

**Testimony before the Subcommittee on Income Security and Family Support  
of the Committee on Ways and Means  
“Responding to Long-Term Unemployment”**

**June 10<sup>th</sup> 2010**

**Till von Wachter  
Associate Professor of Economics  
Columbia University**

Chairman McDermott, Ranking Member Linder, and members of the Committee, it is an honor to be with you today. The labor market in the United States is recovering from the most severe recession since World War II. As you know, since the beginning of 2008, millions of individuals have lost their jobs. By now, an unusually large number of job losers has been unemployed for over six months.<sup>1</sup>

Judging from experience in past recessions, the consequences of layoffs for job losers are severe and long lasting. The average mature worker losing a stable job at a good employer will see earnings reductions of 20% lasting over 15-20 years.<sup>2</sup> While these earnings losses vary somewhat among demographic groups or industries, no group in the labor market is exempt from significant and long lasting costs of job loss.<sup>3</sup>

A job loss is also typically followed by an extended period of instability of employment and earnings.<sup>4</sup> During this period, job losers can also experience declines in health. In severe downturns, these health declines can lead to significant reductions in life expectancy of 1 to 1.5

---

<sup>1</sup> E.g., Congressional Budget Office (2010b).

<sup>2</sup> Jacobson, Lalonde, and Sullivan (1993) and von Wachter, Song, and Manchester (2009) show the long-term earnings losses of laid-off workers during the 1982 recession in Pennsylvania and the U.S., respectively.

<sup>3</sup> Farber (2005) provides estimates of the short-term costs of job loss for the U.S. over the past two decades. Schoeni and Dardia (2003), von Wachter, Handwerker, and Hildreth (2008), Couch and Placzek (2010), and Kodrzycki (2007) show medium run estimates for California, California, Connecticut and Massachusetts in the 1990s.

<sup>4</sup> See, e.g., Stevens (1997) and von Wachter, Song, and Manchester (2009).

years.<sup>5</sup> The consequences of job loss are also felt by workers' children, who can suffer from the consequences even as adults, and by their families.<sup>6</sup>

These costs tend to be greater for the long-term unemployed. The long-term unemployed experience larger declines in earnings, are more likely to drop out of the labor force, and are more likely to end up in poverty, especially if they are part of one-earner households with children.<sup>7</sup>

In the following, I will talk about five potential areas of government policy to assist laid-off workers and the long-term unemployed indicated by these and related findings.<sup>8</sup> These areas are short-term income assistance; assistance in finding stable employment; help in recovering some of the lost earnings; aid to the children of affected workers; and policies aimed at reducing large-scale layoffs in the future.

In the short-term government programs can help alleviate part of the immediate earnings loss associated with job loss and unemployment. As a typical measure, extensions of unemployment insurance have been shown to prevent large consumption declines of laid off workers;<sup>9</sup> thereby, they provide a degree of demand stabilization;<sup>10</sup> they are also likely to prevent entry into more costly government programs such as disability insurance;<sup>11</sup> and – at least in recessions – extensions of the duration of unemployment insurance benefits are unlikely to be associated with significant reductions in employment in the short or the long run.<sup>12</sup>

---

<sup>5</sup> Sullivan and von Wachter (2009) estimate the short- and long-term effects of lay-off on mortality. Burgard, Brand, and House (2007) give an overview of other health effects of job loss and unemployment.

<sup>6</sup> Stevens and Schaller (2009) and Oreopoulos, Page, and Stevens (2008) provide evidence that layoff affects children's test scores and adult earnings, respectively. Del Bono, Weber, and Winter-Ebmer (2008) show that layoff affects fertility rates.

<sup>7</sup> See, e.g., Machin and Manning (1999) and Congressional Budget Office (2004, 2007).

<sup>8</sup> Additional discussion on the long-term consequences of layoffs and related policy options can also be found in my testimony on 'Long-Term Unemployment: Causes, Consequences and Solutions' before the Joint Economic Committee on April 29<sup>th</sup> (von Wachter 2010).

<sup>9</sup> Gruber (1997) and Browning and Crossley (2001) provide evidence how unemployment insurance reduces consumption declines at onset of unemployment.

<sup>10</sup> Congressional Budget Office (2008, 2010a,b) summarizes evidence that spending through unemployment insurance is an efficient means to provide economic stimulus.

<sup>11</sup> Rupp and Stapleton (1995) show that increases in unemployment raise the rolls of the Social Security Disability Insurance program.

<sup>12</sup> Schmieder, von Wachter, and Bender (2009) provide evidence on the effect of unemployment insurance on employment over the business cycle.

For example, using unpublished data from the Department of Labor, the Joint Economic Committee (2010) provides estimates indicating that – absent further extensions in the duration of unemployment insurance benefits – the number of disabled unemployment insurance recipients who are likely to exhaust their unemployment insurance benefits in the latter half of 2010 is 290,000. Estimates of the value of average life-time benefits of Social Security Disability Insurance (SSDI) and the value of Medicare benefits accruing to SSDI recipients provided in von Wachter, Song, and Manchester (2010) imply large budgetary costs if even a fraction of these individuals apply and receive SSDI. Thus, if extensions in the duration of unemployment insurance benefits can prevent some of these individuals to apply to SSDI, this can imply substantial cost savings that partially offset the cost of benefit extensions.

At a monthly job finding rate of ten percent,<sup>13</sup> an extension of benefits by six month would imply that about half of these individuals find a job. Clearly, not all the 290,000 disabled individuals would apply for SSDI and, conditional on applying, not everyone is eligible.<sup>14</sup> Using estimates in von Wachter, Song, and Manchester (2010), the Joint Economic Committee (2010) reports that if two thirds of the 290,000 potentially eligible individuals apply for and receive SSDI, the potential cost would amount to \$24.2 billion. Given that a six month UI extension would lead to reemployment of approximately half (less if the job arrival rate is lower for disabled individuals, potentially more if the labor market continues to recover), the total cost saving is likely to be smaller than this number. However, these back-of-the-envelope calculations demonstrate that the magnitudes involved may be significant.

Recent studies have suggested that the adverse effect of unemployment insurance on recipients' willingness to work may be modest, and smaller today than it was in the 1980s.<sup>15</sup> Moreover, it is likely that in severe recessions, the benefit of extended unemployment insurance outweighs the

---

<sup>13</sup> E.g., conforming with estimates for job finding rate by Hall (2005) at the through of the 1982 recession,

<sup>14</sup> Bound and Burkhauser (1999) report that among non-working disabled individuals, about 70% receive some form of disability benefits, the majority of which is likely to be SSDI.

<sup>15</sup> Congressional Budget Office (2008). For an overview of the earlier literature, see Meyer (2002). For a reassessment of the overall magnitudes of the effects of unemployment insurance on employment see Card, Chetty, and Weber (2007). For additional evidence among the same lines see Schmieder, von Wachter, and Bender (2009). The difference between more recent estimates and estimates in the early 1980s may be the decline in temporary layoffs (recalls), which are more responsive to the incentives in the unemployment insurance system (Katz 2010).

costs. First, the value of income replacement to workers should be particularly high. Second, longer unemployment insurance durations are unlikely to have a strong effect on employment, since strategic considerations are likely to be weaker when the number of jobs is scarce.<sup>16</sup> Third, recent research suggests that a sizeable part of the decline in employment may not be due to the distortion in work incentives, but due to the presence of individuals facing credit constraints. If this is the case, not all of the employment effects of unemployment insurance represent a distortion, but may be a sign that unemployment insurance helps to alleviate credit constraints that prevent individuals to self-insure against unemployment shocks.<sup>17</sup> Fourth, recent evidence suggest that even large extensions in the duration of unemployment insurance do not reduce long-term employment prospects or wages; thus, there is no sign that longer unemployment insurance receipt lowers workers' labor force attachment or marketable skills.<sup>18</sup>

Second, extensive research implies that several public programs can be effective in raising employment prospects of the long-term unemployed. A necessary condition to help laid-off workers and the long-term unemployed find employment is to stimulate job creation. Yet, recent research has shown that a rising tide lifts many, but not all boats. While improvements in the labor market help to speed up the recovery process, laid-off workers continue to suffer from reduced earnings, and long-term unemployed tend to be the last to find a job.<sup>19</sup>

To help the long-term unemployed to find a job amidst the ongoing recovery, three types of programs have shown to be able to achieve lasting increases in employment: Job Search Assistance, Retraining Programs, and Reemployment Bonuses.<sup>20</sup>

To find a new job, workers laid-off in a recession may need to reorient their career goals. Job search assistance can help with this uncertain and time consuming process by providing access to job listings, but also by providing information on occupations, industries, or regions with

---

<sup>16</sup> E.g., Congressional Budget Office (2008).

<sup>17</sup> This point is made by Chetty (2008), who estimates that over half of employment effects of unemployment insurance may be due to such an income effect.

<sup>18</sup> See Schmieder, von Wachter, and Bender (2009).

<sup>19</sup> See, e.g., Oreopoulos, von Wachter, and Heisz (2008), von Wachter, Song, and Manchester (2009), Machin and Manning (1999).

<sup>20</sup> The following summary is based, among others, on surveys of the literature in Department of Labor (1995), Heckman, Lalonde, and Smith (1999), Kluve (2006), Card, Kluve, and Weber (2009).

promising job prospects. Various types of job search assistance provided within the unemployment insurance system in the United States and in other countries have been shown to be efficient and cost effective. Yet, research has also suggested that the current infrastructure of One-Stop Career centers could be improved and extended to provide more efficient and cost-effective services to unemployed job seekers. In particular, the provision of more intensive services – involving individual career-counseling and training courses – could be made more efficient and extended to a broader population.<sup>21</sup>

To reorient or restart their careers and improve their job prospects, some unemployed workers will have to acquire new skills. Some training programs have been shown to be more efficient and cost-effective at raising employment of laid-off workers than others. For example, while completing technical courses at community colleges appears helpful for many workers, training in non-technical subjects is less promising.<sup>22</sup> Similarly, on-the-job training programs that provide on-the-job experience while matching unemployed workers with interested firms appear promising.<sup>23</sup> Thus, proper counseling of workers and subsidizing the right kind of training are likely to be important aspects in any effort to effectively retrain workers. In contrast to job search assistance, which has been shown to quickly reduce the number of workers receiving unemployment insurance benefits, the impact of training accrues over time.<sup>24</sup> A combination of job search assistance and targeted training may thus lead to sustained job finding and employment rates.

For some workers, a long period of time may elapse before they find a new job. These workers may have lost motivation, hope, or a realistic view of what wages to expect in the labor market.<sup>25</sup> If targeted to workers most likely to exhaust unemployment insurance benefits, bonuses that pay workers for finding a new job can reconnect long-term unemployed workers to the labor force, thereby raising employment and reducing the cost for the unemployment insurance system.<sup>26</sup>

---

<sup>21</sup> See, e.g., Jacobson (2009).

<sup>22</sup> Jacobson, Lalonde, and Sullivan (2005).

<sup>23</sup> See the discussion in Katz (2010).

<sup>24</sup> See Card, Kluve, and Weber (2009).

<sup>25</sup> See, e.g., Blanchard and Katz (1999).

<sup>26</sup> For an overview of evidence on reemployment bonuses see Meyer (1995). O'Leary, Decker and Wandner (2005)

An advantage of these policies – job search assistance, retraining, and reemployment bonuses – is that they have been evaluated and implemented within the current unemployment insurance system. These policies cannot substitute for a rise in job creation; but they represent a potentially important complement to help to make sure the long-term unemployed and the finances of the unemployment insurance system both benefit quickly from the onset of an economic expansion.

Combinations of these policies could also be implemented simultaneously for further effectiveness. For example, a combination of stricter job search requirements, intensive counseling and retraining, plus reemployment bonuses may keep workers attached to the labor force and willing to accept jobs as soon as job creation increases. An approach of this kind would raise the market value of some unemployed workers while at the same time bringing their wage expectations in line with the reality in the labor market. Such an “exit strategy” built into the unemployment insurance system may be particularly useful for older laid-off workers who face strong wage penalties and low employment rates. It may also help to address concerns regarding the effect of extending unemployment insurance benefits on the employment rate itself.

Current research suggests government policy is less effective in helping to alleviate the large and lasting reductions in wages that eventually follow a typical job loss during a recession. While some training programs have been shown to raise earnings of laid-off workers, and may do so cost-effectively from a tax-payers point of view, the resulting increases are modest relative to the losses these workers have experienced.<sup>27</sup> The reason is that the main factors likely underlying long-term earnings losses are deeply rooted in the workings of the labor market. The majority of long-term losses are due to losses in the value of certain skills as industries decline; due to the loss of long-term career jobs; or due to slow wage-adjustment in the labor market.<sup>28</sup> None of these sources of wage loss are easily manipulated by government policy.

The large and lasting earnings consequences of layoff have several important consequences. First, given increasing evidence that children’s long-term economic success might be affected by

---

provide evidence on the role of targeting.

<sup>27</sup> Non-experimental estimates in Jacobson, Lalonde, and Sullivan (2005) imply that one year of technical training at community college reduces the average earnings loss by about a third.

<sup>28</sup> See von Wachter, Song, and Manchester (2009) for additional discussion.

the lay off of a parent, it is worth considering ways of directly helping children of affected families. For example, the current system of financial aid for college could be used to help prevent children from low- or middle-income families from dropping out of college. Currently, financial aid is typically based on parental income in the year prior to enrollment, making it unable to adjust to sudden changes in family incomes due to layoff or prolonged unemployed. At the same time, the jobs that many college students rely on to finance their education are likely to disappear in a recession, potentially raising drop-out rates.<sup>29</sup> Similarly, support in obtaining vocational or on-the-job training for children of job losers not bound for college may be worth considering, perhaps in the form of personal career accounts.

Second, given the difficulties of helping job losers and unemployed workers recover from long-term earnings losses after the fact, it may be worthwhile to explore available options to reduce large-scale layoffs in the future. In the current policy environment, employers receive subsidies to create new jobs;<sup>30</sup> similarly, the need is felt to provide stimulus to the economy, among others, via extended unemployment insurance benefits. An alternative to subsidize the creation of new jobs or limit the decline in spending after layoff would be to prevent the decline in spending power by averting large-scale layoffs through ‘work-sharing’ arrangements (also termed ‘short-time compensation’). This would avoid dislocation and long-lasting earnings losses of laid-off workers, and may be more cost-effective from society’s point of view.

For example, the cost of unemployment insurance benefits for a typical worker is a small fraction of the total earnings lost due to a layoff over the remainder of the individual's working life. If the same benefits were paid during employment to avoid job loss, this may substantially reduce the cost of recessions. This would be beneficial even if the worker were to be let go eventually, since earnings losses tend to be significantly smaller for layoffs that do not occur in a large recession. An added advantage of such ‘work-sharing’ arrangements is that they may immediately raise employment during the current recovery by reducing ongoing job destruction.<sup>31</sup>

---

<sup>29</sup> See Katz (2010) for a further discussion of this point.

<sup>30</sup> E.g., through the HIRE (Hiring Incentives to Restore Employment) Act of March 18 2010. Congressional Budget Office (2010b) provides further discussion of direct hiring subsidies.

<sup>31</sup> This argument is spelled out in Hassett’s (2010) testimony to the House Committee on Financial Services.

Such a system of work-sharing has already been instituted in 17 states.<sup>32</sup> However, the current system may have to be extended and publicized to have a visible impact on ongoing job destruction and to have a substantial impact on employment.<sup>33</sup> More research is needed on the specific features of an extended work-sharing system;<sup>34</sup> however, by building on existing programs work-sharing may be a way to start shifting away from the notion that large-scale and costly layoffs are unavoidable if firms need to cut their wage bills.<sup>35</sup>

To conclude, job loss and unemployment during severe recessions can impose substantial and lasting costs on affected workers in terms of earnings, health, and strain on their families. The short-term burden of these costs can in part be alleviated at comparatively small cost, for example by extensions in unemployment insurance. Less is known about how to help reduce the substantial long-term costs. While cost-effective policies may be available to help reemploy the long-term unemployed, the potential of policy interventions to significantly aid recovery of long-term earnings declines appears less promising. Given these large and long-term costs, preventive measures to avoid massive layoffs in the future are a policy option worth considering.

---

<sup>32</sup> See Department of Labor (1997) for an overview of short-time compensation programs in different states.

<sup>33</sup> Abraham and Houseman (2009) suggest regulatory uncertainty as one reason for a low take-up of short-time compensation among states. See the Department of Labor (1997) for reasons of low take-up among employers within states that allow short-time compensation. The German experience is the most cited example of a successful implementation of a work sharing program (see Möller 2010 for a critical assessment). Vroman and Brusentsev (2009) provide an overview of short-time compensation in other European countries and Canada.

<sup>34</sup> Work-sharing bears some similarities to wage insurance (e.g., Kletzer and Litan 2001, Kling 2006) in that wages are replaced while workers remain employed; it shares the feature with direct subsidies or tax breaks targeted to job creation that some jobs may be subsidized that may have been viable from the outset if firms game the system.

<sup>35</sup> Alternative options include the relocation and retraining of workers within firms (see, e.g., Koller 2010 for an example); reductions in salary among all employees (e.g., Akerlof, Dickens, and Perry 2000); or managed employment reductions, such as early retirement programs.



## References

- Abraham, Katharine G. and Susan N. Houseman. 2009. "Short-Time Compensation Is a Missing Safety Net for U.S. Economy in Recession." Upjohn Institute, Newsletter (July).
- Akerlof, George A., William T. Dickens, and George L. Perry. 2000. "Near-Rational Wage and Price Setting and the Long-Run Phillips Curve." *Brookings Papers on Economic Activity* 31(2000-1): 1-60.
- Blanchard, Olivier and Lawrence F. Katz. 1999. "Wage Dynamics: Reconciling Theory and Evidence." *American Economic Review* 89(2): 69-74.
- Bound, John and Richard V. Burkhauser. 1999. "Economic analysis of transfer programs targeted on people with disabilities." In: O. Ashenfelter and D. Card (ed.), *Handbook of Labor Economics*, Vol. 3, Chapter 51, Elsevier.
- Browning, Martin and T.F. Crossley. 2001. "Unemployment Insurance Levels and Consumption Changes." *Journal of Public Economics*, 80(1):1-23.
- Burgard, Sarah A., Brand, Jennie E., and House James S. 2007. "Toward a Better Estimation of the Effect of Job Loss on Health." *Journal of Health and Social Behavior*, 48(4): 369-384
- Card, David Raj Chetty, and Andrea Weber. 2007. "The Spike at Benefit Exhaustion: Leaving the Unemployment System or Starting a New Job?" *American Economic Review* 97(2): 113-118
- Card, David, Jochen Kluge, and Andrea Weber. 2009. "Active Labor Market Policy Evaluations: A Meta-analysis." *Austrian Center for Labor Economics and the Analysis of the Welfare State Working Paper Series*, No. 0902.
- Chetty, Rajeev. 2008. "Moral Hazard versus Liquidity and Optimal Unemployment Insurance." *Journal of Political Economy*, 116(2): 173-234.
- Congressional Budget Office. 2004. "Family Income of Unemployment Insurance Recipients." *Policy Brief* (March).
- Congressional Budget Office. 2007. "Long-Term Unemployment." *Policy Brief* (October).
- Congressional Budget Office. 2008. "Options for Responding to Short-Term Economic Weaknesses." *Policy Brief* (January).
- Congressional Budget Office. 2010a. "Policies for Increasing Economic Growth and Employment in 2010 and 2011." *Policy Brief* (January).
- Congressional Budget Office. 2010b. "Losing a Job During a Recession." *Policy Brief* (April).
- Corson, Walter and Robert Spiegelman. 2001. *Reemployment Bonuses in the Unemployment Insurance System*, W. E. Upjohn Institute for Employment Research.
- Couch, Kenneth A. and Dana W. Placzek. 2010. "Earnings Losses of Displaced Workers Revisited." *American Economic Review*, 100(1): 572-589.
- Del Bono, Emilia, Andrea Weber, Rudolf Winter-Ebmer. 2008. "Clash of Career and Family: Fertility Decisions after Job Displacement." IZA Discussion Papers 3272, Institute for the Study of Labor (IZA).
- Department of Labor. 1995. "What's Working (and What's Not). A Summary of Research on the Economic Impacts of Employment and Training Programs." (January).

- Department of Labor. 1997. "Evaluation of Short-Time Compensation Programs." Final Report (March).
- Farber, Henry S. 2005. "What Do We Know About Job Loss in the United States? Evidence from the Displaced Workers Survey, 1984–2004." *Economic Perspectives* (Spring): 13–28.
- Gruber, Jonathan. 1997. "The Consumption Smoothing Benefits of Unemployment Insurance." *The American Economic Review*, 87(1): 192–205.
- Hall, Robert E. "Job Loss, Job Finding, and Unemployment in the U.S. Economy over the Past Fifty Years." *NBER Macroeconomics Annual* (2005): 101-137.
- Hassett, Kevin. 2010. "Prospects for Employment Growth: Is Additional Stimulus Needed?" Testimony before the House Committee on Financial Services, American Enterprise Institute for Public Policy Research.
- Heckman, James, Robert LaLonde, and Jeffrey Smith. 1999. "The Economic and Econometrics of Active Labor Market Programs." In: O. Ashenfelter and D. Card (eds), *Handbook of Labor Economics*, Vol. III, Chapter 11, Elsevier.
- Jacobson, Louis. 2009. "Strengthening One-Stop Career Centers: Helping More Unemployed Workers Find Jobs and Build Skills." *The Hamilton Project Discussion Paper Series*, No. 2009-01.
- Jacobson, Louis, Robert LaLonde and Daniel Sullivan. 1993. "Earnings Losses of Displaced Workers." *American Economic Review*, 83(4): 685-709.
- Jacobson, Louis, Robert LaLonde, and Daniel Sullivan. 2005. "Estimating the Returns to Community College Schooling for Displaced Workers." *Journal of Econometrics*, 125:271-304.
- Joint Economic Committee. 2010. "Extending Unemployment Insurance Benefits: The Cost of Inaction for Disabled Workers." Report by the U.S. Congress Joint Economic Committee (May).
- Katz, Larry. 2010. "Long-Term Unemployment in the Great Recession." Testimony for the Joint Economic Committee U.S. Congress (April 29<sup>th</sup> 2010).
- Kletzer, Lori, and Robert Litan. 2001. "A Prescription to Relieve Worker Anxiety." *Brookings Policy Brief*, No. 73.
- Kling, Jeffrey. 2006. "Fundamental Restructuring of Unemployment Insurance: Wage-Loss Insurance and Temporary Earnings Replacement Accounts." *The Hamilton Project Discussion Paper Series*, No. 2006-05.
- Kluve, Jochen. 2006. "The Effectiveness of European Active Labor Market Policy." IZA Discussion Paper Series, No. 2018.
- Kodrzycki, Yolanda K. 2007. "Using Unexpected Recalls to Examine the Long-Term Earnings Effects of Job Displacement." Federal Reserve Bank Working Paper, W07-2.
- Koller, Frank. 2010. *Spark – How Old-Fashioned Values Drive a Twenty-First Century Corporation: Lessons from Lincoln Electric's Unique Guaranteed Employment Program*. Public Affairs: New York.
- Machin, Stephen, and Alan Manning. 1999. "The Causes and Consequences of Longterm Unemployment in Europe." In: O. Ashenfelter and D. Card (eds), *Handbook of Labor Economics*, Vol. III, Chapter 47, Elsevier.

- Martin, John, and David Grubb. 2001. "What Works and For Whom: A Review of OECD Countries' Experiences with Active Labour Market Policies." *IFAU Working Paper Series*, No. 2001-14.
- Meyer, Bruce. 1995. "Lessons from the U.S. Unemployment Insurance Experiments." *Journal of Economic Literature*, 33(1):91-131.
- Meyer, Bruce. 2002. "Unemployment and workers' compensation programmes: rationale, design, labour supply and income support." *Fiscal Studies* 23(1): 1-49.
- Möller, Joachim. 2010. "The German Labor Market Response in the World Recession – De-Mystifying a Miracle." *Zeitschrift für Arbeitsmarktforschung - Journal for Labour Market Research*, 42(4): 325-336.
- O'Leary, Christopher J., Paul T. Decker, and Stephen A. Wandner. 2005. "Cost-Effectiveness of Targeted Reemployment Bonuses." *Journal of Human Resources* 40(1): 270–279.
- Oreopoulos, Philip, Marianne Page and Ann Huff Stevens. 2008. "The Intergenerational Effects of Worker Displacement." *Journal of Labor Economics*, 26(3): 455-483.
- Oreopoulos, Philip, Till von Wachter and Andrew Heisz. 2008. "The Short- and Long-Term Career Effects of Graduating in a Recession: Hysteresis and Heterogeneity in the Market for College Graduates." IZA Discussion Paper No. 3578.
- Rupp, Kalman and David Stapleton. 1995. "Determinants of the Growth in the Social Security Administration's Disability Programs: An Overview." *Social Security Bulletin*, 58(4): 43-70.
- Schmieder, Johannes, Till von Wachter and Stefan Bender. 2009. "The Effects of Unemployment Insurance on Labor Supply and Search Outcomes: Regression Discontinuity Estimates from Germany." Columbia University, Department of Economics Discussion Paper Series DP0910-08.
- Schoeni, Robert and Michael Dardia. 2003. "Estimates of Earnings Losses of Displaced Workers Using California Administrative Data." PSC Research Report No. 03-543.
- Stevens, Ann Huff. 1997. "Persistent Effects of Job Displacement: The Importance of Multiple Job Losses." *Journal of Labor Economics*, 15(1, Part 1): 165-188
- Stevens, Ann and Jesamyn Schaller. 2009. "Short-run Effects of Parental Job Loss on Children's Academic Achievement." NBER Working Paper 15480.
- Sullivan, Daniel and Till von Wachter. 2009. "Job Displacement and Mortality: An Analysis using Administrative Data." *Quarterly Journal of Economics Vol.124 (3): 1265-1306*.
- von Wachter, Till, Elizabeth Weber Handwerker and Andrew Hildreth. 2008. "Estimating the 'True' Cost of Job Loss: Evidence Using Matched Data from California 1991-2000." Center for Economic Studies Working Paper 09-14.
- von Wachter, Till and Elizabeth Weber Handwerker. 2009. "Variation in the Cost of Job Loss by Worker Skill: Evidence Using Matched Data from California, 1991-2000." Mimeo, Columbia University.
- von Wachter, Till, Jae Song and Joyce Manchester. 2009. "Long-Term Earnings Losses due to Mass-Layoffs During the 1982 Recession: An Analysis Using Longitudinal Administrative Data from 1974 to 2004." Mimeo, Columbia University.

von Wachter, Till, Jae Song and Joyce Manchester. 2009. "Trends in Employment and Earnings of Allowed and Rejected Applicants to the Social Security Disability Insurance Program." Mimeo, Columbia University.

von Wachter, Till. 2010. "Testimony before the Joint Economic Committee of U.S. Congress on 'Long-Term Unemployment: Causes, Consequences and Solutions'." (April 29<sup>th</sup> 2010).

Vroman, Wayne and Vera Brusentsev. 2009. "Short-Time Compensation as a Policy to Stabilize Employment." Urban Institute, mimeo.