

A Picture Book Primer: Welfare Dependency and the Dynamics of Female Lone Parent Spells^{*}

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Part I

Introduction

Over the last three decades there has been an extraordinary growth in the number of lone parent women with dependent children.¹ Between 1969 and 2001 the lone parent share of women with dependent children increased from 7.1 per cent to 22.4 per cent. One dependent child in five is now living in a female headed lone parent household. There is no sign that this trend will be reversed. Over the period 1979-1990 lone parent families accounted for 41 per cent of the increase in families with dependent children. From 1990 to 2001 they accounted for 88 per cent of the increase.²

Around 80 per cent of female lone parents rely on Parenting Payment Single income support (PPS) from the Department of Family and Community Services (FaCS). Subject to income and asset tests, they receive a pension payment, the maximum rate of which is pegged to at least 25 per cent of Male Total Average Weekly Earnings. They also receive a Pensioner Concession Card and a pharmaceutical allowance. Those in private rental may also be entitled to rent assistance. Lone parents also receive payments to support their dependent children. A lone parent with two children, receiving rent assistance and

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¹ The definition of dependent children differs by source. FaCS defines a dependent child as being under 16 years of age while the Australian Bureau of Statistics defines dependents as children under 15 and full-time students aged between 15-24 years.

² Labour Force Status and Other Characteristics of Families, Australia, ABS Cat. No. 6224.0, (Various years).

with no other income source, would receive about 50 per cent of Male Total Average Weekly Earnings.³

In the absence of other income sources the extent of poverty and hardship faced by lone parents and their children will be influenced by the length of time they depend on income provided by PPS support. For some families, PPS provides effective and *temporary* income support for a short period of financial crisis, usually associated with a family break-up or unemployment. Under these circumstances PPS can be thought of as a short run insurance scheme that provides financial assistance to help cope with the vicissitudes of the labour market and personal and family relationships.⁴ For other families, PPS support is a *long-term* substitute for labour market earnings, or income provided by another adult within a family structure, and is usually associated with low income and a continuing cycle of dependence on public assistance.

It might be expected that the adequacy of income support and the appropriateness of the policy design, will differ for these two groups. It is important therefore to estimate their respective size and to establish whether this is a sensible dichotomy. Empirical attempts to develop an understanding of the relative size of the groups, and to provide a basis for thinking about effectiveness of policy, have in the past relied upon estimates from longitudinal administrative data, of the length of time that families depend on a single PPS spell for income support. One method measures the length of all PPS spells terminated within a particular period of time, say one year (Commonwealth Department of Family and Community Services, 1998). Another method is to collect a sample of lone parents beginning a new PPS spell in a particular period and following the inflow cohort through time to document how long each spell lasts (Barrett, 2000). In a steady state, where the distribution of spell length is unchanging, both methods will produce the same estimates of a spell length.

There are two important findings from the analysis of spell length. The first finding is that the average spell duration is relatively short, somewhere between two and three years. This calculation often leads to the comment that PPS is primarily a short-term

³ This calculation is for a lone parent with two children 4 and 7 years, no other income, rent payments of \$200 a fortnight.

⁴ Ninety per cent of PPS income support recipients are female.

income support payment that helps lone parents to re-establish themselves after family breakdown. The second finding is that the rate of leaving a PPS spell declines quickly as time spent on income support lengthens. This behavior pattern produces a clear dichotomy between short and long term spells with a large number of female lone parents in each group. This finding often leads to the suggestion that policy should focus on those who stay a long time on a single spell.

But perhaps the emphasis on the length of a PPS spell is misplaced? For many purposes – such as the measurement of poverty and welfare dependency – it may be more relevant to establish the time an individual spends on all forms of income support.⁵ Many who leave a PPS spell, for example, may return after a short absence. A PPS spell may be short, but a history of multiple PPS spells may lead to an accumulated long stay on income support. It is also possible that income support may continue immediately after the end of the PPS spell because the individual moves to another pension or allowance. The most common example arises because the PPS recipient partners with an individual who is on another income support program and, as a result, moves from PPS income support to Parenting Payment Partner support (PPP).⁶ Finally, just as individuals may move from a PPS spell to another income support program, many lone parents may have had a history of income support before they first access PPS. FaCS developed the LDS to enable the tracking of customers over time to look at issues like ‘churning’ and cumulative use of income support.

The major purpose of this paper is to address the following questions. How long does a lone parent, who becomes a PPS recipient, receive income from all income support programs? Our emphasis on the individual history of income support leads to a number of further questions. To what extent are the findings based on the history of income support, similar to the findings based on the analysis of single spell? If the emphasis is placed on the history of income support is there still a clear dichotomy between long and short stayers?

⁵ Most empirical studies of various forms of income support focus on estimating the length of a single spell and recently there have been many attempts to separate out the effects of time dependence from heterogeneity effects (Manton et al. (1986), Heckman (1991)). Few studies focus on the history of income support but there are some noticeable exceptions, Bane and Ellwood (1994), Blank and Ruggles (1994), Pavetti (1993), Gottschalk and Moffit (1994) and Huff Stevens (1999).

⁶ This is an allowance for low income partnered parents, some of whom have partners on income support (e.g. unemployment or disability payments), while others have partners in low paid work.

What is the relationship between a PPS spell length and subsequent time on income support?

To begin to answer these questions we present a selection of new results from an analysis of a relatively new data set; the Longitudinal Data Survey (LDS) which contains Centrelinks fortnightly payment records for a one percent sample of income recipients. The period of the sample extends from January, 6th 1995 to June, 15th 2001 and for each individual a five and a half year data window (143 fortnights) is constructed depending on the starting date of their PPS spell. The records contain information on the personal characteristics and payment details of pensioners, allowees and low income family payment recipients. Each individual is given a unique identifier which enables their payment record to be traced through time. As long as the individual is receiving a payment, the amount and program location can be followed from fortnight to fortnight. Access to the data is subject to strict confidentiality protocols and it is not possible for the researcher to identify any particular individual.

The analysis we apply is to follow the 1995 female inflow into a new PPS spell and document the length of time these individuals spend on all income support programs through the five and half years of the Longitudinal Data Set (LDS). This new information will form a platform upon which to develop the implications of moving the research and policy focus from the length of a single PPS spell to the individual's history of total time spent on income support on all programs.

These data are new and have been accessed by a limited number of researchers. In addition, many of the relationships discovered have not been researched in any detail. Consequently it was decided to present our findings in the simplest possible way so that they can be easily accessed by a wide range of readers. This picture book primer can be thought of as a mapping of a research agenda journey yet to be fully undertaken.

Once attention is directed towards total time spent on all income support four important points become clear in the pictures. First, although the majority of PPS recipients experience a short PPS spell, almost all of the 1995 PPS inflow can be thought of as "long term income support customers". Only 15.9 per cent of the initial 1995 PPS inflow experience one completed income support spell and do not return to the income support

system over the five and a half year period. Eighty-four per cent of the 1995 PPS inflow may be thought of as “long term income support customers”.

Second, the “long term income support” relationship usually extends beyond PPS income support. Some individuals spend all the data period on the initial PPS spell. Others experience multiple PPS spells entering and leaving PPS. The largest group, however, moves backwards and forwards between spells on PPS and other income support payments. We found the extent of individual flows across payment types to be surprising, even though other researchers have noted the phenomenon in their initial explorations of the LDS data (Chalmers 1999, Dawkins, Harris and Loundes 2000, Flatau and Dockery 2001, Department of Family and Community Services FaCS, 2000). There does seem to be insufficient appreciation, outside a narrow research and policy community, of the importance of the “long term income support relationship” between FaCS and those who have received PPS payments that is generated by the multiple income support spells across programs.

Third, there is considerable instability in this “long term income support relationship”. The instability arises in the time individuals spend on each income support payment, the time they spend in new family relationships that affect their income support status and the time they spend in employment with reduced income support. Most labour market involvement takes the form of part-time employment while on income support. But, to a lesser extent, there is considerable movement into and out of low paid full-time jobs of short duration as individuals enter and leave employment and leave and return to income support. In all dimensions there is churning and instability as individuals change their labour market and cohabiting arrangements and their income support changes in response.

Fourth, there is not a close relationship between the length of the initial spell in the data window and subsequent time spent on income support. For example, of those who complete an initial spell of less than 10 fortnights, 42 per cent return for another spell and spend at least another 100 fortnights on income support within the five and half year data window. As a result the analysis of the length of the initial spell does not provide a good basis for identifying total time on income support.

The remaining sections of the paper are presented in five parts. Part II presents analysis describing the length of a single PPS spell. Part III demonstrates the importance of

the long term relationship between PPS recipients and other income support payments by documenting all spells on all programs that occur in the five and half year period. Part IV focuses on multiple spells in more detail. Part V explores the relationship between the length of the initial PPS spell in the data window and subsequent time spent on income support and concludes by estimating the total time spent on income support. Part VI conjectures on the general policy implications of the “long term income support relationship”.

Part II

Female Lone Parents: The analysis of a single spell

To begin the analysis of the LDS data we quickly sketch the main results and implications that are derived from the analysis of the length of a female lone parent spell on income support. To do this we follow all the 1995 female PPS inflow into a new PPS spell and document the rate of completion over the period to June 2001. A spell is completed when the individual misses two consecutive fortnight payments or changes to another income support payment.

In its simplest representation the analysis of spell length may be summarized by Line H, Figure 1 which plots the rate at which PPS recipients complete their initial spell in the data period. The rate of completion is measured as the number of the lone parents in the 1995 inflow who complete their PPS spell, over each three month period, divided by the number who are still continuing their initial spell at the start of each three month period. The three month periods are measured from the start of each individual PPS spell.

It is apparent from Line H that the rate of leaving a PPS spell declines as time on the spell lengthens. There is a 18.4 per cent quarterly completion rate in the first three months after the spell commences, and a 1.7 per cent quarterly completion rate in the last three months of the five and half year window. Line H is usually referred to as a hazard function.⁷

⁷ For a formal analysis see Barrett (2000).

The same data can be presented as a survival function, Line A, Figure 2. The survival function presents the proportion of the 1995 PPS inflows that is still on the initial PPS spell at each period of elapsed time from the beginning of the spell. For example, the survival function indicates that eighteen per cent of the inflow is still continuing their first PPS spell in June 2001, the end of the data period.

The behavior patterns embodied in the hazard and survival function are fairly typical. They demonstrate that most individuals leave PPS payments reasonably quickly. For example, 44.6 per cent of individuals who begin a new PPS spell in 1995 left this spell within twelve months (Column 1, Table 1). The results also indicate that a subgroup remains on PPS payments for a long time. The 18.0 per cent remaining at the end of the period will stay for just over a further six years on average if they continue to leave at the rate of 4 per cent per quarter.⁸ This would produce an average uninterrupted stay on PPS in come support of approximately twelve years for this group. Despite these very long stays when the diverse experiences of all the inflows are aggregated, the average stay on the initial PPS spell is short.

It is useful to note that the area under the survival function, relative to the total area enclosed by Figure 2, represents the proportion of total time that the 1995 inflow has spent on the initial PPS spell up to the 143rd fortnight. The area under the survival function represents about 40 per cent of the time available during the data window.

Important questions arise as we move from the analysis of a single spell to the history of income support. How useful is the analysis of a single spell length as a guide to total time spent on income support? Does completion of the initial PPS spell in the data window, for example, indicate a sustained period of exit from income support? Is it true that the average time spent on income support is short?

To begin to answer these questions we add Line B to Figure 2. Line B can be thought of as a type of survival function. The height of Line B, at each fortnight, measures the proportion of individuals who have not yet completed their initial PPS spell (the PPS spell survival function) and the proportion of those who have completed the initial PPS spell but will return to spend a further period on income support within the data window.

⁸ This is the average exit rate over the last two years of the data window.

Thus, at the end of one year, 55.4 per cent of the 1995 inflow have yet to complete their PPS spell. Thirty-seven per cent have completed their spell but will return to an income support spell during the data window.

The vertical distance between Line B and the top of Figure 2, indicates at each fortnight, the proportion of individuals to that date who have completed their initial PPS spell, left the income support system and will not return for a further spell of income support within the data window.⁹

There are a number of interesting observations to be made about Line B. First, very few individuals both complete their initial PPS spell and do not return for another period of income support. Over the five and half years only 15.9 per cent of individuals fall into this category (Column 2, Table 1). Within the data window the majority of individuals who complete their initial PPS spell return for at least a second period of income support.

Second, there is a very slight curvature of Line B, certainly relative to the curvature of the survival function for the initial PPS spell. Consequently, although the rate of leaving the initial PPS spell declines rapidly as the spell length increases, the absolute decline in the rate of leaving the first PPS spell and leaving the income support system not to return within the data window is more moderate.¹⁰

Third, the analysis of the individual PPS spell alone tends to emphasize the importance of short spells on income support (Column 1 Table 1). For example although 44.6 per cent of the 1995 inflow spells complete within a year only 7 per cent of the 1995 inflow leaves the income support system in the first year not to return within the data period (Column 2, Table 1). Similarly, in the second year 15.4 per cent of the 1995 spells terminate but only 3.5 per cent of the 1995 inflow complete their PPS spell and leave the income support system not to return. Eighty-one per cent of terminated first PPS spells involve the individual returning to the income support system. There is considerable churning as individuals move from spell to spell and from one income support payment to another.

⁹ A noticeable feature of Figure 2 is the sharp fall in the numbers receiving income support in the first few months after beginning their spell. For example, 18.4 per cent of lone parents leave their initial 1995 PPS spell within three months. This decline is interesting, important and not yet fully understood.

¹⁰ This raises the question as to the relevance of the effort that has been put into the analysis of heterogeneity and time dependence as explanations of the changing rate of leaving a PPS spell.

Fourth, the area under Line B, relative to the total area of Figure 2, represents the maximum time that the 1995 inflow could spend on income support if those individuals who experienced more than one spell never left the income support system. Under these circumstances the average time spent on income support could account for almost ninety per cent of the time available. The long term income support relationship would be exceptionally strong. This suggests that the important factor in determining the strength of the “long term income support relationship” is not the rate of completing a PPS spell and leaving the system. The important factor is the length of the time that those who experience multiple spells spend on the income support system. We now turn to an analysis of the area between Line A and Line B to document the amount of churning and to discover how much of the time represented by this area is spent on income support.

Part III

Long Term Relationships with FaCS: Individual Histories of Income Support

Table 2 presents some preliminary information on the extent of churning. It presents the results from following the 1995 female PPS inflow and documenting the historical pattern of income support across all income support programs.¹¹

The first two rows of Column 1, Table 2 show, within the data window, that an analysis based on individuals who experience one single PPS spell only, and no other income support, is applicable to only 33.9 per cent of the 1995 inflow group. This set of individuals consists of the 15.9 per cent who complete their initial PPS spell, leave the income support system, and do not return during the data period and the 18.0 per cent who are continuing their initial PPS spell at the end of the period. It is only for this minority of the 1995 inflows, 33.9 per cent, that there is a one-to-one correspondence between the initial PPS spell in the data window and income support over the January, 1995 to June, 2001 data period.

¹¹ These and other income support programs are defined in FaCS (2001).

The remaining rows of Column 1, Table 2 indicate that the majority of the 1995 inflow group, 66.1 per cent, return for other spells of income support. Among this majority 19.7 per cent complete their initial PPS spell and return for subsequent PPS spells only and 46.4 per cent combine periods on PPS support with income support on other programs. A very different picture therefore emerges from the analysis that follows the individual through all income support programs. Almost all the 1995 female PPS inflow has a “long term income support relationship” with FaCS.

To conclude this section we provide an indication of the proportion of the 1995 inflow that are on income support on any program at each fortnight after the initial PPS spell began. This proportion is indicated by Line C, Figure 3. Thus, at fortnight 143 after the initial PPS spell began, 62.9 per cent of the 1995 inflow is receiving income support from FaCS. The area under Line C presents the proportion of the time available that the 1995 inflow spends on income support over this period. The area between Line C and Line A represents the additional time spent on income support over and above the time spent on the initial spell.

The large difference that occurs from moving the focus from the initial PPS spell to the history of multiple spells is indicated by the height and curvature of Line C, relative to the original survival function for the 1995 inflows, Line A. It is noticeable from the area under Line C that multiple spells add considerably to the time spent on income support. By the 143rd fortnight, when 18.0 per cent are continuing on their initial PPS spell, the proportion of the 1995 inflow on income support is 62.9 per cent, more than three times the proportion still completing their initial PPS spell. Following the history of individuals therefore adds considerably to the estimate of the time spent on income support.

Finally, the rate of decline of Line C is quite different from the reduction in the survival function defined on the initial PPS spell, Line A. Line C falls quite quickly during the first four months, in a similar way to the initial PPS spell survival function, but then the decline becomes very slow. It takes two years, after the 10th fortnight, for the proportion of the 1995 inflow receiving income support to fall 12 percentage points, from 84 to 72 per cent. Over the next two years, the fall is slower, 8 percentage points, as the proportion of the 1995 inflow on income support moves from 72 to 64 per cent. If this proportionate rate of decline were to persist there is considerable more time to be spent on income support.

Part IV

Multiple Spells in More Detail

It is evident from Figure 3 that by the three year point (78 fortnights) after the beginning of the initial PPS spell, the number of individuals on subsequent income support spells exceeds those who remain on their initial PPS spell. The following section provides a preliminary account of the process of returning for subsequent spells.

The second income support spell

To simplify the analysis, and to build up an understanding of subsequent income support spells, we focus the discussion on the nature of the second income support spell in the data period.¹² The analysis could be applied to a third, fourth and other spells of income support but the detail begins to become overwhelming.

The second income support spells are combined into four groups, Parenting Payment Single (PPS), Unemployment Benefits (UB, defined as the combination of New Start Allowance (NSA) and Job Search Allowance (JSA)), Parenting Payment Partnered (PPP) and Other. Table 3 documents the destination of the 82.0 per cent of the 1995 inflow that complete their initial PPS spell within the data window.

The most common second spell, 27.8 per cent of the 1995 PPS inflow, is associated with a change in family status within the income support system as lone parents move to PPP income support (Column 1, Table 3). This occurs because they establish a partnership with an individual receiving income support, perhaps UB, or with someone on a low income.

A return to a second PPS spell is ranked second, accounting for 26.8 per cent of the 1995 PPS inflow. Some researchers have drawn attention to the importance of multiple PPS spells, but as a second spell destination, repartnering within the income support system is as important as returning to a PPS spell.

¹² A second spell on income support begins when one of the following conditions are met. (i) The individual moves to another income support program directly or following a payment break. (ii) The individual moves to another PPS spell following a payment break of at least two fortnights. If an individual returns to a PPS within two fortnights then it is counted as continuing their initial PPS spell.

The third most common destination is leaving the income support system after the initial PPS spell and not returning within the data window. This group accounts for 15.9 per cent of the 1995 inflow. Finally, returning to the income support system and entering UB and Other income support programs account for the remaining 11.5 per cent.

Time spent on different types of Second Income Support Spell

The average duration presented in Column 2, Table 3 is a mixture of complete and incomplete spells within the data window. It is noticeable that the time spent on the second spell is quite short, varying between 0.6 and 1.5 years but in part this could be because some of the second spells are not yet complete. The length of time spent on UB, PPP and Other income support spells are similar but the second PPS spell in the data window is longer. The proportion of second spells completed within the data period, however, is very high (Column 3, Table 3). For those who moved to PPP, 91.8 per cent of second spells are completed within the data period. PPS spells are the least likely to be completed but even for this group the proportion of completion is a high 72.3 per cent. The high rate of completion of second spells suggests that third and subsequent spells may also be important within the data period.

To provide a clear picture of the time spent on the second income support spell that is not clouded by the mixture of complete and incomplete spells we focus on the survival functions presented in Figure 4.

The length of the PPP spell

The survival function for a PPP spell has many of the characteristics of the PPS survival function (Figure 4). For example, the probability of leaving the PPP spell declines as the spell lengthens but the early exit rate is very much larger than that from PPS. The rate of leaving a PPP spell within the first three months is 31.3 per cent and this falls to 20 per cent for the three months following the first year on the spell. At the end of the data window there are very few remaining on this second spell, 8.2 per cent.

What is the subsequent FaCS relationship of these individuals who leave a PPS spell and then enter and complete a PPP spell for a second period of income support? Their income support history within the data window is presented in Table 4. Each row represents a spell order. Thus, 367 of the 1995 female lone parent inflow of 1322 entered PPP as their second spell. Of these 30 were on this spell for the remainder of the period

(Col. 6, Table 4) and 33 leave, within our data window, and are not found in the income support system again (Col. 7, Table 4). This means that 304, or 82.8 per cent of the PPP inflow, change income support status and enter a third spell on one of the four programs.

The most common destination of the third spell for this group, 216 individuals, is to return to PPS, that is the partnership relationship breaks down. The second most common destination, 62 individuals, is to return for another PPP spell. This break in PPP would be due to a change in earnings of either the individual or her partner.

There is a clear pattern of movement among these women whose second spell in the data window is to PPP. Over the data period they experience an average of 4.52 spells in income support of which 51.3 per cent are PPS spells and 42.2 per cent are PPP spells. Only 25.3 per cent leave the income support system and it is clear that partnering within the welfare system is not a major exit route from income support. For this group there is considerable churning, for two reasons. One reason is repartnering and moving back and forth between PPS and PPP income support, and the other reason is instability of earnings of the individual and her partner.

This evidence from FaCS' longitudinal data set suggests that the link between repartnering and leaving the income support system is not common. There is a very high incidence of lone parents repartnering and remaining within the income support system. For example, of the 1995 inflow that completed their first PPS spell within the data window, 32.9 per cent repartnered within the data window and received income support at the same time. This may be compared to the 15.9 per cent of those that completed the first PPS spell and did not return.

The length of time on the second PPS spell

The survival function for the second PPS spell is very similar to that of the first PPS spell in the data window and our conjecture is that there is no statistically significant difference. Both survival functions decline quickly at the beginning of the spell and the rate of leaving quickly approaches a quarterly completion rate of around 4 per cent.

The subsequent income support history of those who move from the initial PPS spell in the data window to leave the system and return and complete a second PPS spell is different from those who take up PPP income support as the second spell (Table 4). This group of women consistently enters and leaves PPS payments and only rarely do they

repartner within the income support system. More than half of each set of new spells involve a return to the PPS program where the spell length tends to be longer than those whose second spell was to repartner within the income support system.

The length of time on UB

The movement from PPS to UB for a second income support spell is relatively unimportant (14 per cent of second spells). The survival function has the same characteristics of other second spell survival functions but the length of stay is clearly longer than the second PPP spell and shorter than the second PPS spell since the survival function lies between these two survival functions. The subsequent income support history of this group is also different from the other two groups. These individuals tend to move backwards and forwards between PPS and UB. There is little movement to the PPP income support programs (Table 4). They experience on average an additional 3.42 income support spells after the first PPS spell. About one third of the inflow is not receiving income support at the end of the period. Customers whose second spell is PPS rather than PPP or UB are least likely to be continuing on income support at the end of the data window.

The period of time between income support spells

Table 5 documents the period of time between completion of the initial PPS spell and entry into a second income support period. The most noticeable feature of these data is the fast rate at which individuals return to the income support system. For example, 53 per cent of those who experience a second income support spell move from their initial PPS spell to the second income support spell within one month. Seventy-five per cent move to a second spell within six months.

It is particularly interesting that one third of the second income support spells involve a transfer from PPS to UB or from PPS to PPP instantaneously or after one pay period. It is clear that for these individuals the PPS spell was completed but income support was not. The high rate of transfer from a PPS spell to another income support program is another illustration of how misleading the analysis of a single PPS spell may be. The analysis of a single spell length therefore does not provide a good estimate of the length of continuous income support experience by an individual who entered the PPS program.

The elapse time between one PPS spell and the next PPS spell is longer than a move from a PPS spell to another income support program. Even so, 60 per cent of those who

return to a second PPS spell, without an intervening period of income support, do so within six months.

Continuous income support

Since so many of the second income support spells involve a very quick move to another source of income support, it may be useful to measure the length of a *continuous* income support spell across all programs and contrast the results with the earlier analysis of the initial PPS spell. To do this a continuous income support spell is defined to include the original PPS spell and subsequent periods on other income support. A continuous income support spell will end if more than two consecutive fortnight payments pass without income support.

Line I, Figure 1, plots the hazard function defined on the completion rate of continuous income support spells so that it can be compared with the hazard function for the initial PPS spells, Line H. The basic shape of the two relationships is similar. Both relationships exhibit a higher completion rate early in the spell period and a lower completion rate as time passes.

Although the shapes are similar there are differences. The rate of leaving continuous income support is generally lower than the rate of leaving a PPS spell. At the three month point, the quarterly rate of leaving a PPS spell was 18.4 per cent but a lower 15.1 per cent for the continuous income support spell. Over the last year the average quarterly rate of completion was 4.3 per cent for the initial PPS spell and 2.6 per cent for the continuous income support spell.

Figure 5 includes the survival function of the continuous income support spells as Line D. The basic shape is similar to the original survival function, Line A, but the empirical implications of the two survival functions are different. On average, the change of spell definition to include continuous income support has added about 24 per cent to the spell duration. Thus, for PPS spells 44.6 per cent were completed within a year. For continuous income support periods this proportion falls to 36.0 per cent. At the end of the data period 30.3 per cent of the 1995 PPS inflow are still on continuous income support where as 18.0 per cent are still on their initial 1995 PPS spell.

Part V

Total Time Spent on Income support Programs

This section addresses three issues; the relationship between the length of the completed first PPS spell in the data window and subsequent time on income support, the distribution of the total time spent on income support by all individuals, and, projections of time spent on income support over three contiguous periods; before, during, and after the data window.

Total time spent on repeat spell classified by the length of the initial spell

It is an important finding from the analysis of a single spell that the majority finish quite quickly (Figure 5). About twenty-five per cent of initial PPS spells finish within 10 fortnights and approximately forty per cent complete within twenty fortnights.

A major finding of this paper is that most of the 1995 PPS inflow that complete a spell, return for further income support. This raises the question as to whether there is any relationship between the length of the initial spell in the data window and the subsequent period of income support over the five and half year data window. If there is no relationship many questions can be raised as to the relevance of the analysis of a single spell as a way of providing insight into total time spent on income support. Some light is thrown on this issue in Table 6, which illustrates three important points.

First, as suggested earlier, multiple spells is the norm; 87 per cent of the 1995 PPS inflow that completed their spell within 10 fortnights return for further income support within the five and half year data window. Indeed, for those who completed their initial spell within 100 fortnights approximately 80 per cent return.

Second, the subsequent time spent on income support tends to be long. For example, 41 per cent of those who completed their initial spell within 10 fortnights return to spend at least an additional 100 fortnights on income support within the data window. This is a period considerably longer than 10 times the length of the initial spell. Similarly, 31 per cent of those who completed their initial spell between 11 and 20 fortnights returned for a subsequent income support period of more than 100 fortnights. These are extremely long periods of time. They imply very short durations off income support.

Third, given the tendency for so many individuals to return for long periods of income support there is no clear and obvious relationship in Table 6 linking the length of the initial spell to the length of subsequent time on income support. Short initial spells do not map into short subsequent time spent on income support. To further illustrate this point note that although 33 per cent of the initial 1995 spells that terminated did so within 10 fortnights (353/1084), of those individuals that returned for further income support only 8 per cent experienced a total length of subsequent income support of this length but 41 per cent experienced additional income support of more than 100 fortnights (145/310).

The distribution of time spent on income support within the data window

In Figure 6 we have added, Line E, which is the distribution of total time spent on income support. For each individual the total time on income support over the 143 fortnights is calculated and then individuals are ranked from those who spend the shortest time to those that spend the longest time on income support. We can compare the original survival function, Line A, with Line E but it should be noted that the ranking of individuals differ across the two series. For example, the individual at the 80th percentile in Line A is not the same individual at the 80th percentile on Line E.

The shape and position of Line E is very different from the initial survival function, Line A. Obviously Line E must lie on, or to the right of Line A, because total time on income support cannot be less than the length of the initial spell. Furthermore, Line E will move outwards as the data window lengthens. Many of those who have completed their last spell within the data window will return for further income support and those who are still on a current spell will lengthen that spell.

The first thing to notice is that the strong convex curvature that was apparent in the survival function has been lost. With respect to total time spent on income support the relationship is near linear, except towards the end of the period as Line E and Line A approach each other.¹³ The disproportionate share of short completed spells among the initial inflow does not map into a disproportionate share of short periods of total time on income support.

¹³ If Line A, which defines the first PPS spell was defined to include all income support then Line A and Line E would meet at the same point.

The second point is that time spent on income support is, on average, very long. For example, at the 80th percentile the average time spent on a completed initial PPS spell is less than 10 fortnights but average time on income support is approximately 50 fortnights, a ratio of five to one. Similar relationships are evident along most of these two curves. At the 50th percentile, for example, the completed PPS spell is 35 fortnights but total time spent on income support is around 120 fortnights.

Finally, the addition of area N and M is total time spent on income support. From the two year point additional time spent on income support from second and subsequent spells exceeds that which is being accumulated from the first incomplete PPS spell.

Aggregate time spent on Welfare Support

The dominance of multiple spells means that a majority of those beginning a PPS spell in a particular year will have experienced income support before the data window. Similarly, most individuals not on income support at the end of the data window will return for further income support after the data window. Some attempt therefore should be made to extend the estimate of income support into the pre and post data window. Obviously, the further the extension the greater the scope for error. For this reason, we confine the extension of the analysis to five and a half years before and after the beginning of the initial spell.

The five and a half year data window

The simplest way to derive estimates of total time spent on income support within the data window is to use the data presented in Figure 5. The area under Line A, Figure 5, measures total time on the initial spell within the data window. This period is 2.1 years, or 40 per cent, of the five and a half years available for income support (Table 7). The area between Line A and Line C of Figure 5 measures the average time on second and subsequent income spells. This adds a further 2.0 years to welfare reliance. The total period of income support therefore is 4.1 years or 74 per cent of the five and a half year data window.

The next five and a half years

To estimate time spent on income support, after the data window, we need to project Line A and Line C of Figure 5. Over the last two years of the data window the average quarterly rate of exit from the initial PPS spell is 4.3 per cent. We assume that this rate continues. This is a conservative estimate since evidence from this and other studies usually indicates

that the exit rate continues to decline. The assumption of a 4.3 per cent quarterly rate of decline produces an additional 0.7 years to the total estimate of time on income support from those who are still on their initial PPS spell at the end of the data window.

To take account of income support spells on second and subsequent spells we first project Line C for the next five and half years. It is noticeable that over the last two years of the data window there has been virtually no decline in Line C. We adopt a conservative estimate and assume a faster rate of decline of 0.8 per cent per quarter. This produces an estimated total time on welfare of 3.2 years.¹⁴ Then, subtracting the 0.7 of a year for those continuing their initial PPS spell, produces an estimate of 2.5 years for those who are entering and exiting the system.

The previous five and a half years

There are no observations on pre-inflow income support patterns for the 1995 PPS inflow, but data for PPS inflows in subsequent years indicate that the pre-inflow income support patterns are very similar. This suggests that the pre-inflow experience of subsequent years might be applied to the 1995 inflow group with a high degree of confidence. Consequently, we adopt the income support pattern of the 2000-2001 PPS inflow group and assume that this approximates the pre-inflow income support history of the 1995 PPS inflow (Line F, Figure 7).

Thirty per cent of the PPS inflow in 2000-2001 are direct transfers from other programs. This is the intercept point in Figure 7. As we move back in time we find that one and a half years before beginning their PPS spell in 2000-2001, 50 per cent of individuals were receiving income support. Five and half years back, the proportion declines to 35 per cent. At this point all but 18 per cent of the 2000-2001 PPS inflow have experienced a previous income support spell. When we aggregate the area under Line F we estimate the 1995 PPS inflow spent an average of two and a half of the previous five and half years on income support.

Putting these estimates together we find that over the sixteen and half year period, the 1995 PPS inflow will spend an average of 9.8 years, or 60 per cent of the available time, on income support (Table 7). Of course, this is a significant underestimate of life-time

¹⁴ Line C for the 40 years + age group declines at the rate of 2.25 per cent per quarter (Figure 8). This assumption reduces the estimate of time spent on welfare from 3.2 to 2.5 years.

income support. The slow rate of decline of Line C in Figure 5 and Line F in Figure 7 suggests that time spent on income support will continue to increase as the period of analysis widens beyond the sixteen and a half year data window. If the projections were extended for a further five and a half years into the pre and post data period the average time spent on income support must be well over twelve years and for many individuals well over 15 years.

Some indication of the likelihood of income support, after a decade has passed, can be provided by decomposing Line C of Figure 5 into four age groups, 15-25 years, 26-35 years, 36-40 years and 41 years and over. These data will provide some indication of the effect of the aging process on income support access. It is evident, from Figure 8 as expected, that the rate at which lone parents leave income support increases with age. For those aged 15-25 years at the 1995 inflow date, 72 per cent are still accessing income support after 143 fortnights (Figure 8). For the 41 plus age group the proportion accessing income payments is lower but it is still marginally above 48 per cent.¹⁵ It is surprising that this exit rate does not decline faster with the increase of age of lone parents. The slow rate of decline in all age groups suggests that income support will continue to be important as the data window extends into the future.

¹⁵ These results are consistent with those of Chalmers (1999). She shows that five years after leaving PPS, because the youngest child has turned 16 years of age, 50 per cent of previously lone mothers are accessing Invalid Pension.

Part VI

Concluding Remarks

It is often suggested that the average individual who receives a PPS payment does so for a short period of time, approximately 2-3 years. It is also suggested that the PPS population naturally divides into two distinct groups, those who experience very short stays and those who experience very long stays. Both these suggestions which are based on the analyses of a single spell length are misleading as descriptions of the behaviour of the total time spent on income support. The purpose of this paper is to change the way in which many Australian researchers, commentators and policy makers think about the duration of welfare payments for lone parents and to move the focus away from the analyses of a single spell to the total time spent on income support.

The accumulated history of multiple spells, and movements to other programs, indicates that the average period of income support for lone parents is long. It is difficult at this stage to be precise, but the average cumulative use of income support over the period for which parents have dependent children may be as much as twelve years. Total time on income support including time without dependent children will be considerably more. There is a “long term income support relationship” between FaCS and most lone parents and there is little doubt that a significant number of individuals depend on income support for a considerable part of their adult life. Understanding why this occurs and its economic and social implications is an important task to be faced in a subsequent paper in this project.

Although individuals depend on welfare payments for substantial periods there is considerable instability in this “long term income support relationship”. The instability arises in the time individuals spend on each income support program, the time they spend in new family relationships that affect their income support status and the time they spend in employment with reduced income contributions from FaCS. It is this instability that leads to the inappropriateness of the analysis of the initial spell lengths. Putting our results into a policy perspective might suggest the following.

First, the focus should be on income support programs as a group rather than on each program individually. When individuals are moving in large numbers from one

program to another, often without an intervening period off-payment, it is important that policy be consistent. For many individuals different programs are close substitutes.

Second, because women who access PPS payments spend such a long time on income support, any investment to assist them to become independent of welfare programs is likely to have a much larger personal return than is suggested by an analysis of individual programs and spells. For example, suppose a policy could reduce the average time spent on income support by 10 per cent. An analysis of the length of single spells might suggest a reduction of the average stay on income support of two to three months for the average lone parent. An analysis based on multiple spells on multiple programs suggests a reduction of perhaps one or two years.

Third, a consideration of total time spent on income support suggests that it is not necessarily sensible to direct policy attention to those who stay for a long time on a particular spell. So many individuals accumulate considerable income support time by moving from program to program and spell to spell. This group with its multiple entries and exits, may be more important than those who stay a long time on a single spell or program, and will be missed by such a focus.

Fourth, because of the large number of lone parents and the long periods of time they spend on income support it may be more difficult than anticipated to move individuals off income support. Long term dependency on welfare payments with little time spent in well paid jobs appears to be the norm.

Fifth, if income support is thought of as a series of episodes spreading over a long time period, rather than a single one off spell, then a new range of policy questions arise. For example, what are the relative merits of directing policy to moving individuals off income support, that is increasing the exit rate, relative to policies that lengthen the intervening periods between income support, that is reducing the entry rate? What is to be gained by policies that help reduce spell length even though the individual may return for another spell quite quickly?

To conclude, it is obvious that this new data source and focus on time spent on income support has lead to a wide range of new questions. Why is there so much relationship instability occurring within the income support system? Why do lone parents incur so many income support spells? Why is the proportion of individuals in the 1995

inflow who succeed in leaving the program for substantial periods so small? The new data base from FaCS can be used to make progress on all these questions and as the data window widens with the passage of time our ability to make progress will increase.

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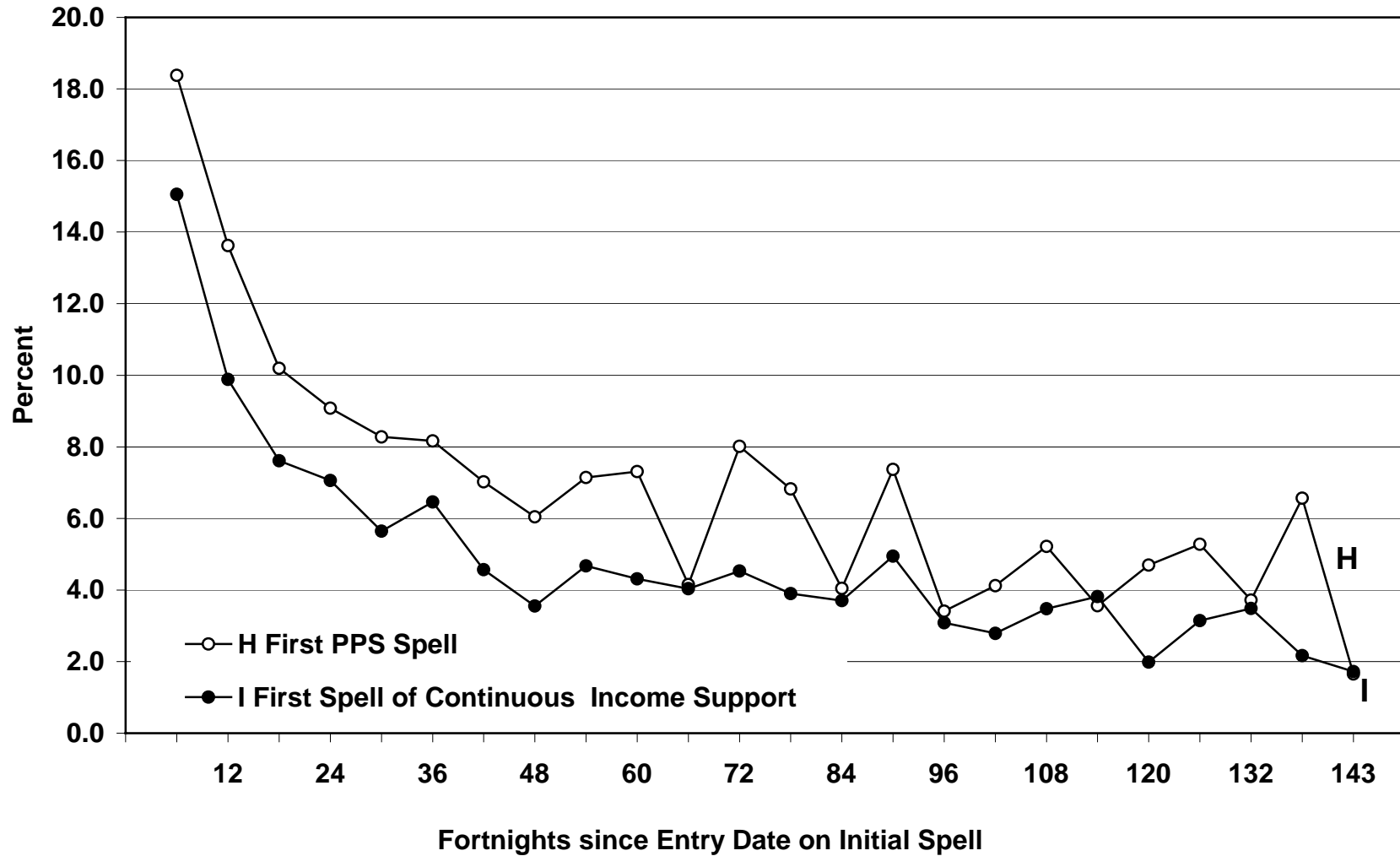
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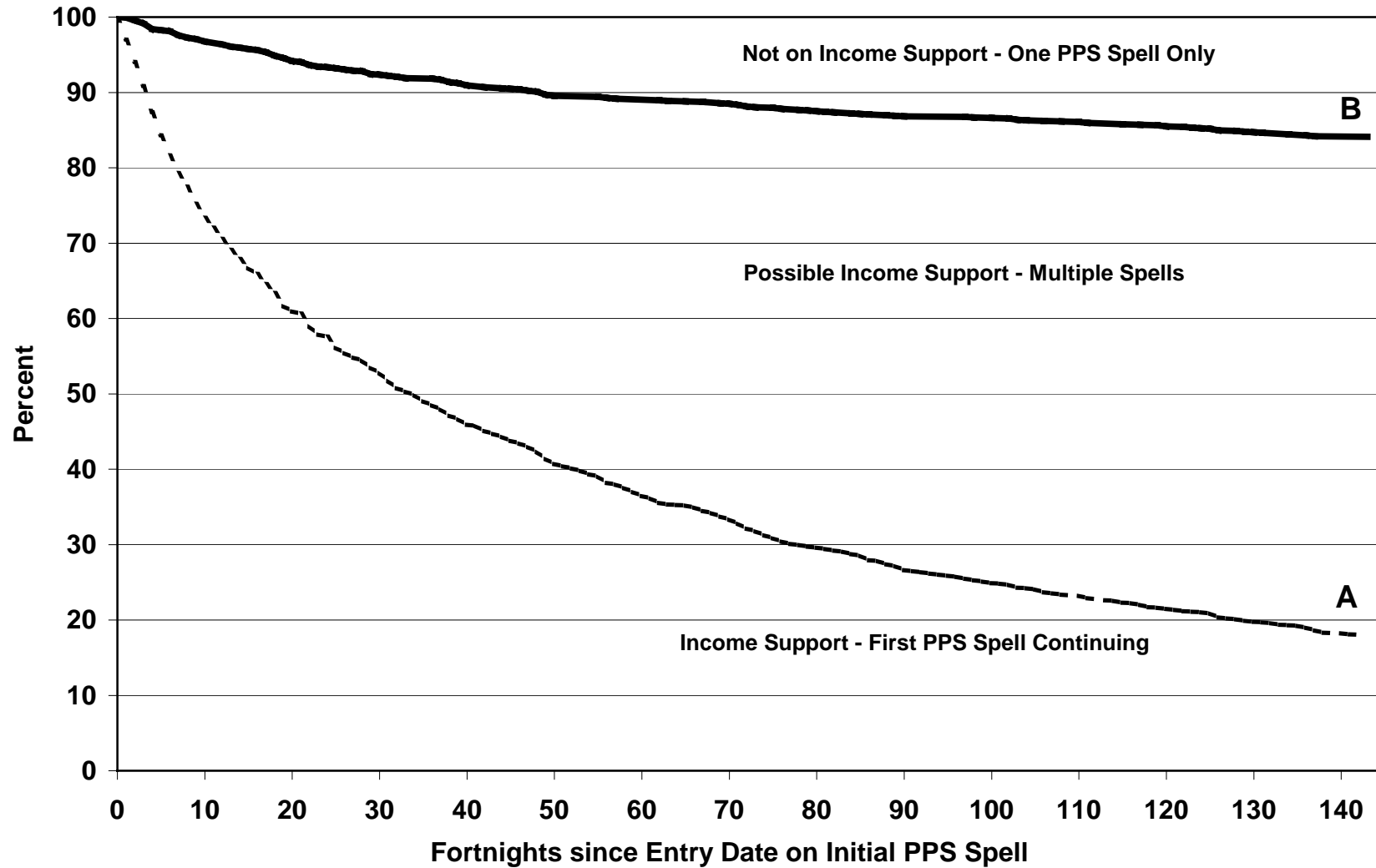
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Figure 1 Quarterly Rate at which the Female 1995 PPS Inflow leave their First PPS Spell and their First Spell of Continuous Income Support



**Figure 2 Survival Functions for the First PPS Spell
Female 1995 Inflow**



**Table 1 Female 1995 PPS Inflow - Percent Completed in Years
January 1995 - June 2001**

Years	Initial PPS Spell %	One PPS Spell Then Leave %
Less than or equal to one year	44.6	7.0
One to Two	15.4	3.5
Two to Three	10.1	1.9
Three to Four	5.7	1.4
Four to Five	4.5	1.6
Five to five and half	1.7	0.6
Still there	18.0	
Total	100.0	15.9

**Table 2 The History of FaCS Income Support for the Female 1995 PPS Inflow
January 1995 - June 2001**

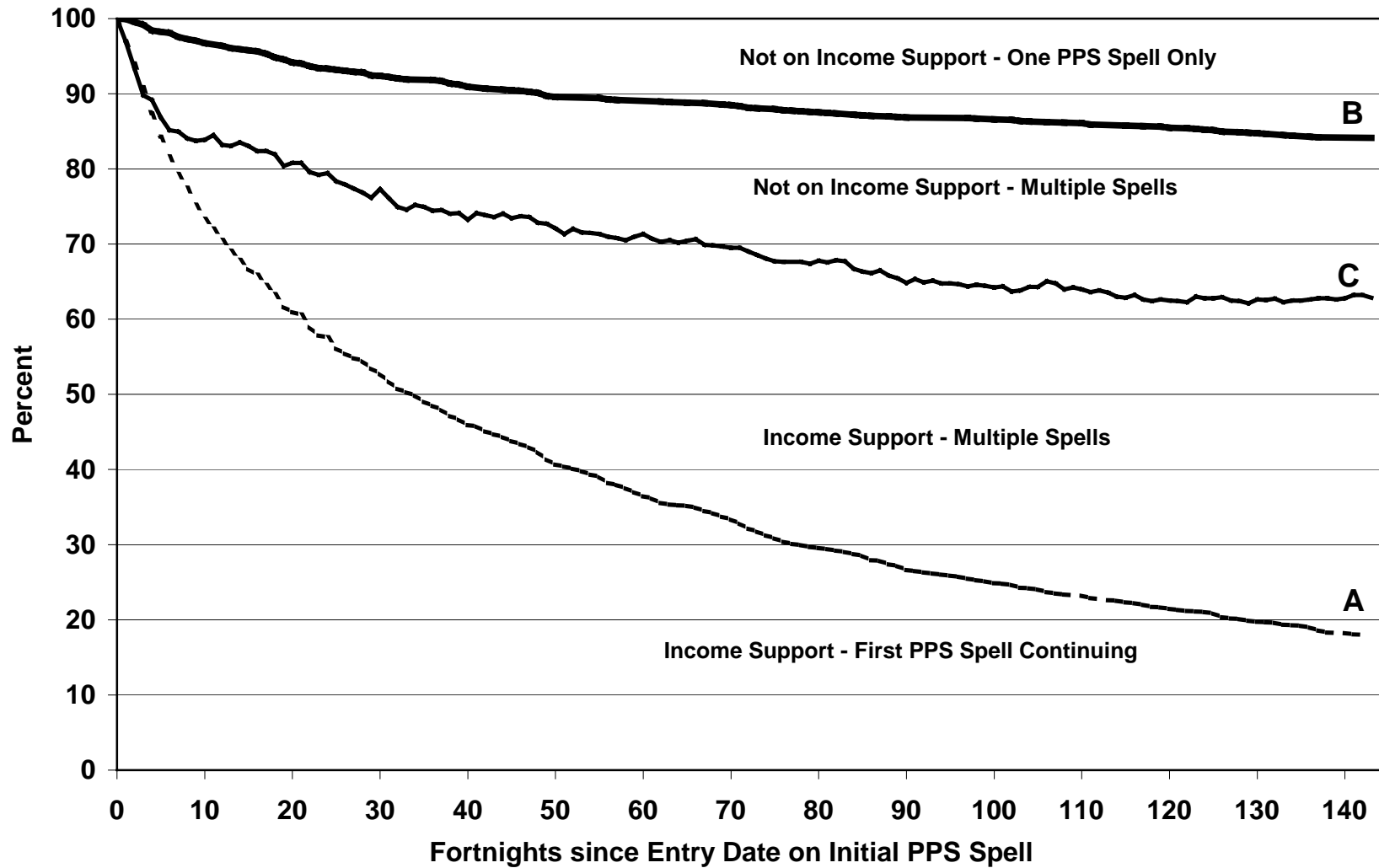
Income Support	Proportion of 1995 PPS Inflow (percent)	Average Duration** on Program (years)	Share of Total Income Support (percent)
Leave after One PPS Spell	15.9	1.8	7.3
Continue on One PPS Spell	18.0	5.5	25.3
Multiple PPS Spells only	19.7	3.4	17.0
PPS and Other spell types*	46.4	4.3	50.4
<i>Total***</i>	100.0	3.9	100.0

* The more important other spell types are Newstart and Parenting Payment Partner

** Duration is a mixture of complete and incomplete spells

*** The average potential time for income support is five and a half years because the 1995 inflow extends from January to December 1995. The end of the data window is June, 2001.

Figure 3 Income Support Patterns for the Female 1995 PPS Inflow

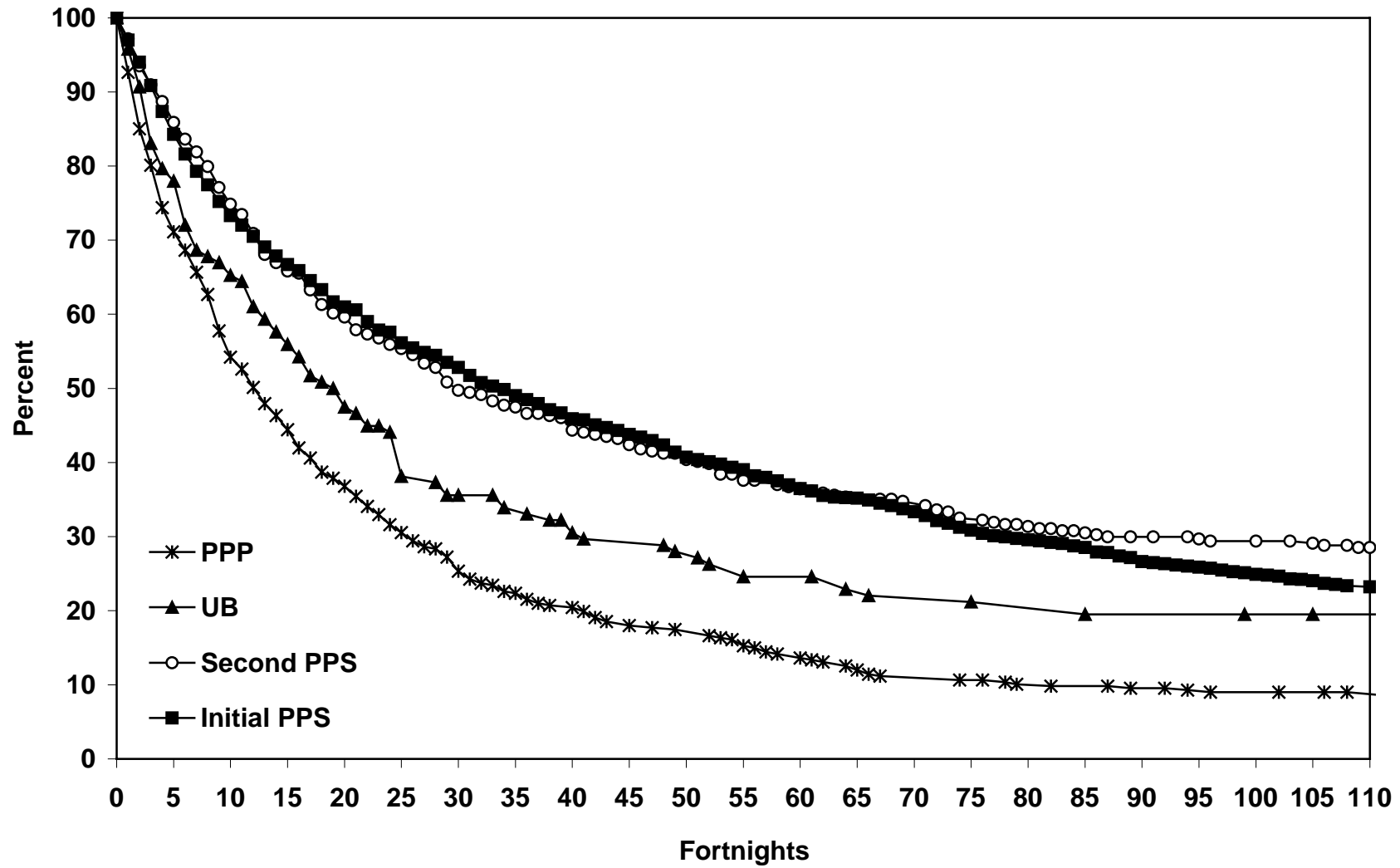


**Table 3 Female 1995 PPS Inflow - Destination after First Spell Completion
January 1995 - June 2001**

Destination	Proportion of 1995 PPS Inflow (percent)	Average Duration* on Program (years)	Completed Second Spell (percent)
Leave after One PPS Spell	15.9	1.8	
<i>Second Spell</i>			
Parenting Payment Single (PPS)	26.8	1.5	72.3
Unemployment Benefit	8.9	1.0	80.5
Parenting Payment Partner (PPP)	27.8	0.9	91.8
Other Income Support	2.6	0.6	77.1
<i>Total Second Spells</i>	66.1		

* Duration is a mixture of complete and incomplete spells

Figure 4 Survival Functions for Initial PPS and Second Income Support Spells



**Table 4 Second Spell of Female 1995 PPS Inflow
Movement to third and subsequent spells by Income Support Type**

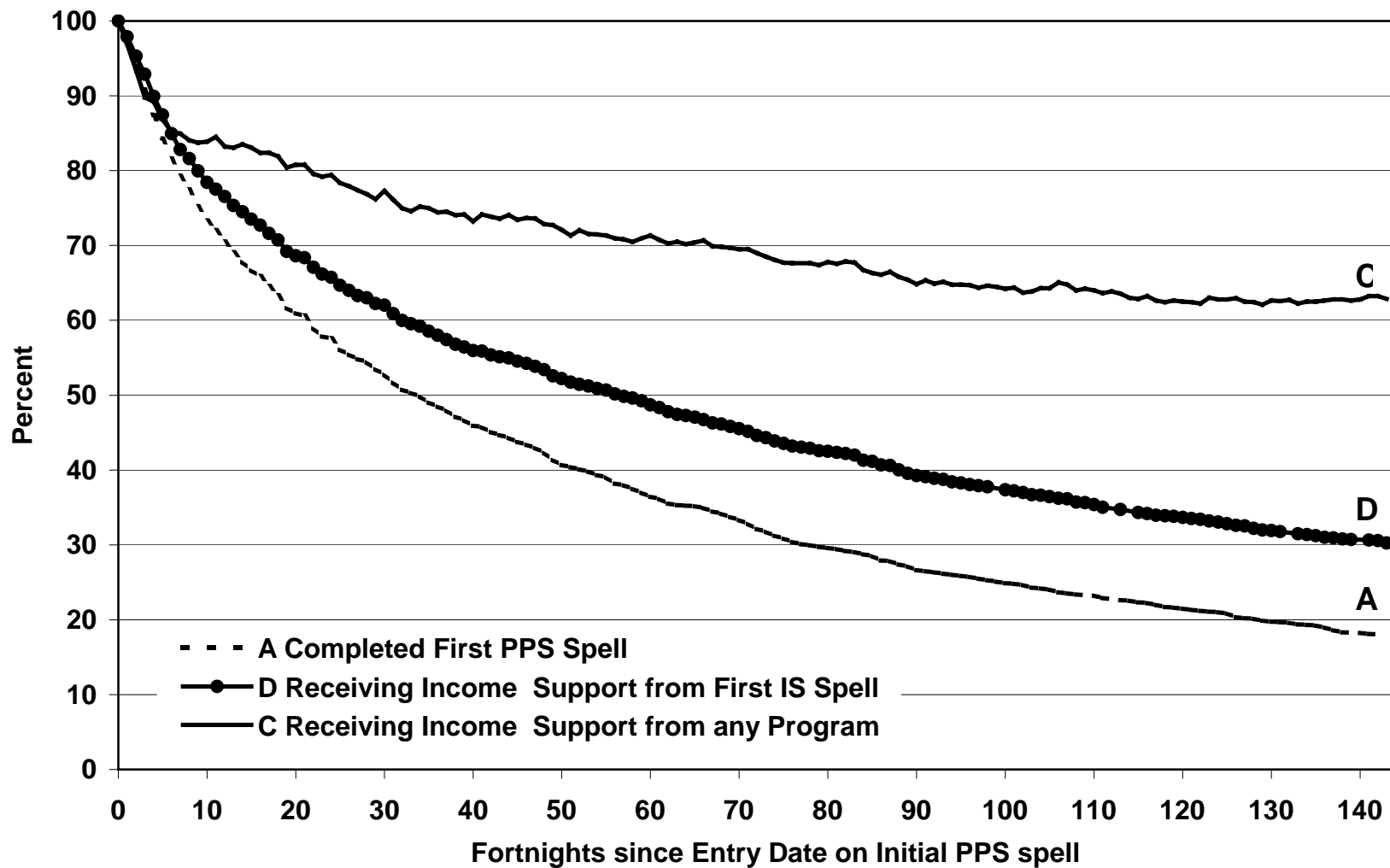
		PPS (1)	UB (2)	PPP (3)	Other IS (4)	Total (5)	Total Continuing (6)	Total Left (7)
<i>PPP</i>								
	2	0	0	367	0	367	30	33
	3	216	12	62	14	304	79	25
	4	55	21	116	8	200	42	14
	5	85	9	46	4	144	43	11
	6	37	5	42	6	90	22	6
	Total Spells	852	57	702	49	1660	273	93
<i>PPS</i>								
	2	354	0	0	0	354	98	256
	3	114	21	45	3	183	49	134
	4	66	12	12	5	95	29	66
	5	22	9	23	3	57	8	49
	6	32	3	2	4	41	17	24
	Total Spells	975	53	97	19	1144	218	136
<i>UB</i>								
	2	0	118	0	0	118	23	17
	3	25	35	3	15	78	32	10
	4	6	18	4	8	36	10	5
	5	6	11	2	2	21	5	3
	6	4	4	2	3	13	7	0
	Total Spells	166	196	12	30	404	82	36

**Table 5 Second Income Support Spell Destination
Elapse time between first and second spell**

<i>Destination of Second Spell</i>	PPS 40%	UB 14%	PPP 42%	Other 4%	Total 100%
<i>Elapse time between first and second spell</i>	%	%	%	%	%
One month	22	75	75	69	53
Two months	36	81	82	71	63
Three months	44	82	84	77	67
Six months	60	85	87	80	75

Note: 81% of those who leave a first PPS spell return for a second spell of income support.

Figure 5 Proportion of Female 1995 PPS Inflow receiving Income Support

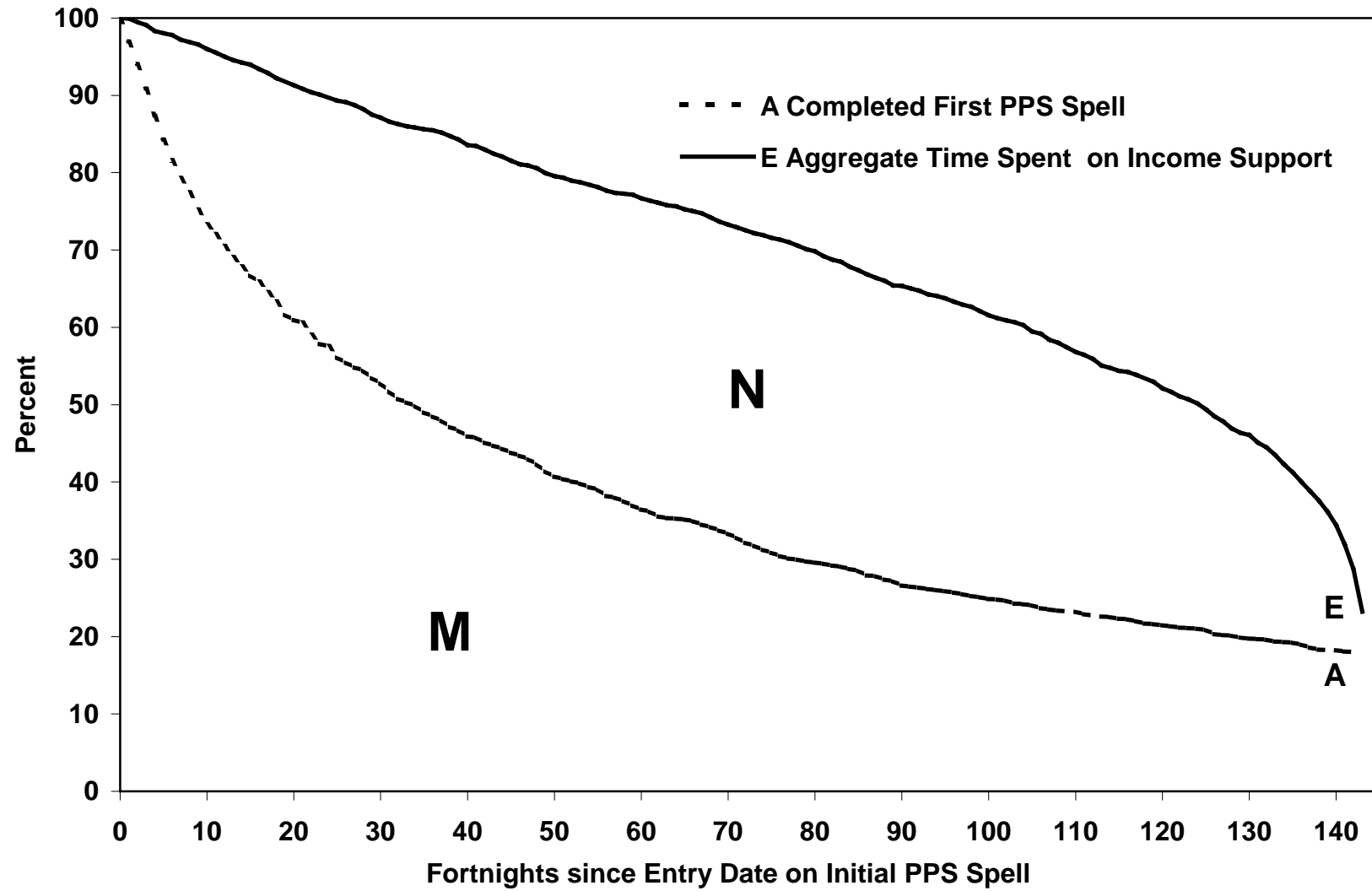


*First Spell in Jan 1995-Dec1995

**Table 6 Female 1995 PPS Inflow who Complete their First Spell
Duration of First Spell and Subsequent Time Spent on Income Support for Multiple Spells**

	Subsequent Time Spent on Income Support (ftns)							Total Multiple Spells	Total One Completed Spell	Total	Multiple Spells Percent
	1-10	11-20	21-60	61-80	81-100	101-120	>=120				
First Spell Duration (ftns)											
1-10	26	14	70	24	31	32	113	310	43	353	28.6
11-20	7	8	26	17	8	21	42	129	34	163	11.9
21-40	11	10	31	22	25	55	2	156	43	199	14.4
41-60	5	3	30	19	41	4	0	102	23	125	9.4
61-80	6	5	24	31	3	0	0	69	22	91	6.4
81-100	6	6	36	2	0	0	0	50	12	62	4.6
101-120	4	5	21	0	0	0	0	30	15	45	2.8
120-140	14	9	3	0	0	0	0	26	17	43	2.4
>=141	2	0	0	0	0	0	0	2	1	3	0.2
Total	81	60	241	115	108	112	157	874	210	1084	80.6

Figure 6 Female 1995 PPS Inflow



**Figure 7 Female 2000-2001 PPS Inflow
Percent who have a Pre-Income Support Experience**

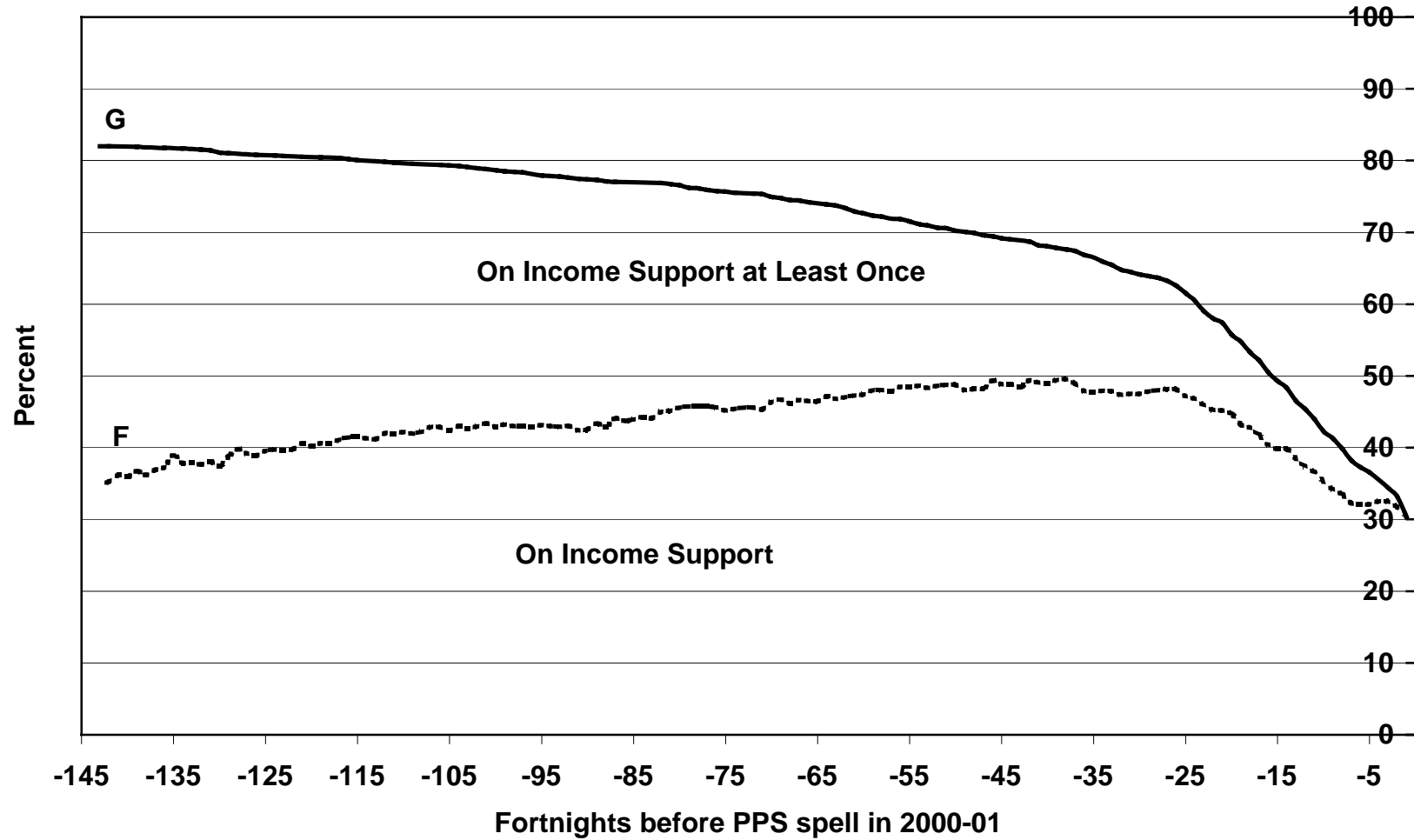


Table 7 Estimated Time Spent on Income Support*
Female 1995 PPS Inflow

	Years		
	Initial PPS Spell	Repeat Spells	Total Time
The Data Window	2.1	2.0	4.1
Before the Data Window		2.5	2.5
After the Data Window	0.7	2.5	3.2
<i>Total</i>			9.8

* mixture of complete and incomplete spells. Each period covers 5.5 years.
The data window is January, 1995 to June, 2001.

**Figure 8 Proportion of 1995 PPS Inflow
All Income Support by Age Group**

