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Rapid Evidence Review

**What are the substitution and
displacement effects of
employment programmes?**

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Rapid Evidence Review:

What are the substitution and displacement effects of employment programmes?

Executive summary

Substitution and displacement effects refer to the impact employment interventions might have on people other than the programme participants.

This evidence review summarises what we know about substitution and displacement effects of employment programmes and what can be done to minimise these effects.

What are substitution and displacement effects?

The two terms are often used interchangeably and some authors reverse the definitions used here. Our definitions are:

- **Substitution:** programmes that help participants into employment at the expense of non-participants.
- **Displacement:** where a programme helps improve a firm's competitiveness leading to the loss of employment among competing firms.

Both these effects can offset any benefits of a programme for participants. For this reason displacement and substitution are important in determining the aggregate impact of employment programmes. The problem is that it is difficult to reliably identify how large these effects might be (see evidence section, page 4).

Substitution effects are most important for wage subsidy programmes

Of all employment programmes, substitution effects are most important for wage subsidy programmes. For New Zealand this applies to Skill Investment Subsidy (a temporary hiring subsidy) and, to a lesser extent, subsidised work experience programmes. The argument is that hiring subsidies do not create jobs directly; it is not a job creation subsidy. Instead, they help one group of jobseekers into employment over other jobseekers with the subsidy compensating the employer for taking on the more disadvantaged candidate. Therefore a large part of the employment gains by participants are at the expense of other jobseekers (the substitution effect). A similar but weaker argument can be made for job search programmes where more intensive job search by one group means these participants gain jobs that would have been filled by others.

Further, if a subsidy programme is poorly targeted (ie the subsidy is over-compensating the employer) then the firm may use the subsidy to undercut competing firms. Any competitive advantage created by the subsidy increases the likelihood of displacement effects (ie competing firms let staff go or do not hire additional staff they otherwise would have).

Displacement effects are most important for self-employment assistance

In New Zealand displacement effects are most likely to occur for Enterprise Allowance. By providing start up capital and temporary wage subsidy the establishment of the firm may result in competing firms going out of business, reducing staff, or not hiring staff they intended to.

Evidence of substitution and displacement effects

It is difficult to identify who is substituted or displaced, and for this reason it is very difficult to know the size of these effects for particular programmes. Researchers have tried to estimate the substitution or displacement effects in several ways.

- **Macroeconomic estimation:** using geographic and temporal variation in expenditure on employment assistance, macroeconomic analysis attempts to identify relationships between employment assistance and labour market outcomes while controlling for other factors such as economic growth and labour market conditions.
- **Employer surveys:** asking employers whether they would have hired the jobseeker without the subsidy.
- **Econometric models:** developing a model of how the labour market should operate based on economic theory and simulating the impact of a programme on jobseeker, worker and employer behaviour. The models are necessarily simplifications of reality and some model assumptions (ie perfect information, rational decision making) are unlikely to hold in reality.

Wage subsidies

The evidence on wage subsidies covers a broad range of programme types, from job creation and broadly targeted subsidies through to targeted hiring subsidies. In general, the evidence shows substantial substitution effects and little evidence for a positive aggregate impact. However, the evidence generally concludes tightly targeted hiring wage subsidies, such as those used in New Zealand, are most likely to show an overall positive impact.

Evidence from macroeconomic models

One study examined the macroeconomic impact of different types of employment assistance across 20 OECD countries between 1985 and 1999 (van Ours & Boone, 2004). It concluded that expenditure on subsidised employment assistance did not reduce unemployment. However, the subsidised employment category was quite broad and included job creation and retention subsidies that are widely regarded as ineffective (OECD, 2005), and do not apply to the New Zealand context.

Employer surveys

A 2005 review of studies examining employer's use of wage subsidies (broadly targeted as well as hiring subsidies) indicated that deadweight and displacement effects are substantial, particularly for broadly targeted programmes (OECD, 2005). Estimates of deadweight ranged from close to zero through to 79 percent, with deadweight being higher for broadly targeted subsidies. Substitution effects ranged between 21 and 63 percent. Note that high deadweight would indicate increased risk of displacement occurring since the entire subsidy reduces the firm's operating cost.

Evidence from econometric models

The analysis of wage subsidies using econometric models provided mixed results, with studies showing overall positive effects (Jongen, van Gameren, & Graafland, 2003; Yahsive, 2004), ambiguous effects (Vereshchagina, 2002) and negative effects (Brown, Merkl, & Snower, 2006; Jahn & Wagner, 2008; Millard & Mortebseb, 1997; Mortensen & Pissarides, 1999; Mortensen & Pissarides, 2003).

Self-employment assistance

There is little evidence on the aggregate impact of self-employment assistance. One reason for the paucity of evidence is the small number of participants and low total expenditure on this type of programme (although it is high when measured on a per participant basis). Nevertheless, displacement effects of self-employment assistance are believed to be high and to vary according to the industry the firm enters into. In particular, industries with tight profit margins and high labour costs are at greater risk of producing significant displacement effects (Hasluck, 1990).

Work experience programmes

Work experience programmes are often targeted at activities outside the productive sector (eg community and environment) and are in addition to the normal activities of the sponsoring organisation. These criteria are designed to minimise any displacement by participants of activities undertaken by paid employees or firms. However, in New Zealand there is some evidence large scale work experience programmes (ie Community Taskforce/Community Work in the late 1990s) had some displacement effects (CSRE, 2009: 65).

Job search assistance / activation

For activation and job search programmes the evidence indicates substitution effects are small and are outweighed by the positive impact for those directly affected by the programme.

Employment Zones: United Kingdom

Employment Zones (EZ) is a work-first programme targeted at the long-term unemployed. The contracted outcome is early and sustained employment lasting at least 13 weeks. Employment Zones increase participants' chances of being in work (Hales, Taylor, Mandy, & Miller, 2003). These increased participant outcomes did not come at the expense of non-participants (ie no substitution effects were identified) (Hasluck, 2003).

New Deal for Young People: United Kingdom

New Deal for Youth is compulsory for all 18 to 24 year olds who have been unemployed and claiming Jobseeker's Allowance (JSA) for six months. Evaluations of the overall programme found that it reduced the time participants spent receiving income support or employment assistance (Beale, Bloss, & Thomas, 2008). In addition, Riley and Young (2000) concluded the programme decreased unemployment across all age groups, indicating there were no substantial substitution effects.

How can we minimise displacement and substitution effects?

The evidence identifies several factors to ensure hiring wage subsidies and self-employment programmes are effective.

- Keep hiring wage subsidies on a small to medium scale.
- Link the subsidy level to the labour market disadvantage of participants.
- Close monitoring of employer use of hiring subsidies, with particular attention to:
 - amount of subsidy received (potential to substantially lower firms' running costs)
 - use of the subsidy for newly created positions (more likely to be subsidising firm expansion)
 - stopping employment of subsidised workers at the end of the subsidy period.

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