Movements Between Benefit Types

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Abstract

It is often the case that in the analysis of the determinants of welfare dependence at a microeconomic level, focus tends to be on the duration of one spell of one particular payment type, often unemployment benefits or sole parent payments. However, to date, the extent to which individuals move from one payment type to another and the time they spend in total on different payments, is largely unknown. This is important as the extent of movement from, for example, unemployment payments to some other types of benefit, may be an indicator of the extent and nature of hidden unemployment. If the duration of unemployment spells are curtailed by movement away from unemployment benefits, the extent of welfare dependency could be underestimated if movement is to another benefit payment type. In addition, even if a payment recipient exits off all benefits, those recipients regularly return to benefit payments within a short time period.

Using a primarily descriptive approach, the results suggest that there is indeed, a significant amount of "churning" across benefit types, such that an analysis of one particular type of payment spell would significantly underestimate the extent of welfare dependency. The paper finds considerable differences between the average duration on one particular spell and the average duration on all spells within a five-year period, indicating a return to payment after exit off payments or a direct move from one type of payment spell to another type of payment spell.

Keywords: Welfare dependency; benefit types; duration analysis; transition tables.

Journal of Economic Literature classification number:

1 Introduction

This paper examines the extent to which people move from one payment type to another and the extent to which people return to payments after a spell off payments. In analyses of the determinants of, for example, unemployment at a microeconomic level, focus often tends to be on the duration of one particular spell of unemployment. However, to date, the extent to which individuals move from one benefit type to another or move back on benefits after time spent off benefits, is largely unknown.

Considering multiple spells is important when the interest is in welfare dependence. Keeping to the example of unemployment benefits, the extent of movement from unemployment payments to some other type of benefit may be an indicator of the extent and nature of hidden unemployment. If the duration of unemployment spells are curtailed by movement away from unemployment benefits to another benefit payment type rather than off payments, then this could severely underestimate the extent of welfare dependence if no account is taken of this in the analysis. Understanding the extent of movement from unemployment payments to other payment types in a longer-term time frame is also important for assessing the effects of policy changes such as the introduction of more stringent activity test arrangements. That is, do people for example return to benefit payments quickly after an exit off payments?

The aim of this paper is to help inform this debate by an analysis of the incidence of movement between certain types of income support payment groups and on and off payments. We use a novel administrative data set, which is detailed and extensive enough to identify movement between various benefit types. Initially, we analyse single spell durations distinguishing different payment types and personal characteristics, which is expanded by analysing to where people in the different spells exit and by comparing a single spell duration with the duration on all spells within a limited (five-year) time period. This latter section gives an indication of the extent that consideration of solely unemployment benefits (for example), can understate the degree of welfare dependency.

The plan of this paper is as follows. The following section provides a brief description of the data used. Section 3 defines the different ways in which we measure durations and transitions, such as simple average durations, average number of spells, survivor functions, individual-based point-in-time transitions and spell-based transitions. The descriptive results using these different approaches are presented in Section 4 for the duration of spells and in Section 5 for the transitions between spells. Section 6 concludes.

2   The Data

The data used in this paper is the Longitudinal Data Survey (LDS) produced by the Department of Community and family Services (FaCS).[1] The data consists of a 1 per cent random sample of all customers and partners of customers on the administrative database. Only the records of people who were on income support (this excludes people solely receiving family payments) or whose partner was on income support are included. The version of the LDS used here contains fortnightly records for this sample between 22 December 1994 and 16 June 2000. It is important to note that throughout the whole of this period the general economy was in a period of economic upturn, which means unemployment rates were highest at the start of the data period.

The advantage of this data set is that it allows the study of transitions between different payment types. Other data sets (such as for example the ABS Survey of Employment and Unemployment Patterns) do not have enough respondents from the population(s) of interest to provide a reliable picture of these transitions or they do not have information on income support receipt by individuals over time (such as the ABS Survey of Income and Housing Cost). An additional advantage is that administrative data provide reliable information on episodes of income support over time for individuals, so that it is possible to create a history of income support.

A limitation of the LDS is that it only includes a limited set of variables describing the individuals and households in the data set. For example,

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[1]For more information see Department of Family and Community Services (2001).

although it does contain education (a potentially an important factor in the transitions between and out of payments), this variable is unavailable (or unreliable) for most customers.

We consider the following seven different payment types[2]:

1. Unemployment Payments (UP).

2. Sole Parent Payments (SPP).

3. Partner and Parenting Payments (P&PP).

4. Disability and Sickness Payments (DSP).

5. Age Pension (AP).

6. Non Payment Partner Payments (NPPP) (for partners of benefit recipients) - including those who only receive family payments.

7. Other Payments (OP).

In addition, we also consider a No Payments (NP) category to categorize outflows.

3   Methodology

In terms of identifying and classifying movements across benefit types, there are potentially numerous ways in which this can be done. In the remainder of this section we discuss: spell durations; empirical hazard and survivor functions; point-in-time transition tables; and spell-based transition tables.[3]

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[2]See the appendix for a definition of the payment types.

[3]In doing such, we assume that customer identification numbers in the LDS are unique and remain the same over the full data period for each individual, such that a person who has several separate spells on payments is identified by the same identification number each time.

3.1 Spell durations

Average durations in particular payments are investigated, as are the average duration on all benefits, taken together within the five-year data window. This was considered in conjunction with the average number of spells on each particular payment type.

The sample here contains all spells, indicating the average total duration on benefit payments of customers who had at least one payment during the five-year data window.[4] The durations are truncated on the "left-hand" side by only taking into account the part of the spell current in the five-year data window. That is the number of days that the spell lasted before the start of the survey is not included in calculating average durations. The duration of both complete and incomplete spells are included which means that some durations are "right-hand" truncated as well. That is incomplete spells continue past the end of the survey and the end date is not observed.

3.2 Empirical Survivor Functions

An alternative description of the data on durations is the Survivor function, which graphs the probability that the spell lasts to at least time t. Related to Survivor functions are hazard functions, which describe the rate at which spells finish after time t, conditional on the fact that they have lasted to at least time t. Using the estimator proposed by Kaplan and Meier (1958), and appropriately dealing with right censored observations (those still in progress at the end of the data window) separate empirical Hazard and Survivor functions are estimated for each payment type.[5] In these analyses we only use "fresh" spells[6] to avoid length-based sampling bias as a result of the left censoring of the observations.

The approaches in this and the previous section do not consider whereto

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[4]Using only *fresh* spells (those which started within the data window), avoids any *length based sampling bias* (over-sampling of longer durations) but it disregards potentially a lot of information.

[5]Right censored observations enter the risk set, but are not recorded as an observed exit, see Lancaster (1990).

[6]Fresh spells are spells that start during the observation period.

the individual exits when the spell has ended. However, this is extremely important, as it gives an indication of the underestimation of welfare dependency that can arise if one only considers UP for example. That is, there are completely different policy implications if the majority of UP exits are to NP or conversely, to other benefits. The methods used to describe exit destinations are considered in the following subsections.

3.3   Point-in-Time Individual-Based Transitions

First, point-in-time individual-based transition tables are considered. These provide cross-tabulations of numbers in each of the payment types of interest at prespecified start and finish dates. That is, individuals are classified by their payment type situation at a particular start date, and by their payment type situation at a prespecified end date. This provides information not only about the size of outflows from payment types, but also on the outflow destinations. Such analysis was undertaken at several points in time; over adjacent one-year periods (for example, from July 1995 to July 1996), and over the full 5-year period (July 1995 to July 2000) for which the LDS is available.

3.4   Spell-based Transitions

An alternative, spell-based, approach presents data on *all* spells starting in the data window on a particular benefit (as opposed to individuals). The total number of exits from these spells and their exit destinations are recorded. This enables questions such as "what percentage of sole parent payment spells end in a movement to unemployment benefits?". This approach includes individuals with more than one spell more than once in the transition table.

The transition tables described in the previous section, which provide a point-in-time incidence description, are likely to disguise additional movements *within* the specified time frame. For example, a customer who starts and ends on the same benefit type, would be recorded as a "non-mover", although he/she may well have had several periods on and off various other

benefits (or indeed, off the register altogether) within the intervening period. In the spell-based analysis every movement is recorded.

3.5 Payment types excluded from spell analysis

Some movements are of less interest, for example movements from and into AP as they are more or less automatic with age. Others are problematic, for example the NP category. The problem in the latter case is that the stock in this category is not representative of all people off payments in the same way as the other categories are representative of all people on a particular payment at a point in time, as the sample is not drawn from the general population, but from the customer population of FaCS (Section 2). That is, the probability of remaining off payments cannot be analysed with these data, because we only observe off-payment spells for those who have been on payments at least once.

4 Results from the Duration Based Approach

4.1 All Spells Together

Three groups of spells are distinguished. These are all payment spells (including spells on AP and spells where only the partner is on payment); payment spells excluding AP spells and spells where only the partner is on payment; and spells off payments. The reason for including two different groups of payment spells is that the inclusion of AP spells could be disputed on the one hand when the interest is in transitions, given that AP recipients are unlikely to move off AP payments. On the other hand however, policy makers may be interested in the inflow into and the number of people on age pension as larger groups will have access to superannuation payments in retirement. Similarly the inclusion of spells where only the partner is on payment could be disputed. These spells should be included when looking at welfare dependence at the household level, but not when looking at the individual level.

Table 1 presents information on the three groups of spells. The second group is marked by a superscript "a" and the third group is marked by

a superscript "b" in the table. For these three groups, the average spell duration, the total duration on these spells, and the average number of spells within the data window is calculated. The table illustrates that, on average, each individual has just under two, or over two and a half, payment spells if AP and NPPP spells are excluded and included, respectively. Spells are typically long, lasting on average 438 (384) days. By summing all the spells within the data window for each individual and averaging over all individuals who had at least one spell during the data window, an average total duration is obtained. Over the five-and-a-half-year period, this was found to be 868 days (1055, if one includes AP and NPPP spells) or 43 per cent and 53 per cent respectively of the total time in the observation period.

Table 1: Durations and number of spells

Variable	Obs	Mean	Std. Dev.	median	Min	Max
duration						
payment spell	140,290	383.63	507.96	168	14	2,002
payment spell^a	101,172	437.86	540.45	210	14	2,002
off-payment spells^b	83,872	439.35	499.84	224	14	1,988
all payment spells	51,031	1,054.64	736.70	1008	14	2,002
all payment spells^a	51,031	868.08	706.24	672	14	2,002
# payment spells	51,031	2.75	2.06	2	1	24
# payment spells^a	51,031	1.98	1.37	1	1	21
# off-payment spells^b	39,361	2.13	1.28	2	1	13

^{a}Excludes spells in NPPP or AP categories. ^{b}Off Payment spells only.

The distributions of individual and total spell durations are graphed in Figure 1. From the graphs it is clear that more than a third of all spells last a short time only (less than 7 fortnights on payments). This is also evident from Table 1, where the median values are much lower than the mean values indicating a relatively large number of shorter spells. Even when all spell durations in the five and a half years are added together a substantial proportion still involves only dependence on any of the payments for less than 7 fortnights. The distribution in the total duration graph in Figure 1 shows that the number of people dependent on payments for longer periods of time is only a small proportion of the total recipient population,

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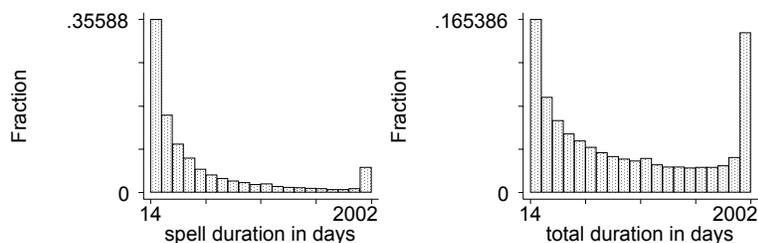
Figure 1: Frequency distribution of spell duration and total duration within 5-year data window

although by comparing spell duration with total duration we can infer that people on shorter spells are likely to return to a payment at some stage.

The large spike at the extreme right-hand side indicates there is a group of about 5 per cent of all spells which lasted for more than five years within the five-and-a-half-year data window. Adding up all spells, about 15 per cent of the group of customers who have received payments during the five-and-a-half-year period have been on payments for more than five years. This indicates that there is a group of people who are long-term recipients of welfare payments. The analysis of one unemployment spell, for example, does not reveal the problem of recipients exiting and returning on payments within a short time frame. The difference between the duration on an individual spell and the duration on all spells indicate that this is a relevant issue.

4.2 Spells by Payment Type

Use of such aggregate statistics could be somewhat misleading however, if the distribution of spell lengths and the number of spells differ between payment types. The distribution of the number of spells for all types of spells and for the separate payment types is presented in Figure 2. The average number of
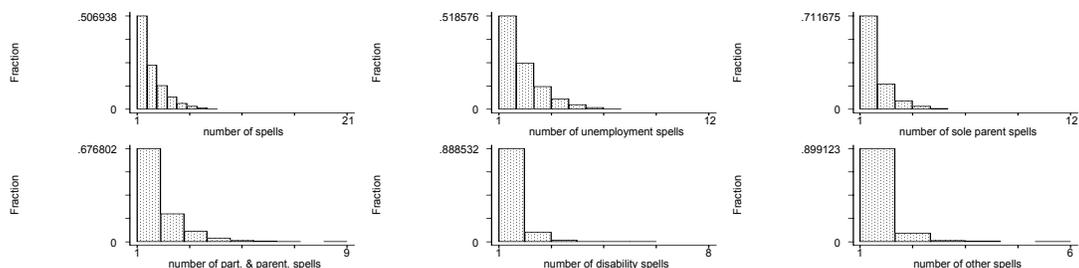
Figure 2: Frequency distribution of the number of spells

spells by payment type is shown in Table 2. From these it is clear that UP and P&PP spells are more likely to reoccur than DSP and OP spells.

The average spell duration for the different payment types shows a different pattern compared to the average number of spells (see Table 2). As might be expected, spells on DSP tend to be the longest, on average (at 913 days compared to the full sample of 438 days). UP spells were shortest on average at 295 days, and SPP were second longest, at 641 days. This indicates that there are few (even if we include temporary exits) people moving out of disability payments

Table 2: Average spell duration by Payment Type

Variable	Obs	Mean duration	Std. Dev.	Av. no. of spells
Unemployment	58,465	295	367.2	1.86
Sole parent	10,923	641	621.4	1.43
Partner and Parenting	16,894	459	542.2	1.51
Disability	12,067	913	782.9	1.14
OP	2,823	448	506.8	1.12

4.3 Spells by Individual Characteristics

Comparing average spell durations, average total duration for all payment spells in the five-year data window and the average number of spells by the individual's characteristics (as they are measured at the start of the spell), most of the expected effects are found (see Table 3). For example, women have on average longer spell durations and longer total durations, but the average number of spells are the same for men and women. This is caused by the higher prevalence of SPP amongst women, which are on average long spells, particularly for women (see Table 4). Women also tend to have longer partner and parenting spells, but other spells are of similar length to those of men with the exception of UP. The latter may at least partly be caused by higher exit rates to SPP and P&PP (as can be seen in Section 5).

Older people have much longer spells than younger people or even people in the middle age group. As a result the average number of spells is lower for older people. Once they are on a payment they are quite unlikely to leave the payment, even temporarily.

There is little effect resulting from having one's residence in a capital city - there is only marginal evidence that people in capital cities have fewer and shorter spells. The difference between singles and couples is similarly small, with the average durations of singles somewhat lower, but the average number of spells somewhat higher. However comparing people who have a partner on payments with those without a partner or those with a partner not on payments, a larger difference is obvious. The number of spells is quite similar but the amount of time spent on payments is larger for those whose partner is on payments as well. This is similar to results found in other research showing a relationship between the husband's and the wife's labour market status, perhaps caused by "associative mating" or alternatively through disincentives in the social security system (see for example, Bradbury (1995)or Dex, Gustafsson, Smith, and Callan (1995)).

Finally, ethnicity (Australia born and Aboriginal or Torres Strait Islander descent) is somewhat important. Those born outside Australia have slightly fewer spells but longer durations per spell and longer total durations within

Table 3: Average spell duration, total duration and number of spells by characteristics[a]

Variable	spell duration	total duration	number of spells
gender: male	407.7	820.9	1.98^{ns}
female	468.6	915.6	1.98^{ns}
age: <31	318.1	730.2	2.26
31-50	468.6	945.8	1.95
>50	685.5	969.2	1.47
marital status: couple	449.2	888.0	1.89
single	430.4	853.4	2.05
partner on paym.: yes	481.5	978.0	1.92
no	418.8	820.8	2.01
age youngest child: 0-4	424.0^{ns}	960.9	2.27
5-14	504.8	1063.1	2.00
older/no dep. children	427.8^{ns}	813.6	1.93
Australian born: yes	425.7	859.9	2.01
no	475.9	895.0	1.91
ATSI: yes	397.3	1060.6	2.85
no	439.2	863.8	1.97
capital city: yes	435.3^{ns}	843.5	1.92
no	440.9^{ns}	899.9	2.07

[a]All differences are significant at the 5 per cent level except for "ns".

Table 4: Average Spell Duration by Gender and Payment Type

Variable	Obs	Average duration	Std. Dev.
men			
UP	39,392	306.4	380.8
sole par	1,010	477.3	533.8
P&PP	1,551	306.8	372.2
DSP	8,149	902.3	779.6
OP	957	454.7	517.6
women			
UP	19,073	272.6	336.2
sole par	9,913	657.4	627.2
P&PP	15,342	474.2	554.2
DSP	3,918	934.6	789.3
OP	1,861	443.0	500.4

the five-and-a-half-year observation period. People from Aboriginal or Torres Strait Islander origins have shorter durations per spell, but more spells on average and as a result a total duration on payment within the five-and-a-half-year data window which is longer than for others.[7]

4.4   Results from the Empirical Survivor Functions

For each of the payment types, empirical Survivor functions are estimated and plotted for all customers and for groups of customers. The data used in this analysis only include "fresh" spells starting on or after 9 June 1995.[8] This means the maximum observation period on any spell is five years. The estimated functions incorporate both complete and incomplete spells.

4.4.1   Unemployment Payments (UP)

The empirical Survivor functions for UP are plotted by gender and age in Figures 3 and 4.

Figure 3 shows that about 50 per cent of all spells on UP are less than 14 fortnights long, and that around 80 per cent are at least 5 fortnights long. Also, there are some 4 per cent of spells still in progress at the end of the data window. Survival rates for men and women are very similar.

The survival rates across different age groups are quite different with the two younger age groups exiting more quickly (as one would expect). The difference between the youngest and the middle age groups is only small, but

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[7]As a robustness check, we check the sensitivity of our results to alternative definitions spells - fresh spells only and merging short spells (of less than 6 weeks duration) with preceding longer spells. The results were either marginal, or as expected: using only fresh spells results in shorter durations and fewer spells - confirming the fact that spells that have lasted for some time are less likely to finish (even temporarily) than spells that have recently commenced; combining short with long previous payment spells, as expected, increased the duration of spells and decreased their number of spells. However, relative to each other, spell lengths remain similar with for example disability payment spell durations the longest in all approaches.

[8]The choice of this date is more or less arbitrary, however because the last date observed in the sample is 16 June 2000, this starting date means we have exactly 5 years of data. In addition, the extra weeks of payment information in the sample before 9 June 1995 ensure that only "fresh" spells are selected.
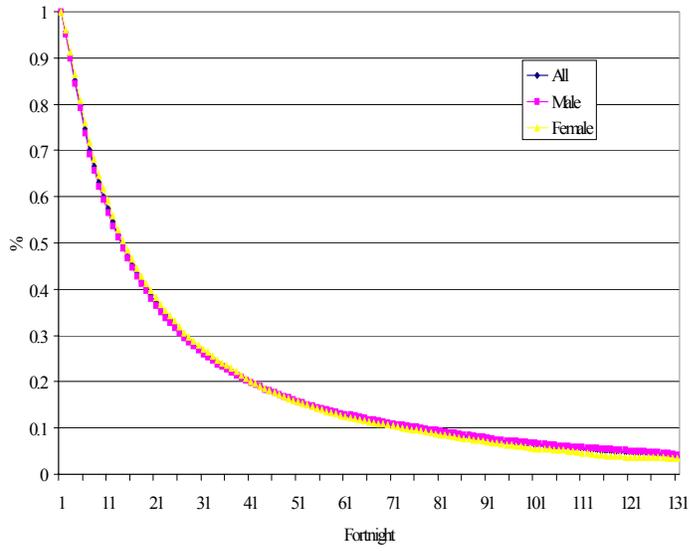
Figure 3: Empirical Survivor Function: Unemployment Benefits; All and by Gender
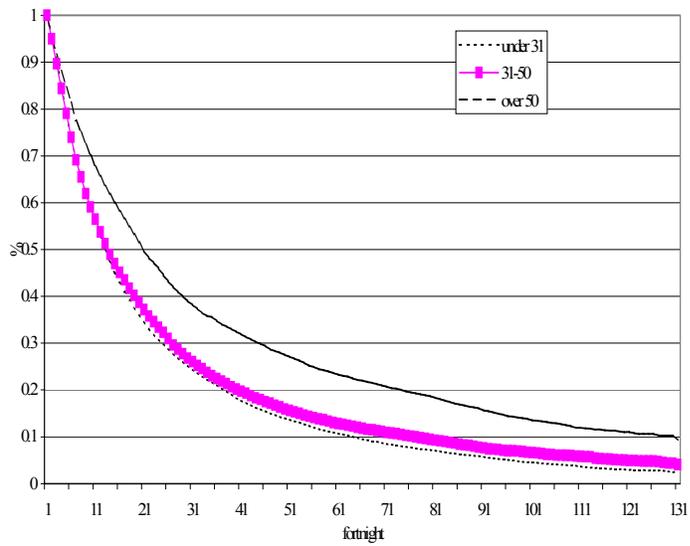
Figure 4: Empirical Survivor Function: Unemployment Benefits; by Age

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people over 50 years of age exit at a much lower rate from unemployment than younger people.

Initially, exit (or hazard) rates increase with spell duration. That is, the probability of exit jumps from around 4 per cent for one fortnight, to 6.5 per cent at 5 fortnights. After the first 6 fortnights, the longer a customer stays on UP, the less likely he/she is to leave it. Thus, in general, exit rates decline with spell duration, as can be seen from the flatter slope of the Survivor function later in the spell. The decline in exit rates with spell duration suggests that there is negative duration dependence - the likelihood of exiting the spell at time t, conditional on it lasting up to point t, decreases with t. However, since this graphical method of analysing the duration of spells does not account for unobserved heterogeneity, at least part of the decline in exit rates is caused by a change in the composition of the group on payments over time. Those with the least favourable characteristics are the most likely to remain on the payment, thus reducing the average exit rate over time as the more advantaged group exits. From a high of around 6 per cent at five fortnights, the hazard declines to about 1 per cent by around 100 fortnights.

4.4.2   Sole Parent (SPP)

Figures 5 and 6 show the empirical Survivor functions for SPP, split by gender, age, number of children and age of the youngest child. The Survivor function illustrates the extent of high retention rates, with 20 per cent of all spells still ongoing at the end of the five-year data window and 50 per cent of all spells on SPP being 34 fortnights or longer. The survival rate is much lower for males (although based on a much smaller sample). Given the eligibility rules (youngest child has to be younger than 16 years) the result that people with an older youngest child exit more quickly is as expected. It is however, also much lower for younger sole parents. For example, about 20 per cent of all spells are at least 100 fortnights long for under 31 year-olds, compared to 25 per cent for those aged over 50. The group of sole parents between 31 and 50 years old have the highest survival rates (about 28 per cent has spells over 100 fortnights long) in the long term, although
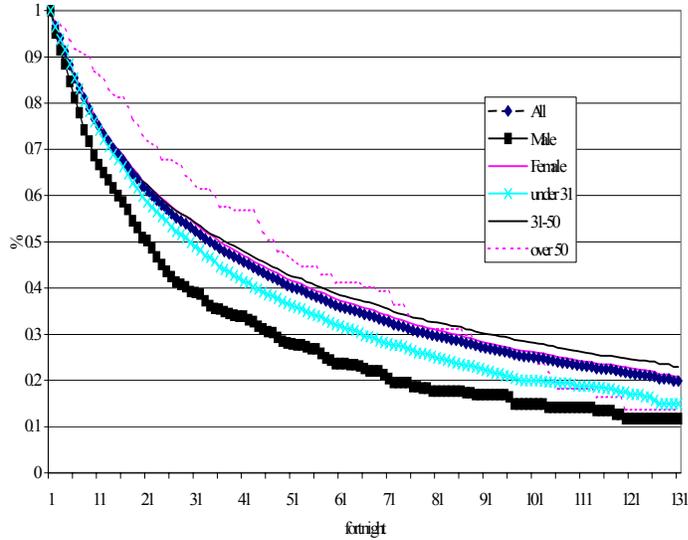
Figure 5: Empirical Survivor Function: Sole Parent Payments; All and by Age and Gender

the survival rate is highest for the oldest group in the first three years.[9] A plausible explanation for this is that people, who are older than 50 years, are more likely to have older children, which means they remain eligible for SPP for a shorter time. However, this does not mean that they are then off payments. From Table 17 in Section 5.2, it can be seen that older people exiting SPP are more likely to move into UP, DSP and OP.

The hazard rate again shows a degree of negative duration dependence (possibly at least partly caused by unobserved heterogeneity), falling from a peak of around 3 per cent at very short spells, to around 1 per cent for the much longer spells. However compared to UP, the probability of exit from the SPP seems relatively unrelated to the length of time that the spell has already lasted. The hazard rate for men is much higher than that for women and there is evidence that there is even less correlation between the probability of exit and spell lengths for young sole parents than for the general population of sole parents.

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[9]The survival rate for the oldest group is not as smooth as for the others, because relatively few people are part of this group.
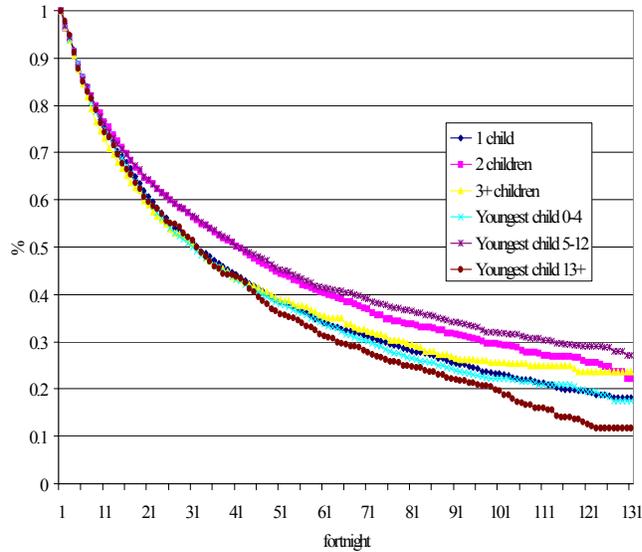
Figure 6: Empirical Survivor Function: Sole Parent Payments; by Children (Age and Number)

4.4.3 Partner and Parenting (P&PP)

Figures 7 and 8 display the empirical Survivor functions for P&PP. As can be seen, about 8 per cent of spells are still current at the end of the data window, and there appears to be an extent of negative duration dependence, with exit probabilities falling from a high of over 5 per cent, to a low of around 1 per cent at longer spell durations. Again, men and younger individuals are most likely to exit quickly. However, because the age or presence of children is not the only relevant criterion for the eligibility for these payments (as it was for SP), the oldest group is the least likely to exit throughout the five years. Similarly, the presence of older children does not mean eligibility is about to expire, so exit rates are lower for people with older children (possibly just reflecting the older age of the parent).

4.4.4 Disability (DSP)

Figures 9 and 10 clearly show the low level of mobility of customers on DSP. Some 35 per cent of spells are still ongoing at the end of the data window and
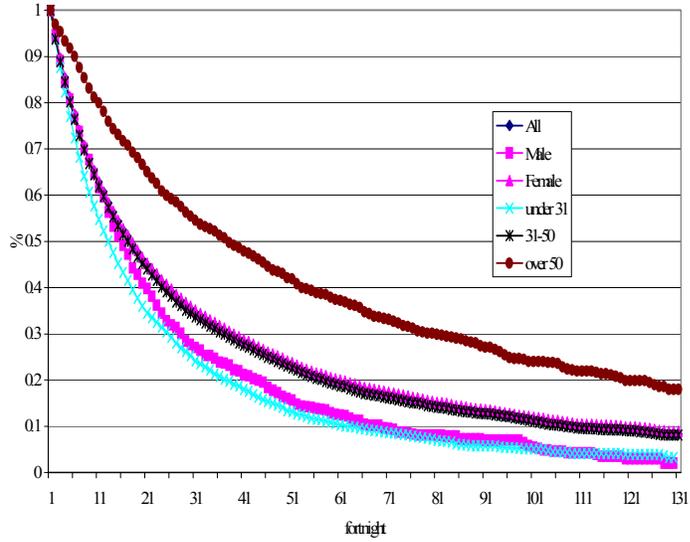
Figure 7: Empirical Survivor Function: Partner and Parenting Payments; All and by Age and Gender
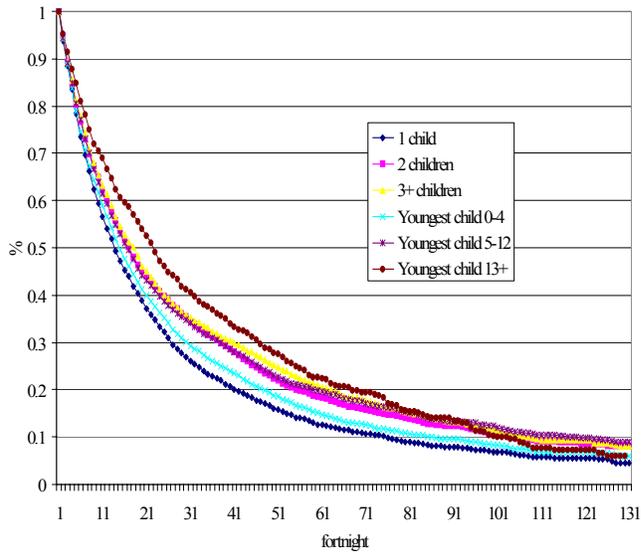
Figure 8: Empirical Survivor Function: Partner and Parenting Payments; by Age and Number of Children
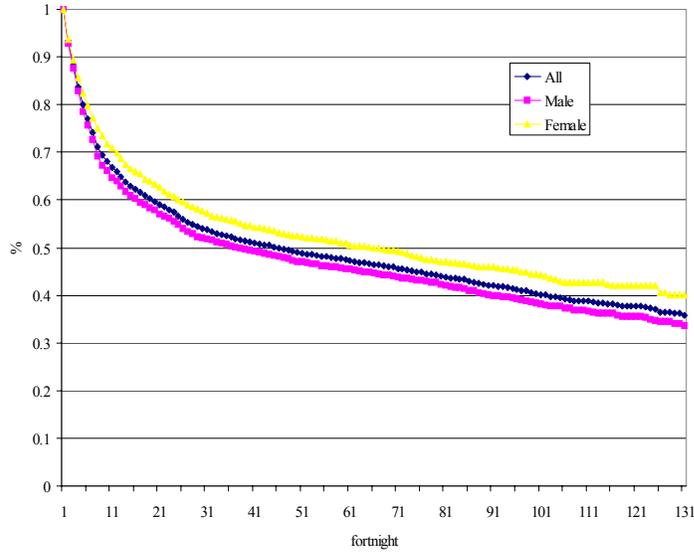
Figure 9: Empirical Survivor Function: Disability Payments; All and by Gender

50 per cent of all spells are around 45 fortnights or longer. The probability of exit is always small, no matter how long the spell has lasted, starting off at 7 per cent for very short spells (possibly representing the outflow of those on sickness allowances), but then falling sharply to effectively zero for spell lengths of around 30 fortnights or more.

Unlike UP, there are some striking differences across gender and age. The survival rates for males are significantly lower than the rates for females at every observed exit point, and the survival rates for younger individuals are significantly lower than the rates for older persons. The Hazard rate of younger customers, particularly at the start of the spell, is much higher than the hazard rate of older clients. For example, the probability of exit for someone aged 30 or under is around 12 per cent for the first few fortnights, compared to around 4 per cent for those aged over 50. After the first year, the hazard rates for the three age groups become quite similar.

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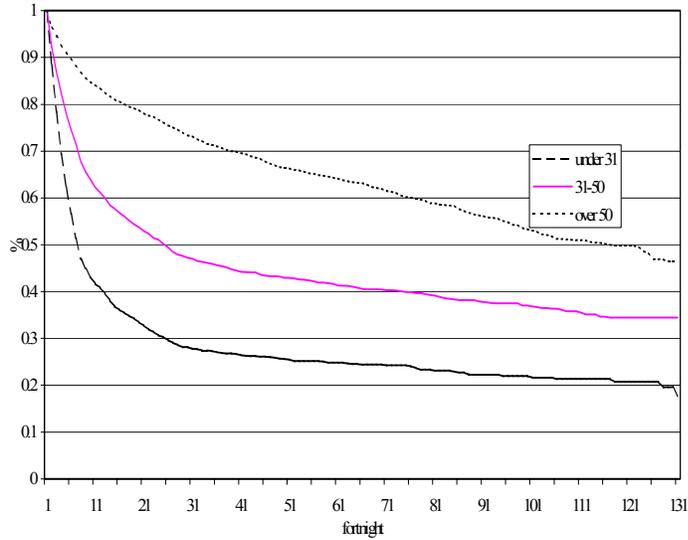
Figure 10: Empirical Survivor Function: Disability Payments; by Age

4.4.5   Survival Rate Summary

The previous sections clearly show different levels of mobility for the various payment types. Table 5 summarizes the estimated survival rates for the different payment types after 6 months, 1 year, 3 years and 5 years. As expected, people on DSP are least likely to exit from this payment in the long term, but the exit rate for people on SPP is the lowest in the first half year, indicating that there are relatively few short spells. By the end of the first year the survival rate of people on SPP equals the survival rate of people on DSP.

People on UP are clearly the most mobile, but even the majority of this group remains on payments for at least half a year. The survival rates of those on P&PP are slightly higher at all points in time, indicating that they are less likely to take up work themselves than those on an unemployment payment. This means many individuals on this payment type will only exit if their partner (who may for example be on UP) works enough hours to reduce their own and their partner's payment to zero.

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Table 5: Summary Table: Survival Rates (Per Cent) by Payment Type

payment type	after 6 mths	after 1 year	after 3 years	after 5 years
UP	51.8	31.1	9.6	3.9
SPP	71.7	56.1	30.4	19.9
P&PP	58.2	39.0	15.2	8.3
DSP	64.9	56.0	44.4	35.9

5 Results from the Transitions Approach

The previous section shows the duration of individual spells and the duration of all spells within a five-year period. This indicated that exit from one spell did not mean the end of welfare dependence in the longer term. In this section, we focus on the exit destination and on year to year transitions.

5.1 Individual-Based Transitions

The observational unit in this subsection is the individual. The results based on the full sample period (that is from July 1995 to July 2000), are presented in Table 6. This table shows for example that in the fortnight of 7 July 1995, 8,325 people in the sample were on UP (the total in the first row). Of these 8,325 individuals, 2,336 (or 28 per cent) were also on UP in the fortnight of 16 June 2000. Examining the outflow, 3,718 individuals (45 per cent) are off payments in 2000 and 663 (or 8 per cent) are on DSP in 2000. Comparing the total number on UP in 1995 and 2000, it can be seen that there was a decrease of 1,161, which reflects the decreased unemployment rates over that period. In total, there are 935 more persons on some type of benefit payment at the end of the period compared to the start of the period.

It is interesting to consider so-called "retention rates". That is, what percentage of customers claiming a particular benefit type in a particular year, were still doing so in a later year? With regard to the 1995 to 2000 results, of the 8,325 persons claiming UP in 1995, about 28 per cent were still claiming the same benefit in 2000. Not surprisingly, retention rates are highest for DSP and SPP, with rates of 65 and 49 per cent, respectively.

By far the dominant destination for movements from all benefit types,

Table 6: Transition Table: July 1995-June 2000[a]

| 1995 | 2000 | | | | | | | | | |
	UP	SPP	P&PP	DSP	OP	AP	NPPP	NP	**Total**	Change
UP	2,336	325	183	663	133	498	469	3718	**8,325**	-1,161
per cent	*28*	*4*	*2*	*8*	*2*	*6*	*6*	*45*	*100*	*-14*
SPP	218	1553	167	143	55	9	243	813	**3,201**	689
per cent	*7*	*49*	*5*	*4*	*2*	*0*	*8*	*25*	*100*	*22*
P&PP	111	281	1,336	139	84	648	283	758	**3,640**	-66
per cent	*3*	*8*	*37*	*4*	*2*	*18*	*8*	*21*	*100*	*-2*
DSP	59	20	7	3304	7	964	29	677	**5,067**	1053
per cent	*1*	*0*	*0*	*65*	*0*	*19*	*1*	*13*	*100*	*21*
OP	21	20	12	50	133	78	42	123	**479**	420
per cent	*4*	*4*	*3*	*10*	*28*	*16*	*9*	*26*	*100*	*88*
NPPP	264	333	345	136	52					
per cent	*4*	*5*	*6*	*2*	*1*					
NP	4151	1354	1520	1677	416					
per cent	*16*	*5*	*6*	*6*	*2*					
Total	**7,164**	**3,890**	**3,574**	**6,120**	**899**				**20,712**	935

[a]NP and NPPP, are only of interest as inflow or outflow sources to the other payment
types and do not represent the complete populations of people in these categories.

was into NP. For example, 43 per cent of the persons claiming an UP, 25 per cent of those claiming SPP and 13 per cent of those claiming DSP were off payments in 2000. However, for DSP the most significant destination was AP (at 19 per cent).[10] This information combined with the 65 per cent retention rate means that at most 16 per cent leave this payment category because they are no longer considered to have a disability that impedes employment. For all payment types, the majority of people not in the same payment in 1995 as they are in 2000, have come from the NP category.

As noted in the previous section, such transitions between start and end dates which are several years apart, do not provide information on movements across benefit types within the intervening years. The yearly transition tables are discussed by payment type below.

First, however, the transitions between 1995 and 1996 are compared to those over a comparable period in a study using the Population Reference Group and Job Seeker sample from the Australian Bureau of Statistics' Survey of Employment and Unemployment Patterns (SEUP). Kalb (2000)calculates transition rates between September 1995 and September 1996 for different benefit types, which are broadly comparable to the ones used in this paper. Although the number of observations in these SEUP samples is much smaller than in the LDS and only one year of information was used, similar patterns are observed for the larger payment groups.

5.1.1   Unemployment Payments (UP)

Table 7 shows the sources of inflows into unemployment over the different years. The total in the 95-96 column represents the total number on UP in 1996. The percentages in the rows above explain where these people were in 1995. For example, 51 per cent (first column, first row) of those who were unemployed in July 1996 were also unemployed in July 1995, 1 per cent were on SPP, 3 per cent were NPPP and 42 per cent were on NP. Similarly Table 8 shows the destinations of outflows from UP for the different years. The total in the 95-96 column now represents the total number on UP in 1995. The

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[10]This again reflects the high retention rate of disability payments. People stay on the payment until they become eligible for age pension at 60 (for women) or 65 (for men).

percentages in the rows above explain where these people go to in 1996. For example, 53 per cent (first column, first row) of those who were unemployed in July 1995 were still unemployed in July 1996, 2 per cent exited to SPP, 6 per cent were on NPPP and 34 per cent were off payments.

Table 7: Percentage Inflow Table: Unemployment

	95-96	96-97	97-98	98-99	99-00
UP	51	55	59	64	64
SPP	1	1	1	1	1
P&PP	1	1	1	1	1
DSP	1	1	0	0	0
NP	42	38	35	30	30
OP	0	0	0	0	0
NPPP	3	4	3	3	2
Total	**8,636**	**8,805**	**9,147**	**8,131**	**7,164**

Table 8: Percentage Outflow Table: Unemployment

	95-96	96-97	97-98	98-99	99-00
UP	53	56	61	57	57
SPP	2	1	1	1	2
P&PP	1	1	1	1	1
DSP	3	3	3	3	3
OP	1	1	0	1	1
AP	1	1	2	2	1
NPPP	6	5	4	3	4
NP	34	32	28	32	31
Total	**8,325**	**8,636**	**8,805**	**9,147**	**8,131**

From these two tables it is clear that the main source of inflow and outflow is the NP category. On a year-to-year basis, retention rates for UP are relatively high and stable, ranging from 53 to 61 per cent (see Table 8). There was a steady increase in the total numbers from 1995 to 1996, 1996 to 1997 and 1997 to 1998. The reduction in numbers resulting from those leaving these benefits, was more than compensated for by inflows from NP.

However, 1999 and 2000 witnessed a significant decrease in the number of people on UP, representing a decrease of about 11 and 12 per cent respec-

tively. This decrease in numbers coincides with a fall in national unemployment rates in Australia. The fall in the number of people on UP appears to be primarily as a result of reduced inflows (especially from the dominant source, NP) as opposed to a reduction in the probability of remaining on UP (Table 7). This seems to indicate that during the up-turn phase of the business cycle, fewer people became unemployed but that this improvement had little effect on the reemployment probabilities of those already unemployed.

5.1.2 Sole Parent Payments (SPP)

The main source of inflows and outflows for SPP is the NP category (Tables 9 and 10). However, the percentage flowing in and out is much smaller than for unemployment payment recipients. A substantial source of in- and outflow is the NPPP category, closely followed by the P&PP category. Compared to unemployment related payments, retention rates for SPP on a year-to-year basis, are very high and even more stable, ranging from 76 to 81 per cent. Annually, the net number of claimants rises by around 5 per cent, the result of the large retention rates and inflows predominantly from NP. In all years, the inflow from NP slightly exceeds the outflow off payments.

Table 9: Percentage Inflow Table: Sole parent

	95-96	96-97	97-98	98-99	99-00
UP	4	3	3	4	4
SPP	74	76	73	77	77
P&PP	4	5	5	5	5
DSP	0	0	0	0	0
NP	13	12	12	10	10
OP	1	0	0	0	0
NPPP	5	4	5	4	4
Total	**3,382**	**3,397**	**3,624**	**3,713**	**3,890**

At least 7 to 9 per cent of the sole parents repartner each year as is indicated by the outflow into P&PP and to the NPPP category. After a 5-year period, at least 13 per cent of the sole parents have repartnered (see table 6). Similarly, after NP, the P&PP and the NPPP category are the main sources of inflow into the SPP (both at around 4 to 5 per cent). This

Table 10: Percentage Outflow Table: Sole parent

	95-96	96-97	97-98	98-99	99-00
UP	3	3	3	3	3
SPP	78	76	78	79	81
P&PP	4	4	4	4	3
DSP	1	1	0	0	1
OP	0	0	0	0	0
AP	0	0	0	0	0
NPPP	4	5	4	5	4
NP	9	11	9	9	9
Total	**3,201**	**3,382**	**3,397**	**3,624**	**3,713**

means that at least 9 to 10 per cent flows in because of a recent break-up of a relationship.

5.1.3 Partner and Parenting Payments (P&PP)

Similar to all the other payment types, the most important source of inflow and outflow is the NP category (Tables 11 and 12). However, it is interesting to note that the flows to and from NPPP category are substantial as well. Given that the partners of individuals in the NPPP category are still on income support and that an individual's income first reduces their own share of income support to zero before it starts to reduce their partner's payment, it is reasonable to assume that these individuals have found a job that has taken them off income support. This indicates firstly, that people on P&PP flow out to employment, even though eligibility for this payment category does not require searching for work. Secondly, partners who worked previously seem to form a substantial proportion of the inflow as well.

On an annual basis, retention rates for P&PP were generally higher than those for UP, but lower than those of either SPP and DSP, ranging from 68 to 73 per cent. 1996 witnessed a 12 per cent increase in the numbers receiving P&PP, the result of a higher retention rate and relatively high inflows from the no payment and NPPP category (compared to other years). This is probably due to the introduction of more individualized benefits for partners of unemployed benefit recipients in July 1995. Before July 1995, the main

Table 11: Percentage Inflow Table: Partner and parenting

	95-96	96-97	97-98	98-99	99-00
UP	2	3	3	3	3
SPP	3	4	4	4	3
P&PP	65	72	71	72	73
DSP	0	0	0	0	0
NP	18	15	14	13	14
OP	0	1	0	0	0
NPPP	11	7	7	7	6
Total	**4,070**	**3,890**	**3,864**	**3,635**	**3,574**

Table 12: Percentage Outflow Table: Partner and parenting

	95-96	96-97	97-98	98-99	99-00
UP	2	2	2	1	1
SPP	4	4	5	5	5
P&PP	73	69	71	68	72
DSP	1	1	1	1	1
OP	0	1	1	1	1
AP	4	5	3	5	3
NPPP	7	9	7	9	7
NP	10	11	11	11	9
Total	**3,640**	**4,070**	**3,890**	**3,864**	**3,635**

applicant would get an additional payment if they had a partner. After July 1995, the partner had to apply for a benefit themselves and could be required to look for work. Exceptions are made for parents of children under 15 and for partners over 40 who have little work experience.

Subsequent years saw decreases of 4, 1, 6 and 2 per cent respectively, in the number of people receiving P&PP. These reductions were predominantly the result of flows into the NP and NPPP categories. For example, in 2000, 9 per cent of those who were on P&PP in 1999 went into NP, whilst 7 per cent went into NPPP.

5.1.4   Disability and Sickness Payments (DSP)

The largest source of inflow in DSP is from the NP category, but the inflow from UP is not far behind (at more than one third of the total inflow). The largest outflow destination is the AP, but the outflow to the NP category is nearly as large (see Tables 13 and 14).

Table 13: Percentage Inflow Table: Disability

	95-96	96-97	97-98	98-99	99-00
UP	4	4	5	5	5
SPP	0	0	0	0	0
P&PP	1	0	1	1	1
DSP	85	86	86	87	87
NP	9	7	7	7	7
OP	0	0	0	0	0
NPPP	1	1	1	1	1
Total	**5,228**	**5,359**	**5,639**	**5,873**	**6,120**

DSP exhibit the highest retention rates of all payment types on a year-to-year basis, ranging from 87 to 91 per cent, and steadily increased over the sample period. Since, in addition, AP is the most likely destination for people who move out of DSP, the probability of moving to a destination excluding AP is quite small on a year-to-year basis. In the first three years there were some transitions into the UP group, but recently this decreased to nil. Overall numbers show a small annual increase (of a couple of percentage

Table 14: Percentage Outflow Table: Disability

	95-96	96-97	97-98	98-99	99-00
UP	2	2	1	0	0
SPP	0	0	0	0	0
P&PP	0	0	0	0	0
DSP	87	89	90	90	91
OP	0	0	0	0	0
AP	5	5	4	5	4
NPPP	0	1	0	0	0
NP	5	4	4	4	4
Total	**5,067**	**5,228**	**5,359**	**5,639**	**5,873**

points), with the inflow from NP and UP consistently exceeding the outflow to these categories.

5.2 Spell-Based Transitions

As noted above in Section 3, this approach involves looking at all spells in the data window on a particular benefit, and recording the total number of movements from these to the various different destinations. That is, as opposed to looking at prespecified start and finish dates, we simply record, for example, how many of the UP spells (which were current at some point in the data window) ended by exit into AP.[11] Both finished and unfinished spells are included in the calculations. The unfinished spells are recorded as remaining in the same payment type. Similar to the transitions in the previous section, interest is focused on spells on UP, SPP, P&PP, DSP and OP. Therefore, we only report the flows from these payments.

Separate transition tables are generated for different demographics and attention is restricted to tables for three characteristics (measured at the start of the spell): gender; age; and a variable combining marital status with

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[11]In an alternative approach, we included only "fresh" spells in the analysis, which resulted in similar outcomes to those found here. The largest differences were found for the disability payments, which were more likely to exit off payments and less likely to move into age pension when only using fresh spells. Disability payments recipients are most likely to exit from payments early in the spell and longer spells are more likely to exit to the age pension.

whether the partner receives benefits as well.

5.2.1 Transitions for the Total Population

Table 15 illustrates the fluidity of the benefits system. UP spells predominantly end with a transition into NP (68 per cent), with NPPP being the only other significant destination, at 12 per cent. Few unemployment spells end by a transition into AP. This indicates that older people are a relatively small proportion of all unemployment spells although they might be on UP for a long time. Similarly, the major destination for SPP customers, was NP (41 per cent), with 8 per cent going to both the NPPP category and P&PP. This indicates that at least 16 per cent of all spells end as a result of repartnering. Interestingly, only 5 per cent of SPP spells transit to UP. Of partner and parenting payment spells, 43 per cent also end in NP, whilst 18 per cent go to the NPPP category (indicating they have become reemployed themselves) and 8 per cent to SPP.

Table 15: Transition Table: All Spells Current between December 1994 and June 2000[a]

				finish					
start	UP	SPP	P&PP	DSP	NP	OP	AP	NPPP	**Total**
UP	7,164	879	576	1,797	39,841	457	596	7,155	**58,465**
per cent	*12*	*2*	*1*	*3*	*68*	*1*	*1*	*12*	*100*
SPP	555	3,890	912	65	4,515	53	14	919	**10,923**
per cent	*5*	*36*	*8*	*1*	*41*	*0*	*0*	*8*	*100*
P&PP	377	1,321	3,580	187	7,341	169	834	3,085	**16,893**
per cent	*2*	*8*	*21*	*1*	*43*	*1*	*5*	*18*	*100*
DSP	502	59	29	6122	3,219	24	1380	732	**12,067**
per cent	*4*	*0*	*0*	*51*	*27*	*0*	*11*	*6*	*100*
OP	256	196	114	128	859	900	99	271	**2,818**
per cent	*9*	*7*	*4*	*5*	*34*	*30*	*4*	*10*	*100*

[a]see Table 6

Spells on DSP are least likely to finish - only 49 per cent flow out, compared to, for example, 85 per cent for UP. However, like for the other payment types NP is the most likely exit destination when looking at all spells (contrary to earlier results). This demonstrates that the point-in-time transition

tables can miss some of the shorter spells that start and finish in between the two points in time at which payment types are compared or they can miss short spells off payments. These shorter spells are more likely to end in the NP group and are all counted in the approach taken in this section, but not in the approach of the previous section.

5.2.2 Transitions by Gender

Table 16 presents transitions broken down by gender. The distribution over the spells on the different payment types is clearly different as can be seen from the total number starting a particular payment type. Women are less likely to be on UP or DSP and more likely to be on the other payments compared to men. Furthermore, examining the transition rates, it is found that women are slightly more likely to exit from UP and move off payments, but are less likely to exit from any of the other payments. There are also differences regarding the exit destinations. Women are more likely to move from any of the payments into a SPP or a P&PP. Women are also more likely to move from P&PP straight into the AP, whereas men are more likely to move from a DSP straight into the AP.

5.2.3 Transitions by Age

Transitions, broken down by age groups, are presented in Table 17. It is clear from the table that the distribution over payments is different for younger and older people. The older age group is more likely to be on DSP or on OP and people in this group are less likely to be on UP.

Once people are on a payment the exit probabilities to the alternative destinations are different as well. For example, older individuals are in principle more likely to remain on payments and the exit rate off payments is lower for all payment types. Retention rates on most payments are higher for older people, although it is lower for those on DSP and those on SPP. An explanation for the latter two (lower) retention rates is firstly, that those exiting from DSP are most likely to exit to AP, which will happen sooner for older people. Secondly, although in general, people exiting SPP are most

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Table 16: Spell-based Transition Table: by gender[a]

				finish					
start	UP	SPP	P&PP	DSP	NP	OP	AP	NPPP	**Total**
men									
UP	5,019	289	128	1,215	26,064	153	564	5,960	**39,392**
per cent	*13*	*1*	*0*	*3*	*66*	*0*	*1*	*15*	*100*
SPP	178	286	30	4	441	6	2	63	**1010**
per cent	*18*	*28*	*3*	*0*	*44*	*1*	*0*	*6*	*100*
P&PP	146	25	250	17	753	12	21	327	**1,551**
per cent	*9*	*2*	*16*	*1*	*49*	*1*	*1*	*21*	*100*
DSP	330	6	5	3906	2175	9	1108	610	**8,149**
per cent	*4*	*0*	*0*	*48*	*27*	*0*	*14*	*7*	*100*
OP	142	13	8	59	335	237	27	136	**957**
per cent	*15*	*1*	*1*	*6*	*35*	*25*	*3*	*14*	*100*
women									
UP	2,145	590	448	582	13,777	304	32	1,195	**19,073**
per cent	*11*	*3*	*2*	*3*	*72*	*2*	*0*	*6*	*100*
SPP	377	3,604	882	61	4074	47	12	856	**9,913**
per cent	*4*	*36*	*9*	*1*	*41*	*0*	*0*	*9*	*100*
P&PP	231	1,296	3,329	170	6,588	157	813	2,758	**15342**
per cent	*2*	*8*	*22*	*1*	*43*	*1*	*5*	*18*	*100*
DSP	172	53	24	2,216	1,044	15	272	122	**3918**
per cent	*4*	*1*	*1*	*57*	*27*	*0*	*7*	*3*	*100*
OP	114	183	106	69	519	663	72	135	**1,861**
per cent	*6*	*10*	*6*	*4*	*28*	*36*	*4*	*7*	*100*

[a]see Table 6

Table 17: Spell-based Transition Table: by age[a]

				finish					
start	UP	SPP	P&PP	DSP	NP	OP	AP	NPPP	**Total**
aged <31									
UP	3,055	550	317	331	25,842	133	0	1958	**32,186**
per cent	9	2	1	1	80	0	0	6	100
SPP	137	1,622	583	2	1,787	3	0	451	**4585**
per cent	*3*	*35*	*13*	*0*	*39*	*0*	*0*	*10*	*100*
P&PP	110	821	756	9	2,176	17	1	837	**4727**
per cent	*2*	*17*	*16*	*0*	*46*	*0*	*0*	*18*	*100*
DSP	183	32	13	862	1,074	4	0	103	**2271**
per cent	*8*	*1*	*1*	*38*	*47*	*0*	*0*	*5*	*100*
OP	85	146	50	11	206	51	0	86	**635**
per cent	*13*	*23*	*8*	*2*	*32*	*8*	*0*	*14*	*100*
aged 31-50									
UP	2,792	315	191	791	11,771	170	0	3,718	**19,748**
per cent	*14*	*2*	*1*	*4*	*60*	*1*	*0*	*19*	*100*
SPP	390	2,210	324	53	2,656	36	0	458	**6127**
per cent	*6*	*36*	*5*	*1*	*43*	*1*	*0*	*7*	*100*
P&PP	215	495	1,856	88	4,453	78	62	1,752	**8,999**
per cent	*2*	*6*	*21*	*1*	*49*	*1*	*1*	*19*	*100*
DSP	243	26	11	2,543	1,317	10	1	363	**4,514**
per cent	*5*	*1*	*0*	*56*	*29*	*0*	*0*	*8*	*100*
OP	117	47	28	41	301	271	0	121	**926**
per cent	*13*	*5*	*3*	*4*	*33*	*29*	*0*	*13*	*100*
aged >50									
UP	1,317	14	68	675	2,228	154	596	1,479	**6,531**
per cent	*20*	*0*	*1*	*10*	*34*	*2*	*9*	*23*	*100*
SPP	28	58	5	10	72	14	14	10	**211**
per cent	*13*	*27*	*2*	*5*	*34*	*7*	*7*	*5*	*100*
P&PP	52	5	967	90	712	74	771	496	**3,167**
per cent	*2*	*0*	*31*	*3*	*22*	*2*	*24*	*16*	*100*
DSP	76	1	5	2,717	828	10	1,379	266	**5,282**
per cent	*1*	*0*	*0*	*51*	*16*	*0*	*26*	*5*	*100*
OP	54	3	36	76	347	578	99	64	**1,257**
per cent	*4*	*0*	*3*	*6*	*28*	*46*	*8*	*5*	*100*

[a] see Table 6

likely to exit payments altogether, the probability of moving onto UP is much higher for the older age group than for the younger age groups. Older sole parents are more likely to have older children and thus lose their eligibility for SPP sooner. These older sole parents who are no longer eligible for the SPP are then also more likely to exit into unemployment rather than off payments in comparison with younger sole parents exiting the SPP.

5.2.4 Transitions by the Age of the Youngest Child

A breakdown by the age of the youngest child was also carried out (see Table 18 in the appendix). Focusing on the SPP, it is found that having an older youngest child which means that eligibility is running out, increases the transition from SPP to UP, DSP and OP. However, at the same time a large increase is observed in the rate of exit off payments. Notable is that exit to partner related categories (P&PP and the NPPP categories) decreases, indicating that the probability of repartnering decreases for sole parents with older children, which is also evident from Table 17.

Similar results are found when looking at a breakdown by the age of the youngest child for the yearly individual-based transition probabilities. That is, a higher probability of exit to UP and off payments is found for sole parents with older children. Examining the five-year transition rates for sole parents with children under 5 years of age, only 49 per cent remain on SPP after five years which is not higher than the sole parent group in general, even though their eligibility will not have run out in these five years. However, looking at their exit destinations a difference can be observed. The probability of repartnering (19.5 per cent) and the probability of exiting all payments (29.3 per cent) is higher than for the other sole parents. This effect is likely to be age-related; sole parents with younger children are themselves more likely to be younger as well.

6   Conclusions

Comparing spell durations and total duration on payment within the five-year period it is clear that many people move from one payment to another

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Table 18: Spell-based Transition Table: by Age Youngest Child[a]

				finish					
start	UP	SPP	P&PP	DSP	NP	OP	AP	NPPP	**Total**
no dep. child or child older than 14									
UP	6,171	703	422	1,583	36,413	417	580	3,654	**49,943**
per cent	*12*	*1*	*1*	*3*	*73*	*1*	*1*	*7*	*100*
SPP	95	70	19	7	320	5	4	27	**547**
per cent	*17*	*13*	*3*	*1*	*59*	*1*	*1*	*5*	*100*
P&PP	159	53	1,332	126	1,565	108	806	854	**5,003**
per cent	*3*	*1*	*27*	*3*	*31*	*2*	*16*	*17*	*100*
DSP	413	42	21	5430	2,849	24	1344	406	**10,529**
per cent	*4*	*0*	*0*	*52*	*27*	*0*	*13*	*4*	*100*
OP	208	159	90	114	715	777	96	158	**2,317**
per cent	*9*	*7*	*4*	*5*	*31*	*34*	*4*	*7*	*100*
≤ 4 years									
UP	548	98	94	70	1,968	22	0	2058	**4,858**
per cent	*11*	*2*	*2*	*1*	*41*	*0*	*0*	*42*	*100*
SPP	140	2258	673	7	2,108	4	2	522	**5,714**
per cent	*2*	*40*	*12*	*0*	*37*	*0*	*0*	*9*	*100*
p. and p.	117	940	1352	25	3,504	22	3	1,325	**7,288**
per cent	*2*	*13*	*19*	*0*	*48*	*0*	*0*	*18*	*100*
DSP	40	6	4	220	163	0	1	174	**608**
per cent	*7*	*1*	*1*	*36*	*27*	*0*	*0*	*29*	*100*
OP	25	19	14	8	70	51	0	61	**248**
per cent	*10*	*8*	*6*	*3*	*28*	*21*	*0*	*25*	*100*
4-14 years									
UP	445	78	60	144	1,460	18	16	1,443	**3,664**
per cent	*12*	*2*	*2*	*4*	*40*	*0*	*0*	*39*	*100*
SPP	320	1562	220	51	2087	44	8	370	**4,662**
per cent	*7*	*34*	*5*	*1*	*45*	*1*	*0*	*8*	*100*
P&PP	101	328	895	36	2,272	39	25	906	**4,602**
per cent	*2*	*7*	*19*	*1*	*49*	*1*	*1*	*20*	*100*
DSP	49	11	4	472	207	0	35	152	**930**
per cent	*5*	*1*	*0*	*51*	*22*	*0*	*4*	*16*	*100*
OP	23	18	10	6	69	72	3	52	**253**
per cent	*9*	*7*	*4*	*2*	*27*	*28*	*1*	*21*	*100*

[a] see Table 6. Age of the youngest child is measured at the start of the spell.

or return to payments after a spell off payments. To determine who is most disadvantaged in terms of welfare dependence, the analysis of separate spells will not reveal all the important groups. The different transition tables show that there is considerable movement between the different payment types. These tables also reveal large differences in the retention rates of the different payment types. For example, the yearly retention rate for DSP is about 90 per cent, whereas people on UP have a probability of around 55 per cent of still being on these payments after one year.

The analysis of longer term data may be more important for particular groups, who are more likely to be in a sequence of on and off payment spells or who move from one payment type to another payment type. For example, older sole parents are more likely to move to UP or DSP after exit from SP than younger sole parents. A similar story holds for people from aboriginal or Torres Strait Islander descent, where the average spell length is shorter than for others, but the total duration on payments is longer than for others. They may have a high probability of returning to payments after an off-payment spell or of moving directly from one payment to another.

The results clearly illustrate how important it is to focus on all income support payments and on longer-term analysis when considering notions of welfare dependency and identifying disadvantaged groups.

A   Appendix: Definition of payment types

The seven categories of payment types are constructed as follows:

1. Unemployment Payments (UP) include: Newstart Allowance; Job Seeker Allowance; Youth Training Allowance; Youth Allowance (excluding those who are full-time students); Newstart Mature Age Allowance; and Mature Age Allowance.

2. Sole Parent Payments (SPP) include: Sole Parent Pension and Parenting Payment Single.

3. Partner and Parenting Payments (P&PP) include: Wife's Disability Support Pension; Wife's Disability Wage Supplement; Partner of Newstart Recipient; Partner of Pension Recipient; Partner of Person on Low Income; Partner Allowance; Parenting Allowance; Partner of dependent Youth Allowance recipient; and Mature Age Partner Allowance.

4. Disability and Sickness Payments (DSP) include: Disability Support Pension; Disability Wage Supplement; Rehabilitation Allowance; and Sickness Allowance.

5. Age Pension (AP) includes: Age Pension; Widow Pension and Wife's Age Pension.

6. Non Payment Partner Payments (NPPP) (for partners of benefit recipients) - including those who only receive family payments - include: non-payment spouse; Family Payment (FP) Work force; Family Payment Auto Minimum; FP minimum; and Family Payment Auto - More than Minimum.

7. Other Payments (OP) include: all remaining payment types except those on AUSTUDY (examples of these payments are: Carer Payment; Drought Relief Payment or Crisis Payment).

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