Back to work: re-employment, earnings and skill use after job displacement

Danielle Venn, Glenda Quintini, Paulina Granados
Background: Displaced-Workers project

Project launched in June 2011 with Expert Group meeting.

Phase 1:

- Analytical report produced with the help of consultants

- Aims:
  - Produce comparable statistics on job displacement and its consequences;
  - Explore issues rarely addressed in the literature: quality of post-displacement jobs and skills use

- Conference to discuss the draft report

- October 2013 analytical report published
Phase 2:
• 9 country case studies:
  – Report for Korea released soon and work has begun on Australia, Canada and Japan.
  – Still to come: Denmark, Finland, New Zealand, Sweden and the United States

Phase 3:
• A policy synthesis report is anticipated in 2015
Plan of the presentation

- Definition of displacement
- Issues of cross-country comparability
- Key findings: incidence, groups most affected, earnings losses, job quality, changes in skill requirements (including additional material)
- (Preliminary) policy implications
Definition of displacement and sample restrictions

- Workers are defined as displaced if: i) they are employed in one year, and either employed in a different job or not employed in the following year; and ii) the reason for the separation is:
  
  - **Firm-identified displacement**: job separations from firms that, from one year to the next, experience an absolute reduction in employment of five employees or more and a relative reduction in employment of 30% or more (*mass dismissal*) or that ceased to operate (*firm closure*).
  
  - **Self-defined displacement**: job separations for economic reasons or dismissal for cause

- Sample restrictions:
  - 20-64 year olds, minimum of one-year tenure, firms with more than 10 workers if firm-identified; multiple job holders and public sector excluded
Cross-country comparability

- Significant improvement in comparability
- **But** of data sources imply differences:
  - firm-identified: exogenous event, large samples but few individual characteristics, hard to identify small-scale displacement, includes voluntary quits – tends to over-state displacement incidence;
  - self-defined displacement: rich information on individuals, biased towards more severe events with poorer post-displacement outcomes – tends to under-state displacement incidence.
- **And** sample restrictions vary across countries

These issues must be kept in mind when comparing results across countries
Incidence of displacement

- Displacement is highly cyclical
- 2-7% of employees affected every year

Displacement rates, 2000-10

Percentage of employees aged 20-64 who are displaced from one year to the next, averages

Self-defined displacement

Firm-identified displacement
Time-trends

- No upward trend in displacement over the past decade – longer trends (up to three decades) available for fewer countries show similar picture

**Self-defined displacement**

**Firm-identified displacement**
Groups most affected

- Older workers and those with low education have higher displacement risk, take longer to get back to work and suffer greater earnings losses.

- Youth have higher risk of displacement but find work quickly, often in better jobs.

- Workers in small firms, with short tenure, in temporary contracts are at higher risk of displacement.

Relative displacement rates by personal and job characteristics, 2000-2010

- Men (compared with women)
- Aged 20-24 years (compared with 35-44 years)
- Aged 55-64 years (compared with 35-44 years)
- Less than secondary education (compared with post-secondary education)
- Tenure 1-4 years (compared with 10-19 years)
- Firm size 10-49 employees (compared with 500+)

Earnings losses

- Youth have higher risk of displacement but find work quickly, often in better jobs.

Workers in small firms, with short tenure, in temporary contracts are at higher risk of displacement.
Variation across regions and industries

- Displacement rates vary significantly across regions, with the largest differences in Korea and Portugal and very little variation in Denmark and Japan.

- Manufacturing and Construction stand out as the two sectors with highest incidence of displacement.
Re-employment rates

- Re-employment rates one year after displacement vary from above 70% in Nordic countries and the United States to 40% or below in France, Portugal and the United Kingdom;
- Rates improve in the second year after displacement
- Re-employment chance were lower in all countries during the crisis
Regional mobility and re-employment

- Regional mobility after displacement (for work or to look for work) varies across countries and is highest in the United States and Russia;
- Mobility has increased in the US, Korea and Denmark during the crisis but remained relatively stable in most other countries (declined in Canada)

Displaced workers who stay in the labour force and change region

![Bar chart showing displaced workers who stay in the labour force and change region across different countries, with distinct bars for self-defined displacement and firm-identified displacement.](image-url)
Earnings losses

- Low in Nordic countries, much larger elsewhere
- Largest losses for men, older workers and the least educated

Earnings changes before and after displacement
As a percentage of pre-displacement earnings

A. Annual earnings
B. Monthly earnings
Earnings losses (Cont.)

- Losses mostly due to time out of work

Monthly earnings and wage changes before and after displacement
As a percentage of pre-displacement earnings

A. Germany

B. Portugal

C. United Kingdom
Job quality after displacement

- Part-time or non-permanent jobs more likely than prior to displacement, and fewer hours worked on average;
- Also more likely: work at non standard times; non-availability of paid leave; lack of managerial responsibilities;
- Part of effect on job quality may be due to the loss of seniority.

**Working hours and job security after displacement**

- Graph showing changes in job types and security from 2000-2008 and 2009-2010 across different countries.
Changes in skill requirements: methodology

- Data on occupations (ISCO98) before and after displacement linked with detailed information on skill requirements by occupation (O*NET)
- Each occupation is associated with measures of:
  - required maths, verbal, cognitive, interpersonal, craft, and gross and fine physical skills (mean zero, std=1; normalised on CPS 1992); and
  - number of years of education required
- Key **skill switch measure** used: change in ranking and size of top skill factor – the main skill requirement based on its score before the occupational change moved down by at least two positions and its score changed by at least half of a standard deviation.
- **Skills upgrading**: skill switch accompanied by an increase in required education of at least one year; **skill downgrading**: skill switch accompanied by a decrease in required education of at least one year.
Changes in skill requirements

- Most re-employed displaced workers find work in jobs that use similar skill sets

### Changes in occupation and skills set after displacement, 2000-10

Percentage of displaced workers who change occupation\(^a\) and skills set\(^b\)

<table>
<thead>
<tr>
<th>%</th>
<th>Change of occupation</th>
<th>Change in ranking of top skill factor</th>
<th>Change in ranking and size of top skill factor</th>
<th>Change in size of top three skill factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
<td>CAN</td>
<td>KOR</td>
<td>AUS</td>
<td>USA</td>
</tr>
<tr>
<td>50</td>
<td>GBR</td>
<td>PRT</td>
<td>SWE</td>
<td>DNK</td>
</tr>
<tr>
<td>40</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) Self-defined displacement
\(^b\) Firm-identified displacement
Changes in skill requirements

- Many re-employed displaced workers move to jobs with higher skill requirements but several suffer professional downgrading

Incidence of professional upgrading and downgrading following displacement, 2000-2010
Percentage of re-employed displaced workers

![Bar chart showing the incidence of professional upgrading and downgrading following displacement, 2000-2010. The chart compares the percentage of re-employed displaced workers in USA, AUS, KOR, FRA, CAN, SWE, GBR, DNK, PRT, and FIN. The chart distinguishes between self-defined and firm-identified displacements.]
Changes in skills requirements (Cont.)

- Those who suffer professional downgrading move to jobs with much lower math, verbal and cognitive requirements.
Changes in skills requirements (Cont.)

- Changes in skills use explain earnings losses along with changes in industry
Policy implications

Only preliminary policy implications can be drawn from this analysis, more to come in country reviews and synthesis

- Helping people return to work quickly, especially for women, older workers and the low skilled, is very important to limit earnings losses and skill depreciation after displacement.
- Targeting is key if resources are scarce – for instance, while young people (20-24) have a higher risk of displacement than prime-aged workers, they fare better afterwards. Young workers generally find work relatively quickly after displacement, often in jobs with greater skill requirements than their previous jobs.
- Workers in smaller firms have a much higher risk of displacement than those in larger firm and therefore general active labour market programmes, such as job-search assistance and retraining programmes, may be the most efficient way to reach workers rather than subsidising outplacement services provided by firms;
- Not all displaced workers will need retraining to find a new, high-quality job as not all changes in industry or occupation after displacement lead to a significant change in the skills used at work. However:
  - for a subset of displaced workers who experience professional downgrading – mostly women, older and mid-to-high-skilled workers – displacement can cause substantial human capital losses.
  - These workers suffer a significant reduction in the use of mathematics, verbal and cognitive skills.
  - Where necessary, retraining programmes for displaced workers should focus on these key generic skills.
Thanks