Crawford School Dialogue - Australia's carbon price: good policy or not?

The Jobs Issue

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Illustration of what “job loss” means in public debate: a major misunderstanding

(A) The misunderstanding from the news; but need to look after the LTU

(B) Example concerning the Emissions Trading Scheme debate (2009):

Reactions from the CEO of the Minerals Council of Australia to the ETS:

(i) ‘The CPRS (emissions trading) scheme will shed 23,510 jobs in the minerals sector by 2020.’ [The Australian May 2008] {Counter-factuals are critical to this}

(ii) The Climate Institute estimated that there will be an additional 31,743 ‘green jobs’ from the ETS, 2010-2030 (about 15,872 by 2020)

(C) Not interesting to most economists (‘so what?’):

(a) switching of behaviour is obvious, AND

(b) the flows figures are well known
Outline: Different Approaches and Data (basically the same point)

(i) Labour market stocks, dynamic simulation to 2020

(ii) Aggregate monthly outflows from employment and inflows to employment (ABS job flows data)

(iii) Additional monthly outflows and inflows from the ETS (mining/green jobs)

(iv) HILDA: Understanding outflows in the mining sector

(v) HILDA: Mining outflows from employment: where did they go, 2001-08?
(i) ETS: 2010-2020 Unemployment Rate Projections with Mining/Green Jobs
(ii) Understanding Monthly Labour Market Flows, Simply

- People employed
- People not employed

Outflow: People employed → People not employed

Inflow: People not employed ← People employed

<table>
<thead>
<tr>
<th>Data</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inflow</td>
<td>372,270</td>
<td>51,590</td>
<td>284.87</td>
<td>530.68</td>
</tr>
<tr>
<td>Outflow</td>
<td>367,920</td>
<td>71,960</td>
<td>226.41</td>
<td>588.86</td>
</tr>
<tr>
<td>Net inflow</td>
<td>4,350</td>
<td>3,800</td>
<td>-271.75</td>
<td>200.33</td>
</tr>
</tbody>
</table>

N= 144
Source: ABS, Labour Market Flows, Cat. 6202.
Illustrating Flows
Aggregate Variations in Inflows and Outflows for 2009

Inflow = Number of not employed people in the last month with employment this month

Outflow = Number of employed people in the last month leaving employment to become jobless

Source: Calculated from ABS, *The Labour Force*, Catalog 6202.2

<table>
<thead>
<tr>
<th>Month</th>
<th>Inflow to Employment</th>
<th>Outflow from Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average per month</td>
<td>372,270</td>
<td>367,920</td>
</tr>
<tr>
<td>Average per (8 hr) day</td>
<td>18,614</td>
<td>18,396</td>
</tr>
<tr>
<td></td>
<td>(581 people in 15 mins)</td>
<td>(575 people in 15 mins)</td>
</tr>
</tbody>
</table>
## Contribution of the ETS to Monthly Employment Outflows/Inflows (2011-2020)

*(Calculated by taking the average of monthly flows from 1998-2009)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Person/Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average monthly inflow/outflow without the ETS*</td>
<td>372,270 / 367,920 people</td>
</tr>
<tr>
<td>Additional monthly outflow contribution from mining jobs, 2010-2020</td>
<td>196 people</td>
</tr>
<tr>
<td>Additional monthly inflow contribution from ‘green jobs’, 2010-2020</td>
<td>133 persons</td>
</tr>
<tr>
<td>Monthly Contribution of ETS to outflows/ inflows</td>
<td>0.05 (0.036) per cent (net addition = - 1.4 jobs per 10,000)</td>
</tr>
</tbody>
</table>
HILDA: More on Understanding Flows
Labour Market Outflows for the Mining Sector:
Proportion of Continuing Mining Employment (2001 HILDA Cohort)

E = 0.9327e^{-0.185t}
R^2 = 0.9175
Understanding Flows
Aggregate Projections of Mining Employees Who Leave/Remain in the Sector*

*Mining employment data from ABS Catalog 6291.0.55.003 (November 2010)
Employment Inflows and Outflows from Mining per year, HILDA 2001-2008

<table>
<thead>
<tr>
<th>Year</th>
<th>Average Inflow</th>
<th>Average Outflow</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>33%</td>
<td>21%</td>
</tr>
<tr>
<td>2003</td>
<td>34%</td>
<td>26%</td>
</tr>
<tr>
<td>2004</td>
<td>38%</td>
<td>36%</td>
</tr>
<tr>
<td>2005</td>
<td>33%</td>
<td>26%</td>
</tr>
<tr>
<td>2006</td>
<td>29%</td>
<td>23%</td>
</tr>
<tr>
<td>2007</td>
<td>47%</td>
<td>28%</td>
</tr>
<tr>
<td>2002</td>
<td>36%</td>
<td>36%</td>
</tr>
<tr>
<td>2003</td>
<td>26%</td>
<td>26%</td>
</tr>
</tbody>
</table>
Labour Market Destinations of Mining Employees, HILDA 2001-08 (Where do they go?)

Total number observed
- NLF
- Unemployed
- Employed-Outside
- Employed-Mining

Year: 2001
- Total number observed: 83
- NLF: 3
- Employed-Mining: 18
- Employed-Outside: 25
- Unemployed: 52

Year: 2002
- Total number observed: 62
- NLF: 6
- Employed-Mining: 18
- Employed-Outside: 25
- Unemployed: 18

Year: 2003
- Total number observed: 52
- NLF: 8
- Employed-Mining: 34
- Employed-Outside: 35
- Unemployed: 34

Year: 2004
- Total number observed: 40
- NLF: 11
- Employed-Mining: 35
- Employed-Outside: 34
- Unemployed: 35

Year: 2005
- Total number observed: 35
- NLF: 14
- Employed-Mining: 35
- Employed-Outside: 34
- Unemployed: 33

Year: 2006
- Total number observed: 34
- NLF: 2
- Employed-Mining: 28
- Employed-Outside: 28
- Unemployed: 28

Year: 2007
- Total number observed: 35
- NLF: 2
- Employed-Mining: 30
- Employed-Outside: 30
- Unemployed: 34

Year: 2008
- Total number observed: 26
- NLF: 2
- Employed-Mining: 25
- Employed-Outside: 25
- Unemployed: 22
Conclusions

(i) Major misunderstanding of net job figures

(ii) 2010-2020 effects on employment/unemployment stocks is tiny

(iii) Extraordinary extent of job flows in aggregate

(iii) Net aggregate contributions from mining job loss or green jobs gain are trivial (*invisible*) in a flows context

(iv) HILDA: Mining inflows/outflows per year are also very high

(v) HILDA: “Where do they go from mining?” – not to unemployment

(vii) For the carbon price debate, the jobs issue is a non-issue