Take-up Down Under: Hits and Misses of Means-tested Benefits in Australia

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Carina Mood Roman

Department of Sociology

Stockholm University

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Contact information:

Address: Department of Sociology, Stockholm University, 106 91 Stockholm, Sweden

E-mail: carina.mood.roman@sociology.su.se

Phone: W: +46-8-163117; M: +46-730-233021

Fax: +46-8-6125580

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ABSTRACT

Research has revealed considerable non-take-up of means-tested benefits in many western welfare states, suggesting inefficiency in alleviating poverty. Australia is an interesting case with a high selectivity in welfare benefits, but although take-up is essential in such a system there has been little research into this problem. Using data from the first two waves of the Household, Income and Labour Dynamics Australia (HILDA) survey, I estimate the general take-up rate of benefits in Australia among people with very low assets and incomes and carry out a detailed analysis of take-up and its determinants for one particular benefit, Parenting Payment.

Contrary to the traditional conception of selective welfare states as highly stigmatising, I find no evidence of an exceptionally low degree of take-up in Australia, at least not among the poorest and among those eligible for Parenting Payment. However, the empirical results give a mixed picture: non-take-up seems to be considerable in some population categories, while low in others. Low-income earners of retirement age appear to be efficiently targeted with means-tested benefits, whereas estimated take-up is clearly lower among younger people. For Parenting Payment, estimated take-up is far less common among partnered parents than among single parents, even when the size of entitlement is accounted for. The results of the multivariate analysis also show clearly lower take-up in those categories where transaction costs are likely to be high (i.e. for immigrants and those living outside the major cities) and higher take-up as the size of entitlement increases. There are also significant contextual effects showing that low welfare recipiency in the local area may deter needy citizens from applying, indicating that stigma may affect the decision to take up a benefit.

Studies of several western welfare states have revealed considerable non-take-up of means-tested benefits. Because one of the central aims of such benefits is to provide a safety net for people in need, non-take-up often means that the welfare system fails to reach its objectives and that poverty is not alleviated for some people.[1] Thus, the extent of non-take-up can be an indicator of inefficiency of the welfare system. Furthermore, fluctuations and trends in benefit recipiency, and the related budgetary costs, are commonly interpreted as increases or decreases in the number of poor people. However, such changes can also be due to increases or decreases in the take-up rate. Understanding the causes of take-up can thus help us to explain and foresee variations in benefit recipiency and its associated costs. The existence of non-take-up also signals that decisions about economic matters may not be guided by economic motivations alone. The decisions to claim, or to abstain from, benefits are embedded in a social context – including interpersonal influences and social norms – so the issue of non-take-up is also of substantial sociological relevance.

The bulk of research about non-take-up has been carried out in Britain and the US, but during the past decade there has been increasing interest in the issue in other western countries, enhancing our understanding of how welfare state features can affect take-up dynamics. The Australian welfare state resembles other Anglo-Saxon welfare states in several dimensions (see e.g. Esping-Andersen 1990), yet distinguishes itself by providing benefits almost exclusively after means tests. The more selective the welfare state, the more crucial take-up is for its efficiency. It is thus surprising that in Australia – a highly selective welfare state – the extent and causes of non-take-up of benefits have received almost no attention[2]. The explanation of this lack of research and debate can of course be that non-take-up is less of a problem than in other countries, but it can also be that it is just believed to be less prevalent or that the issue is simply not perceived as interesting. It is my aim here to explore the extent and causes of non-take-up in Australia.

The high degree of selectivity in Australia makes the study of non-take-up particularly relevant, but it also renders such study very complicated: A large number of means-tested

benefits cater for individuals in different situations, and benefits are given on the basis of complex and varied criteria. Due to data limitations, I will not be able to study the degree of non-take-up for the full range of benefits. Instead, I will estimate the take-up rate among people with very low assets and incomes, and present a detailed analysis of take-up and its determinants for one particular benefit, namely Parenting Payment.

WHY DO PEOPLE FAIL TO TAKE UP A MEANS-TESTED BENEFIT TO WHICH THEY ARE ENTITLED?

An individual's claiming decision can be conceptualised as a function of information and perceived benefits and costs. The most evident benefit is *economic gain*. An individual's perception of his or her economic situation before and after recipiency of the payment should be of fundamental importance. The higher the individual's benefit entitlement is, the stronger are the economic incentives to claim the benefit. Naturally, individuals will vary in their capacity to calculate their entitlement as well as in the value they put on economic gain, but the effect of the size of the economic gain from take-up should on average be positive. If the eligible individual can receive *alternative economic help* from another source (e.g. family or friends), the perceived need may be smaller and the propensity to claim subsequently lower.

Claiming a benefit can also lead to some economic *transaction costs*, for example, costs for travelling to the welfare agency or for obtaining copies of documents. Probably more important are the transaction costs in terms of time and labour required to make a claim: normally, one has to visit an agency, and papers proving the economic situation have to be produced.

The *stigma* associated with the recipiency of many means-tested benefits may give rise to social as well as personal costs. In most western countries, norms prescribe that people should earn their own living, and there is a positive valuation of successful people. To claim a benefit can be conceived of as a deviation from the work norm and as a sign of failure. Thus, an individual may fear disapproval from others if it comes to their knowledge that he or she receives a benefit, and the expected economic gains from receiving a benefit may therefore be

4

outweighed by the expected social costs associated with benefit recipiency. If the stigma associated with a benefit decreases, the propensity to claim it in a given economic situation should increase.

To the extent that a norm against receiving means-tested benefits is internalised, an individual may also experience personal costs, or 'mental dissonance', from violating it. In this case, the constraint on action is internal and the individual will avoid violating the norm even when no one can find out about it (cf. Elster, 1989, p.119ff). An individual could, for example, abstain from claiming a benefit because he/she feels that claiming it would represent a personal failure, or that it would lower his/her self-esteem. For similar reasons, people may decide not to claim a benefit because of the loss of integrity felt by being subject to assessments of eligibility.

Information about benefits can affect take-up through multiple mechanisms. Firstly, it is necessary to have basic information about a benefit's existence and where and how to claim it (see van Oorschot, 1995, chapter 6). Furthermore, the degree of information one has about the benefit system can affect the perception of the probability of receiving a benefit and the expectations of different costs and benefits of claiming it. More information can also lead to lower transaction costs, because the more knowledge one has about the eligibility rules and the application procedure, the easier it is to claim the benefit. The search for more information can be costly in terms of time and effort. The complexity of the criteria for recipiency of a benefit and the accessibility of information can affect the knowledge about a benefit and the costs of gaining more knowledge (Corden, 1995).

Not only the current (pre- and post-benefit) income, but also the *expected future economic situation* of the individual is likely to be of importance for take-up. If the individual has little hope of getting out of economic hardship by his/her own means, the expected duration of benefit recipiency is longer. The transaction and stigma costs of claiming are probably highest when starting to claim a benefit, and those who expect short-term benefit recipiency may feel that the costs outweigh the gains of claiming. It should also be easier to find alternative means of supporting oneself for a short period of time than for a long one. Non-claiming can also be caused by another type of long-term consideration: an individual may fear that a period of

benefit recipiency can make him/her less attractive in the labour market and thus decrease the chances of long-term economic recovery.

Thus, given eligibility and basic information about a benefit's existence, one can think of an individual's decision whether or not to claim as based on weighting the potential benefits of economic gain against the potential costs induced by benefit recipiency. Below I will briefly review research about factors related to the propensity of take-up and, when possible, interpret them in terms of costs, benefits and information.

THE EXTENT AND CAUSES OF TAKE-UP: PREVIOUS RESEARCH

Research about the degree of take-up of means-tested benefits has been rather extensive in the US (e.g. Ashenfelter,1983; Moffitt, 1983; Blank and Ruggles, 1996; Anderson and Meyer, 1997; Bollinger and David, 2001; and review in Currie, 2004) and in the UK (see reviews in Atkinson, 1989; Craig, 1991; Corden, 1995 and Currie, 2004). The take-up estimates have varied over time and between benefits, but they normally indicate substantial non-take-up. In the USA, take-up of Aid for Dependent Children (AFDC) has been estimated at between 62 and 70 per cent in 1986 and 1987 (Blank and Ruggles, 1996), and the US Unemployment Insurance take-up has been estimated at 71 per cent in 1977-87 (Blank and Card, 1991). The Department for Work and Pensions (DWP) in the UK has provided estimations of take-up of means-tested benefits in the UK since 1998. For 2000-2002, estimated take-up of different benefits has varied between 51 and 95 per cent, the lowest take-up pertaining to Jobseekers Allowance and the highest to Income Support (DWP, 2002).

During the past decade there has been an upsurge of research on take-up in several other western countries. German researchers have found take-up rates of the means-tested *Sozialhilfe* of around 40 per cent during the 1990's (Riphahn, 2001; Kayser and Frick, 2001). Terracol (2002) estimated the take-up of RMI/API in France at 65 per cent in the period 1994 to 1996. For the Netherlands, van Oorschot (1995) studied take-up of different benefits in two towns, and found large variations between benefits and between towns. For example, the take-up of housing benefits varied between 74 and 92 per cent, and the take-up of Special

Assistance between 28 and 50 per cent. Virjo (1999) estimated take-up of Social Assistance in Finland in 1995 at 25 per cent, and an equally low take-up – between 20 and 30 per cent – has been estimated for Social Assistance in Sweden (SOU, 1999; Gustafsson, 1987; 2002). The apparent differences between countries may reflect quality of data and research design as well as actual differences between countries and the programs considered. It is also important to note that there should always be some frictional non-take-up, because there is normally some time lag between eligibility and claiming. A person whose economic situation has recently changed may, for example, be waiting for an appointment to claim a benefit.

The *pre-benefit income* and/or the estimated *size of a benefit* have shown to be strongly related to the probability of take-up (see e.g. Kayser and Frick, 2001; Riphahn, 2001; Blank and Ruggles, 1996; Blundell et al., 1988; Anderson and Meyer, 1997; DWP, 2002). This relation is expected: it is obvious that the expected size of the economic gain is likely to be an important influence on the take-up decision. Results from Anderson and Meyer (1997) indicate that not only the short-term benefit but also the expected duration of benefit recipiency is of importance: in a sample of individuals not taking up Unemployment Insurance in the US, 37 per cent claimed that they did not do so because their expected benefit duration was too short.

As regards *level of education*, some have found a negative relation to take-up (Blank and Ruggles, 1996; Riphahn, 2001) while others have found no significant relation (Kayser and Frick, 2001; Terracol, 2002). Those who are highly educated are likely to have better future earning opportunities and thus shorter expected benefit durations, which makes them less likely to take up a benefit. However, people with higher education are also likely to have better knowledge about the bureaucratic system and where to obtain necessary information, making their transaction costs lower.

The results regarding family types are inconclusive. *Single parents* were found to have the highest take-up rate of all family types of AFDC in the US by Blank and Ruggles (1996); and of *Sozialhilfe* in Germany by Riphahn (2001) but not by Kayser and Frick (2001). Partnered parents may expect shorter spells of recipiency because, with the earning potential of two adults in the household, the long-term economic incentives could be smaller for this group,

leading to a lower take-up. The *number of children*, at least young children, has been reported to increase the take-up propensity (Kayser and Frick, 2001; Blank and Ruggles, 1996; Terracol, 2002; Riphahn, 2001), which is likely to be explained by an increase in the perceived need of the benefit when the well-being of children is considered.

It is plausible that transaction costs are higher for newly arrived *immigrants*. However, no study, as far as I know, has found significant differences in take-up between immigrants and natives when other socio-demographic factors are controlled for (see e.g. Bird et al.,1999). For *race,* Blank and Ruggles (1996) found that non-white women were more likely to take up AFDC in the US, controlling for factors such as age, education and family status. It is possible that non-white women expect fewer labour market opportunities and thus longer benefit durations.

Riphahn (2001) reported that *home ownership* was negatively related to take-up of *Sozialhilfe* in Germany, and Blundell et al. (1988) similarly found that tenants in public housing had higher propensity than people in other tenure types of take-up of Housing Benefit in Britain. Riphahn (2001) and Kayser and Frick (2001) found that residents in *metropolitan areas* had a higher probability of take-up of *Sozialhilfe* than others in Germany. In a large city, stigma can be lower because of the higher degree of anonymity. The geographic distance to welfare agencies can also be expected to be generally lower in more densely populated areas, thus lowering the transaction costs of travelling to the agency.

The relation between *age* and the propensity to take up a benefit must naturally depend on the nature of the benefit. In cases where the benefit in question is equally accessible to all age groups, younger people have been shown to have higher take-up rates (e.g. Blank and Ruggles, 1996; Riphahn, 2001). This is often interpreted as a result of a weaker work-norm among young people.

Many of the effects described above may also be partially explained by group-specific norms. If welfare recipiency is common in a group, and if people within that group identify and interact more with each other than with others, the norms against it can weaken and the propensity to claim a benefit should increase. So may, for example, the norms against benefit

recipiency be stronger for people with higher education, because benefit recipiency is likely to be less common among those that highly educated people relate to. Similar processes may partly explain the effects found for factors such as age, single parenthood or race.

Some studies have put group-specific norms into focus and explicitly considered *contextual effects*, that is, whether the propensity to claim a benefit is affected by the frequency of benefit recipiency in some context to which the individual belongs (e.g. a geographical area or a language group). The study of such effects requires high-quality data and strict controls to avoid selection biases. After extensive controls, significant effects of the benefit recipiency of others on an individual's benefit take-up have been found by Bertrand et al. (2000) for the US.; Terracol (2002) for France; and Mood (2004) for Sweden. Such effects are probably mainly reflections of the perceived stigma. The norms attached to a behaviour are largely dependent on the perceived normality of the behaviour, which in turn is dependent on the number of people exhibiting the behaviour (see Hedström, 1998; Cialdini, 1984; Kuran, 1995). For benefit recipiency, this implies that an increase in aggregate recipiency is likely to reduce the stigma associated with it, and thereby increase the propensity of other individuals to claim benefits. Others' benefit recipiency is, however, also likely to affect an individual's knowledge about different benefits, because information about benefits may spread through personal contacts. Thus, the greater the number of individuals who receive benefits, the greater the probability that other individuals will learn about these benefits' existence and their entitlement rules.

THE AUSTRALIAN WELFARE STATE AND TAKE-UP

Australia probably has the most selective welfare system of all western countries. Virtually all benefits are means-tested and funded by general taxation. In Esping-Andersen's classical categorisation of different welfare regimes (1990), Australia is, together with the US and Canada, classified as an 'archetypical example' of a liberal welfare state, where benefits 'cater mainly to a clientele of low-income, usually working-class, state dependants', and 'the progress of social reform has been severely circumscribed by traditional, liberal work-ethic norms […] entitlement rules are strict and often associated with stigma; benefits are typically

modest' (Esping-Andersen 1990: 26). This welfare state regime is contrasted with the social democratic and conservative welfare regimes.

Though highly influential, Esping-Andersen's categorisation has not gone unchallenged. Castles and Mitchell (1993) argue that the Australian welfare state is inherently different from other liberal welfare states and that it was created 'by other means' than those utilized in Europe, basically through providing a large part of welfare through the labour market (e.g. through minimum wage restrictions) instead of through the state. Furthermore, several Australian means-tested benefits have not primarily been focused on the very poor, but have been designed to exclude those with the highest incomes. Because many benefits are means-tested but not residual, Castles and Mitchell (see also Castles, 1985) argue that few people see it as degrading to be a welfare beneficiary. In his more recent work, however, Castles concludes that the Australian welfare state has changed under the two last governments, and that more stringent eligibility criteria for benefits has resulted in a punitive and stigmatising welfare regime more along the lines of Esping-Andersen's traditional description (Castles, 2001).

Because there are many different benefits in Australia, often with complex eligibility rules, more knowledge and effort are required from the applicant in order to claim them, and so transaction costs are likely to be high. Saunders (1991) notes that the eligibility criteria and the administrative procedures of means testing changed to become more stringent under the Hawke government's efforts to increase targeting. These changes, he argues, may have deterred people from claiming benefits because of the increases in hassle and loss of integrity for claimants.

Means-tested benefits in Australia are gradually reduced with increasing incomes by taper rates less than one. For several benefits, this means that they target a large fraction of the population, but entitlements are often rather small. Under-utilisation of these benefits could be partly a result of weak economic incentives. Of course, this feature of the benefits is also likely to make them less stigmatising: if rather well-off people receive the same type of benefits as poorer people, it is less likely that these benefits will become associated with certain negatively valued groups.

In line with Esping-Andersen's view, the traditional preconception is that the more selective benefits are, the higher the stigma associated with them will be (see Corden, 1995). It is important to bear in mind, though, that the stigma associated with a benefit may not only be an effect of how selective a particular benefit is, but also of its position in a larger welfare state context. This interaction may take different forms. On the one hand, a welfare state regime is to some degree a codification of certain normative views. A highly selective welfare state (such as the Australian one) is based on, in Esping-Andersen's words, 'traditional liberal work ethic norms'. Insofar as these norms mirror the view of the population, the stigma against recipiency of any means-tested benefit should be higher than in less selective welfare states. On the other hand, as Castles points out, if almost all benefits are means-tested, recipiency of such benefits becomes more normal and hence no benefit is singled out as particularly stigmatising. In a welfare state where most poverty is eliminated by universal transfers, few people receive means-tested transfers, and recipiency of such benefits is seen as less normal. This means that a selective benefit can be highly stigmatising in an otherwise universal welfare system but not in a predominantly selective system.

To sum up, previous research and knowledge about the Australian welfare state does not provide any clear-cut hypotheses about the extent and determinants of take-up in Australia. The complexity of the benefit system points towards high transaction costs, and the fact that many people are entitled to rather small amounts means that many eligible people have little economic incentive to claim benefits. Regarding the strength of norms against welfare use, theories point in diverging directions and the status is therefore unclear.

DATA AND DESIGN OF THE EMPIRICAL ANALYSIS

For the empirical analyses I use the first two waves of the Household, Income and Labour Dynamics Australia (HILDA) survey, administered by the Melbourne Institute for Applied Economic and Social Research. Virtually all information in HILDA is based on self-reporting. The survey collects detailed information for a nationally representative sample (about one per

thousand) of Australian households by an interview regarding the household; individual interviews with all household members 15 years of age and older; and a self-completion questionnaire. HILDA is based on a random sample of 488 Census Collection Districts (CDs). In each CD, 22-34 dwellings were sampled, and thereafter a maximum of three households in each dwelling. The first HILDA wave was collected from August to December 2001, and the second wave mainly during the same months in 2002. A total of 7682 (2001) and 7245 (2002) households responded to the survey. This corresponds to response rates of 66 (2001) and 87 (2002) per cent of households. The panel attrition rate between the two waves was 13.2 per cent. For the analyses in this paper, I will use the so-called responding person population weights in HILDA, which take account of sample design and non-response to give estimates that better represent the HILDA population, that is, all Australians aged 15 and over, excluding those living in non-private dwellings and in very remote areas of the Northern Territory.[3]

For the estimation of eligibility, we need data that reflect the criteria that are used by authorities to determine eligibility. Due to the high degree of selectivity, the Australian entitlement rules for means-tested benefits are quite complex. This makes the eligibility estimation particularly complicated, and for several benefits it is impossible to obtain good eligibility estimates with the available data. My empirical analysis consists of two parts, in which I handle this problem in different ways. Firstly, I do a broader analysis where I study the recipiency of several means-tested benefits in a subsample of respondents who are highly likely to be eligible, given their incomes and assets. The intention of this analysis is to give an indication of overall take-up for a conglomerate of different means- and assets-tested benefits among those with the greatest needs. The second analysis is a detailed study of the extent and causes of non-take-up of Parenting Payment (PP). I chose this benefit because its eligibility criteria can be well operationalized by information found in the HILDA data, which means that the estimates of eligibility in this case are likely to be accurate.

HILDA contains detailed information about the amounts and sources of income during the preceding financial year. All sources of income are covered: wages from different jobs, different kinds of benefits or pensions, income from all kinds of investments, business incomes, windfall income, etc. Wage and salary income and incomes from different kinds of benefits are also reported for the time immediately preceding the interview ('current income'). The information given by respondents is about incomes before any tax is subtracted.

Centrelink, the government agency that administers benefit means-tests and payments in Australia, normally pays benefits fortnightly. Therefore, the incomes reported for the time preceding the interview are likely to be a good approximation of the incomes that Centrelink assesses when judging a person's eligibility. Only information on wage/salary income and benefit income is given for the time immediately preceding the interview, so any additional incomes that are assessable are estimated here from the information on such incomes for the financial year. The resulting income measure is thus a fortnightly sum of the estimated earnings (based on current income), and the estimated business incomes, investment incomes, private pensions and regular private transfers (based on financial year income). Unless otherwise stated, income, eligibility and take-up here refer to or are based on this income measure because it is likely to best reflect the income that authorities use to determine eligibility.

Centrelink assesses most financial and non-financial assets of the individual's household in determining eligibility, the most important exceptions being the value of the primary home and superannuation of non-retirees. Centrelink values assets at their market value less any debts for them. Individuals in households with assets above a maximum limit are normally not eligible for a benefit. As is the case with incomes, the maximum limit varies with household characteristics (see appendix). In an equally detailed manner as for incomes, values and sources of wealth are covered in HILDA's wave 2 (2002). In contrast, very little information on assets and wealth was collected in wave 1 (2001), which means that when I take account of

assets in the calculation of eligibility, only data for 2002 can be used. I estimate the assessable assets according to the Department of Family and Community Services (FaCS) guidelines (see appendix) and I classify only those with assets below the maximum limits as eligible.

RECIPIENCY OF INCOME- AND ASSETS-TESTED CENTRELINK BENEFITS

Table I shows the estimated rates of recipiency of different income- and assets-tested benefits from Centrelink at the time of the interview and during the preceding financial year, and the average number of weeks that the benefits were received during the preceding financial year. Different benefits are targeted to different groups, so the recipiency of each benefit is of course largely dependent on the size of the eligible population, that is, on how many individuals fulfil the different criteria for recipiency of a benefit (for information about the different benefits, see Centrelink 2001; 2002 or www.centrelink.gov.au).

Table 1. Recipiency of Centrelink means-tested income support. Weighted estimates from HILDA 2001-2002.

Benefit	Recipiency at time of interview, percentage[a]		Recipiency any time during financial year[b], percentage[a]		Average length of recipiency in previous financial year[b], weeks	
	2001	2002	2001	2002	2001	2002
Age Pension	11.0	11.0	10.3	10.5	47	49
Parenting Payment	3.7	3.3	4.9	5.0	42	44
Disability Pension	3.8	4.0	3.6	4.0	45	47
Newstart	2.7	2.7	4.1	4.4	28	29
Youth Allowance	2.3	2.3	2.8	3.0	35	37
Service Pension	1.6	1.5	1.7	1.6	45	48
Austudy/Abstudy	1.0	0.9	1.2	1.1	36	35
Carer Payment	0.9	1.2	0.9	1.1	40	43
Partner Allowance	0.7	0.7	0.8	0.9	37	39
Other income support[c]	1.2	1.7	1.8	1.7	39	41
Total	28.4[d]	28.4[d]	30.6[d]	31.5[d]	41	44
n	13 969	13 041	13 969	13 041	4401	4 229

[a] Percentage of the total sample

[b] Financial year: 2001 = July 1 2000-June 30 2001; 2002 = July 1 2001-June 30 2002.

[c] Mature Age Allowance, Widow Allowance, Sickness Benefit, Special Benefit, Bereavement Allowance, Wife Pension, Mature Age Partner Allowance

[d] Percentage receiving at least one of the benefits

We can see from Table 1 that Age Pension is by far the most common of the benefits studied here, with 11 per cent of the sample receiving it at the time of the interview both years. The corresponding rate lies between 2.3 and 4.0 per cent for Parenting Payment, Disability Pension, Newstart (an unemployment benefit) and Youth Allowance, while other benefits are less common. The estimated rate of recipiency of at least one of the benefits at the time of the interview is 28 per cent. The average number of recipiency weeks was high: 41 in 2001 and 44 in 2002. Not surprisingly, benefits normally given to older people and people permanently outside the labour force – Age Pension, Disability Pension and Service Pension – have the longest durations (45-49 weeks), while benefits given to unemployed (Newstart) or young people (Youth Allowance and Ausstudy/Abstudy) have the shortest (28-37 weeks).

It has been reported that other Australian surveys understate incomes from benefits (Siminski et al. 2003). If benefit recipiency is understated in HILDA, and if this is due to selective misreporting by respondents (i.e. recipients do not report recipiency to the interviewers), take-up is likely to be underestimated. However, a lower benefit recipiency rate in a sample than in the population does not necessarily reflect misreporting. It can also be due to a higher non-response rate among poorer households, where benefit recipiency is more common. As long as poor non-recipients and recipients of benefits are equally likely not to participate in the interview, this problem will not lead to a bias of estimated take-up rates.

I have compared the estimates of recipiency at the time of the interview from HILDA 2001 with FaCS official numbers for June 2001[4] (FaCS, 2003), and there is a very good correspondence for the total number of recipients of any of the benefits in Table I. The HILDA estimate is actually slightly higher than the FaCS numbers (with a coverage rate[5] of 1.05). Recipiency of some benefits is understated, while it is overstated for others. The greatest underestimation is for Newstart, where FaCS reports that 3.6 per cent of the population aged 15 or over receives the benefit, as compared to the HILDA estimate of 2.7 per cent (a coverage rate of 0.76). In general, the unweighted estimates of recipiency in HILDA yield a higher benefit rate than the weighted estimates. The fact that the overall estimates are highly accurate while the estimates for some specific programs are not may be due to recipients not always knowing which benefit they receive.

In this section I examine the take-up of any of the benefits in Table I above. Four criteria define the population to be studied: (1) their assessable household income, equalized for household size[6], is below half the median income in the HILDA sample, (2) their assessable household assets are below the maximum amount allowed for recipiency of a benefit (including this criterion means that we can only use observations from 2002)[7], (3) the respondent has lived in Australia for at least ten years (this is a criterion for some of the included benefits, but applying it makes a very small difference in the results) and (4) the respondent is not a dependent member of a household.

Having an income below half the median income is a rather low cut-off point.[8] This means that many eligible individuals will not be included in this analysis, but that those who are included are very likely to be eligible, so this should lead to conservative estimates of non-take-up. Poor people should be eligible for some means-tested benefit, but of course some may not qualify because of failure to live up to certain conditions, for example job search requirements. To the extent that this is the case, the estimate of non-take-up among people with low incomes will be inflated. However, the actual non-take-up among all eligible individuals is likely to be higher than this estimate, because people with higher incomes and thus lower entitlements are less likely to claim benefits.

Table 2 shows the estimated take-up in this sub-sample in 2002. Under the assumption that all those below the income- and assets-limits used here are eligible for a benefit, the take-up is 84.6 per cent. The results indicate further that poor people of Age Pension (AP) age[9] are highly likely to receive the benefits they are entitled to: considering the likelihood of some frictional non-take-up, their estimated take-up rate is as good as full (94.1 per cent for women and 98.2 per cent for men). For those under AP age, the corresponding figures are clearly lower at 80.2 (women) and 72.4 (men) per cent. This could of course be due to a higher fraction of the younger respondents not being eligible for benefits in spite of low incomes, but also to a higher non-take-up of benefits normally given to younger people. It is also

interesting to note that women under age pension age take up benefits to a higher degree than men, whereas the opposite holds for those of age pension age[10]

Table 2. Estimated take-up of income support in 2002.
Weighted percentage recipients of all estimated eligible.

	Percent	n
Women		
Under Age Pension age	80.2	535
Of Age Pension age	94.1	480
Men		
Under Age Pension age	72.4	393
Of Age Pension age	98.2	339
Total take-up	84.6	1747
Take-up among the poorest[a]	91.5	775
Take-up excluding self-employed	87.3	1685

[a]Income<300 AUD/fortnight and assets<10 000 AUD

It has been reported that incomes for self-employed people are less reliable than for wage earners (see e.g. Bradbury, 1997). This means that the self-employed may actually have a living standard higher than their incomes indicate. When respondents who are self-employed in an incorporated or unincorporated business, or who have a partner who is, are excluded from the analyses, the estimated take-up rate amounts to 87.3 per cent. As expected, take-up rates are inversely related to assets and incomes: in the 'poorest' subsample, with fortnightly household incomes under 300 Australian dollars[11] and assets below 10 000 dollars, estimated take-up is 91.5 per cent.

The results in this section indicate that a large majority of those with very low incomes receive means-tested benefits. It must be kept in mind, however, that the take-up among all who are eligible is likely to be lower than in this very poor sub-sample.

THE TAKE-UP OF PARENTING PAYMENT

Parenting Payment (PP) is one of several means-tested benefits administered by Centrelink that aims at helping needy families with the costs of raising children. To be entitled to PP, one has to have at least one dependent child (not necessarily biological) under the age of 16. As a

general rule, the applicant must have been an Australian resident for two years to be eligible (some exceptions exist). PP can be given to partnered as well as single parents, but only to one member of a couple. For the years studied in this paper (2001-2002), applicants were not required to apply for work or to engage in specific activities. Information in HILDA allows me to mimic the criteria for PP in estimating eligibility: I include only parents in the sample who have lived in Australia at least two years and who have at least one dependent child under 16 that lives with them more than 50 per cent of the time. Parents who are at the same time dependent children or students within a household are excluded. I restrict the sample further by including only women, because very few men in the sample receive PP. Women whose partner received Parenting Payment at the time of the interview are not considered eligible.

When judging eligibility for PP, Centrelink assesses most incomes (for detailed information on which incomes are assessed and which are not, see FaCS, 2004). Individuals' own incomes as well as any partner's incomes and their combined incomes are assessed, and benefits decrease gradually with incomes above certain limits. The limits and taper rates differ depending on household composition and a few other conditions (for a thorough account of eligibility criteria, limits and taper rates, see FaCS, 2004, or Centrelink, 2001; 2002). The detailed information on household incomes in HILDA allows me to mimic these criteria when estimating eligibility (see appendix).[12]

I estimate the take-up rate by assessing how many of those regarded as eligible who were receiving PP at the time of the interview. In the first row of Table 3, we can see that 71.1 per cent of those with estimated eligibility in 2002 did receive PP.[13] There is also a clear indication of take-up being much lower among partnered mothers than among single mothers – the difference in estimated take-up rates is almost 30 percentage points.

Table 3. Estimates of Parenting Payment take-up (per cent recipients of estimated eligible)

Eligibility	Take-up		
	Partnered	Single	All
Assets considered (2002)			
Eligibility based on current income (CI)	51.3	80.6	71.1
Eligibility based on CI, entitlements<50 excluded	54.5	83.4	74.4
Eligibility based on CI and financial year income	62.5	82.3	77.0
Assets not considered			
Eligibility based on CI 2001	54.9	83.2	73.6
Eligibility based on CI 2002	46.5	78.6	67.5

To assess the sensitivity of the take-up estimate, Table 3 also includes estimates of take-up for alternative eligibility specifications. Misclassification of eligibility can of course occur as a result of different reporting of income to Centrelink and to the HILDA survey, but could also be a result of Centrelink making exceptions from general rules, or of measurement errors. Respondents with reported incomes close to the eligibility limit run the highest risk of being misclassified. If we exclude all those with entitlements under 50 dollars per fortnight (20 respondents), estimated take-up increases slightly to 74.4 per cent.

Take-up among those who had income and assets below eligibility level at the time of the interview *and* (on average) during the last financial year is 77 per cent. This rate refers to a group likely to have more stable eligibility, and where frictional non-take-up is likely to be small. The estimated take-up based on current income but *not* on assets is 67.5 per cent in 2002, so the overestimation of non-take-up of PP if assets are not considered is about four percentage points. Take-up appears to be higher in 2001 than in 2002.[14]

As noted above, total income support recipiency is not understated in HILDA. However, PP is one of the benefits where recipiency as estimated from HILDA is lower than official numbers from FaCS. The estimated PP recipiency rate in the Australian population aged 15 and over was 3.7 per cent at the time of the interview, 2001, in HILDA, while the (weighted) rate calculated on FaCS numbers for June 2001 is 4.2 (a coverage rate of 0.87). The discrepancy between HILDA and FaCS numbers can be due to non-reporting of PP by eligible respondents who in fact receive it. In many cases, this is likely to be due to benefit confusion,

that is, respondents do not know which benefit they receive from Centrelink (recall that the overall rate of income support recipiency is not understated in HILDA). Those who report recipiency of another benefit are not considered eligible here (see note 12), so no bias will result from such confusion. The underestimation can also partially be a result of systematic non-participation in HILDA by those eligible for PP – this would bias estimates of take-up only if eligible recipients were less likely to participate than eligible non-recipients. Even under the most restrictive – and highly unrealistic – assumption that the discrepancy is exclusively due to recipients of PP not reporting recipiency of any benefit, estimated non-take-up is non-negligible at 18.5 per cent.

Multivariate analysis: Who takes up benefits and who does not?

Which factors increase the propensity of claiming PP among eligible women? Is there any category where take-up is particularly low? In Table 4, I summarise the mechanisms through which variables included in the multivariate analysis are likely to affect take-up (when other included variables are held constant). The variables will be described in detail below. The mechanisms indicated in the table are most likely not the only ones operating, but they are the ones that I believe to be most important considering the previous theoretical discussion and findings from other countries. I also include in the analyses some variables for which the theoretical link to take-up is unclear: namely, age, whether one owns the primary home, self-employment status and whether one is aboriginal or a Torres Strait Islander.

Table 4. Plausible effects of variables on the components of the take-up decision.

	Economic benefit	Perceived economic need	Expected duration of recipiency	Transaction costs	Stigma costs
Size of entitlement	**+**				
Windfall income		**-**			
Benefit recipiency in CD				**-**	**-**
Education			**-**	**-**	**(+)**
Immigrant				**+**	
Remote area				**+**	
Single mother			**+**		**(-)**
Number of children		**+**			

Thus, I expect take-up to increase with the size of the entitlement and decrease with windfall income. Immigrants are likely to have less knowledge about the Australian benefit system and less knowledge of where to get more information; and people in more remote areas normally have less convenient access to Centrelink offices, so I expect these categories to have higher transaction costs and therefore a lower take-up. An effect of benefit recipiency in the Census Collection District (CD) should primarily reflect stigma, but to some degree also transaction costs (because of increased availability of information about benefits). Both mechanisms should lead to a positive relation between this variable and take-up.

Variables

The binary outcome of interest is the *recipiency of PP at the time of the interview* as reported by the respondent (recipiency=1; non-recipiency=0).

Age and *number of children* are measured in their continuous forms. The average age among eligible respondents is 35 (standard deviation 8.3), and the average number of children is 1.9 (standard deviation 1.1). One variable indicates whether the respondent is *aboriginal or a Torres Strait islander* (there are only 68 women in this category with estimated eligibility, i.e. 7.5 per cent of all eligible). Another variable indicates whether the respondent is *Australian-born* or not (24 per cent of eligible respondents are born outside Australia).[15] I initially used several dummy variables indicating *level of education,* but in the analyses only respondents with an advanced diploma (two-year university degree) or higher differed significantly in take-up from other categories, so I include a dummy variable only for this category (18 per cent of all eligible).

Dummy variables indicate whether the respondent's household *owns the primary home* (42 per cent of all eligible) and whether anyone in the household is *self-employed* (14 per cent of all eligible). *Remoteness of area* is indicated by three dummies: major city (55 per cent of all eligible); inner regional area (27 per cent of all eligible); and more remote area, comprising outer regional, remote and very remote areas (in total 18 per cent of all eligible).

Benefit recipiency in the respondent's CD gives the proportion of recipients of any of the means-tested benefits listed in Table I, except Age Pension, among HILDA respondents during the last financial year[16], in the respondent's Census Collection District (CD)[17] The average of this variable in the sub-sample is 28 per cent (standard deviation 16).

A variable that estimates the *size of the entitlement* in Australian dollars (AUD) for each eligible individual is used as an indicator of the economic incentives to claim a benefit. This variable is calculated using the Centrelink criteria and taper rates for individuals in different situations (see appendix). The average entitlement, thus calculated, is 301 AUD per fortnight among all eligible. For recipients, the average entitlement is 325 AUD, and for eligible non-recipients it is slightly lower at 244 AUD. Finally, I include a variable measuring the *amount of windfall income*, that is, money received irregularly during the last financial year, as an indicator of access to alternative economic support. Very few respondents – only 28 of all eligible respondents (3 per cent) – report a non-zero windfall income. This variable is expressed in units of thousand AUD.

Results

Because the outcome variable is dichotomous I use logit regression.[18] I estimate four different models. In the first model I include all variables described above except entitlement, windfall income and the variable measuring benefit recipiency in the CD. In the second model I add the entitlement and the windfall income variables, and in the third the contextual variable. The fourth model is identical to the third model, but assets are here included in the eligibility estimation. Only observations from the 2002 survey with non-missing information on all asset variables can be used in this model, which leads to a large reduction in sample size.

In models 1-3, I pool observations from 2001 and 2002. To eliminate potential bias resulting from the dependency of observations for the same individual, standard errors are corrected for this clustering. Probability weights (as described above) are used in all models. A dummy that indicates year of observation is included to eliminate dependency between observations within a year. In the estimation of contextual effects in model 3, I include only those

observations where there were 15 respondents or more in the CD, because rates based on small numbers are less reliable. All models are presented in Table 5.[19]

Table 5. Logit regression of determinants of Parenting Payment take-up. Robust z statistics in parentheses.

	Model 1	Model 2	Model 3	Model 4
Foreign-born	-0.595	-0.638	-0.759	-1.271
	(2.55)*	(2.71)**	(3.09)**	(3.02)**
Aboriginal	0.411	0.257	0.361	0.369
	(0.95)	(0.58)	(0.77)	(0.46)
Age	0.001	0.005	0.011	0.044
	(0.05)	(0.42)	(0.91)	(1.80)
Year 2002	-0.359	-0.371	-0.380	
(ref. 2001)	(2.14)*	(2.15)*	(2.13)*	
High education	-0.535	-0.523	-0.467	-0.095
(ref. low/medium education)	(2.05)*	(2.02)*	(1.76)	(0.23)
Remoteness of area				
(ref. major city)				
Inner regional	-0.558	-0.570	-0.605	-1.069
	(2.41)*	(2.41)*	(2.45)*	(2.43)*
Outer regional/remote	-0.817	-0.833	-0.984	-1.688
	(3.26)**	(3.26)**	(3.64)**	(3.38)**
Single mother	1.002	0.837	0.896	0.636
(ref. partnered mother)	(4.89)**	(3.95)**	(4.11)**	(1.74)
Number of children<16yrs	0.140	0.118	0.133	-0.030
	(1.37)	(1.17)	(1.27)	(0.18)
Self-employed in household	-1.125	-1.014	-0.875	-1.274
(ref. no one self-employed in household)	(4.19)**	(3.78)**	(3.20)**	(2.61)**
Homeowner	-0.559	-0.455	-0.491	-0.472
(ref. renter/lives rent-free)	(2.84)**	(2.24)*	(2.38)*	(1.25)
Entitlement (in AUD)		0.003	0.003	0.004
		(3.72)**	(3.64)**	(2.50)*
Windfall income (in 1000 AUD)		-0.008	-0.006	0.001
		(0.58)	(0.41)	(0.08)
Per cent benefit recipients in CD			0.019	0.030
			(2.73)**	(2.81)**
Constant	1.119	0.202	-0.502	-1.609
	(2.45)*	(0.38)	(0.89)	(1.51)
Observations	906	899	875	296

* significant at 5%; ** significant at 1%

Note: Likelihood-ratio tests are not carried out, because the likelihood in a maximum likelihood estimation with clustering or weights is not a true likelihood.

Results in models 1-3 corroborate the finding that single parents have a clearly higher probability of take-up of PP as compared to partnered parents. Take-up is also significantly lower for foreign-born than for Australian-born mothers; lower for those living outside the major cities; and lower for mothers with an advanced diploma or higher education than for those with lower education. We can also see that a mother in a household where someone is self-employed or where they own the home is less likely to take up PP. None of these differences is explained by the size of entitlements, but the lower take-up of those with high education seems to be partly an effect of their living in areas where benefit recipiency is less common. Entitlements are, as expected, positively related to take-up. Aboriginal mothers have a higher take-up rate than non-aboriginal mothers in the sample, but the difference between the groups is at no stage significant. Neither are the effects of number of children, windfall income and age.

The relation between benefit recipiency in the CD and take-up is positive, as expected. The effect of this variable may partly reflect the effect of the socio-economic composition of the CD in a broader respect: areas with high benefit recipiency may be areas where other behaviours or characteristics are more common, so it may not be just the benefit recipiency but other behaviours and characteristics of other people in the CD that affect the propensity of an individual to take up a benefit. This would, however, also be an effect of the context upon the individual. The risk of selection effects biasing the coefficient for this variable upwards is probably small due to the large number of socio-demographic controls.

In model 4, assets are taken into account in the eligibility estimation. The sample is thereby much reduced and it is harder to obtain significant results. Several point estimates change substantially, but most maintain their direction and, roughly, their relative size. To see if the changes between models 3 and 4 are due to the change of the definition of eligibility or to the smaller sample not being a random representation of the sample in earlier models, one model (not shown) was tested where eligibility was defined as in earlier models (i.e. it did not include assets), but the sample was the same as in model 4 (i.e. only respondents from 2002 with non-missing information on assets). This analysis shows that not including assets in models 1-3 did not bias the results.[20]

To facilitate substantive interpretations of the results, we can compare the predicted probabilities of take-up for individuals differing in some characteristic while other variables in the model are held constant. For values of a variable X_1, the probability of take-up for individual i (P_i) is estimated as:

$P_i = 1/(1+\exp(-L_i))$ where $L_1 = a + (b_i*X_{1i}) + (b_k*(X_{ki}))$

where: b_1 is the estimated coefficient for X_1 from the logit regression, (X_k) constant values of the other independent variables, and b_k are the coefficients of these variables.

In Figures 1 and 2 I graph the predicted probability of take-up, based on estimates in model 3, for different levels of entitlement and contextual benefit recipiency.[21] The three vertical lines indicate the average value of the independent variable and one standard deviation's distance from it in both directions.

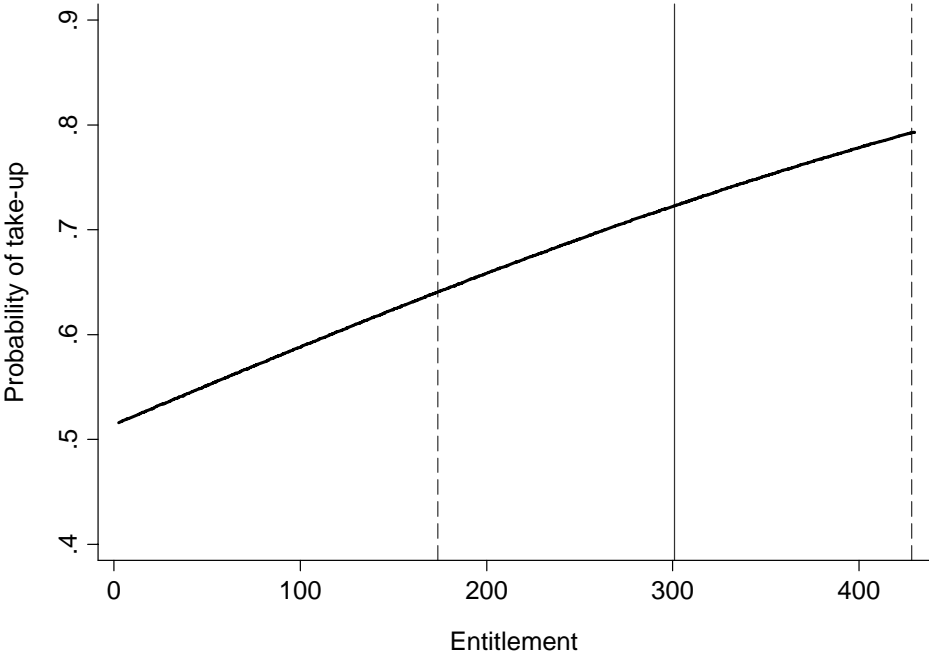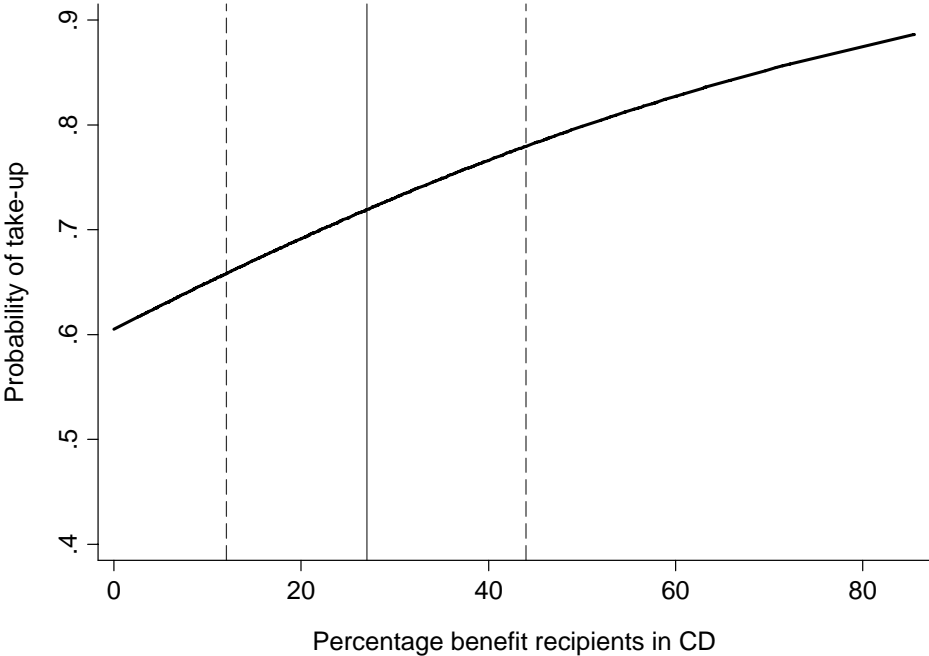Figure 1 Predicted probability of take-up at different levels of entitlement

Figure 2 Predicted probability of take-up at different levels of CD benefit recipiency

Figures 1 and 2 show that the size of entitlement and the level of contextual benefit recipiency are both associated with substantial increases in the take-up probability.[22] For contextual benefit recipiency, the relation is slightly non-linear, indicating a stronger increase in take-up propensity at lower levels of CD benefit recipiency.

To further our understanding of the relative importance of the significant variables in Table 5, model 3, Table 6 shows how the predicted probability of take-up changes in each of these when other variables in the model are held constant. The table shows how the predicted probability of take-up changes in each of the significant variables in model 3, and takes as its point of departure a partnered woman 35 years of age, Australian-born, non-aboriginal, with one child, an entitlement of 301 AUD, education lower than advanced diploma, living in a major city, home-owner, with no self-employed person in the household and with CD benefit

recipiency at 28 per cent. For entitlement and contextual benefit recipiency, the take-up is reported for levels at one standard deviation below and above the average.

Table 6. Predicted take-up probability of a "baseline woman" and when varying one characteristic at a time

"Baseline" woman	0.72
Foreign born	0.55
High education	0.62
Inner regional area	0.59
Outer regional or remote area	0.49
Single mother	0.86
Entitlement 174 AUD	0.64
Entitlement 428 AUD	0.79
CD benefit recipiency 12 %	0.66
CD benefit recipiency 44 %	0.78
Rents primary home	0.81
Self-employed in family	0.52

The estimated effects of single parenthood, self-employment, immigration and remoteness of area are quite strong, corresponding to differences of 13 to 23 percentage units in take-up. A standard deviation's change in entitlement or contextual benefit recipiency or a difference in education level or tenure has an average effect on take-up of 6 to 10 percentage units.

The results of the multivariate analysis confirm that the size of economic incentives is important: the take-up probability increases with entitlement. The access to alternative economic help, as measured by windfall income, and the number of children should both affect the perceived need of money. Surprisingly, neither of them is significantly related to take-up. Some results point towards the importance of transaction costs: take-up is clearly lower among people outside the major cities and among immigrants. For the self-employed, part of the explanation of the low take-up is probably that the actual living standard in these households is not properly reflected in their reported incomes. However, their low take-up may also be caused by higher transaction costs, because their income reporting to Centrelink is likely to be more demanding. It may also be harder for this group to calculate their potential eligibility: if they feel a high degree of insecurity as to whether they are entitled to PP, they may feel less inclined to invest time and effort in claiming it.

The effect of benefit recipiency in the CD is consistently significant, which points towards stigma as one important deterrent to take-up. Though this effect may be caused by other social influence mechanisms, stigma is likely to play an important role. Of course, geographical proximity is not the only characteristic increasing the propensity of identification and interaction with others. If individuals identify or interact more with people who are similar to them in some respect, their behaviour, knowledge and attitudes will be more affected by these people than by others. Thus the behaviour of people with this shared characteristic will be more similar than it would be for exogenous reasons alone.

Highly educated people have a lower take-up propensity than lower educated people, in spite of their transaction costs probably being lower. This result is more likely due to their shorter expected benefit durations and/or the stigma mechanism mentioned above: if highly educated people tend to interact and identify with non-recipients, the social and personal costs of claiming the benefits they are entitled to are likely to be higher than for those who interact and identify more with recipients. The drop of the effect of the education variable when controls for benefit recipiency in the CD are added suggests a relation of this kind: highly educated people tend to have lower take-up partly because they live in areas where there are few benefit recipients.

Such stigma mechanisms may also be part of the explanation of the differences between partnered and single mothers: if a single mother identifies with other single mothers, and their benefit recipiency is high, the stigma she feels about claiming PP should be less than it would be for a partnered mother. Similarly, if a single mother frequently interacts with other single mothers, she may be better informed about her potential eligibility and the application procedure. For these and other categories where processes of this kind may operate, differences between groups that were initially exogenously caused can be endogenously reinforced and strengthened.

CONCLUSIONS

For a welfare system to be efficient, benefits must reach the people they are designed for. This is a potential problem when benefits are selective, because the initiative of claiming a benefit must then be taken by the needy individual. Australia is a highly selective welfare state, but in spite of this, non-take-up has not been much discussed or studied. In this paper, I have analysed data from the two first waves of HILDA in an attempt to further the understanding of non-take-up in Australia.

The discussion of theories and previous research about non-take-up, and consideration of the Australian conditions, did not result in any clear-cut hypotheses regarding the extent of take-up. Some theories and facts point towards a high take-up in Australia, while others seem to imply a low one. The empirical results give a somewhat mixed picture: non-take-up seems to be considerable in some population categories, while it is low in others. Low income earners of retirement age appear to be efficiently targeted with means-tested benefits, whereas 20 to 28 per cent of those with equally low incomes below Age Pension age do not receive any income support benefits. On average, almost 85 per cent of the poor receive some income support benefit. This is a high take-up rate by international standards, but we must remember that it is not an estimate of take-up among all who are eligible, but only among the poorest. Take-up should be lower when all who are eligible are considered.

The main difficulty in studying take-up lies in the estimation of eligibility. For a detailed analysis of take-up, I therefore focused on Parenting Payment (PP), a benefit for which the eligibility criteria could be well captured by information in HILDA. The estimated take-up of PP is 71 per cent, but it is far less common among partnered parents, even when the size of entitlement is accounted for. The results of the multivariate analysis also show clearly lower take-up in those categories where transaction costs are likely to be high (immigrants and those living outside the major cities), and increasing take-up with increased size of entitlement and benefit recipiency in the CD.

Contrary to the traditional conception of selective welfare states as highly stigmatising, this paper gives no evidence of an exceptionally low degree of take-up in Australia, at least not

among the poorest and among those eligible for PP. The relatively high take-up rates found in my analyses appear to compare better to those found in countries such as the US and UK than to the very low ones found in the Scandinavian countries. Still, these results show that more than marginal non-take-up exists in some groups, and in the case of PP, that the balance between potential economic benefits on the one hand and transaction and stigma costs on the other are crucial for understanding the extent to which individuals utilize the benefits they are entitled to.

REFERENCES

Anderson, P. M. and Meyer, D. B. (1997) 'Unemployment Insurance Take-up Rates and the After-Tax Value of Benefits', *The Quarterly Journal of Economics* 112: 913-937.

Ashenfelter, O. (1983) 'Determining Participation in Income-Tested Social Programs', *Journal of the American Statistical Association* 78: 517-525.

Atkinson, A. B. (1989) 'The take-up of social security benefits'. Chapter 11 in A. B. Atkinson *Poverty and Social Security*. London: Harvester Wheatsheaf.

Bertrand, M., Luttmer, E.F.P. and Mullainathan, S. (2000) 'Network Effects and Welfare Cultures', *The Quarterly Journal of Economics* 115: 1019-56.

Bird E. J.; Kayser, H. and Frick J. R. (1999) *The Immigrant Welfare Effect: Take-Up or Eligibility?* Discussion Paper 66. Bonn: IZA.

Blank, R. M. and Ruggles, P. (1996) 'When Do Women Use Aid to Families with Dependent Children and Food Stamps? The Dynamics of Eligibility versus Participation', *The Journal of Human Resources* 31: 57-89.

Blank, R. M. and Card, D. E. (1991) 'Recent Trends in Insured and Uninsured Unemployment: Is There an Explanation?' *The Quarterly Journal of Economics* 106: 1157-1189.

Blundell, R., Fry V., and Walker I. (1988) 'Modelling the Take-up of Means-Tested Benefits: The Case of Housing Benefits in the United Kingdom', *The Economic Journal* 98: 58-74.

Bollinger, C. R. and David, M. H. (2001) 'Estimation with Response Error and Nonresponse: Food Stamp Participation in the SIPP', *Journal of Business and Economic Statistics* 19: 142-153.

Bradbury, B. (1997). 'The Living Standards of the Low Income Self-Employed', *The Australian Economic Review* 30: 374-89.

Castles, F. (1985). *Working Class and Welfare: reflections on the political development of the welfare state in Australia and New Zealand, 1890-1980*. Wellington: Allen & Unwin,

Castles, F. (2001). 'A farewell to the Australian welfare state', *Eureka Street*, 11: 29-31.

Castles, F. and Mitchell, D. (1993). 'Worlds of Welfare and Families of Nations' Chapter 3 in F. Castles, (Ed.) *Families of Nations. Patterns of Public Policy in Western Democracies*. Aldershot: Dartmouth.

Centrelink (2001) *A guide to Australian payments 2001*. Brochure, Centrelink.

Centrelink (2002) *A guide to Australian payments 2002*. Brochure, Centrelink.

Cialdini, R.B. (1984) *Influence: The Psychology of Persuasion.* New York: Quill.

Corden, Anne. (1995). *Changing Perspectives on Benefit Take-up*. Social Policy Research Unit, University of York. HMSO.

Craig, P. (1991). Costs and Benefits: A Review of Research on Take-up of Income-Related Benefits. *Journal of Social Policy* 20: 537-565.

Currie, J. (2004). *The Take-Up of Social Benefits*. Discussion Paper 1103. Bonn: IZA.

Department of Work and Pensions (DWP) (2002). *Income Related Benefits Estimates of Take-Up in 2001-2002*. London.

Elster, J. (1989) *Nuts and Bolts for the Social Sciences*. Cambridge: Cambridge University Press.

Esping-Andersen, G. (1990). *The Three Worlds of Welfare Capitalism.* Princeton: Princeton University Press.

FaCS, 2004. *Guide to Social Security Law* http://www.facs.gov.au/guide/ssguide/readersn.htm(2004-08-12)

FaCS, 2003. *Income support customers: A statistical overview 2001*. Canberra: FaCS Occasional Paper No 7.

Gustafsson, B. (1987) 'Som ett isberg? Om underutnyttjande av socialbidrag' ('Like an iceberg? On the under-use of Social Assistance'), *Nordisk Sosialt Arbeid* 3: 43-51.

Gustafsson, B. (2002) 'Assessing Non-Use of Social Assistance', *European Journal of Social Work* 5: 149-158.

Hedström, P. (1998) 'Rational Imitation', in Hedström, P. and Swedberg, R. (eds.) *Social Mechanisms: An Analytical Approach to Social Theory*, pp. 306-27. Cambridge: Cambridge University Press.

HILDA Annual Report (2002) Melbourne Institute of Applied Economic and Social Research.

HILDA Annual Report (2003) Melbourne Institute of Applied Economic and Social Research.

Kayser, H. and Frick, J. R. (2001) '*Take It or Leave It: (Non-)Take-Up Behavior of Social Assistance in Germany',* Schmollers Jahrbuch 121: 27-58.

Kuran, T. (1995) *Private Truths, Public Lies: The Social Consequences of Preference Falsification*. Cambridge: Harvard University Press.

Moffitt, R. (1983) 'An Economic Model of Welfare Stigma', *American Economic Review* 73: 1023-1035.

Mood (2004) 'Social influence effects on Social Assistance Recipiency', *Acta Sociologica* 47: 235-251.

van Oorschot, W. (1995) *Take It or Leave it: a Study of Non-Take-Up of Social Security Benefits*. Tilburg: Tilburg University Press.

Riphahn, R. 2001. 'Rational Poverty or Poor Rationality? The Take-Up Study of Social Assistance Benefits', *Review of Income and Wealth* 47: 379-98.

Saunders, P. 1991 'Selectivity and Targeting in Income Support: The Australian Experience', *Journal of Social Policy* 20: 299-326.

Siminski, P., Saunders, P. and Bradbury, B. (2003). 'Reviewing the Intertemporal Consistency of ABS Household Income Data through Comparisons with External Aggregates', *The Australian Economic Review* 36: 333-349.

SOU (Governmental Commission Report) (1999) *Ökade socialbidrag: en studie om inkomster och socialbidrag åren 1990 till 1996*. ('Increasing Social Assistance: a study of incomes and social assistance 1990 to 1996') SOU 1999: 46. Stockholm: Fakta Info Direkt.

Terracol, A. (2002). *Analyzing the take-up of means-tested benefits in France*. Working paper, TEAM, Université Paris.

Virjo, I. (1999). *'Underutnyttjande av socialbidrag – dess omfattning och orsaker'* ('Underuse of Social Assistance – its extent and causes'). Dissertation, Tammerfors University (Finland), Department of Sociology and Social Psychology.

Watson, N. (2004). *The HILDA Survey: Wave 2 Weighting*. HILDA Project Technical Paper 3/04. University of Melbourne: Melbourne Institute of Applied Economic and Social Research.

Watson, N. and Wooden, M. (2002) *The HILDA Survey: Wave 1 Survey Methodology*. HILDA Project Technical Paper 1/02. University of Melbourne: Melbourne Institute of Applied Economic and Social Research

Watson, N and Fry, T.R.L. (2002). *The HILDA Survey: Wave 1 Weighting.* HILDA Project Technical Paper 3/02. University of Melbourne: Melbourne Institute of Applied Economic and Social Research

Whiteford, P. and Doyle, J. (1991) *Take-up of Family Income Supplement in 1986 – A Research Note.* Discussion Paper 29. Social Policy Research Centre. Sydney: University of New South Wales.

APPENDIX: ESTIMATION OF ELIGIBILITY AND ENTITLEMENT

Details about eligibility and entitlements for benefits can be found in FaCS (2004) or Centrelink (2001; 2002). Eligibility and entitlements are based on various criteria apart from income and assets. All major sources of income except other income support benefits are assessed. A range of marginal types of incomes, that is, windfall incomes like inheritances, redundancy payments or gifts; payments for work-related expenses or payments from natural disasters trust funds are exempt from assessment. Centrelink values most financial and non-financial assets of the individual's household, the most important exceptions being the value of the primary home and superannuation of non-retirees. Non-financial assets are valued at their market value less any debts.

Note: all monetary sums are expressed in Australian dollars.

In this paper:

A. The **estimation of assessable income** is given by:

current (i.e. at the time of the interview) wage and salary income

+

financial year business incomes, investment incomes, private pensions and private regular transfers

This sum is expressed per fortnight.

B. The **estimated assessable assets for a household** is given by:

Financial assets *except non-retirees' superannuation*: i.e. equity investments, trusts, own bank accounts, joint bank accounts, children's bank accounts, redeemable insurance policies, retirees' superannuation

+

Market value of non-financial assets *except the primary home:* properties, collectibles, businesses and vehicles

−

Outstanding debt for properties and businesses

Note: There is no information on debts for collectibles and vehicles in HILDA.

C. Respondent is **classified as eligible** for PP if:

1. She is a woman
2. She has a dependent child younger than 16
3. She is not receiving other income support
4. The partner is not receiving PP
5. Her assessable income is below limits given below
6. (If she is partnered) Her partner's and the household's combined incomes are below limits given below
7. The assessable assets of her household are below limits given below
8. She is not a dependent child or student

Income limits:

a) partnered woman, partner not a pensioner, 2001
own current income/fortnight<566
partner's current income/fortnight<989
combined current income/fortnight<1103

b) partnered woman, partner not a pensioner, 2002
own current income/fortnight<597
partner's current income/fortnight<1051
combined current income/fortnight<1165

c) single woman, 2001
own current income<1156

d)single woman, 2002

own current income<1229

e) partnered woman, partner a pensioner, 2001
combined current income/fortnight<1151

f) partnered woman, partner a pensioner, 2002
combined current income/fortnight<1195

Assets limits (2002 only)

a) Homeowner, single
household assets<145 250

b) Homeowner, partnered
household assets<206 500

c) Non-homeowner, single
household assets<249 750

d) Non-homeowner, partnered
household assets<311 000

D. The **size of entitlement** is determined by:

Maximum entitlement for family type in question
-
Household's assessable incomes*taper rate

Maximum entitlements, taper rates and income limits at which different taper rates are used vary according to family type. The calculation of entitlement for each family type is given below.

a) *Partnered woman (partner not pensioner) 2001*

entitlement=323 if own income<62 & partner's income<547

entitlement=323-(0.7*(partner's income-546)) if own income<62 & partner's income>546

entitlement=323-(0.5*(own income-62)) - (0.7*(partner's income-546)) if own income>61 & own income<246 & partner's income>546

entitlement=323-(0.5*(own income-62)) if own income>61 & own income<246 & partner's income<547

entitlement=323-(0.7*(own income-246))-(0.5*(245-62)) if own income>245 & partner's income<547

entitlement=323-(0.7*(own income-246))-(0.5*(245-62))-(0.7*(partner's income-546)) if own income>245 & partner's income>546

entitlement=0 if own income>575 or partner's income>1007 or combined income>1121

b) *Single woman, 2001*

entitlement=402 if own income<(137+(25*(number of dep. children)))

entitlement=402-0.4*(own income-(136+(25*number of dep. children))) if own income>(136+(25*(number of dep. children)))

entitlement=0 if own income>(1155)

c) Partnered woman (partner not pensioner), 2002

entitlement=338 if own income<62 & partner's income<568

entitlement=338-(0.7*(partner's income-567)) if own income<62 & partner's income>567

entitlement=338-(0.5*(own income-62))- (0.7*(partner's income-567)) if own income>61 & own income<246 & partner's income>567

entitlement=338-(0.5*(own income-62)) if own income>61 & own income<246 & partner's income<568

entitlement=338-(0.7*(own income-246))-(0.5*(245-62)) if own income>245 & partner's income<568

entitlement=338-(0.7*(own income-246))-(0.5*(245-62))-(0.7*(partner's income-567)) if own income>245 & partner's income>567

entitlement=0 if own income>597 or partner's income>1051 or combined income>1165

d) Single woman, 2002

entitlement=429 if own income<(140+(25*(number of dep. children)))

entitlement=429-(0.4*(own income-139+(25*(number of dep. children)))) if own income>(139+(25*(number of dep. children)))

entitlement=0 if own income>(1229+(25*(number of dep. children)))

e) Partnered woman, partner pensioner, 2001

entitlement=323- (0.35*(combined income-490))-(0.25*(490-124)) if combined income>490

entitlement=323- (0.25*(490-124)) if combined income>124 & combined income<491

entitlement=323 if combined income<125

entitlement=0 if combined income>1195

f) Partnered woman, partner pensioner, 2002

entitlement=338 - (0.35*(combined income-490))-(0.25*(490-124)) if combined income>490

entitlement=338 - (0.25*(490-124)) if combined income>124 & combined income<491

entitlement=338 if combined income<125

entitlement=0 if combined income>1195

NOTES

[1] Non-take-up does commonly, but not by necessity, imply this. As Atkinson (1989) argues, it depends on what the aim of the benefits is and which causes people have for not claiming.

[2] I have found only one study where the aim is to study the take-up of an Australian benefit. This is a Discussion Paper (Whiteford and Doyle, 1991) that analyses the take-up of Family Income Supplement (FIS) in 1986. The results of this paper indicate a take-up rate of only 13.6 per cent, but the authors warn that this should only be taken as a rough approximation due to data limitations.

[3] HILDA weights are described in Watson and Fry (2002) and Watson (2004). For general descriptions of HILDA, see Watson and Wooden, 2002; the HILDA Annual Report 2002 and 2003). These and other publications about HILDA are accessible from the HILDA website at www.melbourneinstitute.com.au/hilda.

[4] The FaCS numbers refer to recipiency any time during approximately one month (a fortnight either side of 30 June), which can lead to slightly higher rates than HILDA numbers (which refer to recipiency at the time of the interview only).

[5] Coverage rate=estimated number of recipients using HILDA weights/number of recipients reported by FaCS.

[6] Equalized income=income divided by the square root of household size.

[7] There is a lower assets limit for benefits than for pensions. I consistently use the lower limit.

[8] Note that the income used here is pre-benefit and pre-tax, which means that a larger fraction of the sample falls below the 'half median line' than when disposable (post-benefit, post-tax) income is considered (as is done in most international comparisons of poverty rates).

[9] Men: 65 or older; Women: 62 or older

[10] All rates differ from each other at prob>F consistently smaller than 0.01.

[11] One Australian dollar (AUD)= 0.41 GBP / 0.76 USD / 0.60 Euro (2005-05-12).

[12] Because most government benefits are not assessable, eligibility for one benefit normally limits eligibility for other benefits. Some benefits are indeed designed to complement one another, but individuals in most circumstances cannot receive more than one of the benefits classified as income support payments at a time. Analyses showed that among non-recipients with otherwise estimated eligibility, 15 per cent received some amount from an income support payment other than PP. Only 4 per cent of recipients of PP reported recipiency

of another income support payment. Many of the non-recipients who receive another income support payment are, as a result of this, likely not to be eligible for PP, so I do not classify them as eligible.

[13] When respondents who are self-employed in an incorporated or unincorporated business, or who have a partner who is, are excluded from the analyses, estimated take-up amounts to 76 instead of 71 per cent.

[14] The difference between the years is statistically significant at the 5 per cent level (prob > F = 0,0416 for the difference between the rates of 73.6 and 67.5).

[15] Out of the foreign born category (24 per cent), 8 percentage units are born in another of the main English-speaking countries. The differences between immigrants from the main English-speaking countries and other immigrants were at no stage significant, and they were therefore collapsed into one category.

[16] Financial year=July 1 past year - June 30 present year. Note that results are very similar if benefit recipiency in the CD is calculated for the time of interview (i.e. "current" benefit recipiency).

[17] On average, 250 households live in each CD and the average number of households in each CD in HILDA per year is 30. The respondent is excluded from the calculations of benefit recipiency in her CD. The CD of a respondent is recorded at the 2001 interview, and new respondents in 2002 are ascribed the same CD as any household member who participated in the 2001 interview. Excluding new respondents, respondents who have moved between interviews or during the year preceding any of the interviews yields almost identical point estimates and standard errors.

[18] Procedure *svylogit* in Stata 8 SE, with options *pweights* and standard errors corrected for dependence of observations pertaining to the same individual.

[19] All models were estimated with the alternative eligibility measure, based on current *and* financial year income. The sample was thus reduced from 906 to 750 respondents in Model 1. Coefficients and their significance levels were roughly similar, except for the coefficients for (1) the entitlement variable, which was consistently weaker, but significant in all models except model 4, and (2) the immigration variable, which was clearly stronger in all models, and (3) the homeowner variable, which was slightly weaker and consistently insignificant.

[20] The coefficients of the test-model were very close to coefficients in model 4, indicating that the difference in coefficients between models 3 and 4 was due to the change of sample and not to the change in eligibility definition.

[21] Other variables are held constant so that the lines represent the effect for a partnered woman 35 years of age,

Australian-born, non-aboriginal, with one child, an entitlement of 301 AUD, education lower than advanced diploma, living in a major city, home-owner, with no self-employed person in the household and with CD benefit recipiency at 28 per cent.

[22] The overall linear effect of entitlement is a slight simplification: While the effect of entitlement is uniformly linear for partnered women, it is slightly non-linear for single women, with a steeper increase at lower entitlements than at higher ones. Note that the maximum entitlement is higher for single mothers than for partnered mothers (see appendix).