

# Displaced Workers in Canada: Evidence and Policy Responses

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## Objectives

- To summarize what we know about the extent of permanent job loss and its consequences
- To assess experience with policies that support “displaced workers” – those who:
  - (i) have not been discharged for cause
  - (ii) have permanently separated from former employer
  - (iii) had strong prior attachment to industry of previous employer
- To assess policies that could facilitate re-employment and/or reduce costs incurred by displaced workers

## Adjusting to change

- Change an enduring feature of economy
- Change creates new opportunities but destroys old ones
- Adjusting to change involves shifting resources from declining to expanding sectors
- Adjustment has costs and benefits, but in general net benefits are positive
- However, costs and benefits are unevenly distributed; often few losers but each loses a lot; opposite for winners

## What do we know about displacement and its consequences?

- Incidence of permanent job loss
- Probability of re-employment
- Earnings losses from displacement
- Other consequences: health, inter-generational effects, family dissolution
- Regular DWS in US has been an important source of information
- Administrative data in Canada, US and Europe has been another key source of information

### Incidence of permanent job loss

- Recent studies by Morissette and co-authors (CJE, 2013; STC, 2012, 2013) cover period 1978-2008
- Administrative data from Stat Can Longitudinal Worker File (earnings from tax data, separation info from ROE)
- Layoffs: separations due to lack of work (doesn't include those fired for cause)
- Longitudinal data so can distinguish between temporary and permanent layoffs (ex post)
- Also distinguish between short-term earnings losses (1 year after layoff) and long-term losses (5 years later)
- CJE paper covers paid workers aged 25-54 at time of layoff

### Incidence of permanent job loss

- Permanent layoff rates for men range from 8%-9% in boom years 2004-7 to 13-14% in 1981-2 and 1990-92 recessions
- Comparable rates for females much lower: 4%-5% in good times, 5%-6% in downturns
- Layoff rates stable from late 70s to mid-90s, apart from cyclical movements
- Downward trend in risk of permanent layoff since mid-1990s

## Incidence of permanent job loss

- Downward trend holds after controlling for aging of population and regional movements in employment
- Patterns hold for manufacturing and non-manufacturing and for men and women

## Consequences of displacement I

- Probability of re-employment in following year:
- Stable over time for men (in 82-84% range), apart from cyclical fluctuations
- Increased substantially for women from 70% in late 1970s to >80% in mid-2000s
- Trends hold with controls for aging and regional distribution of employment

## Earnings losses from displacement: Overview

- Key findings of many studies:

Average earnings losses are substantial

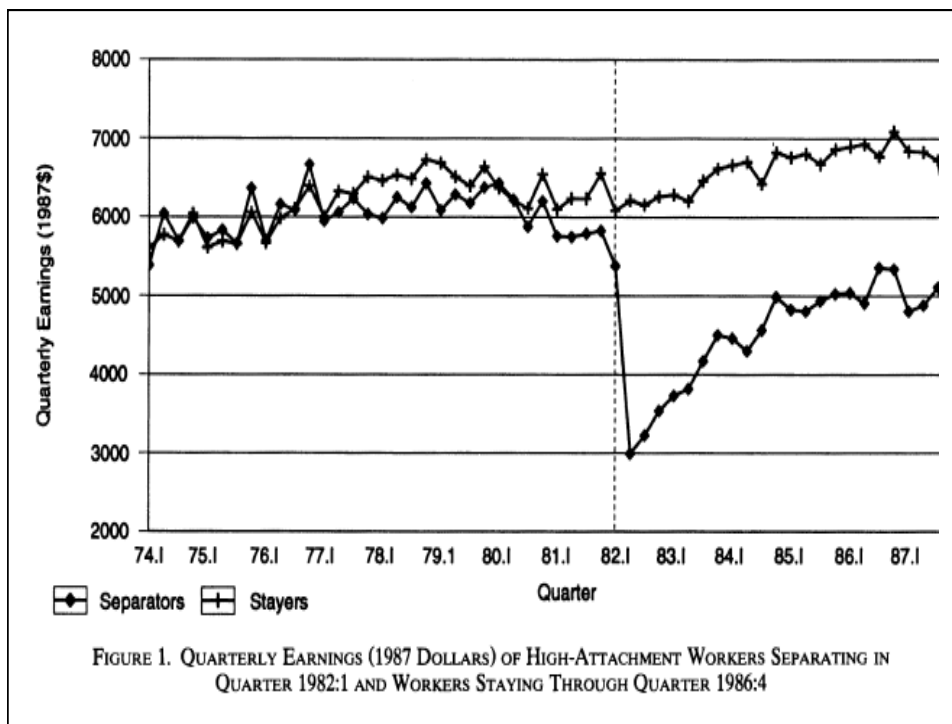
Losses are greatest for employees with substantial prior work attachment or long prior job tenure

Losses persist much longer than for other unemployed workers

Losses may continue after unemployment spell ends

## Earnings losses: US Evidence

- Jacobson, LaLonde and Sullivan (AER, 1993): seminal study of displaced workers in Pennsylvania
- Study has several key advantages: detailed administrative data linking workers and firms, several years of pre-displacement and post-displacement earnings, comparison group of non-displaced workers
- Focus is on workers with 6 or more years of tenure with employer
- Losses were very large: 24% of expected earnings even 5 years after displacement
- Relative earnings losses of DWs began about 3 years prior to separation



## US Evidence: Selected Studies

- Farber (2005) analyses data from over 20 years of DWS covering 1981-2003
- In most recent period, 35% of DWs are not re-employed 3 years later
- Full-time job losers re-employed in full-time jobs earn 17% less than earnings without displacement
- Average earnings loss increases dramatically with prior job tenure
- Couch and Placzek (AER, 2010): similar to JLS using admin data from Connecticut (more robust, service-oriented labour market than Pennsylvania)
- Findings similar to JLS, but magnitude of losses smaller – ST losses 33%, LT losses 15%

## Earnings losses: Canadian evidence from SLID

- Schirle (2009) examines displacement over period 1993-2004, esp older workers
- She also finds large earnings losses after permanent job loss
- Seniority is the major predictor of size of loss; age doesn't play much of a role
- Relative to previous earnings, losses are larger among low educated and those in rural areas

## Earnings losses: Canadian evidence from LWF

- Morissette et al 2013 find substantial and long-lasting earnings losses from permanent layoffs
- Earnings losses are relative to comparison group of non-displaced
- As in Pennsylvania study, earnings start to decline before displacement
- Short-term (1 year later) earnings losses:
  - All DWs: Males -23%; Females -31%
  - Re-employed DWs: Males -12% to 14%; Females -14% to 17%
  - Losses much larger in recessions, smaller in booms
  - No evidence that size of losses has trended up or down over time

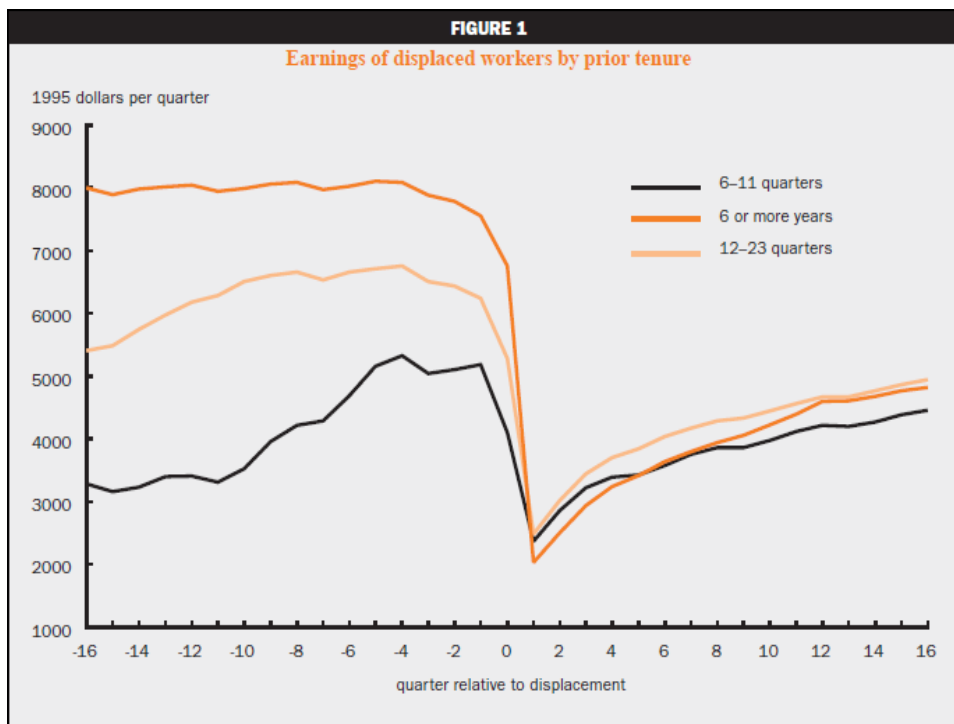
## Earnings losses: Canadian evidence from LWF

- Long-term earnings losses (5 years later):
  - All DWs: Males 17%; Females 23%
  - Re-employed: Males 3% to 4%; Females 2% to 6%
  - Losses larger if laid off in recessions
- Much larger losses for stable attachment group: those with positive earnings in at least 6 years prior to layoff
- Even larger losses for high seniority group: those with same employer for 6 or more years

### Key role of prior work attachment / job tenure

- Earnings losses rise dramatically with tenure in prior job
- Figure 2 – evidence from State of Washington (JLS, 2005)
- Long tenure group distinctive:
- Morissette et al (2013) find long-term earnings losses for entire sample of DWs are small (Males 0 to 1%; Females 3 to 5%)
- Comparable losses for stable employment group are much larger – Males 10-11%; Females 15-17%
- Largest persistent earnings losses experienced by long tenure group – Males 12-13%; Females 16-18%





## Heterogeneity of earnings losses

	Re-employed	# (%)	All	#(%)
All DWs	-2%	100	-16%	100
Stable Attachment	-12%	59	-26%	56
Long tenure	-16%	9	-35%	10

## What explains large earnings losses?

- Loss of firm-specific or industry-specific or occupation-specific human capital seems to be a major factor
- JLS (1993) and Neal (1995) find that those who change industries after job loss suffer much greater losses
- Poletaev and Robinson (JOLE 2008) find that DWs who switch to jobs/tasks that use very different skills suffer the greatest losses
- Internal labour markets and wage profiles that depend on seniority (wage < productivity early in career, wage > productivity later in career)
- Loss of economic rents – Kuhn and Sweetman (1998) find losses larger for U-N transitions than for N-U or U-U transitions

## Some other consequences of displacement

- Displacement leads to a 15%-20% increase in death rates (Sullivan and von Wachter 2008)
- Equivalent to a reduction in life expectancy of about 1.5 years for someone displaced at age 40
- Parental job loss reduces probability that 15-year olds proceed to post-secondary education (Coelli, 2005)
- Children whose fathers were displaced have, as adults, lower annual earnings (about 9%) and have higher incidence of EI and social assistance (Oreopoulos, Page, and Huff Stevens, 2008)

### Summary and implications I

- Salient and consistent finding: earnings losses from permanent job loss are very large for long tenure workers and large for those with stable prior attachment
- These substantial losses appear to be permanent in nature
- Losses are similar in magnitude to other catastrophic events – e.g. having one's house burn down
- In contrast, most unemployed workers become re-employed relatively quickly and do not suffer permanent earnings losses

### Summary and implications II

- LT group that suffers largest losses from displacement is relatively small
- Permanent job losers represent only a small amount of total unemployment
- Workers with 6 or more years of job tenure represent about 9-10% of permanent job losers (in LWF)
- Thus long tenure DWs represent a small fraction of total unemployment
- 'Stable attachment' group considerably larger than LT DWs, but still a small fraction of unemployed

### Summary and implications III

- Events with a small probability of a large loss cry out for insurance
- However, private insurance markets for losses associated with displacement do not exist
- Employers, governments and unions provide some insurance in form of severance pay requirements
- EI has recently begun to treat DWs with strong prior work attachment differently from other unemployed
- Nonetheless, EI only covers portion of lost income during unemployment spell –not losses continuing into next job
- Like having auto insurance that pays similar amount for fender benders as for vehicles that are totalled

### Policies to deal with displacement

- Ex ante (preventative) policies
  - education and skill development
  - advanced notice
- Ex post adjustment assistance policies
  - active labour market policies (ALMPs): JSA, training, activation
  - Enhanced EI benefits for long tenure DWs
  - wage insurance

### Active labour market policies (ALMPs): JSA, training, activation

- Traditionally, most evidence on ALMPs from US (strong commitment to evaluation, evaluation research integrated with social science research)
- Recent explosion of international evidence, especially from UK and continental Europe
- Credible Canadian evidence seriously lacking
- Canadian program evaluation internal to government, not integrated with social science research
- EG recent meta-analysis of ALMPs covers approx 100 studies during period 1995-2007 – only 1 from Canada (Card, Kluve and Weber, 2009)

### Training I

- Large literature on impacts of government-sponsored training
- Results somewhat sobering: training often has little or no impact on earnings
- Estimated impacts, even when positive, are generally modest in size
- Brief summary of extensive US evidence:
  - impacts on out-of-school youths zero or negative
  - zero or small positive impacts on adult men
  - impacts for adult women generally larger and significant
- However, US training programs targeted mainly on disadvantaged workers

## Training II

- ALMPs focused on DWs have a better track record than those for disadvantaged workers (US Dept of Labor, 1995; LaLonde, 1995)
- Some evidence that community college programs for retraining DWs can have positive impacts (Jacobson, LaLonde and Sullivan, 2005)
- Equivalent of 1 year of community college raise earnings of male DWs by 9% and female DWs by 13%
- Type of training matters: impacts larger for more quantitative vocational and academic courses
- Nonetheless, even 2 years of college level training would not restore earnings losses of long tenure DWs

## Training III

- European programs more focused on speeding return to employment, especially among youths
- Difference in emphasis due to: European youth less economically disadvantaged but experience longer unemployment spells
- Common finding: training results in substantial gains in employment but has little impact on wages (Kluve and Schmidt, 2002)

### Policy Implications for Canada I

- Improve research and knowledge base:  
Regular DWS (e.g. every 2 years), could be carried out as supplement to LFS
- New approach needed for evaluating labour market programs:
- Program evaluations should be integrated with social science, contribute to knowledge base about “What Works”
- Approach adopted in several European countries (e.g. Sweden, Germany, UK) provides useful model

### Policy Implications for Canada II

- Strong case for enhanced EI benefits for DWs with substantial prior work experience (Expert Panel on Older Workers)
- By aligning benefits more closely with magnitude of loss, this change would improve social insurance dimension of Canada’s EI program
- Design of this feature requires careful assessment (eg definition of prior work attachment)
- EI Part II could focus more on long tenure DWs – especially retraining and mobility assistance
- Recent policy initiatives appear to be in right direction but are very limited and timid

### Policy Implications for Canada III

- Wage insurance seems promising
- Wage (loss) insurance: provides an earnings supplement for a limited period in post-displacement job
- Supplement based on difference in wages between pre- and post-displacement jobs
- Key advantage: recognizes that for long tenure DWs most of the loss occurs AFTER re-employment
- In contrast, for other unemployed the loss occurs during unemployment spell
- WI may also speed up return to work

Additional slides



## Related evidence on worker re-allocation

- Separation rates (all reasons) fairly stable (apart from cyclical movements) over past 3+ decades – data from LWF 1978- 2008 and LFS 1976-2011
- Worker re-allocation (hiring rate + separation rate) also fairly stable
- Job stability (1 year retention rate) stable from mid-1990s to late 2000s, and higher than 70s and 80s (Brochu, CJE 2013)

## Reasons why standard estimates may under-state losses

- Most estimates compare earnings prior to displacement to earnings in the new job among those who obtain re-employment
- However, those who are not re-employed at the survey date generally do even worse
- Pre-displacement earnings may under-estimate “normal earnings”
- The event that leads to displacement shows up in declining earnings up to 3 years prior to displacement

## Reasons why estimates may over-state losses

- “Layoffs and lemons” – downsizing firms may selectively lay off least productive (Gibbons and Katz, 1991)
- Some evidence of this in Canadian setting (Doiron)
- Doesn’t apply to plant shutdowns, and unlikely to apply to mass layoffs

## Ex post policies: Methodological issues

- Estimating impacts of ALMPs a difficult problem
- Can observe post-program outcomes of those who receive intervention, but counterfactual is inherently unobservable
- Gold standard: random assignment to treatment and control groups
- Behaviour of randomized control group provides unbiased estimate of counterfactual outcomes

## Non-experimental methods for estimating program impacts

- Used when random assignment not feasible
- Requires a comparison group of non-participants
- Selection bias problem: program participants and non-participants may experience different outcomes even in absence of intervention
- Sources of differences between treatments and comparisons may be unobserved by researcher (e.g. ability, motivation, job readiness)
- Major advances in past two decades in non-experimental evaluation methods

## Recent initiatives for DWs

- Enhanced benefits for LT DWs recommended by Expert Panel on Older Workers
- Subsequent initiatives (on temporary basis):
  - extended duration of EI benefits for LT DWs that participate in training
  - allowed earlier access to EI regular benefits for those investing in own training using their severance package
  - extended regular benefits for LT DWs

## Rationale for EI as social insurance

- Labour market risks are substantial and difficult to diversify
- Comprehensive private insurance markets for these risks do not exist due to moral hazard and adverse selection
- Market failure provides fundamental rationale for government provision of social insurance
- Starting point: EI is (or should be) a SI program
- Key implication: benefits should reflect magnitude of loss, as for other insurance

## Rationales for adjustment assistance policies / ALMPs

- Efficiency: speed up reallocation process
- Social insurance: provide insurance against bad outcomes
- Equity: costs of adjustment unevenly borne, benefits widely distributed
- Political economy: in absence of ALMPs workers and voters will adopt policies and institutions that oppose change

## Ex ante (preventative) policies

- Education is a strong predictor of probability of re-employment
- DWs with more education have higher probability of re-employment and are more likely to be re-employed full-time (Farber, 2005)
- Education has a causal impact on re-employment (Riddell and Song, 2007)
- Evidence consistent with view that investments in skills can enhance adaptability

## Ex ante (preventative) policies

- Some evidence that advance warning of mass layoffs and plant shutdowns can have positive benefits (Jones and Kuhn, 1985; Friesen, 1997)
- However, impacts of advance warning appear to be mainly on short unemployment spells – little effect on long spells (Jones and Kuhn, 2005)
- No evidence that advance warning reduces the earnings loss in post-displacement job

## Job search assistance

- Series of UI experiments carried out in US provides credible evidence on JSA (Meyer, 1995)
- JSA reduces duration of unemployment by about 0.5 weeks
- Impact is small but intervention is brief and inexpensive, so benefit/cost ratio favourable
- UK evidence: New Deal for Youth: mandatory JSA plus (if necessary) subsidized employment
- Careful analysis shows positive impacts on re-employment among long term unemployed youth (Blundell et al 2004)

## Views on mixed performance of public training programs I

- Heckman and co-authors: problems associated with low skills should be addressed much earlier in life
- OECD view (Martin and Grubb, 2001): public training can be made more effective
- Crucial design features:
  - careful targeting on participants most likely to benefit
  - keep programs small in scale
  - include work experience component to establish links with employers
  - programs should produce a certification recognized in labour market

## Views on mixed performance of public training programs II

- LaLonde (1995): You get what you pay for
- Reasonable to expect returns to training investments similar to those for other human capital investments
- Much evidence that 1 year of formal schooling raises earnings by 8-10%
- Suggests we should expect a 6-month training program to raise earnings 4-5%, 12-month by 8-10%
- Training may be worthwhile but unlikely to substantially offset earnings losses of long tenure DWs