Employment, Welfare and the Transfer Function in the Long Run
E W N

Flows and Stocks and Causation
What is the nature of the long run macro link between welfare changes and job changes?

Is the relationship one to one as is often implied – “employment is lower because people are living on welfare”, “welfare reform reduces welfare and increases employment”

In the long run does narrowing welfare entitlements create poverty, by reducing a source of income support, or does it create more employment?

We seem to know little about long run relationships and even less as more and more research is focusing on short run and program specific interventions?
The Plan

• What can we learn from Australian employment `and welfare history of the last half century?

• There will be substantial amounts of data presented but you should think of this as a broad brush theoretical study (perhaps too abstract for some). It is also a study that still needs to be tightened a lot

• This is a rough outline of my current thinking about the long run evolution of the Australian labour market/welfare nexus

• The focus is on employment and welfare take-up, not on wages or income
The Basic Methodology

• I calculate years of completed work over the life time, years of non-work and years of Income Support (IS) for all persons.

• Todays talk will be confined to men and women

• I will not deal directly with marriage and partnerships but that is at the centre of much of what I will say

• The marriage analysis will be in an accompanying piece
Life Table Methodology

• The life table methodology to estimate completed work life is undertaken in full-time employment equivalents. Part-time employment receives the weight .4. There are no wage weights applied (easy to do but probably not worth it). Men and women are weighted equally.

• Relative population changes across age groups are kept constant. This is a standard life table assumption.

• I think of work-life estimates as long run supply outcomes. Short term employment levels are clearly demand constrained but maybe this does not matter from a longer run perspective.
The Analysis and Question

• What has happened to Australian average years of completed work life over half a century?

• Answer: *Nothing. The average Australian today works for thirty of the 50 years between 15 and 64 years, just as they did half a century ago. How extra-ordinary!*

• If average work life over half a century has been constant should we expect Income Support incidence to be constant?

• At the economy wide aggregate level is there any relationship at all between welfare provision and completed work life (employment) in the long run?
The Puzzle

• Figure 1 plots the change in completed work years employed in the labour market and completed years receiving welfare over the last half century

• These data are years experienced by the whole population.

• The welfare data are extra ordinary. The average years on welfare per person 15-64 years peaked at ten years!!!!

• If for example half of the population never experienced welfare then those who do would experience twenty years!!!!
Change in Years Worked and Supported by Welfare 1966-
The Long Run Work-life Income Support Relationship

• There is a positive relationship between job loss and welfare increases – job losses move individuals onto income support. But note three interesting facts

• First, there is a employment reduction magnification effect. Work-life reductions of about three years for the average person in the 1970s and 1980s increased years on welfare by about seven to eight years.

• Second, when work-life begins to increase over the last two decades welfare years appear to reduce one for one. The upward ratchet effect appears to have been produced only in the job loss period of 1970-1983
The Long Run Work-life Income Support Relationship

- Third, after thirty years, when work years eventually return to their 1960’s level, welfare years for the average person remains at an additional six years.
- There has been no long run association between income support and completed work life.
- The empirical magnitudes involved are quite extraordinary.
- The calculation shows that every person would spend six years more on welfare than they did in 1966. If half of the people never experienced a welfare spell than the half that did experience an additional twelve years on government income support.
The Long Run Work-life Income Support Relationship

• Why was there a welfare ratchet effect? Why does the average adult, over the years 15-64, spend an additional six years on welfare even though years employed have returned to 1960’s levels?

• Does the data suggest that to reduce years spent on welfare to 1960s levels average work-life years must increase six years for every person between the age of 15 and 64 years. This seems impossible. For half a century work life has not changed at all. It looks as though there is a permanent ratchet up of welfare support
The Long Run Work-life Income Support Relationship

• To begin to answer this question we need to move away from an analysis based on the average person. Today I introduce gender into the analysis

• We also introduce the concept of a Transfer Function.
The Transfer Function

• The transfer function is an implicit relationship adopted by society to transfer income from those who undertake paid work to those who do not

• The transfer function has primarily taken labour market income from men and delivered income to women who are not employed in the labour market

• The family has played the dominant transfer function role but the importance of the family is weakening and its traditional role is being increasingly taken over by the state.
The Transfer Function

• We can directly measure labour income (here measured as full-time work years)

• Fifty years minus work years (years not worked) need to be covered by income transfers, delivered by the transfer function

• We can also directly measure welfare support – government transfers

• Private transfers are estimated as the residual between completed work years and completed years on welfare payments
The Transfer Function

• Private transfers obviously reduce the net labour income of those employed. We do not consider the size of the per capital transfers. This obviously matters but not a great deal for the story to be told

• Table 1 is the first step and presents completed work years by gender
### Table 1: Completed Work Life Years 15-64

<table>
<thead>
<tr>
<th></th>
<th>Years worked</th>
<th>Years Not worked</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All</td>
<td>Men</td>
</tr>
<tr>
<td>1966</td>
<td>30</td>
<td>44</td>
</tr>
<tr>
<td>2014</td>
<td>29</td>
<td>34</td>
</tr>
<tr>
<td>Difference</td>
<td>-1</td>
<td>-10</td>
</tr>
</tbody>
</table>

Source: Austats, ABS Website, Data Cube LM1, 1978-2014 (August). Authors calculation using above source.
• Note that in 1966 women had to find income to support them for 34 of their potential “work life years” between 15 and 64

• Almost all the income had to flow from men to women since the completed work life of men was 28 years longer than that of women

• In 1966 men had to find 6 years of income. Some of the money came from fathers to sons. Some from employed men to non-employed. My guess is that not much flowed from women to men but I do not know
The change to 2014 is remarkable.

Now women only have to find income for 25 years – half their potential “work life” between 15 and 64 years. Their transfer needs reduced by eight years.

Transfers needed by men has increased to 16 years – a substantial time. Their transfer needs increased by 10 years.

Clearly the 34 years worked by men cannot carry the 25 year transfer to women and the 16 transfer to men.
• Clearly the 34 years worked by men cannot carry the 25 year transfer to women and the 16 transfer to men.

• The income earned by women during the additional work years needs to play some role

• If the transfer flows from women were per capital the same as the transfer flows from men there would be no need for any additional transfers since completed work life years are unchanged
• Is it likely that the additional years worked by women will provide the transfers that will replace the reduced transfers from men because they now work less – is the transfer function unaffected by which gender earns the income?

• Before addressing these questions Figure 2 shows how the gender distribution of completed work life has changed through time.
Fig Change in Employment Years
Men, Women and Total
15-64 years
The Transfer Function
How are the twenty years of non-work financed?

• The Transfer Function may operate in two major ways
  – Intra-family financing of non-employment
  – Government financing of non-employment
## Table 2: Transfer Function for Non-Work Years

<table>
<thead>
<tr>
<th></th>
<th>Years Paid by Welfare</th>
<th></th>
<th>Years Paid by Private Transfer</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Men</td>
<td>Women</td>
<td>Total</td>
</tr>
<tr>
<td>1966</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>18</td>
</tr>
<tr>
<td>2014</td>
<td>9</td>
<td>7</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Difference</td>
<td>7</td>
<td>6</td>
<td>7</td>
<td>-6</td>
</tr>
</tbody>
</table>

*Source: Austats, ABS Website, Data Cube LM1, 1978-2011 (August). Authors calculation using above source.*
• In the old 1966 world, the state delivered the transfer for 2 years of non-paid work. Private transfers, estimated by residual, delivered 18 years

• Private transfers were primarily from men (husband) to women (wife)

• Welfare transfers delivered by the state were also primarily to women

• Gender was playing a major role in the allocation of completed work years and therefore a major role in the transfer function
• In the 2014 new world, the state delivers 10 years of transfers and the other 10 years are delivered privately

• Why has the number of years delivered privately fallen so much and the state contribution increased so much? Remember total years of paid work has not changed.

• Did the provision of state transfers drive private transfers out? Did the reduction in private transfers create the demand for state transfers?

• Is something else the key driving force for what we observe
• In the 2014 new world, the state delivers 10 years of transfers and the other 10 years are delivered privately.

• Why has the number of years delivered privately decreased so much and the state contribution increased so much? Remember total years of paid work has not changed.

• Did the provision of state transfers drive private transfers out? Did the reduction in private transfers create the demand for state transfers?

• Is something else driving what we observe. Lets look more closely at the employment-income support relationship.
Fig Female Additional Years Worked and Additional Years on Income Support since 1966
• Note that the government transfers to the average woman has increased by 6 years.
• Note that employment years have also increased by 8 years.
• So the relationship is not what we expect. More work is associated with more government income support.
• Furthermore, recent falls in income support from an average of 10 to 6 years has not been associated with an acceleration of trend for extra jobs.
• The male relationship will be shown to quite the opposite.
Men Additional Years Employed, Men and Women Additional Years on Income Support 1966-2014
• My answer is that this situation arises because of changes in the marriage market but I do not have time to talk about this today
• Women have increased their work and men have decreased their work by exactly the same. So what?
• Well the male job loss is among single men and the female job gain is among married women so
Fig. Women's Additional Years Worked, Male and Female Additional Years on Income Support 1966-
Fig Change in Years Worked and Supported by Welfare
1966-

- Male Years No Work
- Person Years Welfare
- Person years No Work
Concluding remarks

• Until 2000 the association between male job loss and female income support increases was almost perfect. One job loss for a male associated with one extra female on welfare. A welfare multiplier of two.

• Throughout the whole period there is no relationship between female income support and female jobs

• Until 2000 the association between male job loss and male income support increases was also almost perfect and one to one.

• Throughout the whole period there is no association between male income support and female jobs

• Hence the pattern of job growth must matter – not the usual focus of skill versus non skill. Here the focus is clearly on gender