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Employment and Retirement Following a Late Career Job Loss

By Sewin Chan and Ann Huff Stevens*

The frequency of job loss among workers in late career has risen disproportionately in recent years. During the early 1980s, displacement rates for 55-64 year olds were the lowest of any age cohort but by the recession of the early 1990s, they had the highest rates (see Farber [1997]). The effects of job loss on these workers are potentially severe: their earnings capacity, savings, and retirement expectations are likely to be dramatically affected and they may take substantially longer to be re-employed. However, despite these reasons for heightened concern, relatively little is known about the economic consequences of late career job loss among recent cohorts of workers. Empirical estimation of dynamic retirement models and analyses of retirement behavior in general have usually ignored involuntary job losses, and many recent studies of post-displacement outcomes have been limited to younger and mid-career workers.¹ Given the changes in labor force participation, retirement rates and the nature of displacement over the past decade, it is important to document the effects of job loss on more recent cohorts of older workers. This paper presents findings from an ongoing research project that focuses on the economic impacts of late career job loss on employment and retirement patterns, as well as on earnings and assets.

I. The Economic Impact of Job Loss in Late Career

A discussion of the expected effects of job loss on older workers should be couched in terms of dynamic models of retirement decisions that allow for uncertainty and continuous updating. A simple characterization of these models is that in each period an individual decides whether to continue working based on the relative expected lifetime utility from retiring at a later date versus immediate retirement.² Thus, as events occur that affect future earnings and retirement benefits, individuals re-evaluate retirement decisions. A job loss will undoubtedly lead to such a re-evaluation.

What we know about the effects of job loss on workers (of all ages) suggests that displacement may result in significant changes to the expected future payoffs of continuing work with a new employer versus retiring. Probably the most widely studied effect of displacement on individual workers is that of reduced earnings. Jacobson, LaLonde, and Sullivan (1993) find that a typical worker faces quarterly earnings reductions of up to 25 percent, as much as six years after a job loss. Thus, the job loss may produce a significant change in workers' forecasts of future earnings opportunities, even once they are re-employed. Lower wages and reduced attachment to an employer may make retirement a more attractive option than it was prior to the job loss.

In addition to changing earnings opportunities, displacement may also affect the other side of the work-retirement trade-off -- availability of financial resources to be used in retirement. If pensions, health insurance, or other employer-provided benefits are lost or diminished with job loss, this could increase years of work as older individuals attempt to restore the value of their potential retirement income sources. Similarly, long periods of job search following displacement may cause workers to draw down their assets in the short-run and could potentially delay retirement.

For all of these reasons, we should expect job loss to affect the employment and retirement decisions and plans of older workers. While earnings and assets are likely to be reduced, the effect of a job loss on long-term employment or retirement rates is *a priori* ambiguous. Search costs and diminished earnings prospects may induce older workers to withdraw early from the labor force; conversely, lengthy unemployment spells and reductions in wealth and income could increase years of work as workers try to accumulate adequate retirement savings. Below, we examine the effects of displacement on both actual employment behavior and planned employment or retirement behavior.

II. Data and Findings

We use data from three waves of the Health and Retirement Study (HRS), taken in 1992, 1994, and 1996, to examine the effects of job loss on earnings, assets, retirement expectations and employment. The job histories available in the HRS enable us to construct a continuous series of indicators, designating

each individual as working or not working in each month, beginning in 1992. The initial survey also collects information on any pre-1992 job held for five years or longer, and we use this to contribute to our tracking of involuntary job separations prior to the survey period. We identify workers who have lost a job between 1984 and 1996 due to a “layoff” or because the “business closed” and these workers form our sample of displaced workers.³ Additional information on socioeconomic characteristics, including income and assets, pension eligibility, health and disability status, and retirement expectations is available for each of the survey dates.

Our analysis sample is restricted to workers aged fifty or over at the time of the first survey in 1992. There are 4,973 men and 4,695 women, with an average age in the first survey of just under 58 years and 56 years, respectively. Of the 9,938 total individuals, 2,712 have at least one reported job loss sometime between 1984 and 1996, with 1,234 of these displacements occurring in 1990 or later.

The negative impact of displacement on earnings and other resources is clear from Table 1. We find that re-employed displaced workers in this age range face large wage reductions, similar to the results reported by Couch (1998). Almost half receive wages that are 20% below their pre-displacement wages, and almost a quarter see their wages halved. In contrast, workers who do not suffer a job loss have earnings growth of approximately 5 percent between waves. Moreover, the median spell of unemployment for those re-employed within our sample period is 12 months, with more than one quarter experiencing spells of over 2 years. These findings highlight the damage in earnings capacity that a job loss can have in late career.

While the effects of displacement on wages are relatively well documented, less well-known are the effects of job loss on asset holdings or saving, an issue of particular concern for those close to typical retirement ages. Table 1 shows that households where the primary earner has suffered a displacement accumulate significantly fewer assets between waves than their non-displaced counterparts.⁴ In addition, the displaced households have asset levels that are substantially below those of households with no job loss. Further investigation shows this to be a combination of displaced workers having fewer assets prior

to any job loss and a negative effect on asset holdings of the job loss itself. Regression models that control for a variety of household characteristics confirm that past displacements have statistically significant negative effects on asset levels and on asset growth rates between waves. Dummy variables for future displacements are never close to statistical significance in the asset growth rate regressions, suggesting that the lower rates of growth are caused by displacement, rather than resulting from worker heterogeneity.

Given the evidence here and from previous research of large earnings and asset changes induced by displacement, we next examine the effects of job loss on individuals' future work or retirement expectations. In each wave, currently employed individuals were asked to give their subjective probability of remaining employed after ages 62 and 65. Table 1 shows that re-employed men and women who were displaced more than two years ago, tend to have higher expectations of continuing to work beyond ages 62 and 65 than those who have not experienced a job loss. This is consistent with displaced workers re-evaluating their retirement plans in light of reduced earnings and assets. However, differences in average expectations of displaced and non-displaced workers may also reflect underlying differences in retirement plans and labor force attachment between the two groups.

If we look at changes in expectations between waves, we see that men who have been displaced tend to have positive or smaller negative revisions in their expectations compared with the negative average changes of non-displaced men. This is consistent with plans for increased work in light of reduced wages and assets. On the other hand, displaced women tend to revise their expectations downward following displacement, and therefore their changes tell a very different story from their levels. In addition, the statistics mask large differences between married and unmarried women. For unmarried women, there is a large downward revision in work expectations, while there is no clear pattern for married women. Thus, for unmarried women, declines in wages and assets and diminished employer attachment appear to have an opposite effect to that for men, in that the women expect to stop work sooner.

Simple regression models of the effects of job loss on the expectation of working beyond age 62 and 65 confirm the patterns shown in the means in Table 1. Prior displacements are positive and significant for both men and women, with the effect of a prior job loss on future work expectations, ranging from 5 to 7 percentage points. Other explanatory variables have the expected signs.⁵

Although informative, simple OLS regression results may merely reflect omitted individual characteristics that are correlated with the likelihood of job loss. To control for unobservable, person-specific characteristics that may be correlated with both displacement probabilities and retirement expectations, we estimate models that control for individual-specific fixed effects. We note that even these results must be interpreted carefully since they are conditional upon being re-employed after job loss, and will not provide an unbiased estimate of the effects of displacement on retirement expectations for the entire population of job losers. For the subset of workers who are re-employed however, the fixed effects estimation can tell us whether individuals revise their future work expectations in light of the displacement. For men, the effect on expectations of work beyond 65 remains positive and significant, suggesting that displacement does cause male workers to revise their work plans toward later retirement. The estimates suggest a 5 percentage point increase in expectations for a displacement that occurred more than two years ago, and a 3 percentage point increase for displacements less than two years ago. For unmarried women, once we include the fixed-effects, the coefficient on a past displacement becomes substantially negative and significant, indicating a 12 percentage point decrease following displacement. This suggests that for unmarried women, the positive relationship between higher work expectations and displacement is entirely due to those with higher work expectations being more likely to be displaced. For married women the effects of displacement on the expectation of future work are also negative, but much smaller and statistically insignificant.

The idea that men facing an employment disruption late in their careers may delay retirement echoes earlier findings by Anderson, Burkhauser and Quinn (1986) who showed that men facing higher than expected unemployment rates were more likely to delay retirement. The authors interpret this as

evidence that a negative wealth effect from reduced labor market opportunities results in delayed retirement. Similarly, our findings for men show that job loss, and the corresponding reductions in earnings and assets, may lead to longer labor force participation. We find no evidence of such a positive wealth effect for women, and the Anderson, Burkhauser and Quinn study focused exclusively on men. The idea that women are responding to reduced wage opportunities stemming from displacement is consistent with Honig (1998) who shows that subjective work probabilities among married women in the HRS are positively related to their current wage. As noted in the previous section, the effect of displacement on future work probabilities is ambiguous, since reduced wages will lower the return to work and reduced assets may delay retirement through savings or liquidity constraints. Our results are consistent with the first of these effects dominating for women, and the second dominating for men.

We are also interested in the actual employment rates of workers following job loss. As shown in Table 1, the employment rate of workers with a previous displacement is lower than for those who have not experienced a job loss. To more carefully summarize the relationship between displacement and employment rates at different ages we have estimated discrete-time hazard models for returning to work *and* for exiting employment.⁶ We control for age with a series of dummy variables, allowing spikes in the hazards at ages 62 and 65, to capture both pure age effects and the incentive effects of social security, pension and Medicare eligibility. We also include other socioeconomic variables such as race, marital status and education. With respect to job losses, we define a variable equal to one in the months following an involuntary job loss, which will capture the effect of a previous displacement on employment transitions. Finally, we include interactions between the previous displacement variable and age, as well as terms for the time elapsed since the job loss. This allows for the effect of job loss to vary across different ages, and as time passes since the job loss.

The hazard results show that many older displaced workers do return to employment. By two years after a job loss at age 55, approximately 75 percent of men and 70 percent of women are estimated to have returned to work. The second part of our hazard results, however, shows that this post-

displacement employment is often short-lived. Workers who are employed, but who have experienced a job loss some time in the past few years are more likely to exit these subsequent employment relationships than their non-displaced counterparts. The probability of exiting a post-displacement job in the initial two years is roughly double the exit rate from employment of non-displaced workers. As time passes since the job loss, however, the effect of a previous displacement on rates of exit from employment becomes negative. By four to six years after job loss, workers with a previous job loss are less likely than non-displaced workers to stop working, perhaps reflecting the need to rebuild diminished savings for retirement. This result is consistent with our finding that men increase their expectation of working past age 65, following displacement.

To summarize the effect of displacement on employment rates at various ages, we use the estimated hazard coefficients to describe the employment path for three groups of representative workers defined by their work status in the initial month: working, displaced, and displaced but re-employed. In Figure 1 we show the results for representative male workers, although the results for women are similar.⁷ We can see that there is a substantial and lasting gap in employment rates of displaced and non-displaced men, reflecting both the initial period of non-employment after job loss and the subsequent instability of post-displacement jobs. By two years after a job loss, the employment rate of displaced men is 0.55, compared with a rate of close to 0.80 for the non-displaced men who were working at age 60. The line for “displaced and re-employed” isolates the secondary effect of job loss on the exit rate from post-displacement employment. These workers are initially less likely than non-displaced workers to remain employed, but are more likely to be employed in later years. We must interpret this result with some caution given the relatively small number of displaced workers whom we actually observe more than six years after displacement. Nevertheless, such a pattern is consistent with delayed retirement as a long-term response to job loss in late career.

Although we find similar patterns for men and women in the hazard models for employment transitions and the implied employment probabilities, our earlier results concerning displacement’s effect on future work expectations of men and women suggest differing interpretations for the actual work

patterns. Displaced men may be working longer than non-displaced men as a response to displacement, while a similar result for women may simply reflect displaced women having longer work expectations, even prior to any job loss.⁸

III. Conclusions

Our findings point to large and lasting effects of late career job loss on wages, assets, employment expectations and actual employment. Viewed in light of the literature on the timing of retirement, these results are consistent with displacement causing significant re-evaluation of work-retirement trade-offs. Wages and assets decrease considerably, future employment expectations may be revised and there continue to be significant effects of displacement on employment transitions over many years, even after displaced workers' initial re-employment. The fact that men and women seem to revise their future work expectations following displacement in systematically different ways suggests that the response of their actual employment patterns should be interpreted with some caution. A better understanding of the relationships between displacement-induced changes in wages, assets and future work plans and realizations will help to better address the difficulties faced by late-career job losers, as well as contribute to economists' understanding of how shocks to earnings and wealth may affect subsequent retirement decisions.

Table 1 — Wages, Unemployment Spells, Assets, Retirement Expectations and Employment,
By Displacement Status

	No Past Displacement	Past displacement	
Wages and Unemployment Spells (medians)			
Change in wages between pre- and post-displacement job		-19%	
Change in wages (waves 1-2, 2-3)	+5%		
Unemployment spell for re-employed		12 months	
	No Past Displacement	Displacement < 2 years ago	Displacement > 2 years ago
Non-Pension Assets (medians)			
Assets (waves 1, 2)	\$86,500	\$69,005	\$52,000
Change in assets (waves 1-2)	+8.7%	+4.0%	0%
Subjective Work Expectations of Employed Men^a (means)			
Expectation of working at age 62 (waves 1, 2, 3)	0.497	0.499	0.558
65	0.284	0.275	0.328
Change in expectation of working at age 62 (waves 1-2, 2-3)	-0.017	-0.005	-0.005
65	-0.020	+0.006	+0.010
Subjective Work Expectations of Employed Women^a (means)			
Expectation of working at age 62 (waves 1, 2, 3)	0.415	0.434	0.432
65	0.214	0.243	0.240
Change in expectation of working at age 62 (waves 1-2, 2-3)	+0.005	-0.063	+0.010
65	+0.000	-0.069	-0.008
Employment			
Fraction Working (waves 1, 2, 3)	60.6%	38.4%	47.1%

Source : Authors' calculations from the Health and Retirement Study.

^aThis is the response to "What do you think are the chances that you will be working full-time after you reach age 62 (65)? '0' means there is absolutely no chance and '100' means that it is absolutely certain.", rescaled 0-1.

Figure 1 - Employment Probability by Age and Displacement for Men



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¹ A recent exception that uses the first wave of the Health and Retirement Study is Couch (1998).

² See Berkovec and Stern (1991), Stock and Wise (1990) and Rust (1989), among others, for dynamic models of retirement.

³ We did not want very early displacements to influence our results; the 1984 cutoff is somewhat arbitrary.

⁴ Assets from wave 3 are not reported since this data is a preliminary release and much of the asset information is missing, presumably pending imputation and top-coding.

⁵ These variables included age, poor health, assets, education, marital status and the subjective probability of living to age 85.

⁶ See Chan and Stevens (1999) for a detailed description of these results for men.

⁷ Representative workers are assumed to be married, not disabled, in excellent health, white, high school graduates, and age 60 in the initial month.

⁸ Our estimated hazard models are robust to a large number of controls for observable worker heterogeneity, as described in Chan and Stevens (1999). However, controlling for correlated unobservable heterogeneity in the hazard framework is a much more difficult task, and thus, the expectations results which control for fixed effects in a linear model may isolate the effects of displacement better than our hazard models for actual employment.