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Lingering Employment Effects of the Great Recession

Costs of Job Loss Unusually Severe and Enduring

The economic downturn that began in December 2007 was associated with a rapid rise in unemployment and with an especially pronounced increase in the number of long-term unemployed. In **Job Loss in the Great Recession and its Aftermath: U.S. Evidence from the Displaced Workers Survey** (NBER Working Paper No. 21216), Henry S. Farber uses data from the Displaced Workers Survey (DWS) from 1984–2014 to study labor market dynamics. From these data he calculates both the short-term and medium-term effects of the Great Recession's sharply elevated rate of job losses. He concludes that these effects have been particularly severe.

> Of those who lost full-time jobs between 2007 and 2009, only about 50 percent were employed in January 2010 and only about 75 percent of those were re-employed in full-time jobs.

Of the workers who lost full-time jobs between 2007 and 2009, Farber reports, only about 50 percent were employed in January 2010 and only about 75 percent of those were re-employed in full-time jobs. This means only about 35 to 40 percent of those in the DWS who reported losing a job in 2007–09

RE-EMPLOYMENT RATES OF JOB LOSERS

Employment rate for job losers in previous three years

NBER-defined recessions

Source: Displaced Worker Survey

were employed full-time in January 2010. This was by far the worst post-displacement employment experience of the 1981–2014 period.

The adverse employment experience of job losers has also been persistent. While both overall employment rates and full-time employment rates began to improve in 2009, even those who lost jobs between 2011 and 2013 had very low re-employment rates and, by historical standards, very low full-time employment rates.

Labor Market Networks Before, During, and After the Great Recession

Most people who have searched for a job know that it is often useful to have a little help from contacts such as friends, acquaintances, and former colleagues. Where a job-searcher

> Neighborhood networks, enduring assets for job-seekers, were weakened substantially by the recession.

lives may be an important determinant of this contact network.

In **Labor Market Networks and Recovery from Mass Layoffs Before, During, and After the Great Recession** (NBER Working Paper No. 21262), Judith K. Hellerstein, Mark J. Kutzbach, and David Neumark confirm the enduring power of residential neighborhood networks for people searching for work, but they also find that such networks were strained and weakened substantially during and after the Great Recession.

We know that during and after recessions, it can take a long time for displaced workers to find new jobs. And past research suggests that better-connected workers have an easier time finding jobs and receive higher wages than those who aren't tapped into networks. This study
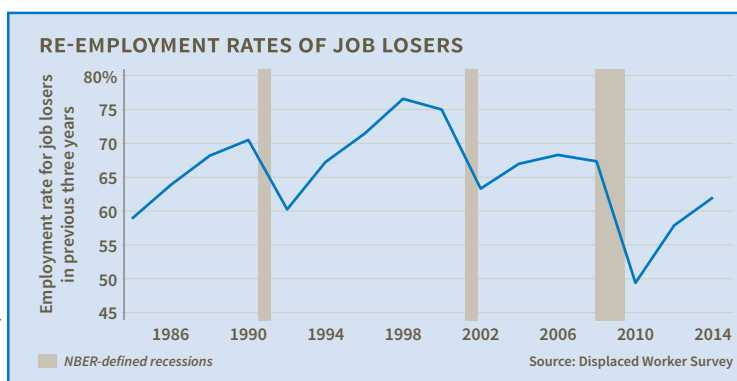
In addition, the data show substantial weekly earnings declines even for those who did find work, although these earnings losses were not especially large by historical standards. Farber suggests that the earnings decline measure from the DWS is appropriate for understanding how job loss affects the earnings that a full-time-employed former job-loser is able to command.

The author notes that the measures on which he focuses may understate the true economic cost of job loss, since they do not consider the value of time spent unemployed or the value of lost health insurance and pension benefits.

Farber concludes that the costs of job losses in the Great Recession were unusually severe and remain substan-tial years later. Most importantly, workers laid off in the Great Recession and its aftermath have been much less successful at finding new jobs, particularly full-time jobs, than those laid off in earlier periods. The findings suggest that job loss since the Great Recession has had severe adverse consequences for employment and earnings.

—Matt Nesvisky

explores how the effects of networks in connecting workers to jobs changed during the Great Recession.

The authors examine the strength of neighborhood networks just before, during, and after the Great Recession, which officially lasted from December 2007 through June 2009. Such networks may provide job seekers with tips about job openings or employers with referrals about potential hires. Using data from the U.S. Bureau of the Census Longitudinal Employer-Household Dynamics (LEHD), the core of which is information on workers and employers from state records on unemployment insurance covered jobs, the authors zero in on workers living in specific neighborhoods (census tracts), to determine the jobs, wages and salaries, layoff and rehiring dates, and employers of those workers and their neighbors.

Using data covering millions of workers who lost jobs in mass layoffs from 2005 to 2011, the authors focus on cuts of at least 30 percent of a firm's total workforce. For each of the mass layoffs, the authors compare the post-layoff re-employment of displaced workers who live in highly networked neighborhoods to those in less networked neighbor-hoods. They use two measures to analyze potential residential network effects: a "broad" look at how job seekers might be helped by tips from neighbors about job vacancies, and a "deep" look at how companies might use referrals from current workers to hire neighbors.

For the workers who experienced mass layoffs, they find that about 63 percent of those who lost a job in 2005 or 2006, before the recession, were re-employed within a three-month period, but only 47 percent of those laid off in 2009 were reemployed within a similar time period. Indeed, only 65 percent of job-losers in 2009 found re-employment within two years.

They also find that those who lost their jobs in 2005 and had a median level of neighborhood network connectivity to job vacancies had a job-finding rate in the first three months after job loss that was 6.3 percentage points higher than if they had no network contacts, a 10 per-cent boost. In contrast, those who were laid off in 2009 and who lived in a neighborhood with a typical network had a job-finding rate over those three months that was only 3.1 percentage points higher than those without a network to connect them to jobs. This represented just a 6.5 percent increase over what would have happened in a non-net-worked neighborhood.

The authors found similar but less pronounced trends in the network measure that reflects the extent to which companies act on referrals from their own workers.

Significantly, the authors discovered that residential neighborhood networks are especially important to lower-income displaced workers. Labor markets are more local for this group, and hence network connections to neighbors are likely to be most productive.

The research concludes that residential neighborhood networks that connect job seekers to job vacancies are important for displaced workers searching for jobs, but that the strength and productivity of these networks are diminished when confronted with severe economic events such as the Great Recession.

—Jay Fitzgerald

JOB-FINDING RATE FOR LAID-OFF WORKERS		
	2005	**2009**
No networked community	62.4%	47.0%
	+6.3%	+3.1%
Median networked community	68.7%	50.1%

Source: Authors' calculations from Bureau of the Census LEHD Infrastructure Files

Consumer Inattention Leads to Pricier Medicare Part D Policies

Insurers profit when consumers enrolled in the Medicare Part D drug program fail to shop around for the most economical insurance provider. In **The Impact of Consumer Inattention on Insurer Pricing in the Medicare Part D Program** (NBER Working Paper No. 21028), Kate Ho, Joseph Hogan, and Fiona Scott Morton model the behavior of "inattentive" consumers and examine how insurers respond to this behavior. Intuitively, firms have an incentive to choose a higher price if they forecast that consumers will not notice it, and therefore continue to buy. The researchers then use their models of consumer demand for insurance policies, and firms' pricing policies, to calculate the consequences of eliminating consumer inattention. They consider how insurance companies would alter their pricing in response to consumers becoming more responsive to plan characteristics.

The results indicate that over three years, an average consumer would save $563, and the government would save $550 million as a result of reduced premium costs (and therefore reduced subsidies). By the third year, government savings due to "better shopping" on the part of consumers would amount to 8.2 percent of the cost of subsidizing Medicare Part D enrollees.

The authors study a dataset that was provided by the Centers for Medicare and Medicaid Services that includes detailed information on the choices and claims of nearly half a million non-subsidized Medicare Part D

enrollees in New Jersey in 2006–09. In analyzing this dataset, the researchers find that many consumers made choices that led to spending more than the cost of the lowest-cost plan
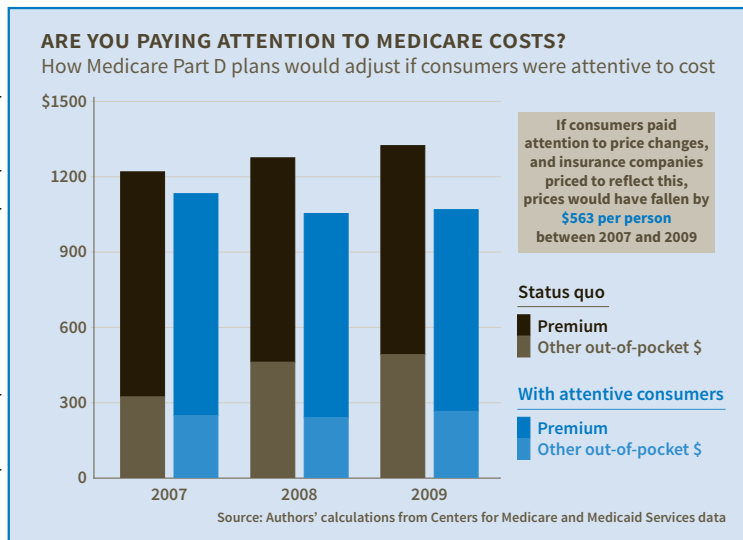
> Even if consumers do not choose the lowest-cost plans, simply prompting them to choose a new plan every year has a substantial cost-reduction effect.

available. They do not find any evidence that consumers become better shoppers as they gain experience in the program. The dataset makes it possible to study the choices of new enrollees in Medicare Part D, and to

ARE YOU PAYING ATTENTION TO MEDICARE COSTS?
How Medicare Part D plans would adjust if consumers were attentive to cost

If consumers paid attention to price changes, and insurance companies priced to reflect this, prices would have fallen by **$563 per person** between 2007 and 2009

Status quo
- Premium
- Other out-of-pocket $

With attentive consumers
- Premium
- Other out-of-pocket $

Source: Authors' calculations from Centers for Medicare and Medicaid Services data

track their choices over time.

The data suggest that because of information processing costs or other factors, consumers avoid making new choices when they renew their insurance policies. They are likely to roll over their plan selections from one year to the next unless shocked by an adverse change to their current plan or their health. They may also underestimate out-of-pocket payments relative to plan characteristics that are easier to observe, such as premiums and gap coverage.

In addition to studying consumer

behavior using the Medicare Part D policy date, the authors also analyze a national dataset that includes information on insurance plan characteristics, pricing, and enrollment to study

the determinants of premiums. They find that premiums rise steadily over time and that plans with larger market shares set prices in a manner consistent with high choice frictions. The researchers conclude that more attentive and price-elastic consumers would result in lower insurer margins. In particular, they estimate how the pricing of insurance policies would change if consumers were fully aware of the prices and features of different policies and if they made optimal decisions in light of this information. They estimate that if insurers did not change their policy prices in response to greater consumer attention, the average consumer saving would be just $162 per year. However, when they allow insurance companies to adjust prices as their model suggests they would, the savings increase significantly. The study concludes that even if consumers do not choose the lowest-cost plans, because of information processing costs or for other reasons, simply prompting them to choose a new plan every year would have a substantial effect in reducing costs because of the supply-side response.

— Matt Nesvisky

Tax-Efficient Mutual Funds Do Better Before Taxes, Too

Millions of baby boomers who are set to retire over the next few years may some day regret that they didn't pay more attention to the tax implications of their mutual fund investments during their working lives.

In **Tax-Efficient Asset Management: Evidence from Equity Mutual Funds** (NBER Working Paper No. 21060), Clemens Sialm and Hanjiang Zhang investigate the performance of U.S. equity mutual funds that are "tax efficient" in the sense of following investment and trading strategies that minimize tax burdens on taxable investors. The study finds that tax-efficient funds have tended to outperform other funds with respect to both before-tax and after-tax returns.

Income taxes on dividends, short-term capital gains, and long-term capital gains can significantly reduce the after-tax return that a taxable investor earns, relative to the pre-tax return on a mutual fund. The magnitude of this tax wedge depends on the investment style of the fund, on some decisions of the portfolio manager, such as when to realize capital gains and losses on the fund's investments, and on the behavior of fund investors.

As an example of how a fund's investment style can matter, the researchers consider the difference between small-cap and large-cap equity funds. Small-cap funds sometimes face situations that require them to liquidate their holdings, for example when the market capitalization of a small firm increases so much that it is no longer suitable for inclusion in a "small cap" fund. In these cases the funds often liquidate their positions in these winner stocks and thereby realize taxable capital gains. Meanwhile, large-cap funds tracking larger and more-established firms will tend to liquidate positions in poorly-performing companies, which cannot be classified any longer

as "large cap" stocks. Such liquidations often lead to the realization of capital losses, which actually reduce the tax burdens of the fund investors. Tax burdens also tend to be higher on funds that hold stocks paying high dividend yields and on funds that see high rates of redemptions and volatile investor flows.

The authors find that shareholders of taxable mutual funds pay an average of about 1.12 percent of the value of their fund holding each year in dividend and capital gains taxes. That annual tax burden is similar in magnitude to

> Pursuing trading and investment strategies that could limit investment opportunities does not appear to lower average pre-tax returns.

fund expenses, including management fees, which tend to receive more attention from investors and scholars when they analyze the built-in costs of funds' investments.

One way for a mutual fund to reduce the tax burden it imposes on its investors is by deferring the realization of capital gains and accelerating the realization of capital losses. Another is by steering away from highly-taxed securities. But such strategies could theoretically come at a cost: Funds seeking to avoid tax burdens might constrain their investment opportunities and thus potentially reduce their pre-tax returns.

The authors examine U.S. equity mutual funds from 1990 through 2012, based largely on information from the CRSP Survivorship Bias Free Mutual Fund database that tracks fund returns, dividend and capital gains distributions, total net assets, fees, flows, and

investment objectives. They find that, on average, mutual funds that follow tax-efficient investment strategies generate better after-tax returns for taxable investors than funds that do not. Funds in the lowest tax-burden quintile over the prior three years exhibited excess returns net of taxes of –0.19 percent over the subsequent year. Funds in the highest tax-burden quintile, by comparison, exhibited excess returns of –2.29 percent after taxes.

The authors found that the pre-tax return on funds in the lowest tax-burden quintile over the previous three years averaged 0.91 percentage points higher, in the subsequent year, than funds in the highest tax-burden quintile. The results do not suggest that tax-efficient funds perform worse than their peers with regard to pre-tax returns.

These performance differences compound to a substantial extent over time for long-term taxable investors, as illustrated in the accompanying graphic. An investment in 1990 of $10,000 in mutual funds in the highest tax burden decile would have compounded in 2012 to $55,800 before taxes and to just $37,800 after taxes. On the other hand, an equivalent investment in mutual funds in the lowest tax burden decile would have compounded to $58,900 before taxes and to $48,800 after taxes over the identical time period. Thus, investing in tax-efficient funds would have increased the final wealth of a typical taxable investor by more than $10,000.

"This result can be explained primarily by the lower trading costs and by the superior investment ability of tax-efficient mutual funds," the authors write.

—Jay Fitzgerald

MUTUAL FUND PERFORMANCE

Value in 2012 of $10,000 invested in 1990 in portfolios of domestic equity mutual funds

	Before tax	After tax
Tax-inefficient fund portfolio	$55,800	$37,800
Tax-efficient fund portfolio	$58,900	$48,800

Before tax scenario corresponds to the cumulative investment value if the fund is held in a tax-qualified retirement account.
After tax scenario takes into account taxes on fund distributions for an average U.S. investor.
The tax-inefficient fund portfolio includes funds in the highest average tax burden decile.
The tax-efficient fund portfolio includes funds in the lowest average tax burden decile.

Sources: CRSP Survivorship Bias Free Mutual Fund database, Thomson Reuters, NBER and others

The Mortality Cost of Political Connections in China

Economists have long debated the extent to which political ties allow businesses to circumvent regulations. In **The Mortality Cost of Political Connections** (NBER Working Paper No. 21266), Raymond Fisman and Yongxiang Wang conclude that hiring senior managers from the ranks of high-level municipal government posts tends to insulate publicly traded Chinese industrial firms from the rigors of safety oversight and regulation. They begin by documenting a robust positive correlation between political ties of executives and comparatively high worker death rates.

Defining a politically connected firm as one in which a C-suite executive formerly held a high-level government post, the researchers find that the annual number of workplace deaths in "connected" firms was 0.084 per 1,000 employees from 2008 to 2013, compared to a rate of 0.024 per 1,000 in firms without such a connection. This difference persists when they identify the role of connections based on executive turnover, which leads to changes in a firm's connectedness over time.

Despite the higher frequency of worker fatalities at connected firms, the authors were unable to find any "public report of a major workplace safety audit at a connected company" in the absence of worker deaths that themselves trigger safety investigations. By comparison, about 4.6 percent of unconnected firms had undergone safety audits in years with no fatalities. Rates of fines for environmental violations were also lower at connected firms. The authors speculate that the ability to circumvent regulation could account in part for the greater profitability of connected firms, which enjoyed return on assets that was 1 percent higher than that of unconnected firms in their sample.

Political connections did not protect connected firms from the regulatory backlash that followed a worker's death. In years where fatalities occur, safety audit rates are identical for connected and unconnected

> Chinese firms with a former top government official in the C-suite had higher worker death rates, few if any safety inspections, and lower rates of environmental fines.

firms. Further, in the 30 days following a fatality, connected firms' share prices fell by as much as 9 percent relative to the share prices of unconnected firms. This response from investors is consistent with future profitability: In the following year, their profit advantage disappeared, possibly because fatalities also result in firms losing

THE MORTALITY COST OF POLITICAL CONNECTIONS
Average death rate at unconnected vs. connected Chinese firms

Deaths per 1000 employees — Industry: Coal mining, Chemicals, Smelting ferrous metals, Construction

Legend: Unconnected, Connected

Sources: Data from publicly-traded Chinese firms, State Administration of Work Safety

their connections. The executives themselves fared reasonably well. Though they commonly departed following a fatal accident, in 19 out of 26 cases examined they found high-level positions at other firms.

The authors document some promising results on potential for regulatory incentives to attenuate the effects of connections on safety, using the "No safety, no promotion" (NSNP) policies that China's provinces began adopting in 2005. Prior to 2004, local Chinese officials were evaluated and promoted based on their ability to produce economic growth. The NSNP

policies "made the promotion of safety regulators and other local government officials contingent on their meeting the safety target set for the region by the provincial government." By 2014, 20 of 31 provinces had adopted such policies, giving local safety officials a strong incentive to monitor firm safety behavior and possibly reducing the insulation provided by politically connected executives.

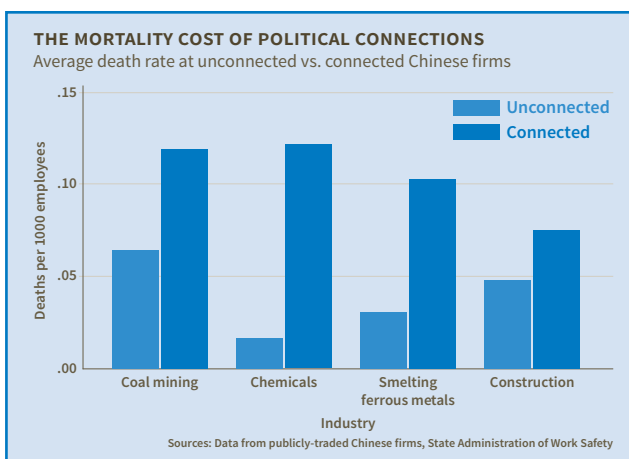The authors find that adopting NSNP reduced death rates in connected firms by 86 percent and in unconnected firms by 30 percent. Overall, passage of NSNP almost completely offset the large positive relationship between politically connected managers and high worker deaths.

The sample included all publicly traded Chinese companies in nine major industries. Worker death statistics were obtained from firms' Corporate Social Responsibility reports and Chinese SEC disclosures. To control for under-reporting, the authors cross-checked firms' disclosures with data from the official website of the State Administration of Work Safety and a media search based on WiseSearch, a database which covers stories from more than 2,000 Chinese newspapers.

The authors caution against making any causal statements based on their findings, warning that they are presenting preliminary results based on observational data. They emphasize that more research is needed, in China and elsewhere, to fully understand the welfare consequences of exploitation of political ties by businesses.

— Linda Gorman

The U.S. Foreclosure Crisis Was Not Just a Subprime Event

Many studies of the housing market collapse of the last decade, and the associated sharp rise in defaults and foreclosures, focus on the role of the subprime mortgage sector. Yet subprime loans comprise a relatively small share of the U.S. housing market, usually about 15 percent and never more than 21 percent. Many studies also focus on the period leading up to 2008, even though most foreclosures occurred subsequently. In **A New Look at the U.S. Foreclosure Crisis: Panel Data Evidence of Prime and Subprime Borrowers from 1997 to 2012** (NBER Working Paper No. 21261), Fernando Ferreira and Joseph Gyourko provide new facts about the foreclosure crisis and investigate various explanations of why homeowners lost their homes during the housing bust. They employ microdata that track outcomes well past the beginning of the crisis and cover all types of house purchase financing—prime and subprime mortgages, Federal Housing Administration (FHA)/Veterans Administration (VA)-insured loans, loans from small or infrequent lenders, and all-cash buyers. Their data contain information on over 33 million unique ownership sequences in just over 19 million distinct owner-occupied housing units from 1997–2012.

The researchers find that the crisis was not solely, or even primarily, a subprime sector event. It began that way, but quickly expanded into a much broader phenomenon dominated by prime borrowers' loss of homes. There were only seven quarters, all concentrated at the beginning of the housing market bust, when

more homes were lost by subprime than by prime borrowers. In this period 39,094 more subprime than prime borrowers lost their homes. This small difference was reversed by the beginning of 2009. Between 2009 and

> The crisis began in the subprime mortgage sector, but twice as many prime borrowers as subprime borrowers lost their homes over the full sample period.

2012, 656,003 more prime than subprime borrowers lost their homes. Twice as many prime borrowers as subprime borrowers lost their homes over the full sample period.

The authors suggest that one reason for this pattern is that the number of prime borrowers dwarfs that of subprime borrowers and

CONTRIBUTIONS TO HOUSING MARKET BUST
Number of home foreclosures by type of financing

Total foreclosures + short sales (thousands)

Prime mortgage

Subprime mortgage

FHA/VA loan

2004   2006   2008   2010   2012

Source: DataQuick

the other borrower/owner categories they consider. The prime borrower share averages around 60 percent and did not decline during the housing boom. Although the subprime borrower share nearly doubled during the boom, it peaked at just over 20 percent of the market. Subprime's increasing share came at the expense of the FHA/VA-insured sector, not the prime sector.

The authors' key empirical finding is that negative equity conditions can explain virtually all of the difference in foreclosure and short sale outcomes of prime borrowers compared to all cash owners. Negative equity also accounts for approximately two-thirds of the variation in subprime borrower distress. Both are true on average, over time, and across metropolitan areas.

None of the other 'usual suspects' raised by previous research or public commentators—housing quality, race and gender demographics, buyer income, and speculator status—were found to have had a major impact. Certain loan-related attributes such as initial loan-to-value (LTV), whether a refinancing occurred or a second mortgage was taken on, and loan cohort origination quarter did have some independent influence, but much weaker than that of current LTV.

The authors' findings imply that large numbers of prime borrowers who did not start out with extremely high LTVs still lost their homes to foreclosure. They conclude that the economic cycle was more important than initial buyer, housing and mortgage conditions in explaining the foreclosure crisis. These findings suggest that effective regulation is not just a matter of restricting certain exotic subprime contracts associated with extremely high default rates.

—Les Picker