vary significantly between the IDS and SIHC surveys, and excluding records from the analysis on the basis of these flags obviously reduces the weighted number of persons. Comparisons of the effect of benchmarking procedures therefore need to be accompanied by analysis of the impact of applying (or ignoring) the financial exclusion flags.¹³

There are three main categories of difference in the financial exclusion flag rules between IDS and SIHC. Firstly, the exclusion rules for annual income in the SIHC surveys are a sub-set of the exclusion rules in IDS. This results in more persons and income units being flagged for exclusion from annual income analysis in IDS than SIHC. Secondly, under certain criteria, persons and income units that are out of scope for both current and annual income are flagged for exclusion in the IDS files, whereas these records are simply omitted entirely from the SIHC files. Thirdly, income is recorded for persons flagged for exclusion from analysis in some surveys, but not in others.¹⁴

These issues are significant for both annual and current income analysis, as indicated in Figures 5 to 8, which show the (weighted) proportion of records that are flagged for exclusion from analysis of annual or current income in each survey. The records flagged for exclusion are also distinguished by whether or not they are allocated a non-zero income on the file.

Figures 5 and 6 show that the proportion of records flagged for exclusion from annual income analysis is much higher in the IDS surveys than in the SIHC surveys. Non-zero annual income is recorded for many of the records flagged for exclusion from annual income analysis in the IDS surveys. Figures 7 and 8 show that there are some records flagged for exclusion from current income analysis in the IDS data but not in the SIHC data. Overall, not surprisingly, the exclusion flags are far more significant in relation to the use of the annual income measures than the current income measures. Of greater significance is the affect of these differing exclusion flags on analysis of movements in income over periods that span the IDS and SIHC surveys. This is particularly relevant to analysis of movements in annual income and movements of personal level income (as opposed to analysis of movements in current income and income unit level income).

13 There are no financial exclusion flags in the HES survey files, mainly because the HES does not collect data on annual income.

14 These differences are described in detail in the Appendix.

Figure 5: Persons flagged to be excluded from Annual Income Analysis - Weighted per cent of all Persons on Person Files

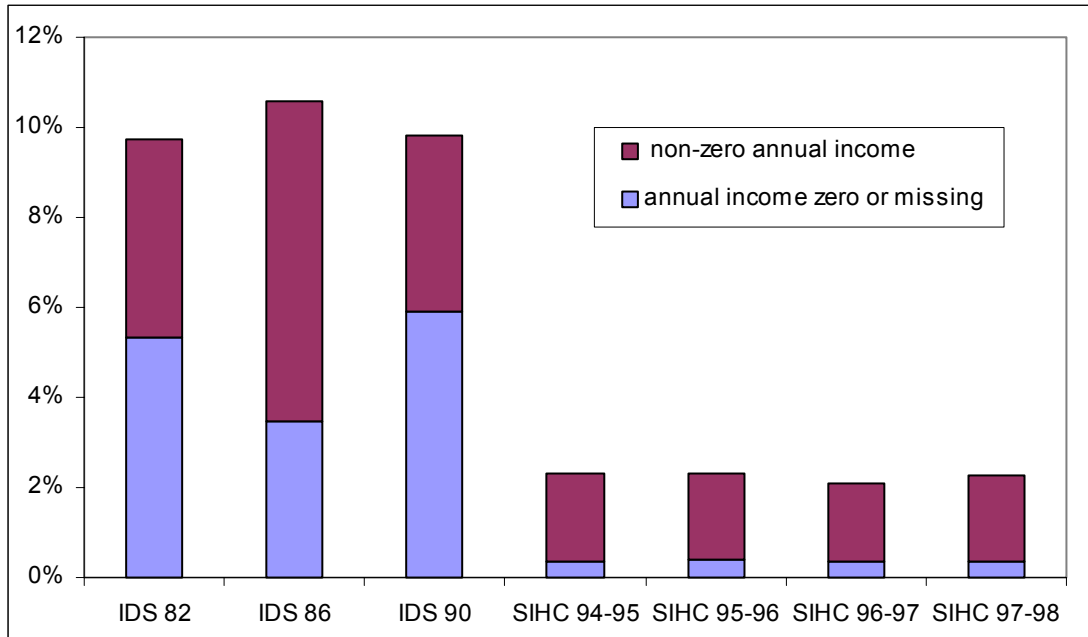


Figure 6: Income Units flagged to be excluded from Annual Income Analysis - Weighted per cent of all Income Units on Income Unit Files

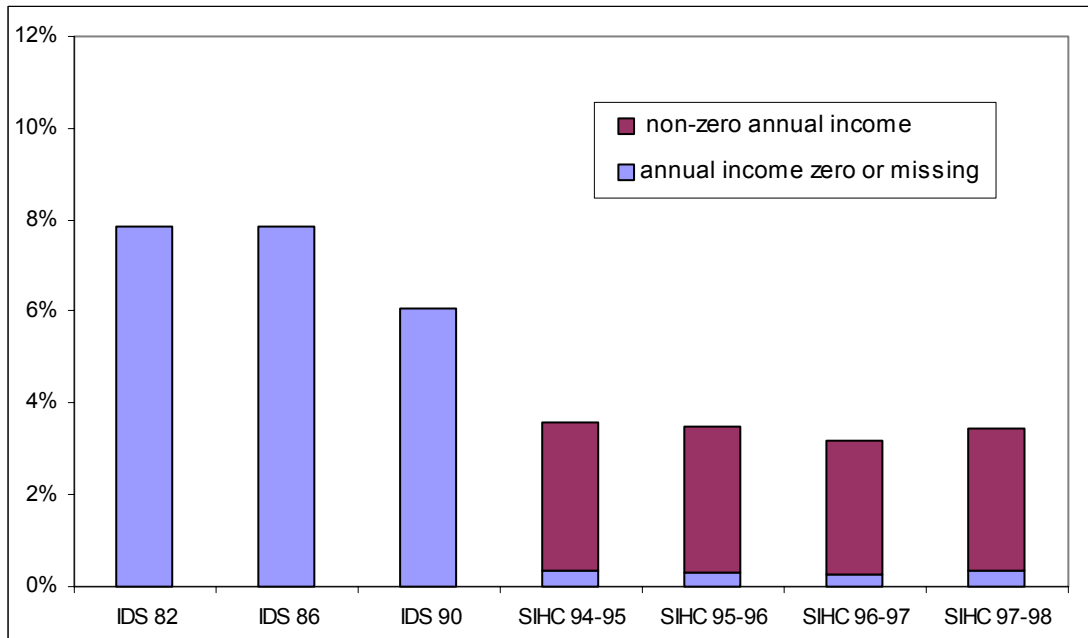


Figure 7: Persons Flagged to be excluded from Current Income Analysis - Weighted per cent of all Persons on Person Files

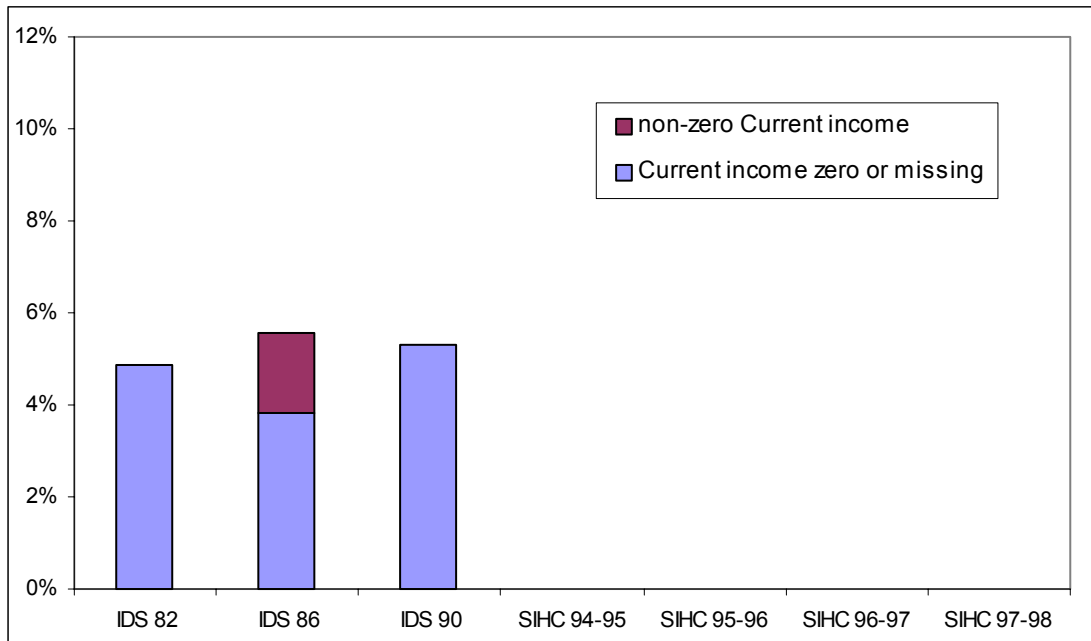
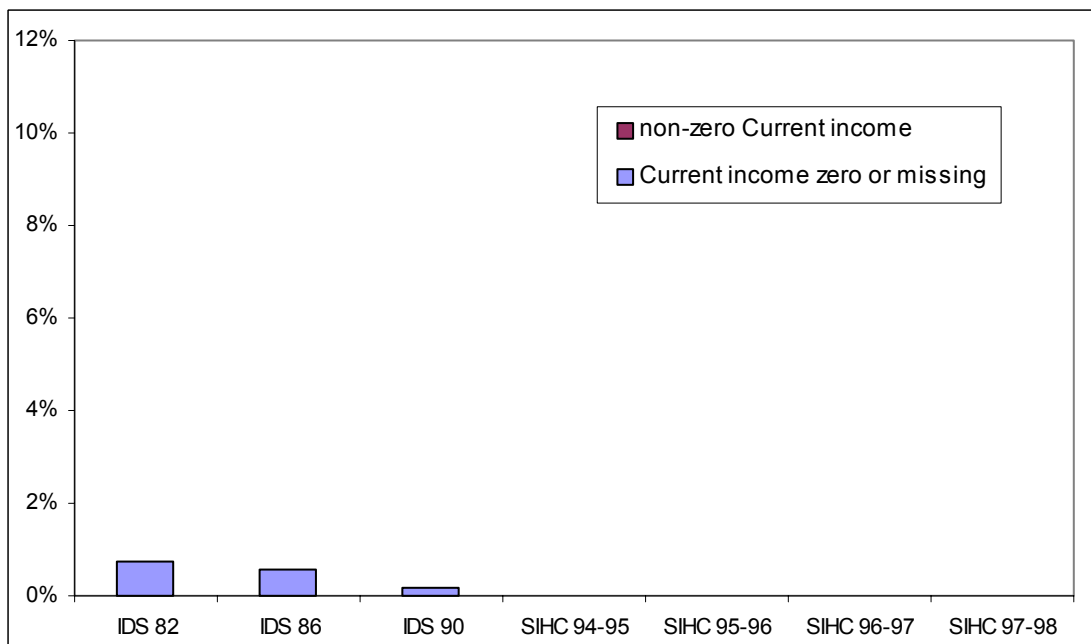


Figure 8: Income Units flagged to be excluded from Current Income Analysis - Weighted per cent of all Income Units on Income Unit Files



In all of the income ratios that follow, the income exclusion flags have not been applied as a reflection of the potential to modify these flags to make them more comparable.

4 Labour Force Comparisons

Tables 2 and 3 present the ratios of labour force aggregates derived from the income/expenditure surveys to the corresponding estimates derived from the *Labour Force Survey* (LFS). The denominators of these ratios were derived as averages of the original LFS data over the relevant interview period. These data are presented as per capita comparisons in order to account for the underestimation of the population in the early HES surveys, discussed in section 3. Table 2 summarises the ratios for employed persons by sex and full-time (FT)/part-time (PT) employment status, while Table 3 summarises the other main labour force ratios. It should be noted that the LFS figures used for comparison in these tables are the latest historical figures available, which have been retrospectively adjusted by the ABS to reflect the current LFS definition of ‘unemployed’ persons.¹⁵

There are a number of factors that influence these results. Firstly, sampling bias on the basis of age and household type is not corrected for sufficiently by the weighting systems of the earlier surveys. Secondly, these ratios are affected to a degree by scope differences. For instance, the fact that most of these ratios are generally greater than unity is probably not due to an overestimation of people in the labour force. Rather, it is because institutionalised people, who are out of scope of all the surveys, are less likely to be in the labour force than other people. Thirdly, the results are sensitive to the substantial definitional differences between surveys in labour force status categories.¹⁶ Fourthly, for the surveys that were not benchmarked to labour force status (see Section 2.1), the results may also reflect a corresponding sampling bias, which could conceivably be corrected by applying such benchmarks. Unfortunately, in many cases it is impossible to separate the effect of the definitional differences from the affect of any sampling bias. Thus, the identification of sampling bias on the basis of labour force status (and correction there-of through benchmarking) is difficult.¹⁷

The definitional differences in labour force status have a major effect on the between-survey comparability of analyses of income for sub-groups of the population such as employed persons or unemployed persons. Less obviously, these definitional differences also have an effect on the between-survey comparability of analyses of total income (independently of preventing correction of sampling bias through benchmarking, discussed above). This arises because all people who were ‘employed’ were asked to state the earnings that they had received ‘in their last pay’. The definition of being employed thus places a constraint on which respondents had an opportunity to state their earnings. This issue is particularly significant for HES 75-76, where people were classified as being employed if they had worked at all in the previous four weeks (amongst other criteria as specified in the Appendix), whereas the corresponding period was one week for all of the other surveys. Clearly then, the earnings recorded in HES 75-76 will be over-estimated relative to the other surveys as a result of this definitional difference.

15 The new, narrower definition of being ‘unemployed’ came into effect in April 2001. This definitional change accounts for most of the discrepancy (approximately 5 percentage points) between the ‘unemployed’ ratios for SIHC and unity in Table 3.

16 As shown in the Appendix, these definitional differences are most significant for HES 75-76, in which the criteria for being ‘employed’ is considerably broader than in the other surveys, or in the LFS.

17 These issues are being considered further in ongoing work by the SPRC and ABS.

Table 2 Employed Persons per capita: Ratios of Income/Expenditure Survey totals to Labour Force Survey totals (percentages)

| | Males | | | Females | | | All Employed persons | | |
|------------|-------|-------|-------|---------|-------|-------|----------------------|-------|-------|
| | FT | PT | All | FT | PT | All | FT | PT | All |
| HES 75-76 | | | | | | | | | 102.4 |
| IDS 82 | 100.7 | 70.2 | 98.8 | 97.2 | 102.1 | 99.0 | 99.7 | 94.9 | 98.9 |
| HES 84 | | | | | | | | | 101.0 |
| IDS 86 | 101.5 | 112.8 | 102.2 | 97.3 | 108.3 | 101.6 | 100.2 | 109.2 | 102.0 |
| HES 88-89 | | | 99.5 | | | 104.8 | | | 101.6 |
| IDS 90 | 100.1 | 90.9 | 99.4 | 94.6 | 104.5 | 98.6 | 98.4 | 101.5 | 99.1 |
| HES 93-94 | | | 102.5 | | | 110.6 | | | 105.9 |
| SIHC 94-95 | 106.0 | 83.5 | 103.5 | 105.8 | 93.4 | 100.5 | 105.9 | 90.9 | 102.2 |
| SIHC 95-96 | 102.1 | 105.4 | 102.5 | 104.3 | 102.0 | 103.3 | 102.8 | 102.9 | 102.8 |
| SIHC 96-97 | 102.0 | 92.1 | 100.8 | 104.7 | 94.0 | 100.1 | 102.9 | 93.5 | 100.5 |
| SIHC 97-98 | 101.7 | 102.4 | 101.8 | 106.0 | 95.2 | 101.3 | 103.1 | 97.1 | 101.6 |
| HES 98-99 | | | 101.3 | | | 100.9 | | | 101.1 |

Table 3: Other Labour Force Aggregates per capita: Ratios of Income/Expenditure Survey Totals to Labour Force Survey Totals (percentages)

| | Unemployed | | | Labour Force | | |
|------------|------------|---------|-------|--------------|---------|-------|
| | Males | Females | All | Males | Females | All |
| HES 75-76 | | | 58.6 | | | 100.3 |
| IDS 82 | 102.4 | 86.7 | 95.8 | 99.1 | 97.9 | 98.6 |
| HES 84 | | | 81.6 | | | 99.2 |
| IDS 86 | 103.3 | 127.4 | 113.2 | 102.3 | 103.6 | 102.8 |
| HES 88-89 | 84.2 | 89.6 | 86.6 | 98.5 | 103.7 | 100.6 |
| IDS 90 | 112.8 | 145.7 | 126.0 | 100.4 | 101.9 | 101.0 |
| HES 93-94 | 90.2 | 100.2 | 94.2 | 101.2 | 109.6 | 104.7 |
| SIHC 94-95 | 105.6 | 106.9 | 106.1 | 103.7 | 101.0 | 102.6 |
| SIHC 95-96 | 106.9 | 107.5 | 107.1 | 102.8 | 103.7 | 103.2 |
| SIHC 96-97 | 107.5 | 106.7 | 107.2 | 101.4 | 100.6 | 101.1 |
| SIHC 97-98 | 109.6 | 100.5 | 105.9 | 102.4 | 101.3 | 101.9 |
| HES 98-99 | 106.0 | 107.9 | 106.8 | 101.7 | 101.3 | 101.5 |

Table 2 shows that the ratios for the total numbers of employed persons are reasonably close to unity for most surveys, although some differences remain for the reasons discussed above. The ratios for employed males and employed females are similar to each other within surveys, with the exception of HES 88-89 and HES 93-94, in both of which the ratios for employed females are higher than those for employed males. The ratios for part-time workers vary somewhat between surveys for both males and females, and are well below 100 per cent in some surveys and above 100 per cent in others.

The main inference to be made from Table 3 is that all but the latest HES surveys appear to underestimate the number of unemployed people considerably, while IDS 86 and IDS 90 considerably overestimate them. There are some differences in the unemployed ratios between the sexes, especially for IDS 86 and IDS 90. As mentioned above, the fact that total labour force ratios are greater than unity for most surveys is mainly a result of the scope of these surveys and not an indication of their overestimation of people in the labour force.

A cautious inference can be made from supplementary data in relation to the unemployed persons ratio in HES 75-76. In May 1976, the ABS conducted a survey of people recently looking for work (defined very similarly to that used to identify people who were unemployed). The results from this survey indicate that 23.9 per cent of such persons were unemployed for between one and four weeks (ABS, 1977: 38). Assuming that this percentage was similar throughout the HES 1975-76 survey period, and recalling the difference in the definition of 'employed' persons between HES 75-76 and the other surveys, it appears that the difference in the ratios for unemployed persons presented in Table 3 between the first two HES surveys are mostly due to definitional differences, rather than differences in sampling error. In any case, the results presented here indicate that particular caution should be applied when using the data to examine how the circumstances of the unemployed have changed over time.

5 Total Income and its Main Components

This section presents comparisons of total income as estimated from the IDS/SIHC/HES surveys and from the Household Income Account of the Australian System of National Accounts (ASNA). Comparisons are presented for gross income per capita and disposable income per capita.

In the SIHC, income is restricted to regular and recurring cash receipts by a household or its members (ABS, 1997: 7). In the HES, income is similarly defined as for the SIHC, but it also includes some in-kind income (see below), and is defined as 'regular and recurring receipts from all sources' (ABS, 2000b: 92). The most comparable item in the ASNA is gross income in the Household Income Account, part of a sectoral disaggregation of the National Income Account. It records the household sector's income from production and in the form of transfers from other sectors (ABS, 2000a: 89). There are some major differences between the way that income is conceptualised and measured in the ASNA and in the IDS, SIHC and HES surveys.¹⁸ It is not possible to come close to controlling for all of these. Rather than making adjustments

18 A useful summary of the major differences between SIHC 1997-98 and ASNA, including differences in scope, definitions and methodology is provided in Appendix 3 of ABS (1999b). Similar comparisons are not available for the other years in which the surveys were conducted.

that only partially account for such differences, we present unadjusted comparisons of total income between the income/expenditure surveys and the ASNA household income account. The changes in these ratios between surveys are of interest, although they need to be interpreted with care because of changes over time in the composition of household income in the National Accounts.

In particular, imputed interest as a proportion of gross household income increased from 2.6 per cent in 1975-76 to 6.1 per cent in 1989-90 before falling to 3.9 per cent in 1997-98. Imputed interest is outside the scope of income in the income/expenditure surveys and so it would seem to make sense to exclude it from the present analysis. However, as most of this imputed interest is attributed to the earnings on superannuation funds, its exclusion from the ASNA figures would also require, for consistency, the exclusion of income from superannuation as recorded in the income/expenditure surveys. Such an adjustment has not been made, partly because, as mentioned above, it is not possible to come close to accounting for all of the many differences identified by ABS (1999b).

To re-iterate, the ratios reported in this section below should be treated primarily as indicative and as providing a lead up to the less problematic comparisons of individual income items that are presented in Section 6.

In the ratios that follow, the denominator (ASNA) values are financial year aggregates with the exception of 1984, which refers to the calendar year in order to correspond with the timing of the 1984 HES survey. For current income in IDS, the choice of denominator is not entirely obvious. Current income values correspond to the surveys' interview periods, which are full-year periods for all SIHC and HES surveys. The IDS surveys, however, were conducted from approximately mid-September to mid-December in each survey year.¹⁹ Current income was recorded over these interview periods, which are slightly out of phase with the surveys that were conducted over a financial year period.²⁰

The obvious alternative to comparing IDS current income with annual ASNA income would be to use December quarter (October-December) ASNA income, for which figures are also available. However, there are significant seasonal effects *within* this quarter, arising from the Christmas holiday period. None of the IDS survey periods ran into the Christmas period, and hence it would be problematic to compare the figures generated by the surveys to the entire December quarter. Furthermore, two of the three IDS survey periods (IDS 82 and IDS 86) were not contained within the December quarter.

19 IDS 90 was conducted from 7 October to 15 December, IDS 86 was conducted from 14 September to 8 December. The only information available about the timing of IDS 82 is that it was conducted between September and November of that year.

20 The phase difference is due to the fact that the mid-point of the financial year (taken to be 31 December) is not the same as the mid-points of the IDS interview periods. All IDS current income aggregates have been adjusted by Average Weekly Earnings (Total Employee Earnings) to correct for the resulting discrepancies due to inflation (ABS, 1984: 4; ABS, 2001b). The mid-point of the IDS 82 survey was assumed to be the 15 October. The effect of these adjustments is that all current income aggregates from IDS 82, 86 and 90 have been inflated by 1.49 per cent, 0.48 per cent and 0.80 per cent, respectively.

5.1 Gross income per capita

We now consider the ratios of total gross (annual and annualised current) income per capita in the surveys to gross household income per capita from the ASNA and ABS population estimates.

The first observation to be made from Figure 9 is that all of the ratios are well below unity. This is mainly because of the differences between the concepts of income discussed earlier, and so this result in isolation should not be interpreted to suggest an under-reporting of income in the household surveys. Secondly, the annual income ratios are consistently higher than (annualised) current income ratios in the IDS/SIHC surveys. This may be because some income types include non-regular receipts in annual income, while current income includes only 'usual' weekly receipts, and thus excludes such non-regular payments. The difference in recent years is around 3 per cent of gross income per capita, in aggregate terms equating to around \$13.4 billion in 1997-98.

The clear outlier in this figure is HES 75-76, which has a much higher ratio than all of the other surveys. This discrepancy is largely due to relatively high aggregate incomes from wages and salaries and own-business (as shown in Figures 11 and 20 below). It is also partly due to the changing composition of household income in the national accounts discussed at the beginning of Section 5, particularly the increasing importance of imputed interest as a proportion of household income.

5.2 Disposable income per capita

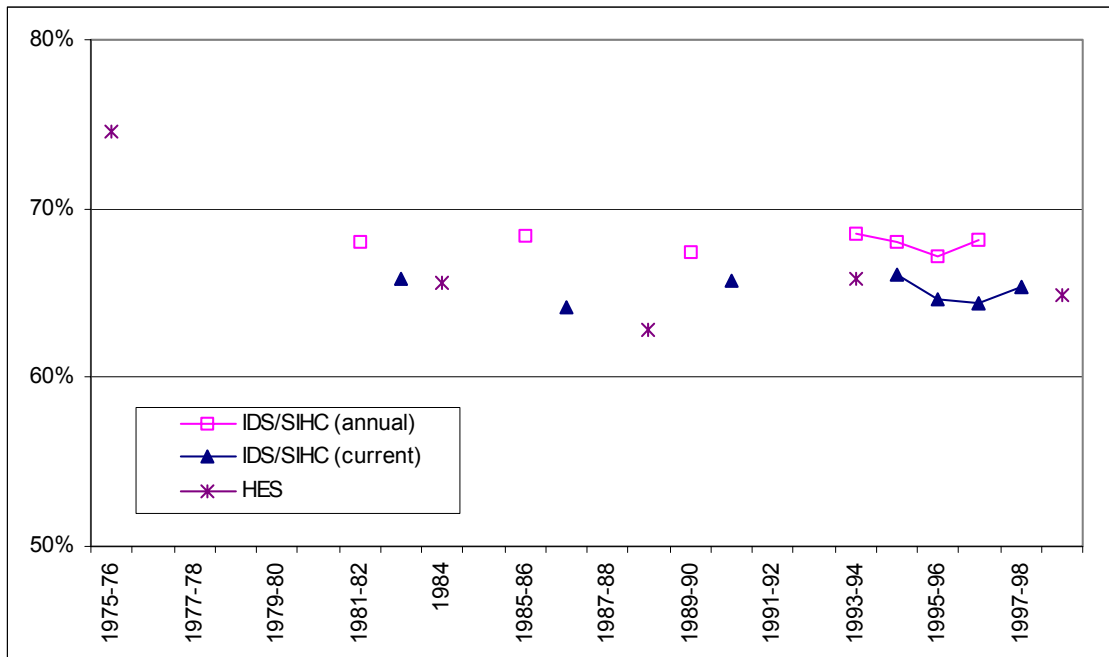
Income tax is included in the CURFs for only some of the surveys. For annual income, an income tax variable is included in all of the IDS/SIHC surveys with the exception of IDS 82.²¹ For current income, an income tax variable is included in all of the SIHC surveys (but none of the IDS surveys) and for all of the HES surveys. These tax variables were collected directly (with some imputation) up to the HES 88-89 survey. From IDS 90 onwards, tax data has been completely imputed for both the income and expenditure surveys.²²

Disposable (or net) income is defined for the SIHC as 'gross income after income tax and the Medicare levy are deducted' (ABS, 1997: 51). Following this definition, disposable income was calculated for all of the surveys in which income tax was included in the CURF by subtracting income tax from gross income.²³ 'Gross disposable income' in the Household Income Account of ASNA is defined as: 'gross household income less income tax payable, other current taxes on income, wealth etc., consumer debt interest, interest payable by unincorporated enterprises and dwellings owned by persons, net non-life insurance premiums and other current transfers paid by households' (ABS, 2000a: 456). While the two definitions appear to be quite different, some of the items that are deducted from gross income in the ASNA to form 'gross disposable income' are effectively already excluded from the (gross) income

21 The Social Policy Research Centre has imputed an income tax variable onto the IDS 82 file and used it to calculate the distribution of disposable income for the purposes of international comparison; see Saunders and Hobbes (1988) and Saunders, Stott and Hobbes (1991).

22 The HES 88-89 CURF includes two income tax variables, one collected directly from respondents (with some imputation), the other completely imputed. We have used the completely imputed version in this paper, for consistency with the later surveys. The tax variables are discussed in more detail in the Appendix.

23 The income tax variables in the SIHC and HES CURFs include the Medicare Levy.

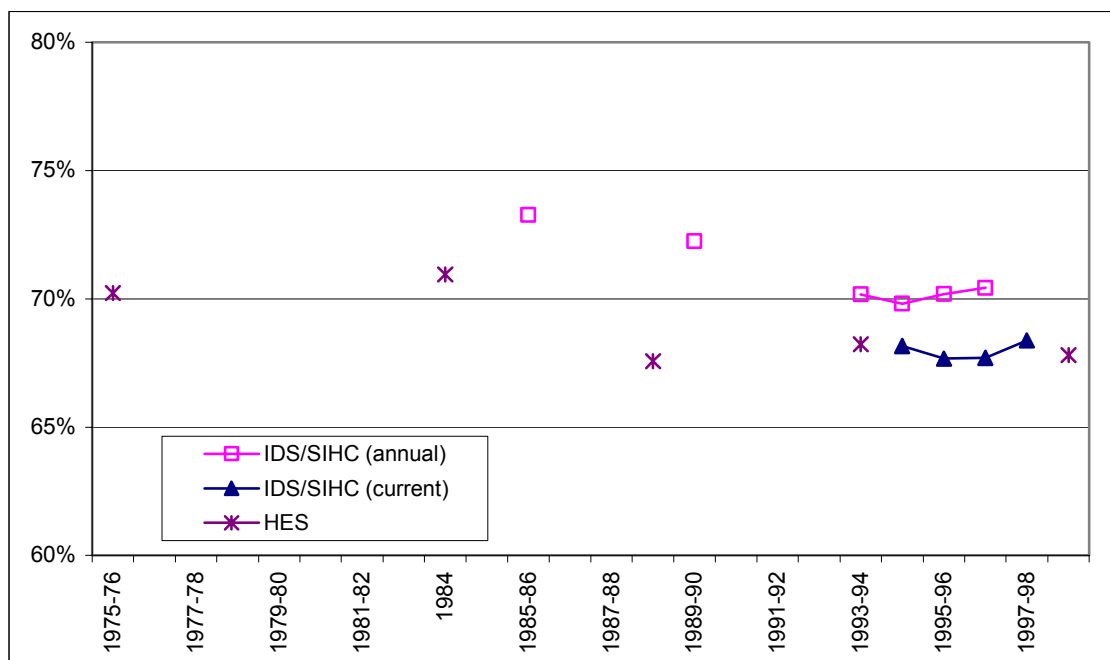
Figure 9: Gross Income per Capita: Ratio of Surveys to ASNA

recorded in the surveys. This is the case for the items ‘interest payable by unincorporated enterprises and dwellings owned by persons’ as well as for ‘social contributions for workers compensation’, although it is not the case for other items such as ‘consumer debt interest’ and especially ‘net non-life insurance premiums’. Thus, it is unclear whether a comparison of disposable income between the surveys and the ASNA is more or less appropriate than a comparison of gross income.

Figure 10 shows that the trend in the disposable income per capita ratio is downward (although it is reasonably stable across the surveys conducted since 1993-94). This is an important finding that has been observed elsewhere (e.g. Saunders, 1996) because the ASNA measure of the variable under consideration has been used as the basis for adjusting the Henderson poverty line when studying trends in income poverty (Johnson, 1987; 1996; Saunders and Matheson, 1991). These studies estimate poverty by comparing incomes as reported in the surveys to the poverty line so adjusted. This approach to measuring poverty, in conjunction with the trends shown in Figure 10, suggests that the extent of poverty may have been increasingly over-stated from 1981 onwards by studies that rely on the Henderson poverty line. For instance, if the Henderson Poverty Line was adjusted by Disposable Income per Capita as derived from HES from 1984 onwards, it (the line) would have been 4.4 per cent lower in 1998-99 than it actually was. Further, some degree of overestimation may exist in all poverty estimates calculated using the Henderson Poverty Line and data from the surveys considered in this paper.²⁴

24 As explained by Johnson (1987: Table 5), adjustment of the poverty line to the ASNA-based estimate of household disposable income per capita (which began in the March Quarter of 1981) is benchmarked to the dollar value of the poverty line in the September Quarter in 1973. If instead of the ASNA measure, a measure derived from the survey itself had been used and a similar (declining) trend to that shown in Figure 10 had applied between 1973 and 1981, then the poverty line in 1981 would have been over-estimated. Unfortunately, data from the 1973 survey are not available to test this possibility.

Figure 10: Total Disposable Income per Capita: Ratio of Survey Estimates to ASNA



Concerns over this and other issues relating to the Henderson poverty line have led some researchers to prefer a poverty line based on median or mean income rather than one linked to household disposable income per capita (Harding and Szukalska, 2000; Saunders and Smeeding, 2002). This practice has the advantage that the poverty line is subject to the same limitations as the incomes against which poverty itself is established. Against this, the approach becomes more explicitly concerned with low income as opposed to poverty defined in terms of income inadequacy relative to assessed need.

6 Sub-categories of Income

The above results are now supplemented by more detailed comparisons of the main components of income. These comparisons are more reliable than the comparisons of total income above, because attempts have been made to eliminate definitional differences wherever possible. This reflects the fact that there is greater scope to be selective in choosing the most appropriate (published or unpublished) items from the ASNA and Department of Family and Community Services (FaCS) expenditure data for comparison with the corresponding items in the income and expenditure surveys. Thus, in this section, most of the differences between the survey aggregates and the external data are attributable to misreporting of income and/or remaining inadequacies in the weighting systems.

The largest sources of income in the surveys are wages and salaries, government pensions and allowances, income from own-business or partnership, and property income. Together, these forms of income account for 96 per cent of both annual and current income in SIHC 97-98.

6.1 Wages and salaries

Each IDS/SIHC data set includes an item for income from wages and salaries. In SIHC, wage or salary income is defined as ‘the gross cash income received as a return to labour from an employer or from a person’s own incorporated enterprise’ (ABS, 1997: 54). It includes ‘regular tips, commissions and bonuses; other profit sharing bonuses; piecework payments; payment for recurring odd jobs and casual work; penalty payments and shift allowances; directors’ fees for working directors; remuneration for time not worked such as holiday pay, sick pay, pay for public holidays, and other paid leave; workers’ compensation paid by the employer; and leave loading’. (ABS 1997: 9)

In HES, the corresponding item – ‘employee income’ is a slightly broader concept. In HES 1998-99, this was defined as:²⁵

‘The sum (prior to deductions of income tax, etc.) of:

- Usual weekly pay, including the amounts usually received from wages and salaries; tips and commissions; piecework payments; penalty payments and shift allowances; remuneration for time not worked e.g. sick pay, and workers’ compensation paid through the payroll;
- average weekly receipts from regular bonuses;
- average weekly value of selected in-kind income from employers.’ (ABS, 2000b: 91)

The most obvious difference between the SIHC and HES definitions is the inclusion of selected in-kind income from employers in the HES. However, the in-kind income component does not capture much of the actual in-kind income that exists in the economy. Income in-kind included in HES employee income amounts to about \$441m in 1998-99, which is less than 0.2 per cent of employee income (\$243,337m). In comparison, in-kind income reported in the ASNA is almost 10 times higher than this (at between 1.5 per cent and 1.9 per cent for the quarterly figures from 1989 onwards).

Thus the most comparable item from the ASNA Household Income Account is ‘cash wages and salaries’, which is an unpublished component of the ‘compensation of employees’ series. The data for cash wages and salaries are only available for 1986-87 onwards. However, this item has been estimated for years prior to 1986-87 using the ‘compensation of employees’ item, adjusted in proportion to the ratio of cash wages and salaries to compensation of employees in 1988-89.²⁶

25 The statement in the 1998-99 HES User Guide about workers compensation paid through the payroll being included in employee income is incorrect. This was the case in 1993-94 and earlier surveys, but in 1998-99, any workers compensation payments reported in usual pay were removed from employee income and included in the income from workers compensation item.

26 In the ASNA, the ratio of cash wages and salaries to compensation of employees declines slightly over the years in which the data is available (from 1986-87 onwards). This ratio is at its highest (90.6 per cent) in 1988-89, and this ratio has been adopted when adjusting the data for earlier years.

Figure 11 shows the ratios of the per capita aggregates of the items from the surveys to household cash wages and salaries per capita from the ASNA and ABS population estimates. The estimates suggest that cash wages and salaries have been reported quite well in the surveys. Nevertheless, there are some substantial differences between and within surveys in these ratios.

The annual ratios are consistently higher than the current ratios for IDS/SIHC, as they are for total income (as shown in Section 5). This is probably because annual wages and salaries include some non-regular overtime and any bonus payments which current income does not, since it is collected as 'usual' receipts from wages and salaries. The exception to this is IDS 82, for which 'actual' current wages and salaries income were recorded. Thus it is somewhat surprising that the ratio for annual income is higher than for current income even for IDS 82, the difference being similar to the other surveys (although seasonal factors may have an effect).

The relatively high ratio for HES 75-76 compared to the subsequent HES surveys is partially the result of the definition of 'employed' persons, discussed in Section 4.

For IDS/SIHC, the 1981-82 ratios are clear outliers. The main reason for the difference in this item for IDS 82 compared to the other IDS surveys is the treatment of income from own incorporated businesses. In each of the other income surveys, this form of income is part of wages and salaries and/or dividends. In IDS 82, it is part of income from own-business/ partnership, and so its aggregate of wages and salaries is underestimated in comparison to the other surveys (and own-business income and dividends are overestimated, as will be shown later).

While wages and salaries earned from own incorporated business cannot be identified in IDS 82, they can be identified in IDS 86 for the purposes of comparison. Some 4.4 per cent of total gross annual income and 4.1 per cent of gross current income in IDS 86 was earned from wages and salaries from own incorporated business. Under the assumption that these proportions were similar in 1981-82, these figures can be used to approximate the corresponding amounts in IDS 82. The adjusted ratios for wages and salaries are far closer to that of the other IDS surveys as shown in Figure 12, thus suggesting that the low IDS 82 ratios shown in Figure 11 are largely a result of the treatment of income from own incorporated businesses.

6.2 Government pensions and allowances

In the SIHC, government pensions and allowances (social security cash pensions, benefits and allowances) are defined as: 'regular recurring receipts paid by the government to persons, families or households under the social security and related government programs' (ABS, 1997: 10). In the HES, government pensions and allowances are 'receipts paid by government to persons under social security and related government programs. They include pensions paid to aged persons, benefits paid to veterans and their survivors and study allowance for students' (ABS, 2000b: 10).²⁷

27 While there are items in almost all SIHC/IDS & HES CURFS summarising government pensions and allowances, a minor complication lies in the treatment of government scholarships in the HES. These are not counted as part of government pensions and benefits in some years. The results have been presented before any modifications to the total 'government pensions and allowances' items given in the CURFs.

Figure 11: Ratio of Wages and Salaries per capita (SIHC/IDS) and Employee Income (HES) per capita to Cash Wages and Salaries per capita in the Household Income Account (ASNA)

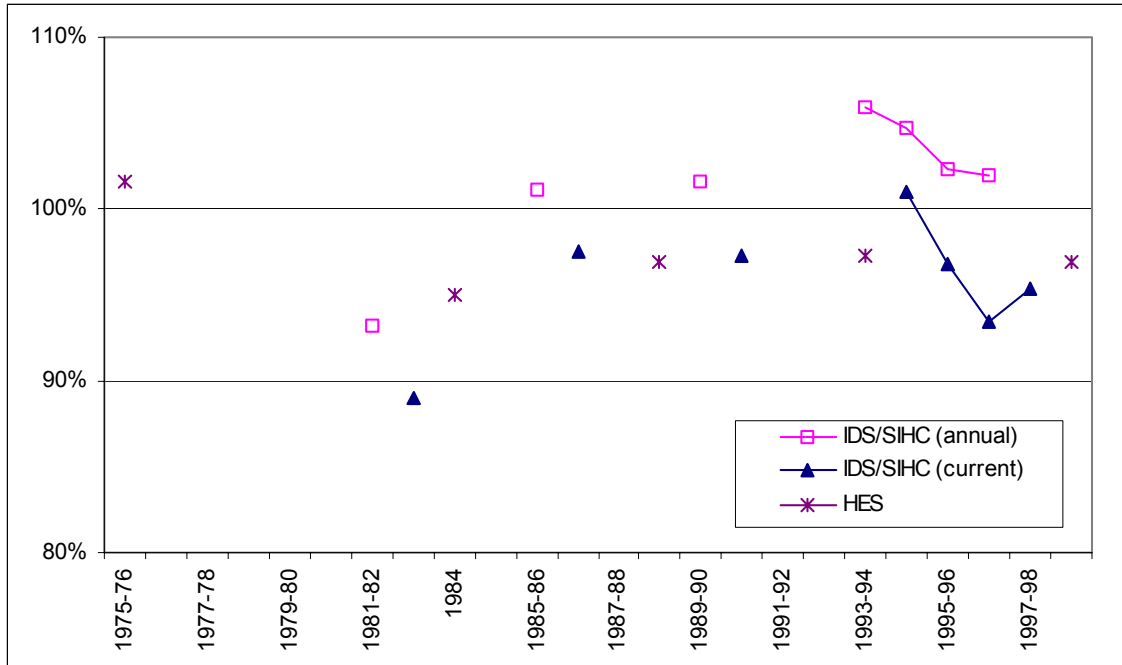
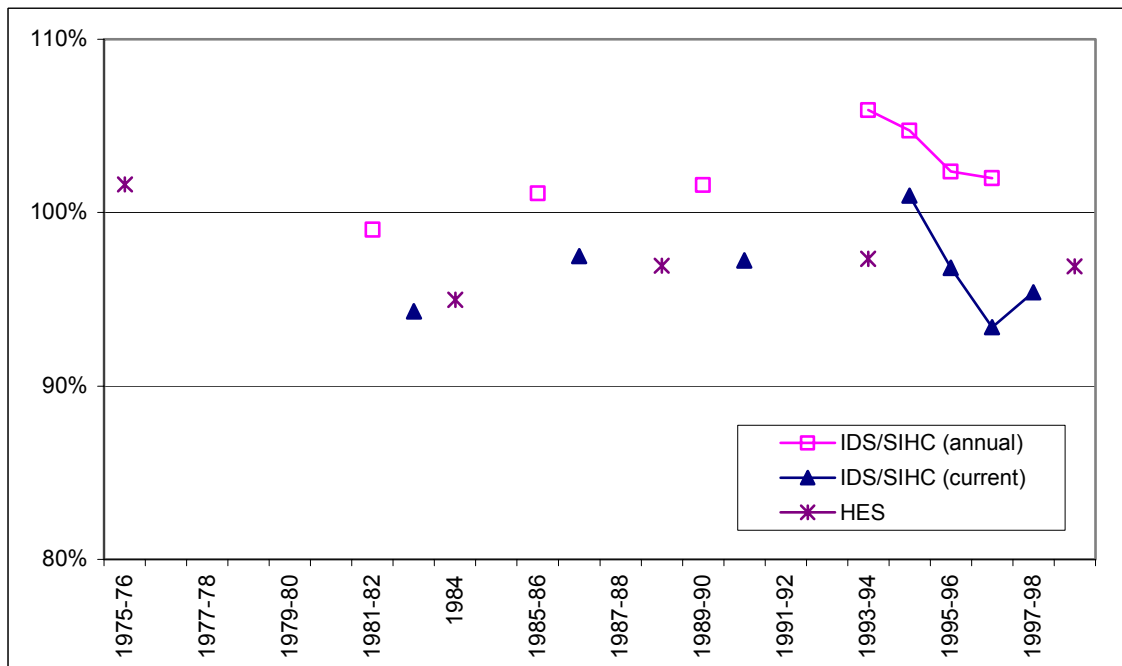


Figure 12: Ratio of Wages and Salaries per capita (with adjusted IDS 82 figures) to Cash Wages and Salaries in the Household Income Account (ASNA)



The most closely corresponding item in the published Household Income Account of the ASNA is income from 'social assistance benefits'. These are 'current transfers

payable to households by government units to meet the same needs as social insurance benefits, but which are not made under a social insurance scheme incorporating social contributions and social insurance benefits.’ (ABS, 2000a: 465) Even though this item in the Household Income Account does not include in-kind benefits, ‘social assistance benefits’ are broader in scope than the ‘pensions and allowances’ items in the surveys. In particular, the former includes Commonwealth health payments, which have increased significantly from 1998-99 due to the introduction of the tax rebate on private health insurance. This item has been excluded from the ASNA figures in what follows.

Figure 13 shows that the survey to ASNA ratios for government pensions and allowances per capita vary between and within the different surveys. The fact that all ratios are well under 100 per cent is partially related to the fact that institutionalised persons are out of scope for all of the surveys. However, most of the discrepancy is likely to be due to under reporting of government pension and allowance income by respondents, combined with an underestimation of the number of benefit recipients.

A number of other inferences can be made from these results. It seems that, with the exception of HES 75-76, the HES surveys have achieved better coverage of government pensions and allowances than the income surveys. The ratios for all of the HES surveys since 1984 are above 87 per cent, whilst the ratios for the income surveys are all under 87 per cent. Secondly, the ratios of government pensions and allowances are higher for current income than for annual income (with the exception of 1981-82). This may be primarily a recall problem, especially in the SIHC, since respondents were not always asked to have records from the previous financial year ready to refer to during the interview (ABS, 2002b:4).

The largest government payment types are the age pension (30.2 per cent of all current government pensions and allowances in SIHC 97-98), family payments (14.9 per cent), newstart allowance (10.6 per cent), disability support pension (10.0 per cent), Department of Veterans’ Affairs (DVA) benefits (8.8 per cent), sole parent pension (6.6 per cent) and parenting allowance (4.8 per cent). These items are compared below with the corresponding FaCS expenditure figures (FaCS, 2001; DSS, various years) and ASNA figures (for DVA benefits).

Age Pensions

As shown in Figure 14, income from the age pension as recorded in the surveys is generally reasonably close to that of published FaCS figures. This is despite the fact that many people aged 65 or over are out of scope (or under-estimated) for the surveys, as demonstrated in the ratios shown earlier (Figure 3). The most significant exceptions to this are the annual aggregates from the SIHC surveys. As for total pensions and allowances, the aggregates of annual income from the age pension in SIHC are well below the other IDS/SIHC aggregates, especially for the first two SIHC surveys. HES 98-99, on the other hand, is the closest to 100 per cent.²⁸

28 From 1997-98, a slight change occurred in the way that FaCS (formerly DSS) reported age pension expenditure. As of 1997-98, age pension payments have been reported autonomously, as are incomes from wife pension and carer payment. Prior to this, published figures for the age pension included payments of wife pension (age) and carer pension (age). Thus to match the FaCS denominators, the numerators derived for the income and expenditure surveys include wife pension (age) and carer pension (age) up to 1996-97, but not subsequently. This is not expected to significantly affect the comparability of the ratios.

Figure 13: Ratio of Government Pensions and Allowances per capita from the Surveys to 'Social Assistance Benefits' per capita (excluding Health payments) in the ASNA

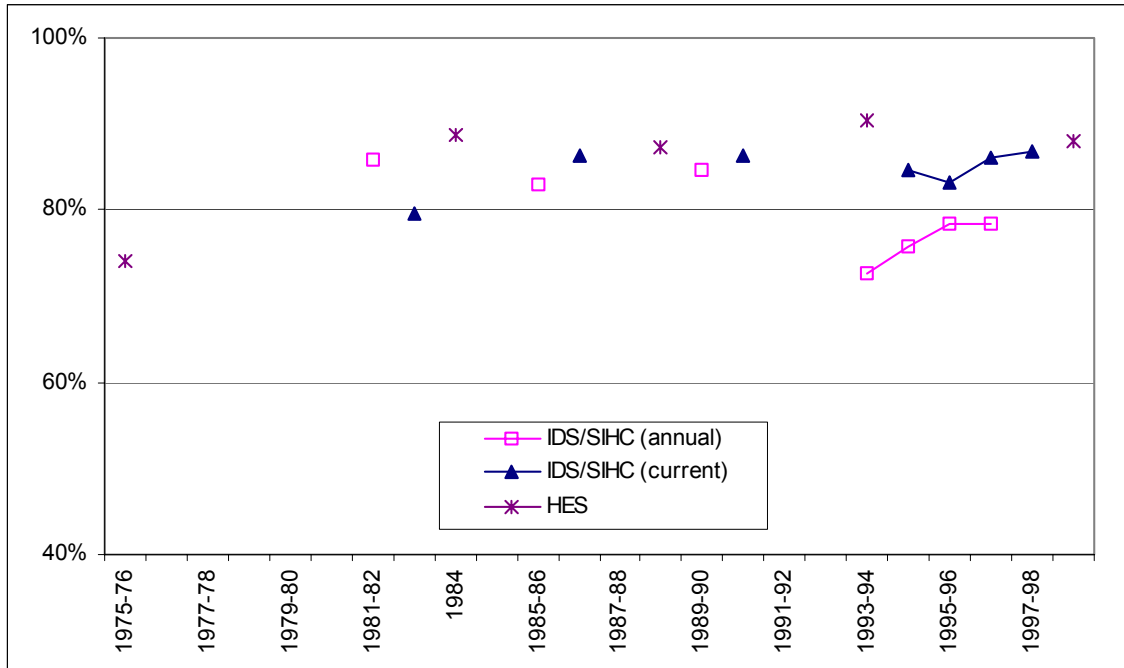
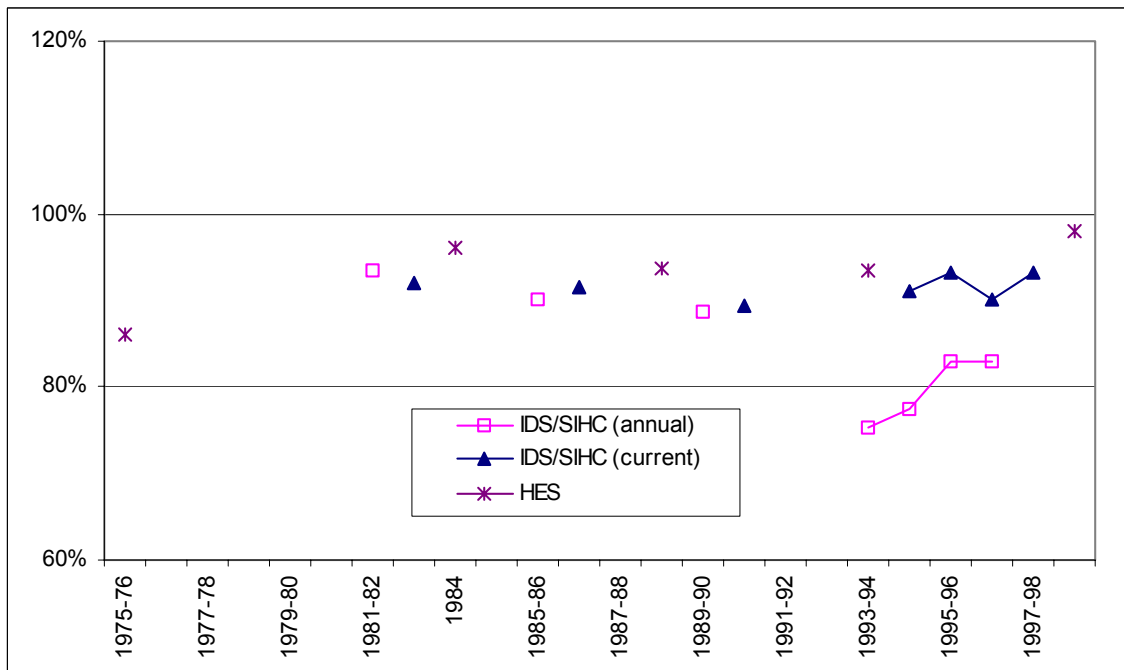


Figure 14: Age Pension: Ratios of per capita Aggregates from the Surveys to FaCS Expenditure Data



Family Payments

Figure 15 shows the ratios of family payments/family allowance (including additional payments such as family allowance supplement and the family income supplement) in the surveys to corresponding FaCS expenditure data. There is a high variation in these ratios. The HES 75-76 CURF does not explicitly identify income from such payments (even though it is probably included in a residual category of income). For the other surveys, the ratio ranges from 71 per cent to 119 per cent. There appears to be little consistency across the series, although the ratios have been approaching unity in recent years.

Unemployment Benefits

The unemployment-related payments included in the following analysis are Newstart allowance, job search allowance, youth training allowance and the unemployment benefit.²⁹ The ratios for unemployment benefits shown in Figure 16 are well below 100 per cent, suggesting an under-reporting of the receipt of income from these benefits. However, the ratios are at least reasonably stable between surveys in comparison with say, Family Payments (Figure 15). The least stable ratios of the three series are from annual income in the IDS/SIHC.³⁰

Disability Support Pension (DSP) (and its predecessors)

The ratios for the DSP (and its predecessors) show that the aggregates generated from the income surveys are below that of FaCS expenditure data, although they are reasonably consistent with each other (Figure 17). The ratios for the HES 84 and HES 88-89 surveys, however, are lower and not consistent with the IDS/SIHC or the other HES aggregates. As for the age pension, one reason why the ratios are less than one for all years is that institutionalised DSP recipients are out of scope of all surveys. For the same reasons as indicated earlier in relation to the age pension, these ratios include aggregates of wife/carer (disability) pensions up to 1996-97 in both the numerator and denominator.

Benefits to Ex-servicemen and their Dependants

Figure 18 shows that the ratios for benefits to ex-servicemen and their dependants vary considerably between surveys, especially between the different IDS surveys. Amongst the income surveys, the ratios derived for IDS 90 are the closest to 100 per cent for both current and annual income, although they are not consistent with the ratios from the other income surveys. The ratio for current income in IDS 82 is also somewhat lower than the other income surveys. The ratios are close to unity for the HES surveys apart from 75-76 and 98-99. While ABS had acknowledged that this item was under-estimated in an earlier release of HES 98-99 (2002b: 7), the ratio from the re-released data (used throughout this paper) remains quite low compared to the other HES surveys.³¹

29 No component of the youth allowance is included due to data restrictions, but this only affects HES 98-99.

30 The high value of the unemployment benefit ratio in 1995-96 may in part reflect a response to the reforms to partner allowance and parenting allowance that were introduced just before this time. This is consistent with the low ratio for the parenting payment ratio in 1995-96 shown in Figure 23 below.

31 The denominator for these ratios is the relevant item from the ASNA, chosen for its accessibility, and because the ASNA series is virtually identical to published DVA expenditure data for recent years.

Figure 15: Family Payments/Family Allowance and Additional Payments: Ratios of per capita Aggregates from the Surveys to FaCS Expenditure Data

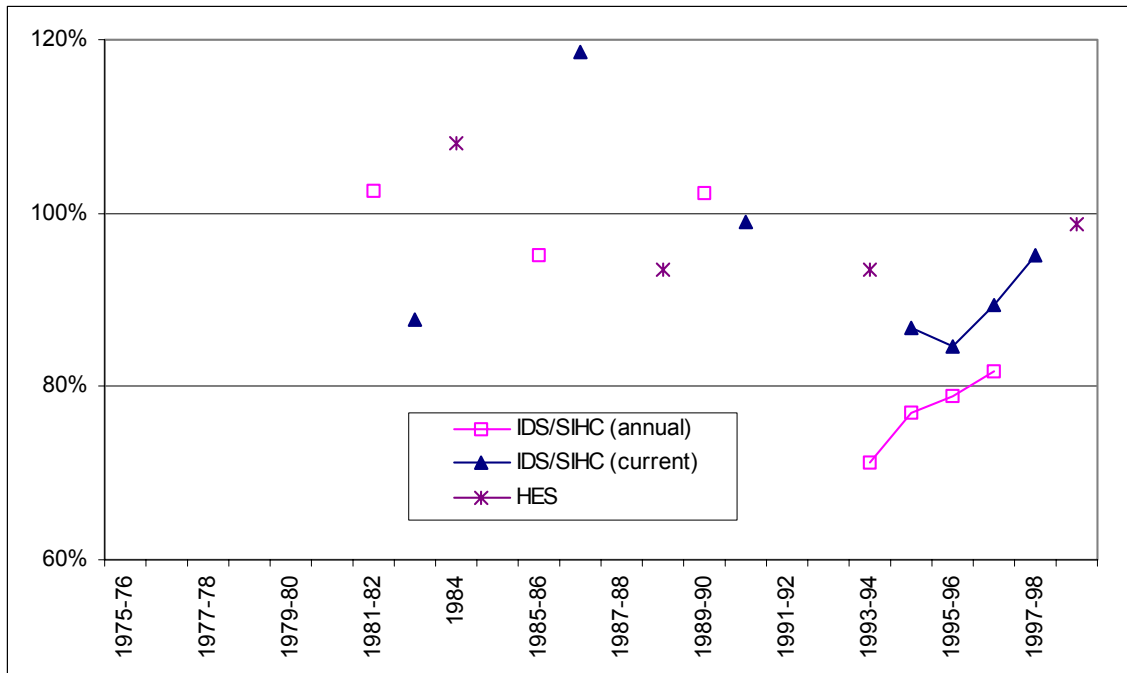


Figure 16: Unemployment Benefits: Ratios of per capita Aggregates from the Surveys to FaCS Expenditure Data

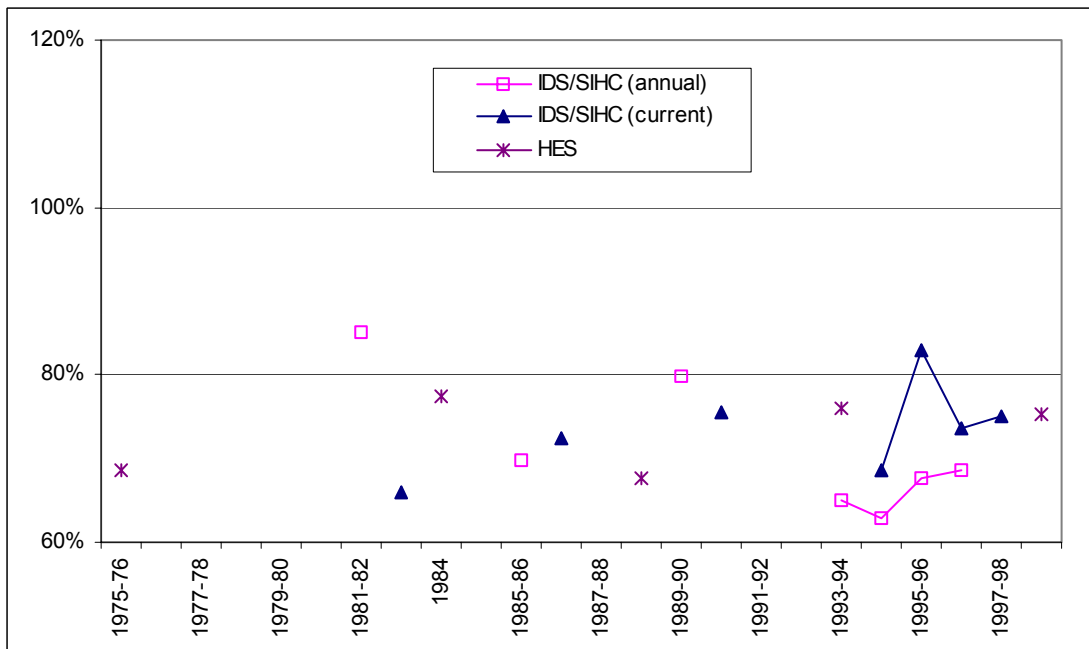


Figure 17 – DSP (and its predecessors): Ratios of per capita Aggregates from the Surveys to FaCS Expenditure Data

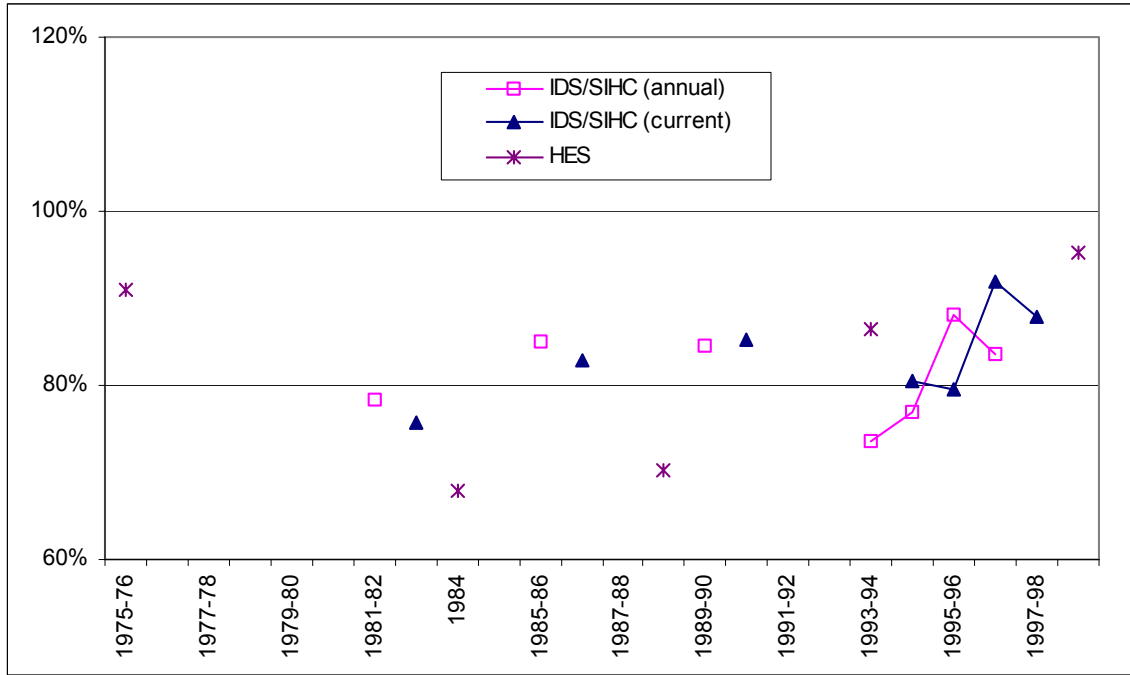
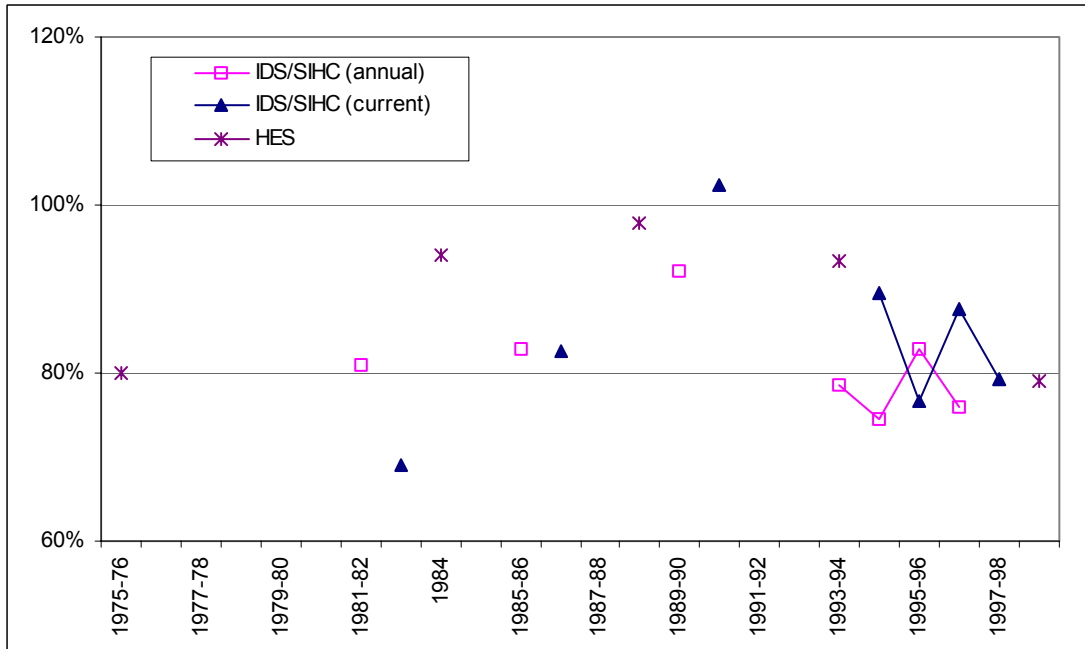


Figure 18: Payments to ex-servicemen and their dependents: ratios of per capita estimates from the surveys to ASNA



Parenting Payment (and its predecessors)

In the comparison shown in Figure 19, payments made in respect of parenting are grouped together. For the years prior to 1993-94, this essentially consisted only of payments made to single parents (the sole parent pension and its predecessors). From 1994 onwards, other benefits fall into this category. These include the home child care allowance, the parenting allowance and parenting payment (single and partnered). In most of the income surveys, the current values are closer than the annual values to the FaCS figures. With the exception of the first two SIHC surveys, the current ratios are also reasonably consistent with each other, as are the annual ratios. The HES 88-89 ratio is considerably lower than for the other HES surveys, except HES 75-76, which does not include a separate variable for such payments.

It is clear from the comparisons presented in Figures 13 to 19 that there is substantial under-reporting (or under-coverage) of incomes from a number of the main income support categories. Some of the ratios of the reported income data to the spending aggregates derived from administrative records are as low as 63 per cent and many are around 80 per cent. There is also considerable variability in these ratios, both across the three surveys and over time, with no evidence that the ratios have generally been increasing over time. These results thus suggest that particular caution should be applied when using the survey data to explore the circumstances of those in receipt of income support payments, including what impact such payments have on disposable incomes, poverty and income distribution.

6.3 Income from own-business or partnership

The next largest source of income in the SIHC is income earned from own-business or partnership, which constitutes 8 per cent of (both current and annual) income in the 1997-98 survey, for example. The corresponding item in the ASNA is 'gross mixed income' – so called as an acknowledgement that it conceptually includes a return to the business (an operating surplus) as well as a return to the labour of the owner.

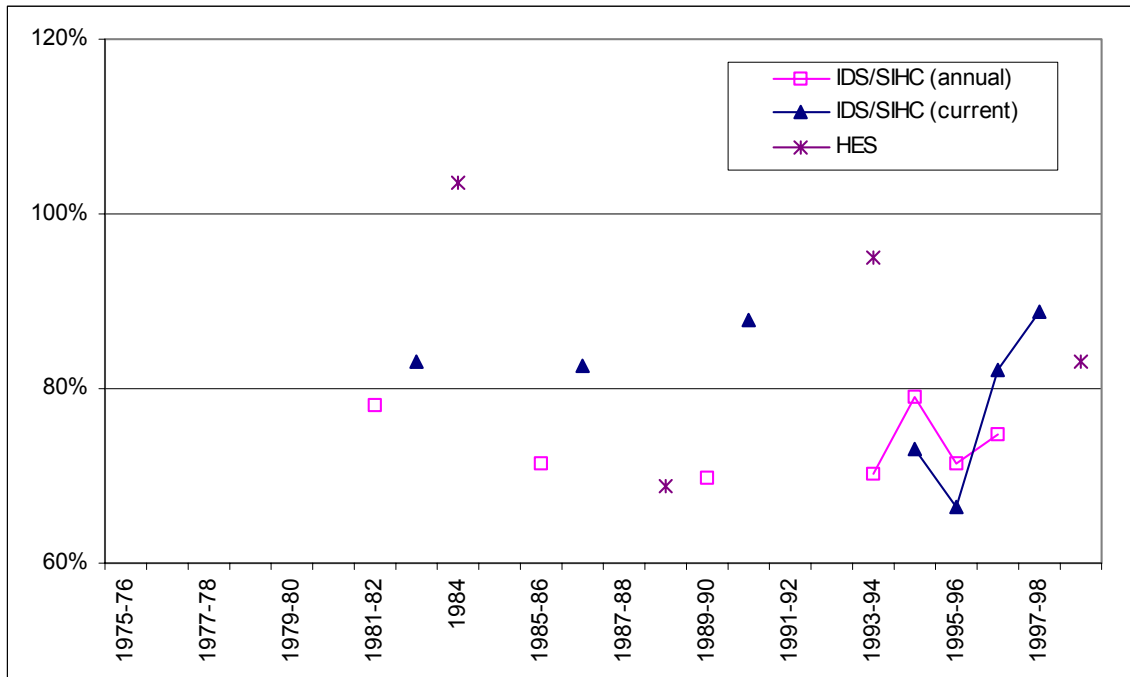
However, a comparison between the two items was not deemed appropriate because of significant irreconcilable differences between the relevant series. The main difference between the two items is that mixed income is presented as a gross figure in the ASNA, while in the surveys, own business/partnership income is recorded net of interest payments and consumption of fixed capital. These interest payments and consumption of fixed capital make up 38 per cent of gross mixed income in 1997-98 (ABS, 1999b: 62), but they are not easily identifiable for the other years. Further, gross mixed income in the ASNA includes non-dwelling rent, while the items in the surveys do not. Income from rent is identifiable in the majority of the surveys, but a split between rent from residential and non-residential properties is available only in the SIHC surveys. Excluding all rent from the comparison in each of the surveys would result in the ratios being further under-estimated.

Using available data, these two issues can be overcome only for current income in SIHC 97-98. The ratio of own-business income combined with income from non-residential property rent per capita (SIHC) to net mixed-income (ASNA) per capita is 83 per cent in that year.³² Note also that the gross mixed income figures in the ASNA include an adjustment factor of 16 per cent to offset suspected understatement on

³²

This figure was derived by adding annualised current non-dwelling rent per capita to income from own business/ partnership per capita from SIHC 1997-98 and dividing the sum by

Figure 19: Parenting Payment (and its predecessors): Ratios of per capita Aggregates from the Surveys to FaCS Expenditure Data



taxation records (ABS, 1999b: 61). Keeping these figures in mind, an alternative method of examining the quality of this item is to examine its consistency between surveys, comparing the proportions of total gross income that are obtained through own-business income, as shown in Figure 20.

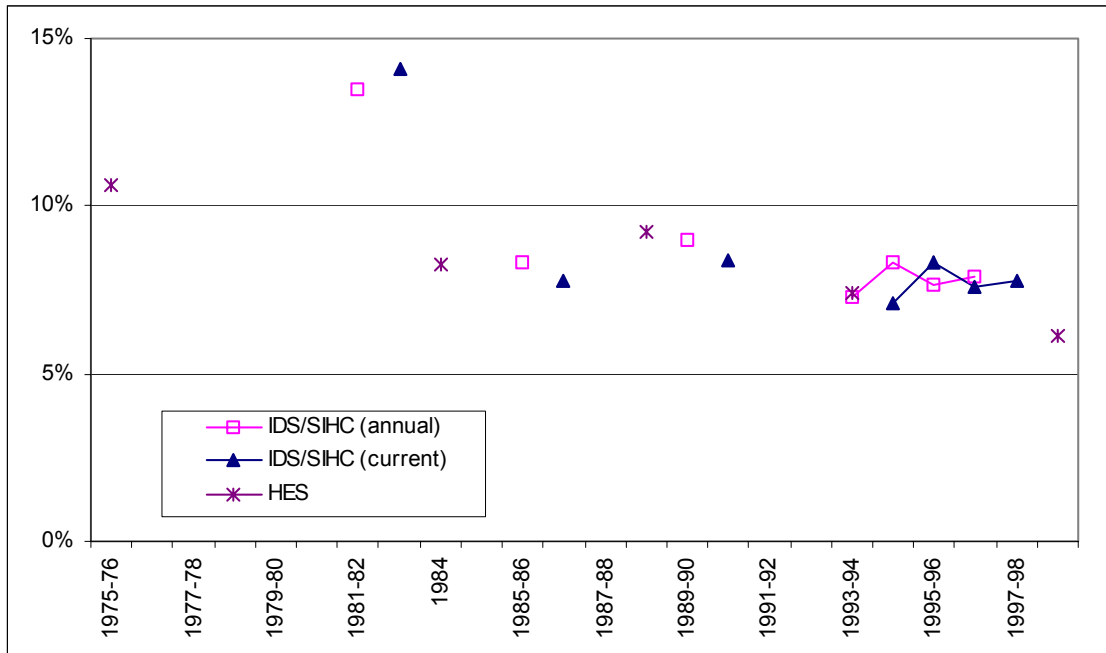
In this comparison, the IDS/SIHC proportions are reasonably stable, with the exception of 1981-82, where it is considerably higher. It should be noted, however, that information on the amount of current own-business/ partnership income is not asked for in the income surveys. Instead, it is derived from the previous year's annual own business/ partnership income, thus explaining why the ratios for current and annual income are similar to each other. A similar derivation of current own-business/ partnership income is applied in the HES.

It should also be noted that negative income from own-business or partnership is treated variously in the surveys. In HES 84 and the IDS surveys negative own-business income was not collected or it was set to zero, thus not accounting for business losses. This may contribute to the observation that their corresponding ratios are generally higher than that of SIHC.

As in the case of income from wages and salaries, the IDS 82 figures can be adjusted for the impact of the different treatment of income from own incorporated business. Around 5.8 per cent and 5.4 per cent of total annual and current income, respectively, was earned from own incorporated business in IDS 86. These percentages were used as proxies for the corresponding numbers in IDS 82 and adjustments were made to the

gross mixed income net of interest payments and consumption of fixed capital from ASNA (per capita). The figures for interest payments and consumption of fixed capital were reported in ABS (1999b: 60).

Figure 20: Proportion of Total Income in the Surveys obtained through Own-business or Partnership



aggregates for IDS 82 accordingly. The results are shown in Figure 21, where the adjusted figures are far more in line with the other proportions.

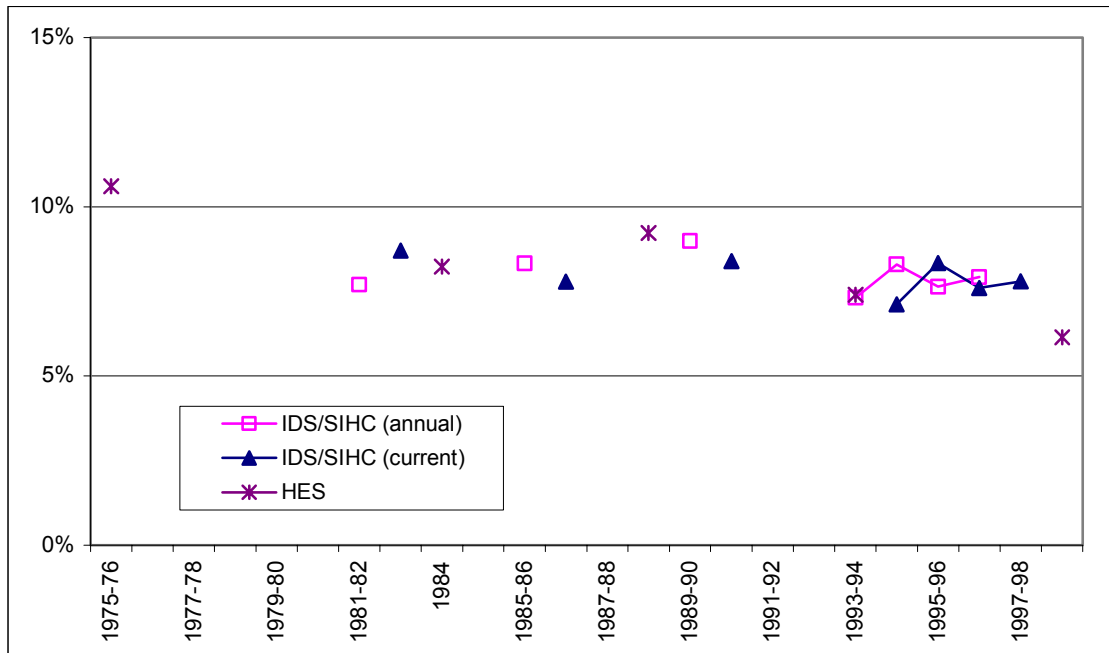
In overall terms, this analysis suggests that income from own business/ partnership items appears to be reasonably well reported in the surveys over the years. The largest discrepancies arise in the HES 75-76 and HES 98-99 surveys. There has, however, been a downward trend in the own-business income ratios in the HES since 1988-89.

6.4 Property Income

A comparison can be made for property income between the majority of surveys and ASNA, where property income consists primarily of interest and dividends. While property income accounts for only 3 per cent of (both current and annual) total income in SIHC 97-98, it accounts for 9 per cent of gross household income in the ASNA in the same year. Thus, it is worthwhile to include a brief investigation into this item.

A significant contributor to this disparity is the inclusion of imputed interest in the Household Income Account and not in the income and expenditure surveys. Imputed interest includes the 'investment income of insurance enterprises and superannuation funds attributable to policyholders and imputed interest on government unfunded superannuation arrangements' (ABS, 2001c: 68). An increasingly large proportion of the property income in the Household Income Account is attributable to imputed interest (increasing from 28 per cent in 1975-76 to 48 per cent in 2000-01). As this imputed interest is outside the concept of income in the income and expenditure surveys, it can be excluded from the comparison. Even with this exclusion, however, property income appears to be significantly under-reported in all of the surveys. Further, there is little consistency in this ratio for either current or annual income in

Figure 21: Proportion of Total Income in the Surveys obtained through Own-business or Partnership (with adjusted IDS 82 figures)



SIHC/IDS, nor for the HES, with the ratios ranging from 32 per cent to 65 per cent (Figure 22).

Once again, the IDS 82 figures can be adjusted for the different treatment of income from own incorporated business through the ratios of total income derived from IDS 86. The results are shown in Figure 23. It appears that property income is considerably under-reported in all surveys, and that the magnitude of property income is also highly variable between surveys.

Figure 22: Ratio of Property Income per capita from the Surveys to Property Income (excluding imputed interest) in the Household Income Account (ASNA)

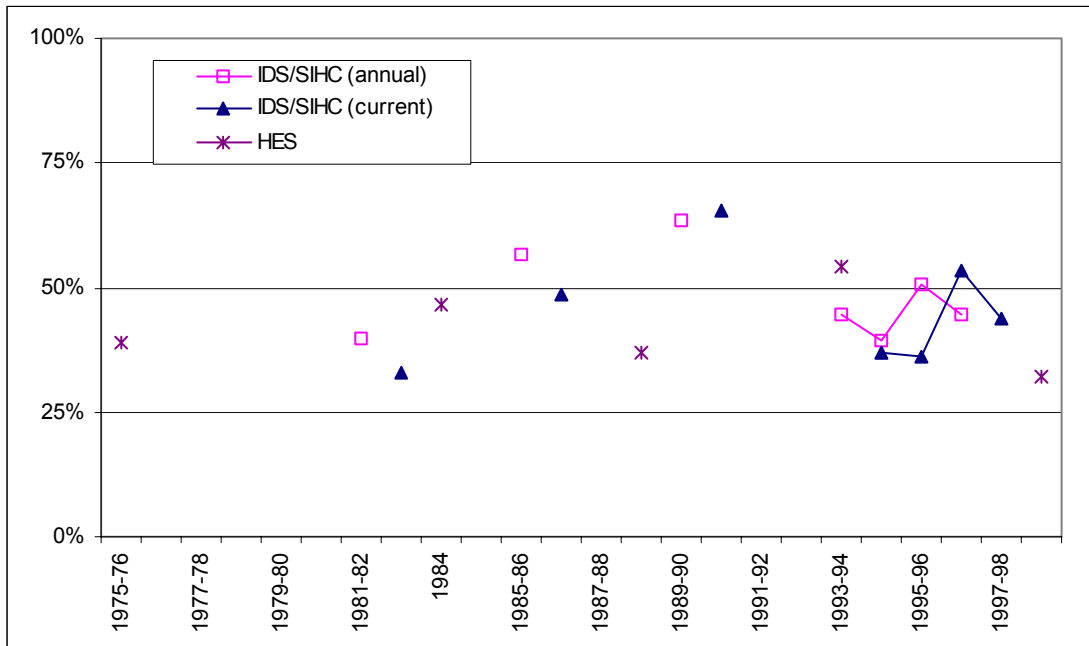
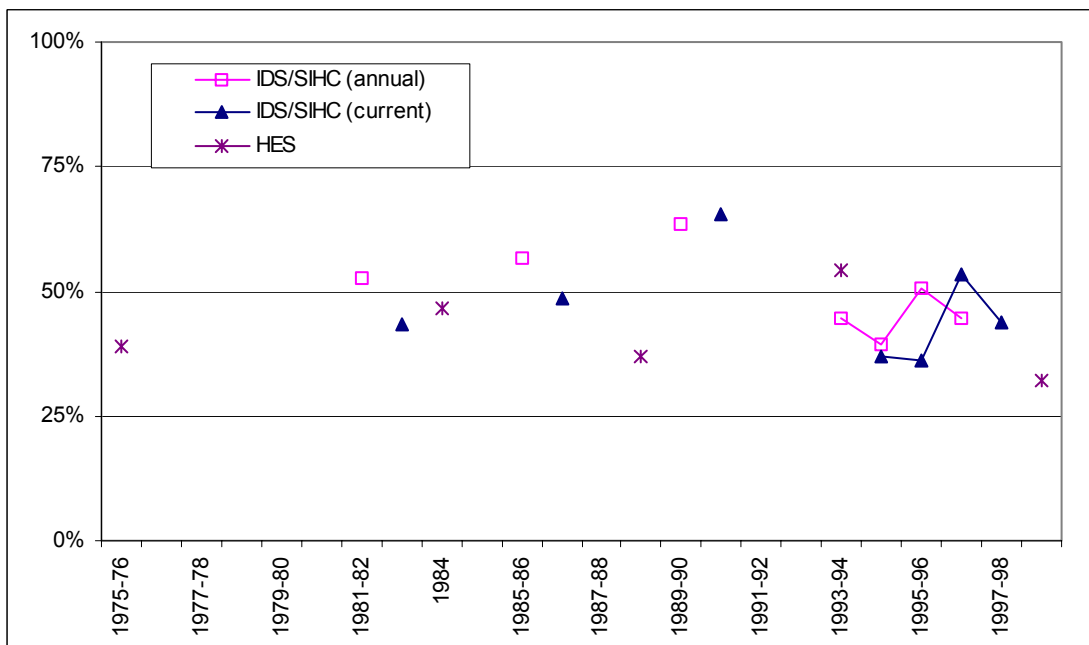


Figure 23 – Ratio of property income from the surveys (with adjusted IDS 82) to property income (excluding imputed interest) in the Household Income Account (ASNA)



7 Conclusions

This paper has presented comparisons of aggregates derived from the ABS household income and expenditure surveys against external sources. The primary aim of the paper has been to show how well the survey aggregates match external aggregate data in order to make inferences to the quality of the former. We have attempted to alert users of some of the pitfalls that exist in the data and to warn against their uncritical use in describing current circumstances and past trends.

Comparisons with external aggregates produce results that are contingent on scope differences, the weighting (benchmarking) procedures adopted in the surveys, the concepts and definitions employed, as well as possible misreporting of income. The effects of these factors are often difficult to disentangle, and hence interpretations of the findings should be undertaken with caution.

A key finding is that there are major differences between surveys in *the weighting and benchmarking procedures* employed. Deficiencies in the weighting procedures employed (especially in the earlier HES surveys), affect virtually every type of analysis, as they are central to the capacity of the sample data to be representative of the population. Some of the main consequences are:

- The earlier HES surveys (up to HES 88-89) are particularly under-weighted;
- Children aged under 15 are relatively over-estimated in the IDS and the earlier HES surveys because these surveys were not benchmarked to household composition data;
- Compared to results from the *Labour Force Survey*, the estimated number of unemployed persons is higher in most of the IDS and SIHC surveys, but lower in the HES surveys. This is a result of both the differing weighting procedures and differences in labour force status definitions.

The differences in the criteria for the *financial exclusion flags* between the IDS and SIHC surveys result in a much larger component of the IDS samples being flagged for exclusion from annual income analysis than for the SIHC.

Comparisons of total (gross and net) income are treated as being indicative, and thus are to be interpreted with particular caution. The fact that total income aggregates from the surveys are well below ASNA household income data is largely due to definitional differences between the series and is not indicative of any deficiency in the quality of the survey data themselves.

Comparisons of disposable income per capita between the surveys and the ASNA suggest that the extent of poverty may have been increasingly over-stated from 1981 onwards by studies that utilise data from the household income and expenditure surveys while relying on the Henderson poverty line which is adjusted in line with an ASNA-based measure of household disposable income.

Comparisons of sub-categories of income are less likely to be affected by definitional differences because there is more scope to be selective in choosing the most appropriate item from the external data for comparison. Such comparisons suggest that sub-categories of income in the household surveys vary in their quality. Income from wages and salaries appears to have been generally well reported in most surveys. However there are systematic differences between annual and current wages income (the latter being consistently lower). There seems to be some under-reporting of

income from government pensions and allowances and/or underestimation of the number of recipients of such income (especially for annual income in the SIHC surveys, while the HES surveys are least affected). Of all categories of income, the effect of under-reporting appears to be most significant in relation to property income, whilst own-business income is reasonably well covered.

Users of the data sets analysed here are particularly cautioned against the uncritical use of the HES 75-76 and IDS 82 data sets. In particular, HES 75-76 produces relatively high aggregates of total income, wages and salaries income, own-business income and income tax, and low estimates of income from government pensions and allowances, distorting the income distribution. This is only partly a result of differences in labour force status definitions compared to the other surveys, while the majority of the variation is left unexplained. IDS 82 is particularly affected by definitional anomalies relating to income from own incorporated businesses. While the distribution of total income is not affected by this issue, many forms of analysis that compare IDS 82 data to other surveys are likely to be affected as it has implications for the measurement of wages and salaries, own-business income and property income.

Overall, the comparisons suggest that the use of the IDS/SIHC or HES data is likely to give rise to flawed estimates of the extent of poverty and inequality in Australia and how these have changed over time. Ongoing work by the SPRC in partnership with the ABS includes the development of a set of operating procedures designed to maximise the inter-temporal consistency of the data. In the interim, those who wish to use the data should be aware of the limitations implied in the comparisons reported here.

Appendix 1: Summary of Major Differences Between ABS Household Income and Expenditure Surveys

A.1 Introduction and Overview

This Appendix provides a summary of concepts and definitions relevant to the study of income distribution using the household income and expenditure surveys conducted since 1975-76 and released by the Australian Bureau of Statistics (ABS) as Confidentialised Unit Record Files (CURFs) for use by external users. The surveys covered here are the *Income and Housing Survey, 1982* (IDS 82); the *Income Distribution Survey, 1986* (IDS 86), the *Income and Housing Survey, 1990* (IDS 90), the *Surveys of Income and Housing Costs, 1994-95* (SIHC 94-95), *1995-96* (SIHC 95-96), *1996-97* (SIHC 96-97-+), *1997-98* (SIHC 97-98) and *1999-2000* (SIHC 99-00) and the *Household Expenditure Surveys* conducted in *1975-76* (HES 75-76), *1984* (HES 84), *1988-89* (HES 88-89), *1993-94* (HES 93-94) and *1998-99* (HES 98-99). IDS* refers to the three IDS surveys, SIHC* refers to the five SIHC surveys and HES* refers to the five HES surveys.

In broad terms, the material presented here should be read in conjunction with that in the main paper. The primary focus of the Appendix is on identifying and documenting the changes that have been made over time that are likely to impact on the comparability of income distribution and other estimates across the different surveys. Where a survey year is not explicitly mentioned in a given discussion below, this implies that there was no change in that year from the previous survey of the same type.

Section A.2 presents a brief summary of the data collection methodologies used in each survey. This is followed by discussion of the scope and coverage of the population in each survey (Section A.3), of the definition of the family structure variables (Section A.4), the employment variables (Section A.5) and, finally, the income variables (Section A.6).

A.2 Data Collection Methodology

Survey periods

IDS*

All of the IDSs were stand-alone surveys carried over a period of two to three months in the field.

SIHC*

The SIHCs are no longer periodic; instead they are being conducted through the Monthly Population Survey (MPS) on a continuous, monthly basis. The change over from a stand-alone to a multi-purpose vehicle necessitated a shortening of the questionnaire, especially in the area of respondent characteristics.

This change from a survey conducted infrequently over a period of 3 months to one conducted continuously over 12 months may have made it more difficult for respondents to recall their annual income of the previous year, either because they had not prepared their tax returns (early months of the interview) or because a long time had elapsed since they completed their tax return (late months of the interview year).

The impact of this change on the reliability of some aspects of the data has been commented upon in a recent article in *Australian Economic Indicators* (ABS, 2002b),

where it is noted that: ‘Commencing with the 2002-03 SIHC, prior written advice is once again being supplied to all households selected for SIHC interviews so that they can be prepared with the appropriate documentation at interview’ (ABS, 2002b, p. 4). The change to a full-year survey period may also have removed the seasonal bias that occurred in IDS current income estimates.

A shorter questionnaire and hence the collection of fewer respondent details in SIHC resulted in changes to the exclusion rules since certain characteristics that had been available in IDS could not be identified in SIHC. IDS and SIHC thus have different exclusion rules.

HES*

The survey period was a financial year for all HES surveys except HES 84, for which it was the calendar year.

Imputation

The criteria and procedures used for imputing values onto the data set vary between surveys. These are discussed here, with the exception of the treatment of income tax, which is discussed in Section A.5. In IDS, it appears that for pension data, data from FaCS (then DSS) and the Department of Veteran's Affairs (DVA) was used, although it is not clear exactly how this was done. The same imputation rules have been used for SIHC from 1994-95 to 1999-2000.

IDS 82

Most government transfers were imputed using the maximum entitlement. Other missing income amounts were imputed using donor values.³³

IDS 86

Data was imputed for partial non-response to income variables using averages of fully responding persons of the same age, sex, and occupation and, where known, income from wages and salaries.

SIHC 96-97

Two types of partial responses are identified: Those persons who provided incomplete data; or some persons in the household (less than 1/2) who did not respond. Donor values are used to impute these missing data. Donor values are also used for fully non-responding one-person households. The final sample of 9276 income units contains approximately 400 units that have had all income information imputed for one person in the income unit.

SIHC 97-98

8778 income units provided partial responses of which approximately 400 have had all income information imputed for one person in the income unit.

SIHC 99-00

In the final sample, 8289 income units provided partial responses of which 402 have had all income information imputed for one person in the income unit.

33 All respondents with fully completed questionnaires make up a donor pool. Respondents with missing entire are matched to the donor pool on certain characteristics and are then given the values of the donors.

HES 75-76

Only fully responding households were included in the final sample; some relatively 'safe' form of imputation of minor items of information was undertaken, although the amount and type of imputation cannot be exactly quantified. Imputations were made at the processing stage and were deduced from answers to other questions.

HES 93-94

Includes some partially responding households i.e. households which had an item missing on the expenditure diary or had a person record (other than of the reference person or spouse) missing. These households would previously have been excluded but were retained by using 'donor' values. The amount and type of imputation cannot be quantified. Missing values were either deduced from answers to other questions or from 'donor' records.

Interviewing methods

There is less reference to independent records such as income tax forms in SIHC than in IDS. Moreover, interviewers were not as experienced in asking income questions as in the IDS and HES and the quality of the data might have been somewhat adversely affected.

IDS*/HES*

Respondents were given notice of the survey and, when the appointment for interview was made, they would have been asked to have records such as tax forms available for reference (see above). These surveys were run as special supplementaries and would have been conducted by more experienced interviewers. They were conducted over a shorter time period, meaning that the interviewers would have become more familiar with the contents of the questionnaire.

SIHC*

With the change from stand-alone surveys to surveys attached to the MPS, in order not to compromise the responses to the main survey, interviewees were not forewarned that they would be required to provide income data. Also, in each month only one out of 48 MPS selected dwellings is included in the SIHC. On average, each interviewer had to conduct income interviews approximately only twice a month.

A.3 Population (Scope and Coverage)

The concept of 'scope' refers to the intended or target population of the survey; those people to whom the survey data refer and for whom the survey data have been specifically weighted in order to produce population estimates. 'Coverage' refers to those components of the target population actually surveyed; some components of the target population might not be actually represented in the sample, either intentionally or unintentionally, due to various constraints, or their data is set to zero.

Dwellings

The main difference between surveys, in terms of the dwellings covered, is the exclusion of special dwellings from HES and SIHC. The impact of this would be fairly small; in SIHC 95-96, for instance, approximately 2 per cent of the population was excluded from the survey by this criterion. Moreover, one can identify the people in special dwellings in the IDS and subtract those records in order to make the data comparable with the SIHC.

IDS*

For all three IDSs, private and special dwellings were in scope. Special dwellings include:³⁴

Hostels for the homeless, night shelters and refuges;

Licensed hotels and motels;

Hospitals and homes -- general hospitals, other hospitals, convalescent homes, homes for the aged, retirement villages, homes for the handicapped, orphanages;

Religious and educational institutions -- convents, monasteries, boarding schools, college and university residences;

Prisons and reformatories;

Boarding houses and others guest houses, private hotels, hostels, staff quarters, large construction camps;

Aboriginal settlements; and

Short-stay caravan parks and camping grounds.

HES* and SIHC*

Only households in private dwellings (houses, flats, home units, caravans, garages, tents and other private structures used as private places of residence at the time of survey) and long-stay caravan parks were in scope.

Persons**Usual residents and visitors**

Included in the scope of the survey are all persons aged 15 and over usually residing in the dwelling.

IDS 82

For private dwellings, usual residents (URs) who were at home for any part of the interview period September to November, 1982 were included. Usual residents who were away for the whole period were excluded. Visitors who did not usually live in a private dwelling were included; visitors who normally lived in another private dwelling but who would be away from that dwelling from August 1 to November 30 were included. Visitors to special dwellings were included if they were usually resident in a special dwelling, or if they were a UR in a private dwelling, and would be away from their usual residence for the interview period.

Also, persons aged 14 and over were in scope; IDS 82 interviewed all persons aged 14 years and over, although all were excluded from income analysis, and 14 year-olds are not included on the CURF.

IDS 86

Same as 1982. Visitors at the selected dwellings, who were in scope for the survey, were allocated to a separate dwelling to increase the number of households in survey.

34 Residents of hospitals, homes, prisons and reformatories, apart from live-in staff, are considered to be institutionalised persons and were not interviewed. Boarding school pupils were also not interviewed.

IDS 90

Same as 1982. The treatment of visitors and households with one or more usual residents out on scope or coverage changed in IDS 90 from IDS 86. If there was one or more person out of scope or coverage, records for visitors and other persons in the dwelling were dropped at the processing stage

SIHC*

For private dwellings, usual residents who were at home on the interview night were included. Usual residents who were away that night and would be away for a total of six weeks or more were excluded. SIHC, unlike IDS, excludes visitors to dwellings.

HES 75-76

All usual residents and any visitors staying for the following six weeks were included. Visitors not staying in the household for the next six weeks after the initial survey were excluded from the household. Also, households that were not at their usual place of residence and would not be staying at the dwelling for the next six weeks were excluded. If the household contained an adult head who would not be returning for the following six weeks or another spender who would be away for more than seven days, then the person would be excluded. Moreover, if any of the usual members of the household, aged 15 and over, were going to leave during the first diary period and returning after the second, the person would be excluded.

HES 84 and HES 88-89

All usual residents and any visitors staying for the following six weeks were included. Visitors not staying in the household for the next six weeks after the initial survey were excluded from the household. Also, households that were not at their usual place of residence and would not be staying at the dwelling for the next six weeks were excluded. If the household contained one or more member who could not be interviewed up to 14 days after the initial approach or who would be leaving and would be away till the end of the diary-keeping period, the household excluded.

HES 93-94 and HES 98-99

All usual residents and visitors staying for the next six weeks were included. Visitors not staying in the household for the next six weeks were excluded from the household. Also households not at their usual place of residence who would not be staying at the residence for the six weeks were excluded.

Excluded groups

The main difference, in terms of the groups of people who have been completely excluded from the survey, is between IDS and HES, on the one hand, and SIHC, on the other. Non-institutionalised members of the Australian defence forces, i.e. those living in private dwellings as opposed to military establishments, were included in both IDS and HES. They were not included in SIHC, because SIHC is a part of MPS which excludes military personnel, based on its definition of the labour force. Members of the Australian defence forces living on military establishments were excluded from all surveys.

The following groups were excluded from all surveys (i.e. regarded as out of scope):

Certain diplomatic personnel of overseas governments customarily excluded from census and estimated populations

Overseas visitors

Members of non-Australian defence forces (and their dependents) stationed in Australia

Students in boarding schools, patients in sanatoria and hospitals and inmates in goal, reformatories etc.

IDS 86

Collected only sex, age and marital status information from student, patients and inmates etc.

IDS 90

Collected only sex, age, marital status information from students in boarding schools.

SIHC*

Not included.

Members of the Australian defence forces living in military establishments.

SIHC*

Also excluded non-institutionalised members of the Australian defence forces (excluding those in the Army Reserve and the Merchant Navy). This additional exclusion was unavoidable because these persons are excluded from the MPS. The survey is, however, weighted as if they were included.

Geographical area

The geographical areas are much the same for all surveys except SIHC 94-95, which includes some selections in remote and sparsely populated areas but the number of selections was too small (2 or 3) to have an impact on the estimates. Remote areas in the Northern Territory (covering approximately 20 per cent of the Territory) are not included in the benchmarks. In HES 75-76 and HES 84, the Northern Territory was omitted from the CURF.

HES 75-76 and HES 84

The Northern Territory records were not included on the CURF for HES 75-76 or HES 84.

HES 88-89, HES 93-94 and HES 98-99

These surveys cover both urban and rural areas across all States and Territories, except remote sparsely settled areas.

IDS*

Included in the survey were all rural and urban areas in all States and Territories, including sparsely settled areas.

SIHC 94-95

The population benchmarks used to derive survey weights included remote and sparsely settled areas in the Northern Territory.

SIHC 95-96

Population benchmarks specifically exclude households living in remote and sparsely populated areas of the Northern Territory.

Income exclusion flags

In the IDSs, a special inclusion/exclusion flag has been placed on each person and income unit record to assist in interpretation of the income data. Those with flag codes less than five contain no income data since they do not qualify for any income questions. These exclusion flags are most explicitly stated in the documentation accompanying the *Income and Housing Survey, 1982* (IDS 82) (Var: FLAGU; Record: person) and the code numbers refer to IDS 82. All the IDS used the same exclusion rules.

A shorter questionnaire in SIHC, necessitated by its being part of MPS, led to fewer respondent characteristics being collected. This meant that several details of the household were no longer identifiable; the exclusion rules in SIHC are thus different from those for IDS.

No exclusion rules were used in the HES, which collected current income from all residents including children under 15.

The different exclusion rules in IDS and SIHC can be classified under three groups: One, where there is no net change between IDS and SIHC. IDS files would contain these records with an exclusion flag while SIHC data files do not contain these records at all. The rules that fall under this category are Rule 1 and Rule 10³⁵. Two, where the exclusion rule is changed and persons are excluded from IDS but not SIHC, and the persons are still identifiable in SIHC; the rules are Rules 2, 3, 6, 7 and 8. And three, where the exclusion rule is changed and the persons are not identifiable in SIHC; these are Rules 4 and 9.

Institutionalised persons or boarding school pupils (rule 1).

IDS 82

Records with code 1 do not occur in sample files as they were removed before processing took place.

IDS 86

Collected only sex, age and marital status information from students, patients and prison inmates etc.

IDS 90

Collected only sex, age and marital status information from students in boarding schools.

SIHC*

These persons are still excluded; they were not surveyed.

Persons still at school, 15-20 years of age (rule 2).

IDS*

These persons were in scope in IDS but no income or housing data were collected in IDS 82 and IDS 90. These persons are not included in income analysis in any of the IDS surveys. If persons live away from home, they are coded as separate income units. In IDS, they are excluded from both current and annual income. If they live at home, they are classified as dependants.

SIHC*

In SIHC, they were both in-scope and in coverage; income data was collected for these individuals. Income and housing questions were asked of this group. If persons live away from home, they are coded as separate income units. In SIHC, they can be included in both current and annual income. If they live at home, they are classified as dependants. The impact of their inclusion in income analysis has been minimal (for annual and current income, 0.1 per cent increase in total Income units and 0.01 per cent increase in total income unit income).

Persons who arrived in Australia after the end of the annual reference period³⁶ (rule 3).

IDS 82

Did not collect income (annual or current) and housing costs data. The IDS variable which identified these people was AWAY=6.

IDS 86

Collected only current employment and education data. Did not collect income (annual or current) and housing costs data. No variable like AWAY, but the person exclusion flag identifies which people are affected.

IDS 90

Collected only housing amenities data. Did not collect income (annual or current) and housing costs data. No variable like AWAY, but the person exclusion flag identifies which people are affected.

SIHC*

This rule probably changed due to the change in the relative reference period between IDS and SIHC. In IDS, the annual period is just a few months before the interview period; in SIHC, the time lag between the interview and the annual period could be much longer. Current income and housing data were collected, but no annual income data. The net effect of this change would be on current income in SIHC. The overall impact of adding these persons is small; SIHC current income went up 0.3 per cent while the number of income units in the current income tabulation increased by 35,000.

Persons out of Australia for all 52 weeks (rule 4).

IDS 82

Did not collect any income or housing costs data; did collect current employment and education data. IDS variable which identified these people was AWAY=5.

IDS 86

Collected information on current employment and education from persons away from Australia for the entire previous financial year. Did not collect any income or housing costs data. No variable like AWAY, but the person exclusion flag identifies which people are affected.

36 For example, June 30, 1982 for IDS82.

IDS 90

Collected information on current income, housing and amenities, education and current employment but no annual income data. No variable like AWAY, but the person exclusion flag identifies which people are affected.

SIHC*

This question is not asked in SIHC due to its shorter questionnaire and so these people are not identifiable in SIHC. Both current and annual income data is collected in the SIHC for this group.

Persons who changed marital status after start of annual reference period (rule 5).

Females who changed marital status are flagged for exclusion from both IDS and SIHC annual income analysis.

IDS*

Flagged for exclusion from annual income analysis. Only females (not males) were excluded on this basis. The questions on change in marital status were far more specific than the questions in the SIHC. They were collected on the household form at the same time as other demographic details of the household members were being collected.

SIHC 94-95 to 97-98

In the SIHC, the question is asked at the end of the interview and the original question (94-94 to 97-98) was whether marital status had changed. People in de facto marriages may have said no even if they had just begun to cohabit. The question asked was 'Did you change your marital status since the beginning of the last financial year? What was your previous marital status?'

SIHC 99-00

The question that was asked was, 'Have any of these changes in your family situation happened to you?' The options were: 'Married or moved in with new partner; separated from partner; or, widowed.'

Persons under 21 years old, who were still at school for more than one month in previous financial year and living at home (rule 6).

IDS*

Income data was collected for these persons; they were excluded from annual income but included in current income.

SIHC*

These persons were included in both annual and current income. Partial identification of these people is possible in the SIHC. The main difference is that while in IDS a person could have the status 'dependent' in the annual period and 'independent' in the current period, in SIHC, only one status is assigned, depending on current information. The impact to SIHC data due to this rule change is from those classified as 'independent'.

The net effect of the inclusion would be on annual income in SIHC. The effect is fairly small, with the new income units accounting for one per cent of total income units and 0.3 per cent of total annual income.

Persons who were still at school in previous financial year and no longer with relatives (rule 7).

IDS*

Income data was collected for this group; they are excluded from annual income and included in current income.

SIHC*

While these persons cannot be identified exactly, reasonably close identification is possible. The main missing details in SIHC are the annual study period and current versus annual dependent status. Also, current study status is slightly different. This lack of detail is the most likely reason for the rule change. The net effect of this rule change would be on annual income; there is no impact on current income since they are included in both IDS and SIHC current income totals. The net effect on total income unit income has been minimal – a 0.2 per cent increase. The number of income units has gone up by one per cent; the average income of these income units is on the lower end of income scale.

Persons who arrived in Australia after the start of the financial year (rule 8).

IDS*

Excluded from annual income but included in current income.

SIHC*

These persons were included in both annual and current income data. These persons are identifiable in SIHC and can be removed to make data comparable with IDS. The net effect of their inclusion on annual income is minimal (0.5 per cent increase in total annual income and 0.6 per cent rise in total number of income units).

Persons out of Australia for 13 weeks or more and did not work for an Australian business (rule 9).

IDS*

These persons are included in current income but excluded from annual income.

SIHC*

This question was no longer asked, so such persons cannot be identified and are included in both current and annual income.

Persons (married head of household) whose spouse records are not on file (i.e. spouse out of scope) (rule 10).

IDS*

Income data for the head is collected; spouse income data is not collected and there are no spouse records on file. These respondents are in scope since they were included in the weighting system at the person and income unit level.

SIHC*

These people would not be in SIHC since only complete families were kept on file.

A.4 Family Structure Variables

The basic household, family and income unit definitions are the same for all surveys, except for the definition of dependent children. Minor changes occur in the definition of head/reference person over time and surveys.

Household definition

The household is the basic unit of analysis. It consists of a person or group of persons living together and having common provision for food and other essentials of living. Households thus:

May consist of one or more related or unrelated persons or groups of persons such as families; and

Must live wholly within one physical dwelling.

In addition:

Lodgers, who receive only accommodation, are treated as a separate household; and

Boarders, who receive both meals and accommodation, are part of the household.

HES uses the household as its basic unit of analysis since it assumes that this is the level at which sharing of the use of goods and services occurs.

Family definition

A family consists of two or more persons related in specific ways; persons who do not meet these criteria are considered to be non-family individuals. The relationship does not have to be of marriage or parent/child. Only one of the following nuclei per family is permitted:

Married couple;

Person(s) with dependent children; or

Person(s) with non-dependent children.

Thus, if a couple share a household with a daughter who has a baby, there are two families in the household. Two brothers in a household constitute a family. If a person is related to more than one family in the household, s/he is included in the family to which s/he was most directly related.

Income unit definition

An income unit refers to a person or group of persons within a household whose command over income is assumed to be shared. Income sharing is assumed to take place between married (de facto) couple and their dependent children (ABS, 1999a).

Heads and reference persons

The income surveys have attempted to be consistent in the definition of head over time. Before 1990, however, this definition did not take tenure of dwelling into account.

In the HES, there have been some changes in the definition of the head/reference person. Care should, therefore, be taken in interpreting the household reference person data in HES. The reference person need not always be a parent or one of a married couple; s/he could be one of the other persons in the household.

IDS*/SIHC*

The income unit head is the male partner of the couple, the parent in a sole parent unit and the person otherwise. The head of the family can be the male partner of the couple, the parent of the sole parent family, or the eldest of two or more related people. The reference person of the household before 1990 was the first person on the household form that was the head of a family or in a group house, the first person on the household form. From 1990, it was the head of the income unit with the lowest number in the tenure of the dwelling, ie, owners before renters, before boarders etc.

HES*

The household head was the first person on the household form in 1984 and 1988. However, in 1975-76 and 1984, the household was asked to nominate the head while in 1988, it was not considered realistic to do this. In 1993-94, the families were coded so that the head of the household was married with children, before married, before single parent, before lone person. If two or more persons satisfied the same criterion (e.g. husband and wife) then the head was the person with the higher income. If this was equal, then the older person was the head.

Dependent child(ren)

The most significant change in SIHC is the inclusion in the definition of dependent children, of 21-24 year old full-time students living at home. If they were treated as separate income units in SIHC, they would have accounted for 7.5 per cent of young income units with income less than \$9000 in 1993-94 and 13 per cent in 1996-97. These new dependants add about 10 per cent to their income units' annual income and slightly more to their current incomes.

The definition changed in HES 98-99, too, to include 21-24 year old full time students as dependent children if they lived at home with their parents or guardians.

A dependent child is defined as an unmarried person living at home with her/his parents, under 15 years old, or a full-time student aged 15-20, with the following differences between the surveys:

IDS*

Older full-time students, aged 21 to 24, were classified as separate income units from their parents. Only the parents' income used to calculate income unit's income.³⁷

SIHC*

The above definition of a dependent child was expanded to include full-time students, aged 21 to 24, who do not have a spouse or off-spring of their own living with them, and are living at home. Moreover, income data for dependent children 15 and older is collected and added to the income of parents to arrive at income unit's income.

HES 75-76, HES 84, HES 88-89 and HES 93-94

All persons aged under 15 as well as those aged 15-20, who are full-time students, who do not have a spouse or offspring in the household and who live with their parents or guardians. The children may be natural, adoptive, step or foster. A non-

37 In IDS 82, persons 14 and over are in scope. IDS 82 interviewed all persons 14 years and over as there were a lot of questions on schooling etc. However all were excluded from income analysis, and 14 year olds are not included on the sample file.

dependent child is one who has a parent in the household, does not have a spouse or offspring in household, but is not a dependent child.

HES 98-99

All persons under 15 as well as those 15-24 who are full-time students, who do not have a spouse or offspring in the household and who live with parents or guardians.

A.5 Employment Variables

People who were aged 15 or over at the time of interview were allocated a labour force status.

Employed

There are considerable differences between the surveys with respect to the criteria for being 'employed'.

IDS 82

Respondents were 'employed' if at the time of interview they currently worked in a job, business or farm, or if they had a job, business or farm that they were away from because of holidays, sickness or any other reason.

IDS86

Respondents were 'employed' if at the time of interview they had done any work at all in a job, business or farm in the last week, or if they had a job, business or farm that they were away from because of holidays, sickness or any other reason.

IDS90

Respondents were 'employed' if at the time of interview they currently had a job, business or farm, or if they had a job, business or farm that you are away from because of holidays, sickness or any other reason.

SIHC*

As the SIHC was conducted as a supplement to the Labour Force Survey (LFS), the labour force status definitions in SIHC correspond to the LFS definitions. That is, respondents were 'employed' if during the week prior to the interview, they had worked one hour or more for pay, profit, commission or payment in kind in a job or business, or on a farm (comprising employees, employers and own account workers); or worked for one hour or more, without pay, in a family business or on a farm (contributing family workers); or were employees who had a job but were not at work and were: on leave without pay for less than four weeks up to the end of the reference week, stood down without pay because of bad weather or plant breakdown at their place of employment for less than four weeks up to the end of the reference week, on strike or locked out, on workers' compensation and expecting to return to their job, receiving wages and salary while undertaking full-time study; or were employers, own account workers or contributing family workers who had a job, business or farm, but were not at work.

HES75-76

Of all the surveys, the definition of being employed was the broadest in HES 75-76. People were deemed to be employed if at the time of interview they were currently working in a job or business, or they had worked in a job or business at any time

during the last 4 weeks, or even if they did not work if they received any income from a job, business or partnership during the last 4 weeks, or if they would be starting a job or business 'this week'. 'Unpaid helpers' were not considered to be employed.

HES84

Respondents were 'employed' if at the time of interview they currently had a job, business or farm.

HES88-89

As for HES 84.

HES93-94

Respondents were 'employed' if during the reference week, they had worked one hour or more for pay, profit, commission or payment in kind in a job or business, or on a farm; or worked for one hour or more without pay in a family business or on a farm (i.e. unpaid family helper); or were employees who had a job in which they usually worked more than one hour per week but were not at work and were on paid leave; on leave without pay for less than four weeks prior to the placement date; on strike or locked out; receiving wages or salary while undertaking full-time study; or were self employed or unpaid family helpers who usually worked more than one hour per week and were at work within four weeks prior to the interview date or were paid for part of the last four weeks.

HES98-99

Respondents were 'employed' if during the week prior to the interview, they had worked one hour or more for pay, profit, commission or payment in kind in a job or business, or on a farm (includes employees, employers and own account workers); or worked one hour or more, without pay, in a family business or on a family farm; or had a job, business or farm but was not at work because of holidays, sickness or other reason.

Unemployed / Not in Labour Force

People who were not employed were classified as unemployed or Not In the Labour Force (NILF) according to the following criteria.

IDS 82

Respondents who were not employed were deemed to be 'unemployed' if they had looked for work at any time in the past 4 weeks (i.e. not only looked in the newspaper but had: written, phoned or applied in person to an employer for work; answered a newspaper advertisement for a job; checked Commonwealth Employment Service notice boards; been registered with Commonwealth Employment Service; checked or registered with any other employment agency; advertised or tendered for work; or contacted friends/ relatives) and could have started working in the previous week. Otherwise, the person was given the status of 'not in the labour force'.

IDS86

Respondents who were not employed were deemed to be 'unemployed' if they had looked for work at any time in the past 4 weeks (no criteria given) and were able to start work in the previous week. Otherwise, the person was given the status of 'not in the labour force'.

IDS90

Respondents who were not employed were deemed to be ‘unemployed’ if they had looked for work at any time in the past 4 weeks (no criteria given). Otherwise, the person was given the status of ‘not in the labour force’.

SIHC*

As the SIHC was conducted as a supplement to the *Labour Force Survey* (LFS), the labour force status definitions in SIHC correspond to the LFS definitions. That is, persons who were not employed were deemed to be ‘unemployed’ if during the reference week they had actively looked for work at any time in the four weeks up to the end of the reference week; and were available for work in the reference week, or would have been available except for temporary illness (lasting for less than four weeks to the end of the reference week) or were waiting to start a new job within four weeks from the end of the reference week if the job had been available then; or were waiting to be called back to a full-time or part-time job from which they had been stood down without pay for less than four weeks up to the end of the reference week (including the whole of the reference week) for reasons other than bad weather or plant breakdown.

HES75-76

Asks respondents who did not work in the previous four weeks, whether they will be starting a job or business in the next week. Also asks what they did in the last four weeks, whether unemployed, retired etc. Respondents who were not employed and who were not an unpaid helper who stated they were unemployed in the last four weeks, were given the status of unemployed whilst the remaining respondents were not in the labour force.

HES84 and HES 88-89

Same as IDS82.

HES93-94

Respondents who were not employed or unpaid voluntary workers were deemed to be ‘unemployed’ if they had actively looked for full-time or part-time work at any time in the four weeks prior to the placement date; and were available for work, or would have been except for temporary illness (i.e. lasting for less than four weeks prior to the date of interview); or were waiting to start a new job within four weeks from the interview date and would have started if had been available then. Otherwise, the person was given the status of ‘not in the labour force’.

HES 98-99

Same as IDS86, except must have ‘actively’ looked for work.

Full-time and part-time status

IDS*

An employed person is defined as full-time if s/he usually works for 35 hours or more per week in all jobs.

SIHC*

A wage and salary earner is full-time if s/he usually works for 35 hours or more in all jobs. Employers, own account workers, contributing family workers and employees

paid in-kind are full time if they usually work 35 hours or more per week or if they worked 35 hours or more in the reference week of the labour force survey.

HES75-76

A person is defined as working full-time if s/he works 30 hours or more per week. This status was derived only for employees.

HES 84. 88-89, 93-94

Full-time, part-time status is only derived for employees and contributing family workers in personal employment status.

HES98-99

As in other previous HESs except that contributing family workers are included with self-employed rather than with employees.

Income Variable Definitions

Cash income in the ABS surveys refers to regular, recurring receipts and does not include irregular or lump sum receipts such as those occurring from sale of assets, or drawing down of reserves. Income in kind is not included, except for some aspects in some surveys. Regular payments are defined as those that occur at least once a year.

The main components of cash income are:

- Wages and salaries;
- Income from self-employment;
- Government cash benefits and pensions (including benefits from an overseas government);
- Income from investments (including interest, dividends and rent); and
- Other regular income (including workers compensation, superannuation, alimony or maintenance, educational grants, scholarships received in cash, and any other allowances regularly received).

IDS and SIHC collect information on both current and annual income in detail on most of the components. HES collects only current income from wages and salaries and government cash benefits and pensions. All surveys collect annual business and investment income, which is pro-rated to a weekly equivalent as a pseudo-current business or investment income.

Wages and salaries

Annual

IDS 82

Income from all wage and salary jobs before tax was deducted, asked as a single question. It was not asked of respondents who reported that they worked in their own incorporated business.

IDS 86

Total gross annual wage and salary income is gross wages and salary income from employer plus bonuses (excluding sick leave), tips, leave loading (excluding job entitlements), gross wage and salary income from respondent's own limited liability company (excluding job entitlements), each received in the previous financial year.

The value of any director's fees received by the respondent was included in other regular income. Leave loading was imputed if the respondent said they received a leave loading but had not included it in their reported wages and salary. Any workers' compensation, superannuation, or termination payments that had been reported in wages and salaries, was deducted as were any job entitlements that had been included.

IDS 90

Total gross annual wage and salary income is gross wages and salary income from employer plus bonuses (excluding sick leave), leave loading (as in 1986), and director's fees. It also included the share of profit (including dividends) from respondent's own incorporated enterprise if respondent had no other reported wages and salaries.

SIHC*

Income from all wage and salary jobs before tax was deducted, asked as separate questions for employees and for owners of incorporated businesses.

Current

IDS 82

Amount of most recent pay pro-rated to a weekly amount. Not asked of respondents who reported that they worked in their own incorporated business.

IDS 86

Usual gross weekly income for employee and limited liability business and farm (main and second job). The 'usual' pay collected should include all overtime, bonuses, commissions, tips etc usually received as part of that pay. If the respondent queries, s/he is informed that travel and car allowances should be excluded from usual pay.

IDS 90

Same as IDS 86 plus income from third job/army reserve.³⁸ If the respondent was not already a wage or salary earner, income from third job/army reserve was treated as other income.

SIHC*

Current income is collected as the usual pay or last payment.

HES 75-76

Same as IDS 86. Income in kind, e.g. free meals and company car was included. Wages and salaries consisted of usual pay from main job plus last pay from second job.

HES 84 and HES 88-89

Same as IDS 86 plus income-in-kind, regular bonuses and children's wages³⁹. The income in-kind is the sum of the values of goods obtained from the respondent's employer (free or at reduced cost) as reported in Part D of the personal diary and

38 Income from army reserve for non-earners was generally added to other regular income.

39 Children's income is added to those of the household reference person. Children's wages are collected for the last financial year and prorated to a weekly amount.

goods obtained from the respondent's business or farm reported in Part F of the personal diary for respondents with incorporated businesses.

HES 93-94

As in 1984 and 1988-89, except that the goods obtained from business or farm (part F of the diary) were included for all employed persons including the self employed.

HES 98-99

Same as IDS 86 plus income-in-kind and regular bonuses. Income in-kind is the sum of the values of goods obtained from employer (free or at reduced cost) as reported in part D of the personal diary.⁴⁰

Business income

Income from business includes negative income in SIHC and HES. Negative income is retained as negative in SIHC and HES (unlike IDS) and combined with positive income values to derive total income. However, the principal source of income cannot be negative and is 'undefined' if there is no positive source of income.

Annual

In all IDS, annual business income was collected from non-limited liability companies for the last financial year. Gross income, before tax, after deduction of normal business expenses was collected. Respondents were asked for profit or loss from business before tax. A pseudo-current business income was calculated.

IDS 82

Negative income from business investments was set to zero before aggregation of income from all sources. No attempt to exclude income from incorporated enterprises.

IDS 86

Annual business income is equal to reported profits, excluding business expenses. Negative income from business investments was set to zero before aggregation of income from all sources.

IDS 90

Annual business income is equal to reported profits, excluding business expenses. Negative income from business investments was set to zero before aggregation of income from all sources. The same question was used to get profit or loss from non-incorporated business as used to collect dividends and 'share of profit or loss' from an incorporated business. The amount reported was included in business income if the respondent reported that no business or partnership was incorporated.

SIHC*

Losses are classified as a negative income flow.

Current

IDS 82

40 In the ABS HES publications 6530.0 and 6535.0 it also includes the value of subsidised housing, telephone or car provided by the employer.

This was calculated as period business income divided by 52 and inflated by the CPI, whether a person was currently in business or not. Negative income was not collected.

IDS 86

This was calculated as period business income divided by number of weeks in business during the year, or 52 if in business the full year, whether a person was currently in business or not. Negative income was collected but was set to zero before the data were processed. The value of the loss is retained in a separate field, which is available in the unit record tape (URT). With 'Don't know' responses or refusals, business income was imputed on sex, age, occupation and other characteristics.

IDS 90

This was calculated as period business income divided by the number of weeks in business during the year or by 52.14 for people in business the full year. It was only calculated for persons currently in their own business. Negative income was collected but was set to zero before the data were processed. The value of the loss is retained in a separate field, which is available in the URT. With 'Don't know' responses or refusals, business income was imputed on sex, age, occupation and other characteristics.

SIHC*

Current income is calculated as in 1990.

HES 75-76

Collected as a pseudo-current business income that was calculated as the weekly equivalent of the gross income received over the last financial year (or an estimate of this figure or the gross business profit or loss from the previous financial year). It was calculated only for persons currently in own business. Negative income was not collected

HES 84

Collected as a pseudo-current business income that was calculated as the weekly equivalent of the gross income received over the last financial year (or an estimate of this figure or the gross business profit or loss from the previous financial year). It included child's income. It was calculated only for persons currently in own business. Negative income was not collected. In case of 'Don't know' responses or refusals, if tax data were given, then business income was imputed; otherwise, it was coded to zero. Note that because this survey was run over the calendar year the business income reported could relate to 1981-82, 1982-83 or 1983-84.

HES 88-89

Collected as a pseudo-current business income that was calculated as the weekly equivalent of the gross income received over the last financial year (or an estimate of this figure or the gross business profit or loss from the previous financial year). It included child's income.⁴¹ It was calculated only for persons currently in own business. Negative income was collected and kept as negative. In case of 'Don't know' responses or refusals, if tax data were given, then business income was imputed; otherwise, it was coded to zero.

41 Children's business income included in household reference person's. Children's income was not dependent on the child still having a business, trust or partnerships.

HES 93-94

Collected as a pseudo-current business income that was calculated as the weekly equivalent of the gross income received over the last financial year (or an estimate of this figure or the gross business profit or loss from the previous financial year). It included child's income. It was calculated only for persons currently in own business. Negative income was collected and kept as negative. In case of 'Don't know' responses or refusals, the business income was imputed. A respondent could report on more than one business and if two were reported the income was set to the income of the second business.

HES 98-99

Collected a pseudo-current business income that was calculated as the weekly equivalent of the gross income received over the last financial year (or an estimate of this figure or the gross business profit or loss from the previous financial year) plus the value of goods taken from the business or farm as in Part F of the diary. It included child's income. It was calculated only for persons currently in own business. Negative income was collected and kept as negative. In the case of refusals, the business income was imputed however for 'Don't know' responses the data was not imputed.

Income from investments, including interest, dividends and rent

Annual

The IDS collected annual investment income from each respondent for the last financial year.

IDS 82

Annual income from property was defined as interest earned from a building society, bank and credit union accounts, plus any income from dividends, bonds, royalties, trusts or debentures plus income from rent (negative rent was not collected).

IDS 86

Annual income from investments was defined as total interest from banks, building societies, credit unions, private loans to others, debentures/government bonds/securities, plus interest from trusts (property, unit and cash management) plus dividends from own incorporated business plus other dividends, including dividends reinvested and bonus shares, plus profit from rent after expenses. The value of negative income from rent was not collected; a separate tick box was provided for nil/negative income from rent.

IDS 90

Annual income from investments was defined as total interest from banks, other financial institutions, private loans to others, debentures, bonds, trusts (property, unit and cash management) plus dividends plus profit/loss from rent after expenses. Negative income from rent was set to zero before the data were processed but the value of the loss was retained on a separate field on the URT. Dividends from own incorporated company were only included if the respondent reported both wages and salary and income from an incorporated company, otherwise the dividends were included in wages and salary.

SIHC*

Interest income comprises receipts from deposits in banks, and other financial institutions; it includes interest from government bonds/loans and securities, debentures and personal loans to persons outside the household. Rent comprises net receipts from properties other than owner-occupied dwellings. It also includes income from lodgers and sublets but excludes boarders, who are considered part of the household. Information on rent is collected separately for residential and other properties. Losses are recorded as negative income flows. Dividends on shares and from own incorporated business were collected separately. Income from royalties was also separately collected.

Current**IDS* and SIHC***

Investment income is collected only on an annual basis; current income is derived as a weekly equivalent

HES 75-76

Current income was collected for the previous financial year whether or not respondent currently received such income. Investment income consisted of interest from banks, Commonwealth loans, credit unions, building societies, debentures and personal loans, dividends, royalties, net rent and income from trust. Rent included net rent from subletting the current dwelling (if positive) and for renting out other owned property, such as a holiday home, where the property was let out for less than 3 months of the year.

HES 84

Current income was collected for the last financial year whether or not the respondents currently received such income. It was calculated as the weekly equivalent of investment income from the last financial year. Investment income comprised interest from all bank accounts, building society accounts, credit union accounts and accounts with other financial institutions, dividends on shares, royalties, interest on bonds, income from trusts, interest on debentures and rental income. Negative rental income was not collected. Children's income was included.

HES 88-89

Current income was collected from the last financial year whether or not the respondents currently received such income. It was calculated as the weekly equivalent of investment income from the last financial year. Investment income comprised interest from all bank accounts, building society accounts, credit union accounts and accounts with other financial institutions, dividends on shares, royalties, interest on bonds, income from trusts, interest on debentures and rental income. Negative rental income was deducted and children's income was included.

HES 93-94 HES 98-99

As in HES 88-89, plus interest on personal loans to persons outside the household.

Income from government benefits and pensions

IDS and SIHC collected both annual and current income from government benefits and pensions, while HES collected only current income from these sources.

Each survey requested separate dollar values for the following (or the equivalent pension/benefit at the time):

- Age pension
- Service pension
- Unemployment benefit
- Sickness benefit
- Special benefit
- Invalid pension
- Sole parent pension
- Widow's pension
- Wife's/carer's pension
- War widow's pension
- Disability pension
- Family payment/child endowment⁴²

Annual

Every respondent who had received any cash pensions and benefits in the last financial year was asked for the total payment in that year for those benefits or pensions received.

There was a wording change in SIHC with respect to all pensions and benefits except family payment; it is believed to have improved responses. The change with respect to the question about age pensions led to higher reported mean incomes from this source. This is particularly relevant in the context of very low-income older person income units, some of which seem to survive on unrealistically low incomes. The change involved the question about the time period over which the age pension was received; with the original question, it was perceived that a number of respondents were providing the weekly amount received rather than the amount over the entire year.

IDS 82

For age, service and war disability pensions, the annual income was not collected. Current income was multiplied by 4.33 times the number of months that the respondent received the pension in 1981-82. Family allowance was set to entitlements for the number of children for whom the respondent received family allowance. Annual and current data was collected for the other pension and benefits (unemployment, sickness, war widows', widows, invalid, supporting parent's, wife's and other). Study assistance and child education assistance were included in private transfers.

IDS 86

Same as IDS 82; in addition, other items requested were family income supplement (FIS), TEAS, overseas government pensions and benefits, handicapped child

42 For couples in IDS and HES88-89, this was included in the female partner's income.

allowance, sole parent's (in place of supporting parent's and one type of widow's benefit) and other government cash benefits (GCBs).

IDS 90

Family payment supplement was imputed. A slight error in the imputation program meant that for some families the payment was underestimated.

Secondary Austudy, tertiary Austudy, overseas government benefits, and other government pensions and benefits were also collected, in addition to the list of pensions and benefits collected in IDS 86.

SIHC*

Same as IDS90 plus partner's allowance and youth training allowance.

SIHC 94-95 and 95-96

Same as SIHC*; in addition, income from job search allowance and home childcare allowance were also included.

Current

IDS*

Same as annual.

SIHC*

Same as annual.

HES 75-76

Collected child endowment, student endowment, age pension, invalid pension widow's pension, unemployment, sickness and special benefits, war pension, service pension and war widow's pension. However, child/student endowment was included in other income and not in government transfers.

HES 84

Aggregated service, disability and war widow's pensions as reported veteran's affairs pensions.

HES 88-89

Same as HES84. In addition, other items requested were family support, government educational assistance, and other GCBs. Government scholarships are included in government benefits while private scholarships are not.

HES 93-94

Same as HES88-89, except scholarship (government and private) are not included. Includes Austudy.

HES 98-99

Overseas benefits, mobility allowance, Austudy/Abstudy and child disability allowance also collected.

Other regular income requested specifically

IDS 86 and IDS 90 as well as SIHC collected both annual and current income from regular sources not included in the components above. HES 84, HES 88-89 and HES 93-94 collected only current (not annual) income from these sources. IDS 86 collected

current income from those who had received payments in the last two months; IDS 90 and HES 88-89 collected current income information from those respondents who were currently receiving regular payments from those sources. Each survey collected the last payment for current income; IDS collected the total amount for the last financial year for annual income.

In IDS, SIHC and HES, superannuation income is recorded as a current transfer at the time it is received as a regular pension payment, rather than on an accrual basis as for ASNA. Similarly, only regular workers' compensation receipts at the time they are received by the household are recorded as income; lump sum severance, termination or redundancy payments are not.

Annual

IDS 82

Separate dollar amounts were collected for regular payments of superannuation, workers' compensation, road accident compensation and maintenance/alimony. Annual amounts paid in the form of a scholarship, or student assistance, or children's education assistance were included.

IDS 86

Collected separate dollar amounts for regular payments from superannuation, alimony/maintenance, workers compensation and accident/sickness insurance and accident compensation. In addition, data on income received from the first homeowners' scheme (if not received as a lump sum), termination of employment, director's fees, and financial support from relatives living elsewhere was also collected. The value of regular support from relatives not living in the same dwelling was asked only of those respondents who were not employed for 52 weeks full-time during the previous financial year.

IDS 90

Collected separate dollar amounts for regular payments from superannuation, alimony/maintenance, workers' compensation and accident/sickness insurance and accident compensation. Some workers' compensation payments have been included in wages and salaries income if the respondent declared these with gross income. These have been largely re-allocated. In addition, data on income from relatives living elsewhere was also collected.

Current

IDS 82

Same as annual. The education assistance (own or child's) was collected for the previous year and divided by 52 to give a pseudo current amount, whether the respondent still received it or not.

IDS 86

Same as annual, plus data on annuities.

IDS 90

Collected separate dollar amounts for regular payments from superannuation, alimony/maintenance, workers compensation and accident/sickness insurance and accident compensation. Some workers' compensation payments have been included in wages and salaries income if the respondent declared these with gross income. These

have been largely re-allocated. In addition, data on income from relatives living elsewhere was also collected.

HES 75-76

Collected separate dollar amounts for regular payments from superannuation (including tax), alimony/maintenance and workers compensation (including tax; lump sum payments not included). An allowance from absent husband question was asked if husband was away for six weeks or more and was therefore not required to fill out the income questionnaire. Other regular income was also collected. Information on whether the household received the government's home saving grant and maternity allowance in the past 12 months was collected. These were lump sum payments, however, and were not included in income. Income from trusts was included in other income as was income from child/student endowment. Scholarship income was collected on the household form and the value of the cash income for scholarships was added to the head's income. Income from overseas pensions was included here.

HES 84 and HES 88-89

Collected separate dollar amounts for regular payments from superannuation, alimony/maintenance, workers compensation and accident/sickness insurance and accident compensation. In addition, data on private scholarship/study allowance was also collected. If any of the workers' compensation amount was also reported in wages and salaries it was left in wages and salaries and not included in workers' compensation

HES 93-94

Collected separate dollar amounts for regular payments from superannuation, alimony/maintenance, workers compensation and accident/sickness insurance and accident compensation. In addition, data on private scholarship/study allowance was also collected. If any of the workers' compensation amount was also reported in wages and salaries it was left in wages and salaries and not included in workers' compensation; however due to a coding error workers' compensation not paid with wages and salary was also not included.

HES 1998-99

The same as in previous HESs except that if workers' compensation was reported in wages and salary it was deducted from the wage and salary amount and kept in the workers' compensation amount.

Extra regular income collected

Each survey asked the respondent for any other income that had not been collected thus far in the interview and that extra income was then allocated to the appropriate component.

Treatment of personal income tax

IDS 82

Tax data was collected.

IDS 86

Same as IDS 82. As the tax data collected in 1986 was considered rather poor, ABS imputed annual income tax for 1986. (It was subsequently made available to researchers on the NATSEM web site).

IDS 90

Tax was imputed from 1990 onwards.

HES 75-76

Tax data was collected.

HES 88-89

Tax data collected, as in IDS 82 and IDS 86. There was some imputation.

HES 93-94

Income tax entirely imputed from 1993-94 on.

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