



The income-health gradient	3	Good jobs: The importance of who you work for	23
Emergency savings for low-income consumers	12	Waiting tables for a living: How employers and geography affect working conditions	30
Results of the federal urban Empowerment Zone program	18	<i>Focus+</i> Supplementary Material for <i>Focus</i> 30.1	

I am very happy to introduce this issue of Focus, which covers four topics: the income-health gradient; emergency savings for low-income families; a successful place-based urban policy—the federal urban Empowerment Zone program; and jobs—the importance of who you work for, and job quality for low-wage workers. These articles are based on recent work by our local and national affiliates. All of them send the message that addressing the problems of health status gradients, emergency savings, and decent jobs are complicated endeavors. But each of these advances our policy- and poverty-relevant knowledge and gives hope of improved lives for low-income families.

First up is an introduction to an important new book, The Biological Consequences of Socioeconomic Inequalities edited by Barbara Wolfe, William Evans, and Teresa E. Seeman, which grew out of a series of meetings to engage both social and biological scientists to examine the sources of the well-known socioeconomic status-health gradient. For example, they assess how social and biological factors might explain the relationship between child health and family income. Evidence using children certainly suggests that family income influences health, but it is not possible to fully explain observed differences in health by income alone. While this work does not answer all of the questions regarding the mechanisms by which health differs by economic status, it greatly advances what we know about one of the most debated and important relationships in society: economic well-being and health. The answers to this puzzle link closely to the IRP major research theme of the intergenerational transmission of poverty, starting later this year.

Next is a summary of an important topic—emergency savings for low-income consumers. Emergency savings, also called rainy day savings or contingency savings, act as a form of insurance against unexpected, irregular, and unpredictable expenses. Over the course of the Great Recession, it has become clear that families who suffer large economic losses in earnings, incomes, and assets, increasingly need to stanch the downward economic spiral and stabilize the family's financial ship. Professor Michael Collins, head of the Center for Financial Security (CFS) at UW–Madison and an IRP affiliate, argues that an effective policy to encourage savings should target specific types of expenses or contingencies that households typically underestimate; recognize behavioral biases and over-optimism about future resources; and create a way to systematically encourage adequate savings for an emergency. While we do not yet have the answer to effective means for savings-building, we will attempt to push the ball even further in our spring 2014 IRP/CFS workshop on Financial Decision-Making, Poverty and Inequality. Stay tuned and search our website (www.irp.wisc.edu) for more on this upcoming event.

The third piece is about a place-based policy that actually seems to work: the federal urban Empowerment Zone (EZ) program. IRP affiliate and economics professor Jesse Gregory and colleagues recently published their analysis of the EZ, finding that the program appears to have successfully transferred income to a small, spatially concentrated labor force. While the authors caution that this is a short-term evaluation, leaving important questions about whether this program will have lasting effects, they conclude that so far it is a promising strategy for reviving otherwise depressed urban spaces.

We finish this issue of Focus with a familiar and frustrating issue: good jobs, both the importance of who you work for as well as job quality and low-wage work. As the labor market continues to slog along in its recovery from the Great Recession, many are asking: What does it take to find a good job and to support a family? If the answer to poverty is a good steady job with decent wages and long-term prospects for advancement, the two entries that end this issue will help shape that debate.

First, we summarize the Robert J. Lampman Memorial Lecture given by David Card last spring, and entitled, "Good Jobs: The Increasing Importance of Who You Work for in Achieving Economic Success." Professor Card argues that having a "good job" is mainly about working at a "good firm," and that some employers appear to offer firm-specific wage premiums which are too large to be completely explained by the idea that particularly profitable firms will share those profits with employees. Such a finding challenges the conventional economic belief that equally-skilled workers are paid the same wages regardless of where they work. The Card framework acknowledges firm-specific wage premiums and in so doing represents an important new direction in labor market analysis, one which appears to be quite helpful in explaining rising wage inequality, cyclical wage variation, early career progression, and gender wage gaps.

Finally, in contrast to good firms that pay well, low-wage working conditions are addressed by IRP affiliate and social work professor Anna Haley-Lock to better understand the process by which low-income workers "churn" in and out of employment. This work complements research on individual-level characteristics, as well as the firm characteristics that Card explores. Haley-Lock looks at how organizational and other contextual factors, such as location and firm size, correspond with the quality of waitstaff jobs, and finds that pay, benefits, and workers' ability to influence work schedule are affected by these factors.

As always, IRP is on the lookout for good opportunities to stimulate research, train young researchers, analyze policy, and improve program performance and practice to better the lot of the poor. We welcome any ideas you may have that will help us to achieve these goals.

—Timothy M. Smeeding, IRP Director

FOCUS is a Newsletter put out twice a year by the

Institute for Research on Poverty
1180 Observatory Drive
3412 Social Science Building
University of Wisconsin
Madison, Wisconsin 53706
(608) 262-6358
Fax (608) 265-3119

The Institute is a nonprofit, nonpartisan, university-based research center. As such it takes no stand on public policy issues. Any opinions expressed in its publications are those of the authors and not of the Institute.

The purpose of *Focus* is to provide coverage of poverty-related research, events, and issues, and to acquaint a large audience with the work of the Institute by means of short essays on selected pieces of research. Full texts of Discussion Papers and Special Reports are available on the IRP Web site.

Focus is free of charge, although contributions to the UW Foundation-IRP Fund sent to the above address in support of *Focus* are encouraged.

Edited by Emma Caspar

Copyright © 2013 by the Regents of the University of Wisconsin System on behalf of the Institute for Research on Poverty. All rights reserved.

This publication was supported by Grant Number AE00102 from the U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (ASPE), and awarded by the Substance Abuse and Mental Health Services Administration (SAMHSA). Its contents are solely the responsibility of the author(s) and do not necessarily represent the official views of ASPE or SAMHSA.

The income-health gradient

William Evans, Barbara Wolfe, and Nancy Adler

William Evans is Keough-Hesburgh Professor of Economics at the University of Notre Dame; Barbara Wolfe is Richard A. Easterlin Professor of Economics, Public Affairs, and Population Health Sciences at the University of Wisconsin–Madison and an IRP affiliate; Nancy Adler is Lisa and John Pritzker Professor of Psychology in the Departments of Psychiatry and Pediatrics at the University of California, San Francisco.

The existence of a positive relationship between socioeconomic status and health has been well established; individuals who are better off financially tend to have better health and better health habits. However, until we more fully understand both the nature of this relationship and the mechanisms behind it, it may be difficult to devise policies that will substantially reduce disparities in health across groups. In this article, we review the existing evidence on the relationship between socioeconomic status and health.¹

Basic relationship between socioeconomic status and health

A positive gradient between various indicators of socioeconomic status and health has been found across all age groups, and for all countries in which it has been studied. This relationship has been identified for a variety of health indicators,

including mortality, morbidity, general health, health habits, and functional limitations. These health indicators have in turn been associated with a number of socioeconomic status measures, including income, wealth, occupation, and education. While these indicators of socioeconomic status are all related to one another, each has unique aspects. Some of these indicators may serve as both a cause and an outcome of health status. For example, income may drop as a result of poor health, and poor health may also result from income constraints. In contrast, education is generally established relatively early in life and is less likely to be subject to changes in health status. But income is easier to change in the shorter run, and so may be the favored policy instrument.

The shape of the income-health relationship

Figure 1 illustrates the basic shape of the relationship between income and health when compared across individuals or countries. While higher income is associated with better health at all points on the curve, the relationship is steepest at the bottom of the income distribution. Thus, the relative gain in health associated with, for example, a \$100 increase in income for those with low incomes ($H_a^* - H_a$) is much greater than the health gain associated with the same increase for those with high incomes ($H_b^* - H_b$).

Descriptive evidence

The strength of the socioeconomic status-health gradient varies at different ages; health gaps are greatest in mid- to late adulthood, when rates of disease begin to rise and more variation is linked to socioeconomic factors. The gap nar-

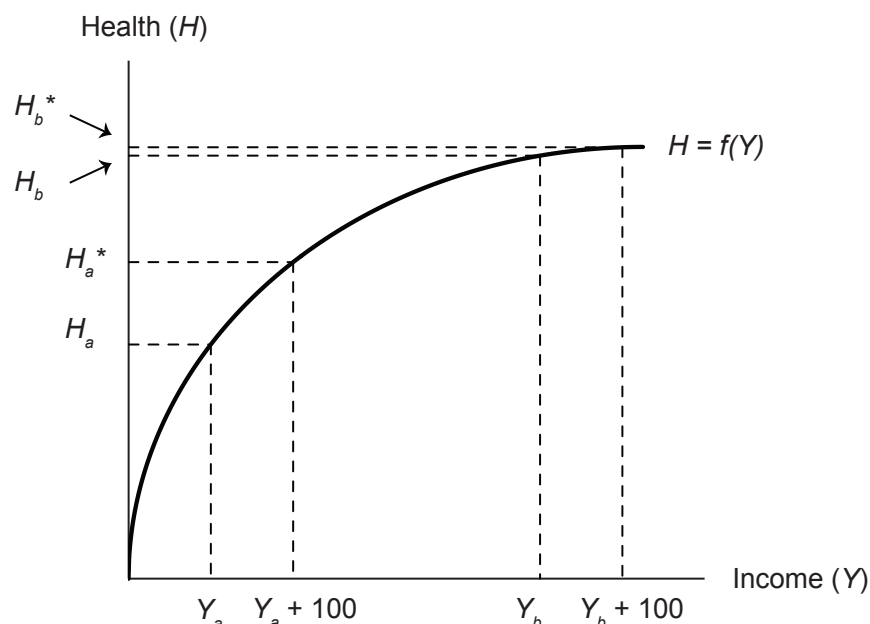


Figure 1. The income-health relationship.

rows after age 65, perhaps due to differential survival and safety net programs (such as Medicare and Social Security) that begin at that age.

Marginal effects on children’s health

The childhood period is important to examine for two reasons. First, as is described in more detail below, the childhood gradient is less susceptible to concerns of reverse causation as it is less likely that poor health is “causing” low income. Second, although the magnitude of socioeconomic status differences is greater in adulthood, previous work has demonstrated that the adult gradient has its roots in childhood.²

Our research shows that parental income is significantly related to the probability that children will experience five out of seven health outcomes that we examined.³ These seven outcomes are whether the child has fair or poor health as reported by an adult in the house; has missed 10 or more days of school in the past year due to injury or illness; has a physical, mental, or emotional condition that limits activity; had a hospital stay in the previous 12 months; had an emergency room visit in the previous 12 months; had an injury or poisoning in the past year; and has ever been diagnosed with asthma. No association is found with injuries or poisonings in the previous year or for a diagnosis of asthma. The gradient is rather steep for most outcomes. For example, as shown in Figure 2, while only 2.3 percent of children are reported by an adult in the house to be in fair or poor health, a child from a family with under \$10,000 in family income has an 8

percentage point higher probability of this status compared to a child in the highest income group.

There are two particularly notable findings in this set of results. First, children’s health improves at each higher level of family income, even at the upper levels. Thus, children whose parents have an income of \$55,000 to \$75,000 are significantly more likely to be in fair or poor health compared to children whose family incomes exceed \$75,000. Second, the declining benefit of higher income identified in Figure 1 can be seen in these results; an additional \$10,000 at the bottom of the income distribution is linked to a greater improvement in the child’s health than is an additional income increase of \$20,000 at the top of the distribution.

Marginal effects on adults’ health

The strength of the relationship between socioeconomic status and health is similarly strong for adults.⁴ We again found that those with higher incomes had better health than those with lower incomes, for three overall measures of health (report of fair or poor health; bad mental health days in past month; and bad physical health days in past month) and five measures of health habits (current smoker; obese; overweight; no exercise in past month; and rarely eats fruits and vegetables). Marginal effects are generally quite large. For example, as shown in Figure 3, those with income under \$10,000 have a 44 percentage point higher probability of reporting fair or poor health than someone with income over \$75,000, nearly three times the sample mean.

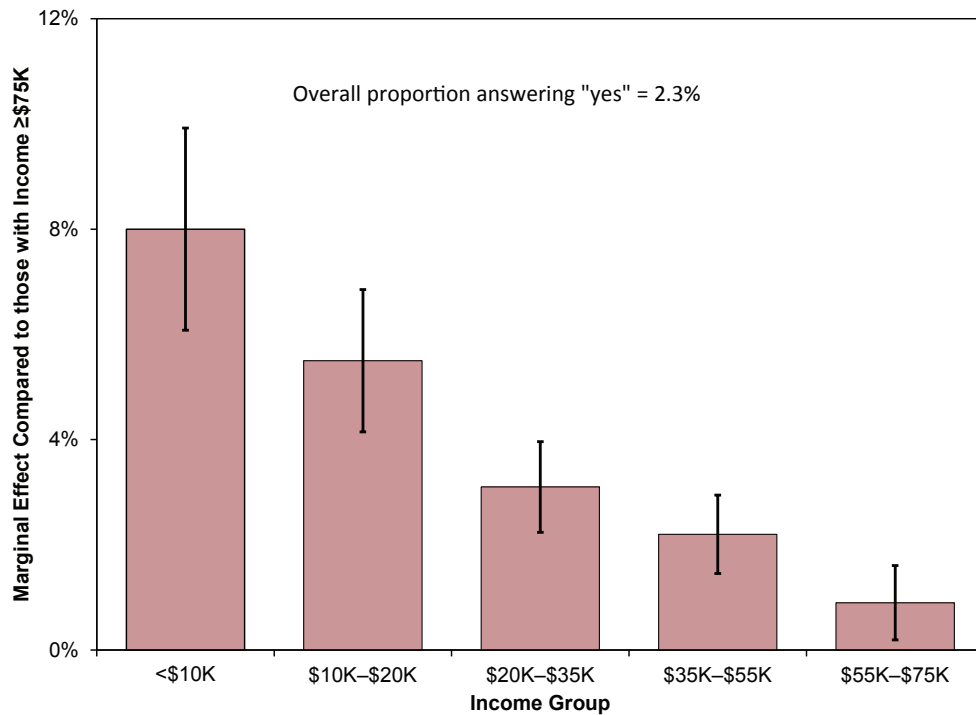


Figure 2. Marginal effects on children reported being in fair or poor health.
Source: Authors’ calculations based on National Health Interview Survey, 2001–2003, from the National Center for Health Statistics.
Note: Error bars represent 95 percent confidence intervals.

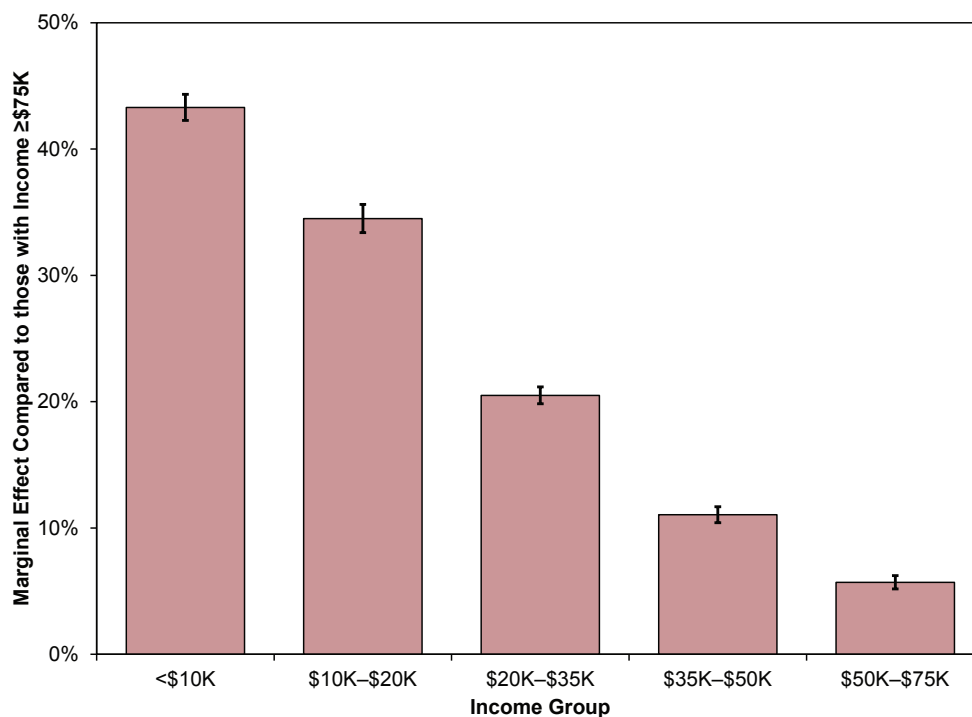


Figure 3. Marginal effects on adults reporting fair or poor health.

Source: Authors' calculations based on Behavioral Risk Surveillance System, 2005–2008, from the Centers for Disease Control and Prevention.

Note: Error bars represent 95 percent confidence intervals.

Change in gradient strength

Although the income-health gradient can be observed both across nations and over time, the steepness varies considerably. This variation may reflect the degree of inequality in different countries or at different points in history, differential access and use of care, or differing health habits.

Changes over time

It has been well-documented that the United States has experienced a large increase in financial inequality over the past forty years. This rise has occurred for almost all measures of income, wealth, wages, and earnings. For example, between 1967 and 2008, the ratio of incomes at the 90th and 10th percentiles has increased from 9.3 to 12, a rise of almost 30 percent.⁵ Some studies also document an increase in the strength of the gradient between socioeconomic status and health during this period.⁶ To add to this literature, we used two U.S. longitudinal mortality studies to look at the probability of mortality by income quartile. As Figure 4 shows, there is a striking income-mortality gradient in the United States that increased over the last two decades of the twentieth century. In the earliest period, those in the lowest quartile of income have a three-year mortality rate that is nearly twice that of those in the highest income group. By the later period, this number has increased significantly, to 2.7.

Evidence from other countries

Since the United States has been unique in its failure to provide universal health care coverage, it is often assumed that differences in socioeconomic status are largely explained by

differences in access to health care. If this was the case, we would expect the gradient to be greater within the United States than within other countries.

To test the assumption, we looked at a variety of data sources for other countries. Results from surveys in Organization for Economic Cooperation and Development countries provide evidence of an income-health gradient of a fairly consistent size, even in those countries that provide universal health coverage. These data show disparities in health by socioeconomic status in Australia, the United States, and France, though not in New Zealand. Other evidence from Australia provides results that are quite consistent with the United States in terms of general health and long-term health. Finally, data from ten European countries show disparities in self-perceived health by educational level across all countries, although the size of the disparities varies.

Disentangling the causal effect of income on health

The existence of the relationship between income and health is frequently interpreted as indicating that income causally affects health—that is, an individual's health would improve as their incomes rises. An alternate interpretation is reverse causation, that poor health can impair a person's productivity, and thus their income and wealth. Since both of these may be true, this leads to the question of the extent to which income affects health and vice versa. A third scenario is also possible: there may be an underlying common determinant of both health and socioeconomic status. For example, fac-

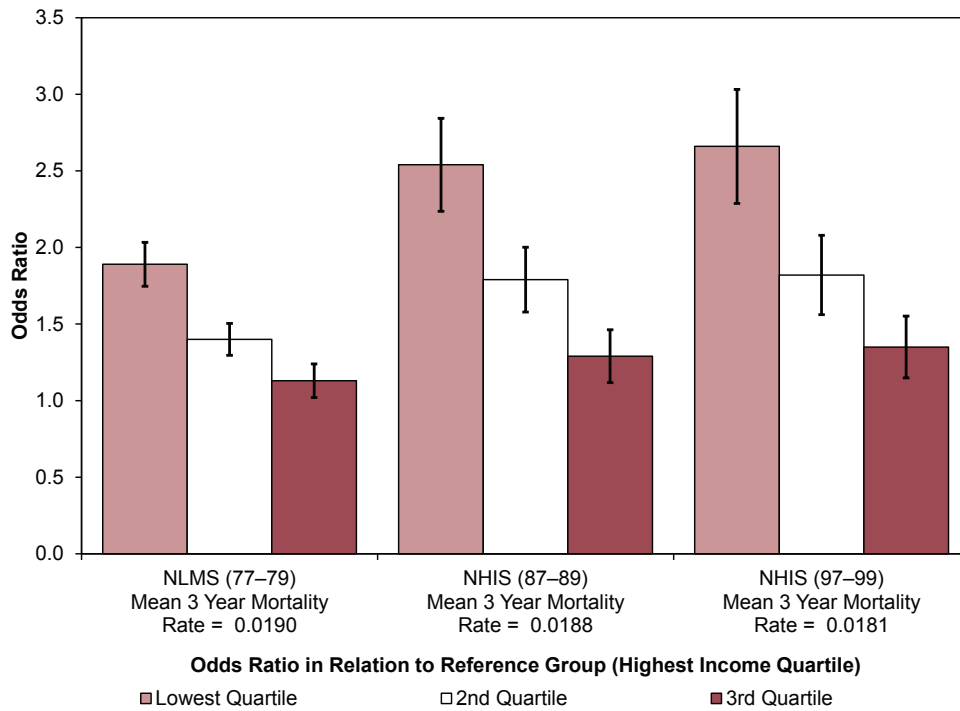


Figure 4. Odds ratio for income variables, adults 18–74.

Source: Authors' calculations based on the National Longitudinal Mortality Survey, 1987–1989, from the National Heart, Lung and Blood Institute, and Public-Use National Health Interview Survey Linked Mortality, Files 1997–1999, from the National Center for Health Statistics.

tors such as motivation or genetics could account for both low income and poor health. It is difficult for researchers to determine the causal pathways, due largely to reverse causation and possible omitted factors. We reviewed what we believe to be the most promising literature to advance our knowledge in this area.

Within the literature, the three most commonly used measures of status are income (and wealth), education, and occupation. The logic behind using income is that more income provides more routes to good health such as better nutrition, improved access to health care, greater access to opportunities for exercise, and more public safety and lower environmental risks via neighborhood choice. However, the problem of reverse correlation is likely greatest for income since poorer health almost surely reduces earning opportunities. Wealth can be thought of as accumulated income and thus may avoid this issue, since temporary poor health has less effect on long-term wealth than on short-term income. Still, chronic health conditions place demands on wealth so that the issue partly remains. Education is less problematic, but a child's own health may limit education, so the issue is still not entirely avoided. In addition, education does not completely capture access to resources and so may miss part of the link. Finally, occupation is mainly relevant for only the working-age population and those in the labor force, limiting the study to a subset of the population. The two general approaches used to investigate causality in the socioeconomic status-health gradient are (1) studying children, where issues of reverse causation are lessened; and (2) natural experi-

ments that also provide better control over causal direction. These are the two literatures we briefly review below.

Research focused on children

The theory behind using studies of children to gain insight into the link between socioeconomic status and health is that while children do not influence household income, they may be influenced by parents' socioeconomic status. More income in the family means a less-binding income constraint so that more and better inputs into a child's health may be purchased.⁷ These might include better quality medical care and food, a safer play environment, better housing, and safer neighborhoods. Occupation will also change income and potentially alter the time spent with children. Mothers who work spend less time with children but comparing across education groups, more-educated women spend much more time with children than do mothers with fewer years of schooling.⁸ Higher income may be used by parents to purchase substitute care where quality may also influence the health, including mental health, of children. More parental education may be tied to greater productivity including improving child health. More-educated parents have greater access to information regarding the health and development of their children. Following medical directions, obtaining care on the recommended schedule, meeting children's nutritional needs, and providing educational activities are all likely forms of investment in child health.

Using children to study this link is not perfect, especially when examining income effects, for several reasons. For one

thing, having a child with a chronic health problem may well reduce parents' work hours and thus income. Second, parents may reduce work time and hence income in the presence of very young children, meaning that permanent income may be mismeasured. Third, children's health may be influenced by their activities (many children develop infectious diseases when they first spend extended time with other children), but these are not the measures of health that we usually contemplate when considering the income gradient. Finally, there may be a more general problem in accurately capturing general health, chronic conditions, and health shocks of children. Even faced with these difficulties, there are major gains to studying children since doing so substantially reduces issues of reverse causality.

The first paper to explore the question of the time path of the income gradient among children is by Anne Case, Darren Lubotsky, and Christina Paxson.⁹ Using a measure of general health, they found clear evidence of an income-health gradient at all ages and a steepening with age. This paper set off a chain of other studies—some used data from other countries, which have universal health insurance, while others used alternative datasets for the United States. For example, Janet Currie and Mark Stabile used data from Canada to ask whether the same steepening pattern exists for children under universal coverage.¹⁰ In addition to replicating the findings from Case, Lubotsky, and Paxson, they also attempted to understand if the “cause” for this pattern is that low-income children are less able to recover from a health shock than higher income children or that low-income children are subject to more health shocks. Health shocks are defined by a set of chronic conditions. Their results suggest that, at least in Canada, low-income children recover as well as higher income children from a health shock, but tend to have more of them.

Alison Currie, Michael Shields, and Stephen Wheatley Price found a positive tie between income and child health in England, though without a significant increase as a child ages.¹¹ Subsequent reanalysis and extension by Case, Lee, and Paxson comes closer to replicating the U.S. pattern, although it is clearly flatter than that for the United States.¹² Rasheda Khanam, Hong Son Nghiem, and Luke B. Connelly examined Australian data and found a similar income gradient of health, though again flatter than that for the United States.¹³

Finding statistically significant income gradients of health that increase with a child's age in these three countries suggests that whatever explains this tie is not eliminated by universal health care coverage. The study for the United Kingdom suggests a flatter gradient than the studies of the United States, Canada, and Australia, yet all provide empirical evidence of both a positive tie between better child health and higher family incomes, which appears to become steeper in older children. Examining effects associated with different ways of measuring income may influence our understanding of the link between income and health. Jason E. Murasko, explored alternate dimensions of income and found that the two-year average income (and family income

compared to wage income) shows a stronger tie to child health.¹⁴ However, his use of only two years of income casts some doubt on the reliability of his comparison of permanent versus current income. Jason Fletcher and Barbara Wolfe use a longer panel and find that the income gradient is greater using permanent income than using either current income or a two-year rolling average.¹⁵ Since current income may be more subject to adverse effects from the child's health problems, this pattern provides some support for the causal pathway from income to health.

Is the effect of income cumulative? The approach used in both Khanam, Nghiem, and Connelly and Murasko is to use the earliest or prior health status to capture the influence of income on children prior to the age under study.¹⁶ Thus they suggest that including prior health captures the influence of income on health up until the most recent period of time. Under this perspective, estimates of the tie between income and health in the current period capture only the marginal influence of income on health. This approach reduces the coefficient on income but still retains the overall pattern of results.

Might other factors lie behind the measured income gradient? A few studies add parental health as a possible correlate of income that might be tied to the observed gradient. The addition of parent's health by Khanam, Nghiem, and Connelly reduces the statistical significance of income as a determinant of a child's health, though the steepening pattern as a child ages remains.¹⁷ The authors suggest that this is a way in which income influences health; that is, a parent's poorer health is tied to lower incomes so that by including this channel the direct influence of income is reduced.

Overall, the existing literature confirms that children's health is tied to income with some steepening as children age, particularly through mid-childhood, and that universal health care is not sufficient to significantly reduce, let alone eliminate, this income gradient. Taken together, the papers provide evidence of an increasing income gradient as children age though why that is the case is only minimally addressed in this research.¹⁸ A number of studies have also indicated that childhood socioeconomic status conditions are critically important in determining life expectancy and health status as an adult more generally.¹⁹

The strength of the tie between socioeconomic status and health varies across the studies, in part reflecting differences in the country studied (and access to care in that country); the exact measure of health and of socioeconomic status used; and the time period and the precise hypothesis under study—that is, whether cross-sectional or panel data are used as well as the additional factors controlled for in the estimates.

Natural experiments linking income and health

The next and last set of papers we review are those that attempt to use natural experiments or changes in policy in order to try to examine the causal link between income or

socioeconomic status and health. In an experimental setting, we could easily identify the effect of income on mortality by randomly assigning large additions to income to one group while providing no additional assistance to another. Any difference in health outcomes across the two groups could be attributed to the higher incomes, since prior to “treatment” the two groups were on average identical with the only difference being the addition to income. However, this ideal experiment is very unlikely to be implemented in a developed country context as the cost would be prohibitive. In lieu of an actual experiment, the basic idea behind the natural and quasi-experimental literature is to mimic the properties of random assignment trials using field data. If in certain populations a portion of income (or education) is determined by a factor that is not reflective of underlying health, then it may be possible to trace out the health benefits of income (or education).

For example, economists have examined whether the increase in education generated by policies such as compulsory schooling, an increase in access to colleges, and the Vietnam draft have altered health outcomes.²⁰ In these instances, education levels are increased by some external event (for example, changes in state laws on compulsory education); if the same group affected by the change in laws also experiences improved health outcomes, this provides support for the conclusion that education and health are causally related. The papers described above all find improved health outcomes from greater education. However, recent work by Damon Clark and Heather Royer find that large changes in education produced by an increase in compulsory education in the United Kingdom had no effect on adult mortality.²¹

Similar work exploits variation in income produced by external factors such as winning the lottery. Among lottery players, the probability of winning a large prize is solely a function of the amount of tickets purchased and, as a result, winners are determined by chance. As long as the amount of lottery tickets is not reflective of underlying health, winners and losers are therefore functionally randomly assigned. If following a ticket purchase winners have better health than losers, then the results indicate that among lottery players, income is protective of health.²²

In contrast to this work, there are mixed results across the different types of natural experiments concerning the role that income plays in health with some finding large benefits, some finding no effect, and others finding an increase in mortality from higher income.²³ The variance in the results for this literature is best illustrated in Jérôme Adda, James Banks, and Hans-Martin von Gaudecker, who found that an increase in the permanent income for cohorts has no effect on self-reported health status or self-reported chronic conditions, but it increased smoking and reduced mortality.²⁴

Research in Mexico focusing on an experimental conditional cash transfer program called *Progressa* (now known as *Oportunidades*) found that increases in family income are tied to improvements in health. In this experiment, households

received cash transfers if their children attended school or parents took children to medical providers to receive preventive care such as vaccinations. The findings of the experiment suggested that a doubling of the cumulative cash transfer was associated with a decrease in stunting, a decrease in body mass index for age percentile, lower prevalence of being overweight, and an increase in height for age. Based on the success of this program, related experiments were tried elsewhere, including in Harlem. Initial evaluation of the Harlem experiment did not find a statistically significant positive income effect on health or education, and the program has since been discontinued.²⁵

Evidence from expansions of federal programs is also contradictory. Douglas Almond, Hilary Hoynes, and Diane Whitmore Schanzenbach found that expanding food stamps led to improvements in infant health through higher birth weights, lowered risk of low birth weight infants, and lower infant mortality.²⁶ However, these results were not replicated when Janet Currie and Enrico Moretti studied the introduction of food stamps in California.²⁷ William Evans and Craig Garthwaite take advantage of 1993 expansions of the Earned Income Tax Credit to examine the effect of higher transfer payments on the health of low-income women and find that women most likely to receive higher payments as a result of the expansions have better self-reported physical and mental health, in addition to lower counts of risk levels of biomarkers.²⁸

Other studies make use of more unusual changes in policies or particular populations, such as the reunification of Germany on the health of those in the former East Germany, and the influence of casino-based funds on health of American Indians. These studies provide evidence that increases in income lead to improvements in health—and particularly mental health—but in general the effects are relatively small. The changes in health in these studies tend to be measured for short periods of time so they leave open the question of whether or not there are longer term effects on health that may be larger.

The two studies on American Indians that study the influence of increased income based on the initiation of casinos suggest the possibility that there may be a greater influence on health including mental health when the income of an entire community is raised rather than only that of a single family.²⁹ The first of these studies looks at children over time in the Smoky Mountains, finding improvement in mental health for a sub-set of American Indian children living on a reservation that acquires a casino during the period of study; the latter uses data over about fifteen years to identify the influence of casinos on family income and through family income on health, health-related behaviors, and mental health days. In the latter study, income was tied to improvements in the majority of health measures and in some health-related behaviors and mental health measures.

A unique study focuses on relative status within an already-affluent population by examining mortality risk reduction

as a result of winning an Academy Award versus being nominated but not selected. The win then is likely to produce higher future income as well as feelings of security and well-being.³⁰ The findings of a 28 percent reduction in death rates for those winning an Oscar for best actor or actress suggest a considerably larger influence than that suggested by the other studies.³¹ However, the effect was reversed when done for screenwriters, which the researchers speculate may reflect the unique norms and culture of screenwriters.³²

Conclusion

The existence of a socioeconomic status-health gradient is well established. The gradient appears in virtually all countries and across a wide range of ages. However, the source of this gradient and thus the cause of major disparities in health is much less clear. Evidence using children certainly suggests that family income influences health, but the evidence from independent changes in income is far from clear. Importantly, although much work has been done in an attempt to identify the mechanisms behind the gradient, it is not possible to fully explain observed differences in health by income. Is it that higher incomes are used to purchase more health, yielding inputs such as better nutrition and housing? That better-educated persons use health care more effectively? That those in higher-prestige occupations face less risk? Or is it that stress and anxiety, tied to low incomes and job uncertainty, result in poor health? Future research is needed to answer these questions. We believe that no single explanation is likely to fully explain the gradient. ■

¹This article is based on W. Evans, B. Wolfe, and N. Adler, "The SES and Health Gradient: A Brief Review of the Literature," in *The Biological Consequences of Socioeconomic Inequalities*, eds. B. Wolfe, W. Evans, and T. E. Seeman (New York, Russell Sage Foundation: 2012).

²A. Case and C. Paxson, "Stature and Status: Height, Health and Labor Market Outcomes," *Journal of Political Economy* 116, No. 3 (2008): 499–532; and A. Singh-Manoux, J. E. Ferrie, T. Chandola, and M. G. Marmot, "Socioeconomic Trajectories across the Life Course and Health Outcomes in Midlife: Evidence for the Accumulation Hypothesis?" *International Journal of Epidemiology* 33, No. 5 (2004): 1072–1079.

³The data used were from the 2001 through 2003 National Health Interview Surveys, an annual survey designed to measure the health status of the U.S. noninstitutionalized population.

⁴For the adult measures, we used data from the Behavioral Risk Factor Surveillance System, an annual cross-sectional sample of the U.S. noninstitutionalized population started by the Centers for Disease Control and Prevention in 1984.

⁵U.S. Census Bureau, Table A-3: Selected Measures of Household Income Dispersion: 1967 to 2010, Available at: <http://www.census.gov/hhes/www/income/data/historical/inequality/IE-1.pdf> (accessed September 4, 2012).

⁶See, for example, E. M. Crimmins and Y. Saito, "Trends in Healthy Life Expectancy in the United States, 1970–1990: Gender, Racial, and Educational Differences," *Social Science and Medicine* 52, No. 11 (2001): 1629–1641.

⁷M. Grossman, "On the Concept of Health Capital and the Demand for Health," *Journal of Political Economy* 80, No. 2 (1972): 223–255.

⁸S. M. Bianchi, "Maternal Employment and Time with Children: Dramatic Change or Surprising Continuity," *Demography* 37, No. 4 (2000): 401–414;

and S. M. Bianchi, J. P. Robinson, and M. A. Milkie, *Changing Rhythms of American Family Life* (New York: Russell Sage Press, 2007).

⁹A. Case, D. Lubotsky, and C. Paxson, "Economic Status and Health in Childhood: The Origins of Gradient," *American Economic Review* 92, No. 5 (2002): 1308–1334.

¹⁰J. Currie and M. Stabile, "Socioeconomic Status and Child Health: Why Is the Relationship Stronger for Older Children?" *American Economic Review* 93, No. 5 (2003): 1813–1823.

¹¹A. Currie, M. A. Shields, and S. Wheatley Price, "The Child Health/Family Income Gradient: Evidence from England," *Journal of Health Economics* 26, No. 2 (2007): 213–232.

¹²A. Case, D. Lee, and C. Paxson, "The Income Gradient in Children's Health: A Comment on Currie, Shields, and Wheatley Price," *Journal of Health Economics* 27, No. 3 (2008): 801–807.

¹³R. Khanam, H. S. Nghiem, and L. B. Connelly, "Child Health and the Income Gradient: Evidence from Australia," *Journal of Health Economics* 28, No. 4 (2009): 805–817.

¹⁴J. E. Murasko, "An Evaluation of the Age-Profile in the Relationship between Household Income and the Health of Children in the United States," *Journal of Health Economics* 27, No. 6 (2008): 1489–1502.

¹⁵J. Fletcher and B. Wolfe, "Increasing Our Understanding of the Health-Income Gradient," Paper presented at the 66th Annual Congress of the International Institute of Public Finance meetings. Uppsala, Sweden (August 23–26, 2010).

¹⁶Khanam, Nghiem, and Connelly, "Child Health and the Income Gradient: Evidence from Australia"; and Murasko, "An Evaluation of the Age-Profile in the Relationship between Household Income and the Health of Children in the United States."

¹⁷Khanam, Nghiem, and Connelly, "Child Health and the Income Gradient: Evidence from Australia."

¹⁸These findings are consistent with an interpretation that the prevalence of disease increases with age, and this greater variation allows more opportunities to detect disparities by family income.

¹⁹See, for example, Case and Paxson, "Stature and Status: Height, Health and Labor Market Outcomes"; and P. Frijters, J. P. Haisken-DeNew, and M. A. Shields, "The Causal Effect of Income on Health: Evidence from German Reunification," *Journal of Health Economics* 24, No. 5 (2005): 997–1017. For a much longer and well-exposed paper on this literature up to 2008, see J. Currie, "Healthy, Wealthy, and Wise: Socioeconomic Status, Poor Health in Childhood, and Human Capital Development," *Journal of Economic Literature* 47, No. 1 (2009): 87–122.

²⁰See, for example, A. Lleras-Muney, "The Relationship between Education and Adult Mortality in the United States," *Review of Economic Studies* 72, No. 1 (2005): 189–221; J. Currie and E. Moretti, "Mother's Education and the Intergenerational Transmission of Human Capital: Evidence from College Openings," *Quarterly Journal of Economics* 118, No. 4 (2003): 1495–1532; and D. de Walque, "Does Education Affect Smoking Behaviors? Evidence Using the Vietnam Draft as an Instrument for College Education," *Journal of Health Economics* 26, No. 5 (2007): 877–895.

²¹D. Clark and H. Royer, "The Effect of Education on Adult Mortality and Health: Evidence from England," *American Economic Review*, accepted for 2013 publication.

²²There are still issues of selectivity with this study: first, it uses only lottery ticket buyers, who may be unique especially in terms of risk-taking, and two, lottery buyers who did not win are hard to identify and so the sample is incomplete.

²³See, for example, A. Case, "Does Money Protect Health Status? Evidence from South African Pensions." In *Perspectives on the Economics of Aging*, ed. D. A. Wise. (Chicago: University of Chicago Press, 2004); J. Meer, D. L. Miller, and H. S. Rosen, "Exploring the Health-Wealth Nexus," *Journal of Health Economics* 22, No. 5 (2003): 713–730; and S. E. Snyder and W. Evans, "The Impact of Income on Mortality: Evidence from the Social Security Notch," *Review of Economics and Statistics* 88, No. 3 (2006): 482–495.

²⁴J. Adda, H.-M. von Gaudecker, and J. Banks, “The Impact of Income Shocks on Health: Evidence from Cohort Data,” *Journal of the European Economic Association* 7, No. 6 (2009): 1361–1399.

²⁵For more on both programs see B. W. Fawley and L. Juvenal, “Mexico’s Oportunidades Program Fails to Make the Grade in NYC,” *The Regional Economist: A Quarterly Review of Business and Economic Conditions* 18, No. 3 (2010): 10–11.

²⁶D. Almond, H. W. Hoynes, and D. Whitmore Schanzenbach, “Inside the War on Poverty: The Impact of Food Stamps on Birth Outcomes,” *The Review of Economics and Statistics* 93, No. 2 (2011): 387–403

²⁷J. Currie and E. Moretti, “Did the Introduction of Food Stamps Affect Birth Outcomes in California?” In *Making Americans Healthier*, eds. R. F. Schoeni, J. S. House, G. A. Kaplan, and H. Pollack. (New York: Russell Sage Foundation, 2008).

²⁸W. Evans and C. L. Garthwaite, “Giving Mom a Break: The Impact of Higher EITC Payments on Maternal Health,” NBER Working Paper No. w16296. Cambridge, MA: National Bureau of Economic Research, (2010).

²⁹E. J. Costello, S. N. Compton, G. Keeler, and A. Angold, “Relationships between Poverty and Psychopathology: A Natural Experiment,” *Journal of the American Medical Association* 290, No. 15 (2003): 2023–2028; and B. Wolfe, J. Jakubowski, R. Haveman, and M. Courey, “The Income and Health Effects of Tribal Casino Gaming on American Indians,” *Demography* 49, No. 2 (2012): 499–524, doi: 10.1007/s13524-012-0098-8.

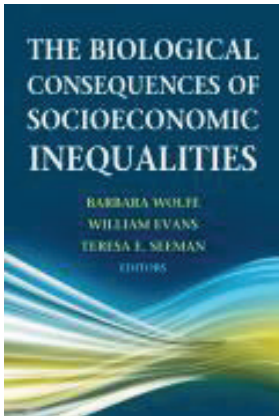
³⁰D. A. Redelmeier and S. M. Singh, “Survival in Academy Award-Winning Actors and Actresses,” *Annals of Internal Medicine* 134, No. 10 (2001): 955–962.

³¹While this was the case for actors and actresses, a subsequent study of screenwriters did not show a difference. Perhaps the gain comes from broader esteem and most of that seems directed to the generally better known group—actors and actresses. In another study of this sort, entrants into the Baseball Hall of Fame were studied and it showed that the longer they had to wait to be elected, the shorter their lifespan. See D. Becker, K. Chay, and S. Swaminathan, “Mortality and the Baseball Hall of Fame: An Investigation into the Role of Status in Life Expectancy,” iHEA 2007 6th World Congress: Explorations in Health Economics Paper, (2007).

³²D. A. Redelmeier and S. M. Singh, “Longevity of Screenwriters Who Win an Academy Award: Longitudinal Study,” *British Medical Journal* 323, No. 7327 (2001): 1491–1496.

The Biological Consequences of Socioeconomic Inequalities

Barbara Wolfe, William Evans, and Teresa E. Seeman, Editors



Thousands of studies across a variety of disciplines have documented that people with larger incomes and better education tend to have better health and live longer. This pattern holds across all ages and in all countries that have been studied, and for virtually all measures of health, suggesting a biological dimension of inequality. However, scholars have only just begun to understand the complex mechanisms behind the relationship between financial well-being and human physiology. *The Biological Consequences of Socioeconomic Inequalities* explores these interactions by incorporating insights from the social and biological sciences to quantify the biology of disadvantage and learn more about how socioeconomic status gets under the skin.

The SES and Health Gradient: A Brief Review of the Literature

William Evans, Barbara Wolfe, and Nancy Adler

Promise of Biomarkers in Assessing and Predicting Health

Arun S. Karlamangla, Tara L. Gruenewald, and Teresa E. Seeman

Biological Imprints of Social Status: Socioeconomic Gradients in Biological Markers of Disease Risk

Tara L. Gruenewald, Teresa E. Seeman, Arun S. Karlamangla, Elliot Friedman, and William Evans

Dissecting Pathways for Socioeconomic Gradients in Childhood Asthma

Edith Chen, Hannah M. C. Schreier, and Meanne Chan

Cardiovascular Consequences of Income Change

David H. Rehkopf, William H. Dow, Tara L. Gruenewald, Arun S. Karlamangla, Catarina Kiefe, and Teresa E. Seeman

Cognitive Neuroscience and Disparities in Socioeconomic Status

Jamie Hanson and Daniel A. Hackman

Brain Development and Poverty: A First Look

Jamie Hanson, Nicole Hair, Amitabh Chandra, Ed Moss, Jay Bhattacharya, Seth D. Pollak, and Barbara Wolfe

Reversing the Impact of Disparities in Socioeconomic Status over the Life Course on Cognitive and Brain Aging

Michelle C. Carlson, Christopher L. Seplaki, and Teresa E. Seeman

Conclusions

William Evans, Teresa E. Seeman, and Barbara Wolfe

Emergency savings for low-income consumers

J. Michael Collins and Leah Gjertson

J. Michael Collins is Associate Professor of Public Affairs and Consumer Science, Director of the Center for Financial Security at the University of Wisconsin–Madison, and an IRP affiliate. Leah Gjertson is a doctoral candidate in Social Work at the University of Wisconsin–Madison and an IRP Graduate Research Fellow.

The recent economic downturn has highlighted the financial fragility of many U.S. households. The foreclosure crisis, high consumer debt, and depleted retirement savings have all focused significant attention on household balance sheets. The reality for many households, regardless of the economic cycle, is that finding liquid financial assets in order to address unexpected expenses is a major economic burden. Households may prepare by setting aside modest amounts of emergency savings, but such saving is difficult for low-income families, and most do not do so. There are few policies or programs that encourage such unrestricted savings, and in fact, some even discourage such savings. This leaves household financial balances in a condition that has been dubbed “financially fragile” by some observers.¹ Households without timely access to financial liquidity when an unexpected event occurs may experience economic and material hardships that threaten household well-being, including housing instability, food insecurity, or failure to access needed medical care. Beyond unexpected negative events, a financial reserve fund can also aid households to take advantage of opportunities that may enhance economic mobility, such as training that increases wages, or the purchase of a vehicle. The importance of unrestricted savings for unexpected contingencies, especially among low-income households, is an important consideration for researchers and policy advocates. In this article, we make the case that even small amounts of emergency savings are an important form of liquidity for low-income consumers, and that policies that encourage such unrestricted savings can help low-income families maintain financial stability and economic well-being.

The need for liquidity

Emergency savings, also called rainy day savings or contingency savings, act as a form of insurance against unexpected, irregular, and unpredictable expenses. Most households will at some point face an unexpected financial event that current income cannot support, leaving the household to scramble to find liquid financial resources to make ends meet. Adequate preparation for a financial emergency is especially important for those in low-income households, who have less access to traditional credit, and whose tighter budgets make saving more difficult.

Without access to liquidity, families might delay paying bills, sell possessions, or seek a formal or informal loan. This need for liquidity is evidenced by research on policy changes that restrict access to higher cost credit products. One study found that restrictions on federal income tax refund anticipation loans for military personnel resulted in a sizeable transition to a close substitute that also provided liquidity, refund anticipation checks.² Another study, using state prohibitions of payday lending, also found that restricting access to payday loans resulted in shifts to potentially higher cost alternatives, as well as increases in financial hardship among former borrowers.³ Recent surveys indicate that low-income households are worried about how their ability to manage economic resources can negatively affect their families.⁴ For low-income households, even relatively small shocks can have significant effects on long-term financial stability.

Responding to economic shocks

In 2009, about half of U.S. households reported that they could come up with \$2,000 in 30 days.⁵ Just over 23 percent of people with incomes below \$20,000 and 33 percent of people with incomes between \$20,000 and \$30,000, could do so. Among those who could find \$2,000, 50 percent suggested a savings account as the source, 30 percent suggested borrowing from family or friends, 21 percent suggested a credit card, and about 12 percent suggested a payday or pawn loan.

Recent Federal Reserve data show that, with the exception of the top 10 percent of earners, all households saw their net worth decline meaningfully between 2007 and 2010 during the Great Recession. While median net worth declined nearly 40 percent between 2007 and 2010 across all households, younger, non-college educated, and non-white households lost the greatest proportion of their wealth and have experienced the weakest post-recession recovery.⁶ Meanwhile, households indicated in 2010 that acquiring liquidity was their top saving priority, even though the number of families reporting having at least \$3,000 in liquid savings dropped to 48 percent in 2010 from 53 percent in 2007.⁷

Families typically respond to unanticipated income shocks or unplanned expenses by consuming less. They may reduce consumption beforehand to accumulate savings, or they may reduce consumption afterward in order to pay back the debt. In the absence of adequate savings, households must turn to formal or informal sources of credit, often using alternatives that come at higher costs than conventional credit.⁸ But there remain a range of strategies low-income households can employ, including:⁹

- *Bank Overdrafts:* For those people with a transactional account, if that financial institution offers overdraft features, they can take out a short-term loan just by

writing a check and letting it bounce, with the financial institution extending a line of credit to cover the shortage (typically charging fees).

- *Borrowing from friends or family:* Someone who knows a borrower personally may benefit from having information about the borrower's ability to repay, and may have additional influence to collect payments that may not be available to formal lenders. The non-monetary costs for this type of lending can be steep, however, and people with low-income friends and family will not likely be able to borrow large amounts.
- *Late or skipped payments:* One simple way for an individual to deal with an unexpected expense is to delay or skip a payment for another bill. This will likely result in additional fees, may result in service shut-offs or repossession, could threaten housing stability, and could undermine an individual's credit history.
- *Payday loans:* Payday lenders are often convenient and may cost less than missed payments, but can become very expensive if the borrower extends the loan by rolling it over at the end of the short loan period for additional fees.
- *Pawnshops:* One of the oldest forms of household liquidity, pawn shops are relatively convenient for smaller loans if there is something of value to pawn, although the borrower risks losing their pawned possession.
- *Auto title pawn:* This is a form of pawn, with the benefit that the borrower can still use their automobile during the loan term. While often convenient and transparently priced, the borrower risks the loss of their vehicle, which may be their only transportation to work and other vital destinations.
- *Income tax refund loan:* Refund anticipation checks can be sizable but are only available once per year, and are thus more likely to be used to recover from a recent unexpected expense.
- *Credit cards:* A convenient option if the borrower is qualified to have a credit card. Many households cannot qualify for a card or have trouble managing revolving credit accounts.
- *Retirement savings loan or liquidation:* Withdrawals from retirement savings are only available to workers that have accumulated assets in a retirement account, and can be costly in terms of taxes and lost returns when retirement assets are needed later.

Unrestricted saving may be key to preventing material hardships

Low-income households are especially vulnerable to unexpected expenses and other financial shocks. In a recent survey of low- and moderate-income households, respondents reported that if faced with a financial crisis, they were most worried about skipping a housing or utility bill, having to

scale back on food, and losing access to health care.¹⁰ In the same study, the majority (62 percent) reported having experienced an economic emergency in the previous year. The risk for multiple emergencies among this population was significant; 60 percent of those with any shock reported experiencing more than one. Although households with savings may have been better prepared to cope with emergencies, they were only slightly less likely to experience emergencies than those without savings.

Saving promotes economic mobility

The potential for savings to improve economic mobility among low-income individuals and families has been the focus of research and program development since the 1990s.¹¹ There is some evidence that accumulating modest financial assets can assist families to exit poverty. One study is suggestive that low-income individuals with savings above the median significantly increase their chances of moving to a higher income quartile within two decades.¹² Families with savings also improve the likelihood their children will move up the economic ladder in adulthood.¹³ Accumulating modest levels of financial assets has been found to have beneficial effects on the well-being of children and families.¹⁴ Of course, the possibility remains that people who save may be more likely to achieve positive economic outcomes for other reasons, but these associations illustrate the potential importance of encouraging savings, especially unrestricted savings.

Policies such as Individual Development Accounts (IDAs) offer matched savings accounts that encourage low-income families to save for activities like home ownership, higher education, and starting small businesses. However, these are restricted-use assets, and many programs find that families cash out the account to obtain cash for an emergency, thus incurring penalties. Less studied is whether small pockets of unrestricted liquid assets have the potential to improve their financial stability or upward economic mobility by generating stabilizing household finances, supporting efforts to increase lifetime earnings, or investing in children. Examples of such opportunities include additional education or work certifications that result in higher wages, a home computer, access to job-search resources, and enrichment activities for children. A mobility-enhancing opportunity could also be a mechanism that allows households to be more efficient with existing resources. For example, in many regions, purchasing a used vehicle for transportation can mean spending much less time in transit, and also allow families to travel in order to obtain food and household goods at lower prices. Low-income households with liquid savings are likely in a better position to act on such opportunities as they become available. However, families may or may not consider them an appropriate use of funds that have been set aside for an emergency.

New research on the effects of emergency savings

Prior research has primarily focused on threshold amounts of net wealth or assets, regardless of the liquidity of available

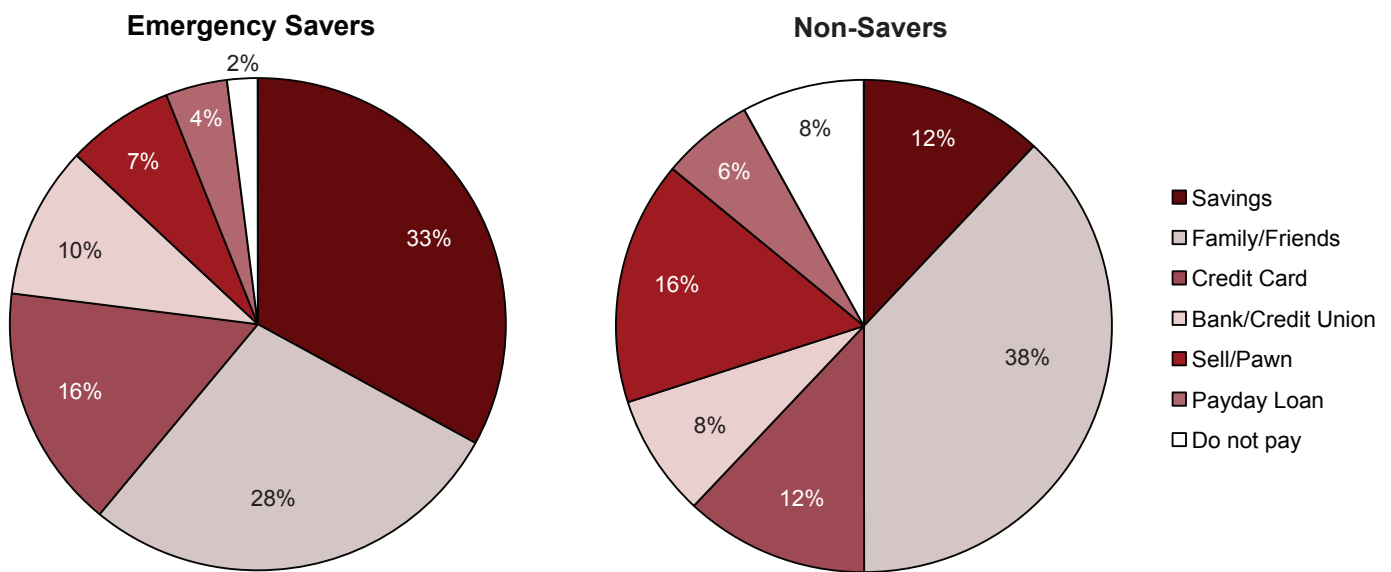


Figure 1. Plan to cope with an unexpected expense for emergency savers and non-savers.

Source: Author calculations from the Annie E. Casey Foundation’s Making Connections database.

assets. We argue that some forms of wealth offer more flexibility to address contingencies, and therefore may be more important for people at or near poverty income levels. Using a 10-city, three wave longitudinal survey, we recently looked at whether the act of saving for an emergency provides similar protection against hardship.

We found predictable differences in demographic characteristics between those saving for an emergency and non-savers.¹⁵ Savers tend to have higher incomes than non-savers and more likely have a spouse present in the home. Savers have higher levels of education and employment, consistent with potentially higher lifetime or permanent income. Saving for an emergency is also correlated with high levels of other assets, including home equity, as well as debt. More assets and more debt or access to credit seem to go hand in hand: a greater proportion of savers also have a savings account and a credit card. Emergency savings is also typically a complement to saving for other more specific or restrictive purposes such as saving for a home, schooling, and retirement. Notably, emergency savers tend to be younger, which is consistent with emergency savings as one of the first asset-building activities people engage in, as well as with younger people not yet having had an economic shock to deplete their emergency savings.

As shown in Figure 1, emergency savers and non-savers plan to use different mechanisms for coping with an unexpected expense. Non-savers indicate greater reliance on high-cost financial services such as pawn and payday loans, or on simply not paying for the expense. Figure 2 shows that non-savers report experiencing more subsequent hardships than emergency savers.¹⁶

Overall, we found that over time families saving for an emergency are, using a variety of techniques such as propensity score matching and controlling for other variables, less likely to experience as many material hardships as non-savers. Emergency savers may be better prepared to cope with economic shocks over time as they are able to use reserved funds to meet expenses and reduce hardships. Saving for an emergency appears to have an effect on hardship distinct from the effects of other types of saving. While our research model does not provide an indication about causality (respondents who report saving for an emergency are different from those not saving in ways our data may not observe), there is clearly enough of an association between unrestricted emergency savings and later household hardships to raise important research and policy questions. Encouraging households to accumulate emergency savings may contribute to economic stability and household well-being.

Barriers to accumulating emergency savings

Saving for a rainy day is of course a bedrock concept taught in most personal finance or budgeting education programs. Since the exact timing of unanticipated expenses cannot be known, putting off emergency saving is easy to do. People may fail to save for an emergency because they lack financial knowledge, fail to adequately assess the risk of an emergency, or simply because they procrastinate. There are a range of barriers that discourage the accumulation of savings among low- and moderate-income households, including economic constraints, policy restrictions, and psychological or behavioral biases.

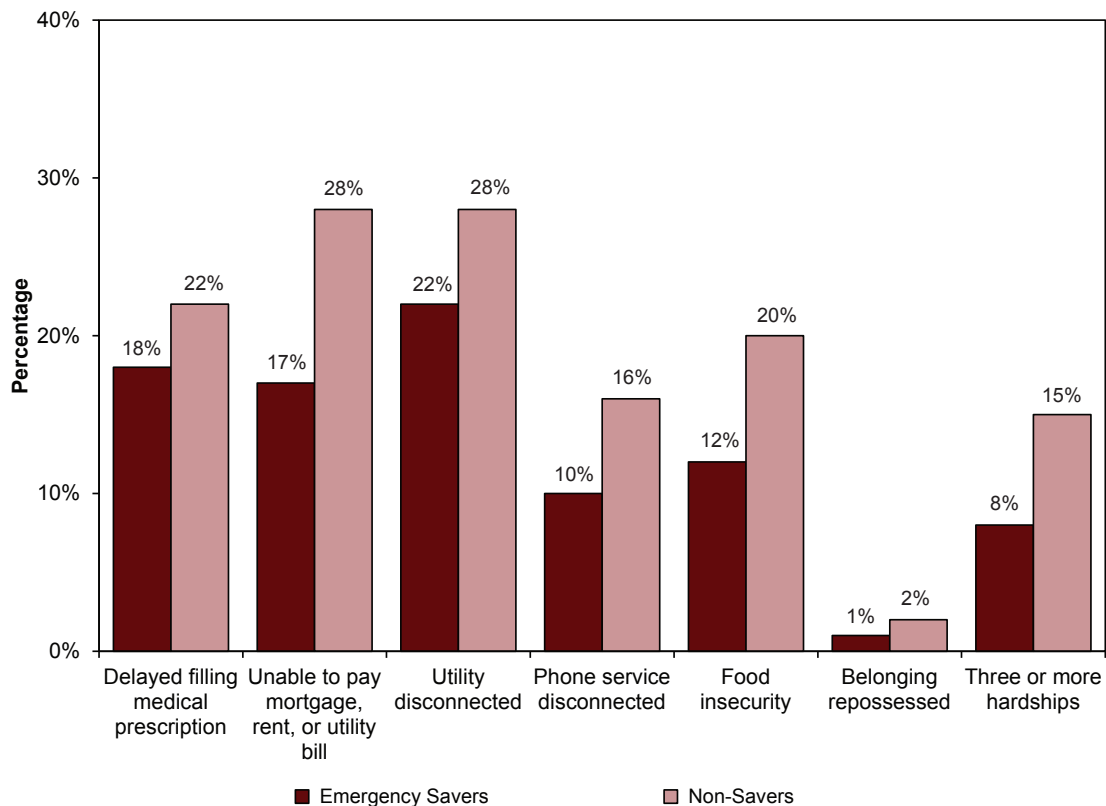


Figure 2. Hardships for emergency savers and non-savers.

Source: Author calculations from the Annie E. Casey Foundation’s Making Connections database.

Structural barriers

Saving can be exceptionally difficult for the low-income population, because basic living expenses use a large proportion of available resources, leaving little or nothing left over to save. Income amounts often fluctuate, making it a challenge to smooth spending and allow for saving. The necessary focus on economic survival may shorten the planning horizon of people living at or near poverty, and thus make saving a low priority.¹⁷ Like most Americans, the low-income population is also influenced by the overall economy; as discussed in the introduction, data from the Federal Reserve indicates that disadvantaged households were especially hard hit by loss of wealth during the recession.¹⁸

In addition, the savings product market is underdeveloped because the financial industry has been reluctant to offer savings products for low-income people. These accounts tend to have small balances and high fixed costs and then these customers are less likely to take on other financial products with revenue potential. There may simply be insufficient economic or market incentives for firms to enter markets catering to underserved consumers.¹⁹

Governmental policies and programs are another barrier. Some means-tested public benefit programs have asset limits as part of the eligibility criteria that act to discourage savings for households that depend on the benefits. For example, SSI

(Social Security’s Supplemental Security Income program) benefits restrict a single person to a savings balance below \$2,000 and a married couple below \$3,000.²⁰ Some SNAP (Supplemental Nutrition Assistance Program) and TANF (Temporary Assistance for Needy Families) programs also have similar restrictions. Medicaid and other programs also require a review of household assets. Even if program managers offer flexibilities on these rules, beliefs and myths about the asset restrictions of benefit programs may discourage any form of saving.²¹ There is an opportunity for innovations that allow recipients of means-tested benefits, to save without losing access to income supports or other valuable benefits. Programs can also go further by deliberately setting up contingency funds for clients in programs, as has been piloted in some housing and temporary assistance programs. Setting up simple systems to set aside portions of federal income tax refunds for a designated emergency fund may also be a useful strategy to test. There are likely a number of innovative ideas that could be tried at the state and local level as well.

Psychological and behavioral biases

Any new strategies being developed around emergency savings goals should be thoughtfully designed to incorporate evidence from the social sciences. Many people—at all income levels—lack skills related to financial planning and forecasting.²² People may underestimate the need to set aside

resources for unexpected expenses. It may also lead people to not seek out beneficial financial products or services because they do not know about them or how to use them. At least one study suggests that among the lowest income quintile households, people perceive their annual emergency savings needs at about \$1,500, yet these households typically spend around \$2,000 annually on unexpected expenses.²³ People also fail to predict how hard repaying loans will be in the future, and end up overcommitting future resources as a result. Behavioral studies show unrealistic optimism is associated with less prudent financial behaviors, such as short planning horizons and saving less.²⁴

People tend to be present-biased, meaning they prefer rewards now, such as the instant gratification of spending, and put off difficult tasks with delayed rewards, like saving.²⁵ Some people would actually prefer to save more, but fail to predict that they will not follow through with their own stated preferences. Some consumers realize their self-control problem, and correct for it using “commitment devices,” such as promising today to save more tomorrow, while others will forever put off saving into the future, with the end result of never saving at all.²⁶ A commitment device like an automatic deposit into a savings account works only if people are proactive enough to enroll in it, or if they are enrolled into the account automatically.²⁷ People have only a limited supply of attention that can feasibly be applied to household financial management.²⁸ Essentially, they neglect to pay attention in the absence of reminders or other mechanisms. Behavioral researchers suggest that self-control is in many ways like a muscle, in that it can be exhausted after repeated exertions within a period of time.²⁹ It can also be strengthened over time, with experience. Ongoing studies of behavior in a variety of domains, including health and nutrition, suggest that focusing people on concrete goals and then helping them form implementation intentions can serve as powerful incentives or reinforcements for behaviors. A lack of goals can leave people unfocused and with little accountability for failing to take planned actions.³⁰

Strategies to encourage savings

In May 2013, with support of the Charles Stewart Mott Foundation, we invited more than 40 thought leaders in industry, government, and the nonprofit and philanthropic sector, to a two-day salon in Chicago, Illinois.³¹ There, more than a dozen innovative ideas were presented with the goal of promoting emergency savings for low-income families. These ideas were very much in formative stages, but offer promise for the future. Much of the literature in economics regarding household savings levels emphasizes the importance of long-term savings for goals including home ownership, education, and most prominently retirement. Less is known about saving for short-term needs and unexpected expenses. Federal policies currently have no specific policy or program that supports the development of emergency savings.³² This is also not an area of vigorous policy research or discussion. Still, many low-income households continue

to lack a personal safety net, leaving them vulnerable in the face of unexpected financial emergencies. Policy innovations that fill the void may result in significant effects.

Many prior asset building efforts focused on savings for a home, small business or education. These are important goals, but also imply planning and well developed expectations. Most programs have paternalistic restrictions which prevent using savings for a non-approved purpose. The fact that participants in matched savings programs will forfeit matching funds in order to access savings early highlights the need for liquidity.³³ Innovations in asset building that account for emergency liquidity needs and incorporate mechanisms to encourage rebuilding of tapped savings may be beneficial.

We remain optimistic about strategies that can help low-income people to systematically develop emergency savings. However, it is also important to help people form realistic expectations regarding regular and unexpected expenses as well as income variability. Commitment devices and automatic transfers can help improve self-control and mitigate impatience but there must be a sufficient market of products and services with these capacities available to low-income consumers. An effective policy to encourage savings should target specific types of expenses or contingencies that households typically underestimate, including occasional large items, as well as smaller but more frequent ones. Finally, it is essential that any new strategy recognize behavioral biases and over-optimism about future resources, focus on goals and implementation intentions, and create a way to systematically encourage adequate savings for an emergency. ■

¹A. Lusardi, D. Schneider, and P. Tufano, “Financially Fragile Households: Evidence and Implications,” Technical Report, National Bureau of Economic Research, Cambridge, MA, 2011.

²B. Theodos, R. Brash, J. F. Compton, N. M. Pindus, and C. E. Steuerle, “Who Needs Credit at Tax Time and Why: A Look at Refund Anticipation Loans and Refund Anticipation Checks,” Urban Institute, November 2010.

³J. Zinman, “Restricting Consumer Credit Access: Household Survey Evidence on Effects around the Oregon Rate Cap,” *Journal of Banking & Finance* 34, No. 3 (2010): 546–556.

⁴Lusardi, Schneider, and Tufano, “Financially Fragile Households”; S. Abbi, “A Need for Product Innovation to Help LMI Consumers Manage Financial Emergencies,” D2D Fund Doorways to Dreams, 2012.

⁵Lusardi, Schneider, and Tufano, “Financially Fragile Households.”

⁶J. Bricker, A. B. Kennickell, K. B. Moore, and J. Sabelhaus, “Changes in U.S. Family Finances from 2007 to 2010: Evidence from the Survey of Consumer Finances,” *Federal Reserve Bulletin* 98, No. 2 (June 2012).

⁷Bricker, Kennickell, Moore, and Sabelhaus, “Changes in U.S. Family Finances from 2007 to 2010.”

⁸L. Rawlings and K. Gentsch, “How Households Expect to Cope in a Financial Emergency,” *Opportunity and Ownership Facts*, No. 9, Urban Institute, March 2008.

⁹S. Chase, L. Gjertson, and J. M. Collins. *Coming Up with Cash in a Pinch: Emergency Savings and Its Alternatives*, CFS Issue Brief 6.1, Center for Financial Security, Madison, WI: University of Wisconsin. Available at http://www.cfs.wisc.edu/briefs/ChaseGjertsonCollins2011_CashBrief.pdf.

¹⁰S. Abbi, “A Need for Product Innovation.”

¹¹M. Schreiner and M. Sherraden, *Can the Poor Save? Saving and Asset Building in Individual Development Accounts* (Piscataway, NJ: Transaction Publishers, 2007).

¹²D. Cooper and M. Luengo-Prado, “Savings and Economic Mobility,” in *A Penny Saved is Mobility Earned: Advancing Economic Mobility Through Savings*, eds. R. Cramer, R. O’Brien, D. Cooper, and M. Luengo-Prado, Economic Mobility Project, An Initiative of the PEW Charitable Trust, 2009.

¹³Cooper and M. Luengo-Prado, “Savings and Economic Mobility.”

¹⁴See for example, M. Grinstein-Weiss, K. Wagner, and F. M. Ssewamala, “Saving and Asset Accumulation among Low-Income Families with Children in IDAs,” *Children and Youth Services Review* 28, No. 2 (2006): 193–211.

¹⁵The data for this study came from the Annie E. Casey Foundation’s Making Connections project, a longitudinal survey of families in disadvantaged neighborhoods in ten U.S. Cities. More information about the project is available at <http://www.aecf.org/majorinitiatives/makingconnections.aspx>

¹⁶While these results are simple means, many of these statistical differences are maintained after controlling for economic and demographic factors.

¹⁷Schreiner and Sherraden, *Can the Poor Save?*

¹⁸W. Emmons and B. Noeth, “Household Financial Stability: Who Suffered the Most From the Crisis?” *The Regional Economist*, St. Louis Fed, July 2012. Available at http://www.stlouisfed.org/publications/pub_assets/pdf/re/2012/c/financial_stability.pdf

¹⁹C. Hachikian, “Turning Today’s Economic Inflection Point Into Tomorrow’s Savings Behavior,” Center for Financial Services Innovation, 2009.

²⁰Social Security Administration. Accessed on July 19, 2013 at: <http://www.socialsecurity.gov/ssi/spotlights/spot-resources.htm>

²¹R. O’Brien, “Savings Policy and Eligibility Rules for Public Assistance,” in *A Penny Saved is Mobility Earned: Advancing Economic Mobility Through Savings*, eds. R. Cramer, R. O’Brien, D. Cooper, and M. Luengo-Prado, Economic Mobility Project, An Initiative of the PEW Charitable Trust, 2009.

²²A. Lusardi and O. Mitchell, “Financial Literacy and Retirement Preparedness: Evidence and Implications for Financial Education,” *Business Economics* 42, No. 1 (2007): 35–44.

²³S. Brobeck, “The Essential Role of Banks and Credit Unions in Facilitating Lower-Income Household Saving for Emergencies,” Washington, DC: Consumer Federation of America, 2008.

²⁴M. Puri and D. Robinson, “Optimism and Economic Choice,” *Journal of Financial Economics* 86, No. 1 (2007): 71–99.

²⁵D. Laibson, “Golden Eggs and Hyperbolic Discounting,” *The Quarterly Journal of Economics* 112, No. 2 (1997): 443–478.

²⁶T. O’Donoghue and M. Rabin, “Doing it Now or Later,” *American Economic Review* 89, No. 1 (1999): 103–124.

²⁷N. Ashraf, D. Karlan, and W. Yin, “Tying Odysseus to the Mast: Evidence from a Commitment Savings Product in the Philippines,” *The Quarterly Journal of Economics* 121, No. 2 (2006): 635–672.

²⁸V. Stango, and J. Zinman, “Limited and Varying Consumer Attention: Evidence from Shocks to the Salience of Bank Overdraft Fees,” Technical report, National Bureau of Economic Research, 2011.

²⁹R. Baumeister, K. Vohs, and D. Tice, “The Strength Model of Self-Control,” *Current Directions in Psychological Science* 16, No. 6 (2007): 351–355.

³⁰P. Gollwitzer, H. B. Kappes, and G. Oettingen, “Needs and Incentives as Sources of Goals,” In *Goal-Directed Behavior*, eds., H. Aarts and A. J. Elliot, (New York: Psychology Press, 2011).

³¹For a description of the Emergency Saving Project Salon event, see <http://emergencysavings.org/>.

³²Lusardi, Schneider, and Tufano, “Financially Fragile Households.”

³³G. Mills, W. G. Gale, R. Patterson, G. V. Engelhardt, M. D. Eriksen, and E. Apostolov, “Effects of Individual Development Accounts on Asset Purchases and Saving Behavior: Evidence from a Controlled Experiment,” *Journal of Public Economics* 92, No. 5 (2008): 1509–1530.

Results of the federal urban Empowerment Zone program

Matias Busso, Jesse Gregory, and Patrick Kline

Matias Busso is Senior Economist at the Inter-American Development Bank. Jesse Gregory is Assistant Professor of Economics at the University of Wisconsin–Madison and an IRP affiliate. Patrick Kline is Assistant Professor of Economics at the University of California, Berkeley.

A growing number of “place-based” policies target economic support to specific geographic areas, rather than to individuals. Economists have traditionally expressed skepticism that these programs actually benefit the residents of communities receiving support.¹ Indeed, standard economic models of spatial equilibrium suggest mobile workers and firms will take advantage of the benefits associated with local policies by relocating across the boundaries of targeted areas. Local land prices ought then to rise and offset any welfare gains that might otherwise accrue to prior residents. We examine these predictions by evaluating the economic effects of Round I of the federal urban Empowerment Zone program, one of the largest place-based policies in the United States.² Our findings build on an active literature on smaller, state-level programs.³

The Empowerment Zone program

The federal Empowerment Zone program is a collection of tax incentives and block grants designed to encourage economic, physical, and social investment in the neediest urban areas of the United States. Round I of the program began in 1993, with the Department of Housing and Urban Development assigning Empowerment Zone status to poor neighborhoods in six metropolitan areas: Atlanta, Baltimore, Chicago, Detroit, New York City, and Philadelphia-Camden. Two additional cities, Los Angeles and Cleveland, received “supplemental” Empowerment Zone designation, while 49 other cities that had applied for Empowerment Zone designation were instead awarded smaller enterprise communities.⁴ Table 1 shows characteristics of the six selected communities. On average, each Round I Empowerment Zone covered 10 square miles, had a population of 113,340, and a 1990 poverty rate of 48 percent.

Empowerment Zone designation brought with it a host of benefits. Two of the most important were an employment tax credit provided to local firms and a large Social Service Block Grant designed to facilitate local investment. Empowerment Zone designation entitled local employers to a credit of up to 20 percent of the first \$15,000 in wages paid to each employee who lived and worked in the community. This tax

credit was available to a business for up to ten years, with the maximum annual credit per employee declining over time. Since the average Empowerment Zone worker in 1990 earned only around \$16,000, this \$3,000 credit represented a substantial subsidy.

Participation in the tax credit program appears to have been incomplete, and most common among large firms (that were more likely to have positive taxable income).⁵ Approximately \$200 million in employment credits was claimed from 1994 through 2000, with the amount claimed each year steadily increasing over time. In 2000, nearly 500 corporations and over 5,000 individuals claimed Empowerment Zone employment credits for a total of around \$55 million.⁶

Each Empowerment Zone was also eligible for \$100 million in Social Service Block Grant funds. These funds could be used in a variety of ways, including for business assistance, infrastructure investment, physical development, training programs, youth services, promotion of homeownership, and emergency housing assistance. By 2000, the first round Empowerment Zones had spent approximately \$400 million in block grant funds.

Together, the six Round I Empowerment Zones constitute a 60 square mile area with fewer than 700,000 residents. Federal expenditures on wage credits and block grants amounted to approximately \$850 per capita over the first six years of the program, from 1994 through 2000.

Incentive effects of Empowerment Zones

The Empowerment Zone subsidies stimulate the demand for labor and land in targeted areas. This may result in both costs and benefits for workers and residents living inside and outside the zone, and also for zone landlords. The tax credits raise the value to Empowerment Zone firms of employing workers who live in the zone. For example, a firm that could profitably employ a local worker for \$15,000 in the absence of the subsidy, can employ the same worker for \$18,000 when offered a \$3,000 employment tax credit. In simple models with competitive labor markets, this leads to an increase in the wages paid by Empowerment Zone firms to local workers of \$3,000 per year. Effectively, the wage credit is an income transfer to local workers.

The block grants may also raise wages, by making local firms more productive through infrastructure investments and initiatives promoting safety and other local public goods. These productivity improvements should transfer into the wages of all zone workers whether they live in the zone or not.

Table 1
1990 Characteristics of First Round Empowerment Zones (EZ)

City	Total Population	Population Rank	Population in EZ	Poverty Rate in EZ	Unemployment Rate in EZ	EZ Area (Square Miles)
Atlanta	395,337	37	43,792	58%	20%	8.1
Baltimore	736,014	13	72,725	42	16	7.1
Chicago	2,783,484	3	200,182	49	28	14.3
Detroit	1,027,974	7	106,273	47	28	19.5
New York	7,320,621	1	204,625	42	18	6.3
Philadelphia-Camden	1,594,339	5	52,440	50	23	4.3

If workers were immobile, these wage increases would be the end of the story, and we could simply compare the cost of the program to the total effect on earnings inside the Empowerment Zone. However, people can easily change neighborhoods. If households move into the zone in pursuit of the local benefits generated by Empowerment Zone designation, the price of housing may rise. In such a case, the transfer to local residents will be captured in part by zone landlords.

While household mobility can yield unintended consequences, it is unclear how many households would be persuaded to move into a distressed neighborhood by the prospect of a \$3,000 earnings subsidy. This depends on the distribution of household preferences; if all households share the same valuation of neighborhood amenities, then movement into the zone will raise housing prices until the values of living inside and outside the zone are equalized. However, if households differ substantially in their valuation of neighborhoods, then it is possible that only a few will be willing to move into an Empowerment Zone in response to subsidies.

Central to our empirical analysis then are the following questions: (1) how many additional jobs are created in Empowerment Zone neighborhoods? and (2) how much does the local cost of living rise in response to Empowerment Zone designation? Intuitively we know that if many new jobs are created, then the population being subsidized will change. While some of those receiving new jobs may be prior zone residents, many of them are likely to be outsiders who moved into the zone. In either case, local job creation is a sign that government policy has substantially shifted the spatial distribution of jobs, which economists usually consider a sign of inefficiency unless there are important preexisting distortions in the labor market (e.g., from the minimum wage or payroll taxes).⁷

Effects of the program on the cost of living determine how much local landlords gain from zone designation, which depends on how easy it is to build and provide housing services in distressed neighborhoods. In many areas, the housing stock will be underutilized, in which case housing costs may not be very sensitive to population growth. But if regulations and land use restrictions make it difficult to build, then housing prices may rise substantially in response to Empowerment Zone designation.

Evaluating the effects of Empowerment Zone designation

We now turn to our analysis of the empirical effects of Empowerment Zone designation. Our study covers the period from 1990 to 2000, which includes the first six years of the Empowerment Zone program (which began in 1994). To measure economic outcomes, we utilize confidential microdata from the Decennial Census and the Longitudinal Business Database (LBD).⁸ These data provide two independent sources of information on local employment and allow us to separate the effects of Empowerment Zone designation on zone workers and zone residents.

Our research design for isolating the effects of the Empowerment Zone program is to compare the experience of census tracts in Round I Empowerment Zones to tracts with similar characteristics in rejected Round I and later round zones.⁹ This approach has a number of advantages. First, tracts in both selected and rejected zones were nominated by their local governments, so, assuming that the nomination process was similar across cities, control tracts in rejected zones should be similar to those in selected zones on both observable and unobservable characteristics. Second, our control zones consist of contiguous clusters of poor census tracts, just like the actual Empowerment Zones. Finally, the majority of rejected and future zones are located in different cities than selected zones, which reduces the sensitivity of our estimates to geographic spillover effects.

Despite the advantages of using rejected tracts as controls, there may still be concerns that cities selected in the first round of the Empowerment Zone program differ in fundamental ways from those that were not selected. Table 1 shows that two of the three largest cities in the United States were selected to have Empowerment Zones; the other areas selected are large manufacturing-intensive cities. If large cities experienced fundamentally different conditions over the 1990s than did small cities, the comparison of census tracts in selected and rejected zones will be biased. To address these concerns, we conducted a number of robustness tests, including within-city comparisons and application of our research design to a set of false “placebo zones.” These exercises provided little evidence of bias.¹⁰

Results

Using a difference-in-differences estimator, we compared changes over the 1990s in census tracts included in a Round I Empowerment Zone to changes over the same period in our control tracts. Some of our key results are provided in Table 2. We find that Empowerment Zone designation created jobs in zone neighborhoods, and that earnings increased substantially for local workers. Although housing prices rose, there is little evidence of significant increases in the local cost of living for prior residents. We also fail to find significant increases in population, though the composition of that population may have shifted somewhat. For example, we find a small increase in the proportion of college graduates in zone neighborhoods.

The fact that there is an effect on jobs but not on population suggests that while the distance workers are willing to commute may be relatively sensitive to changes in incentives, the residential choices of workers over the time period are quite rigid, presumably because zone neighborhoods remain less desirable places to reside in the eyes of most households. The evidence also suggests an important role for both the wage credit and block grant features of the Empowerment Zone program—though imprecise, our point estimates indicate Empowerment Zone designation raised the employment of both nonresident commuters and local residents.

Societal value

Our empirical analysis indicates that Empowerment Zone designation generated important changes in local price levels and behavior. In order to assess the net economic consequences of these changes, we consider the effects of Empowerment Zone designation on program stakeholders. The program's benefits may be measured as the sum of the total earnings increase for zone resident workers and the earnings increase for nonresident commuters. These benefits to workers are offset by any increases in the cost of living in the zone, which may be measured in terms of the total zone rental cost.

Table 3 provides calculations converting our treatment effect estimates into dollar amounts. Our “baseline” scenario takes point estimates at face value, even when not statistically significant. To convey the uncertainty in our estimates, we also report a “pessimistic” scenario where effects are given their least favorable values within a 90 percent confidence interval.

Approximately 38,000 zone residents worked within a zone in 2000, with a payroll of approximately \$800 million. Our estimate of the program's effect on the wages of local workers is around 13 percent, which translates into a \$109 million increase in annual earnings for zone residents who work in the zone. This figure is above the \$55 million in wage credits paid in 2000. It is in fact possible for the wages of zone residents to rise by more than the total amount of credits, if

Table 2
Selected Effects of Round I Empowerment Zone Designations, 1990–2000

Outcome	Estimated Effect
Log of Jobs (data from Longitudinal Business Database)	0.179***
Log of Jobs (data from U.S. Census)	0.145*
Log of Zone Jobs Held by Zone Residents	0.150
Log of Zone Jobs Held by Nonresidents	0.097
Log of Weekly Wage Income of Zone Residents	0.053**
Log of Weekly Wage Income of Zone Workers	0.017
Log of Weekly Wage Income of Zone Residents Working in Zone	0.133**
Log of Weekly Wage Income of Nonresidents Working in Zone	0.005
Log of Rent	0.006
Log of House Value	0.281**
Log of Population	0.028
Percentage Black	-0.011
Percentage with College Degree ^a	0.020***

Notes: Estimated impacts derived from regression-adjusted difference-in-differences model. Statistical significance levels based on a Wild bootstrap t-test are indicated as *** 1 percent; ** 5 percent; * 10 percent. For more details, see M. Busso, J. Gregory, and P. Kline, “Assessing the Incidence and Efficiency of a Prominent Place Based Policy,” *American Economic Review* 103, No. 2 (2013): 897–947.

^aEducational attainment was self-reported.

the block grants were productive, and our point estimates suggest that such productivity effects may have indeed been present. We found a statistically insignificant 0.5 percent increase in the wages of nonresident Empowerment Zone workers, but cannot rule out more substantial effects. For our pessimistic scenario, we set this effect to zero. We also failed to find significant increases in the wages of the 141,000 zone residents who in 2000 worked outside the zone. Our point estimate of a 3.3 percent increase in this group's weekly wages would yield approximately \$118 in additional annual earnings; in our pessimistic scenario, we set this effect to zero.

Potentially offsetting the estimated increases in the earnings of local workers is the possibility of small increases in housing rents. Approximately 190,000 Empowerment Zone households rented their dwellings in 2000, with total annual rental payments of \$900 million. Our estimates of the effect of Empowerment Zone designation on rents are small and not statistically significant, although the upper limit of a 90 percent confidence interval includes effects as large as 7.3 percent. A pessimistic interpretation of rent effects would amount to an aggregate transfer from renters to landlords of \$67 million per year. Thus, we conclude that, at least for local workers, the earnings increases associated with the program outweigh any increases in the cost of living.

Finally, an additional 46,000 Empowerment Zone households own their homes, which were worth a total of \$4.8 billion in 2000. Our estimates suggest that Empowerment

Table 3
Welfare Analysis

	Total Workers/ People/ Households	Total Annual Pay- roll/Rents/ Hous- ing Value (in Billion \$)	Effect on Wages/ Rents/ Housing Values	Increase in Annual Payroll/Rents/ Housing Value (in Million \$)	
				Baseline Scenario	Pessimistic Scenario
<i>Total Effect of the Program On:</i>					
Zone Residents Working in Zone	38,331	0.8	0.133	108.5	37.5
Zone Residents Working Outside Zone	140,708	3.3	0.036	117.5	0
Nonresidents Working in Zone	365,918	14	0.005	69.9	0
House Renters in the Zone	189,982	0.9	0.006	5.5	66.9
House Owners in the Zone	46,161	4.8	0.281	1350.4	499.8

Notes: “Baseline scenario” uses regression adjusted difference-in-differences estimates in computing effects. “Pessimistic scenario” uses a lower limit of 90 percent confidence intervals for effects on earnings of zone residents working in zone and housing values and upper limit of confidence interval for rent effects.

Zones boosted housing values by approximately 28 percent, which amounts to around \$1.35 billion in additional wealth. These estimates may be overstated because housing values are self-reported in our data. Thus, we also consider an alternative scenario where the housing value effects are set to the lower limit of their confidence interval, which is below even the increase reported by new residents, whom we believe have more accurate information regarding their housing values. This pessimistic scenario still yields a \$500 million windfall to owner-occupiers in the zone.

Taken together, the point estimates in our baseline scenario imply that total worker earnings rose by roughly \$296 million per year, while rents rose by only \$5.5 million per year and housing wealth rose for owner-occupiers by roughly \$1.35 billion. Under our pessimistic scenario, aggregate earnings rose by only \$36 million, rents rose by \$67 million, and housing wealth rose by \$500 million. Even under this worst-case interpretation, we still find that earnings rose more for local workers than did rents. But nonworking households (or households working outside the zone) may have suffered cost of living increases making them strictly worse off.

Conclusions

Our comparison of Empowerment Zone neighborhoods to rejected and future tracts revealed important effects of Empowerment Zone designation on local price levels and behavior. Designation seems to have resulted in substantial increases in zone employment along with increases in the wages of zone residents working in the zone. These changes in the zone labor market appear not to have been accompanied by dramatic changes in the local cost of living. Population and housing rents remained fairly constant, though evidence on the rental rates of new arrivals to the neighborhood suggests that rents may eventually rise. Though we find very large increases in the price of owner-occupied housing, we suspect the magnitude of these results is to some extent a

reflection of the manner in which housing value data are collected in the census. However, these results may also foretell future increases in the local cost of living.

The conclusion of our welfare analysis is that the Empowerment Zone program appears to have successfully transferred income to a small spatially concentrated labor force. We caution, however, that our study provides only a short-run evaluation of the Empowerment Zone program. Administrative data indicate that participation in the Empowerment Zone tax credit program increased only gradually over time and it took many years for some economic outcomes to respond. The responses of firms, population, and prices may well differ substantially over longer periods of time, if Empowerment Zone subsidies in fact persist over such horizons. If, however, these subsidies eventually lapse as originally intended, an important question will be whether they have lasting effects.¹¹

Finally, we emphasize that many of our empirical estimates are imprecise and should not necessarily be expected to generalize to later round and future zones. Additional zones targeting less heavily distressed communities may yield larger distortions, as such communities may be closer substitutes with surrounding areas and yield large population movement into those zones. Later round zones also utilize different combinations of benefits. While we find it plausible that the mix of large block grants and wage credits accompanying Empowerment Zones would yield different results than their smaller, state-level predecessors, more work is necessary to disentangle the effectiveness of various combinations of spatial subsidies. ■

¹See, for example, E. L. Glaeser and J. D. Gottlieb, “The Economics of Place-Making Policies,” *Brookings Papers on Economic Activity* (Spring 2008): 155–239.

²This article is based on M. Busso, J. Gregory, and P. Kline, “Assessing the Incidence and Efficiency of a Prominent Place-Based Policy,” *American Economic Review* 103, No. 2 (2013): 897–947.

³See, for example, D. Neumark and J. Kolko, “Do Enterprise Zones Create Jobs? Evidence from California’s Enterprise Zone Program,” *Journal of Urban Economics* 68, No. 1 (2010): 1–19; and J. C. Ham, C. Swenson, A. Imrohoroglu, and H. Song, “Government Programs Can Improve Local Labor Markets: Evidence from State Enterprise Zones, Federal Empowerment Zones and Federal Enterprise Community,” *Journal of Public Economics* 95, No. 7–8 (2011): 779–797.

⁴Supplemental Empowerment Zones received block grants similar to those received by Empowerment Zones, but did not become eligible for tax credits until 1999. Enterprise communities did not receive tax credits, but did receive block grant funding and were eligible for tax-exempt bond financing.

⁵U.S. General Accounting Office, “Community Development: Businesses’ Use of Empowerment Zone Tax Incentives,” GAO/RCED-99-253, 1999; and S. Hebert, A. Vidal, G. Mills, F. James, and D. Gruenstein, “Interim Assessment of the Empowerment Zones and Enterprise Communities (EZ/EC) Program: A Progress Report,” Washington, DC: U.S. Department of Housing and Urban Development, Office of Policy Development and Research, 2001, at http://www.huduser.org/publications/econdev/ezec_rpt.html

⁶U.S. General Accounting Office, “Community Development: Federal Revitalization Programs are Being Implemented, but Data on the Use of Tax Programs are Limited,” 04-306, 2004.

⁷A model where spatial hiring subsidies actually enhance efficiency is considered in P. Kline and E. Moretti, “Place Based Policies with Unemployment,” *American Economic Review* 103, No. 3 (2013): 238–243.

⁸Our analysis was conducted inside the Berkeley, Michigan, and Suitland Census Research Data Centers.

⁹Round I Empowerment Zones were awarded via a competitive application process. We were able to obtain the census tract composition of proposed Round I zones that were not selected for inclusion in the program. Two additional rounds of Empowerment Zones followed the initial Round I empowerment zones along with a set of large Renewal Communities with similar benefits. All of these zones were used as controls.

¹⁰See M. Busso et al., “Assessing the Incidence and Efficiency of a Prominent Place-Based Policy” for full details.

¹¹This subject was studied in a different context by P. Kline and E. Moretti, “Local Economic Development, Agglomeration Economies, and the Big Push: 100 Years of Evidence from the Tennessee Valley Authority,” Unpublished manuscript, 2011.

Good jobs: The importance of who you work for

David Card

David Card is Class of 1950 Professor of Economics at the University of California–Berkeley, and Director of the Labor Studies Program at the National Bureau of Economic Research. He delivered the annual Robert J. Lampman Memorial Lecture at Madison in May 2013. This article is adapted from his lecture.

Most microeconomic research on poverty focuses on individual behavior and decision-making: examples include the choice of schooling, responses to welfare programs and tax reforms, and decisions about marriage and family. Most people, however, if asked to identify the key to economic success, will say “getting a good job.” During the recent recession, many workers, especially older ones, have lost good, high-paying jobs and have not been able to replace them, thus suffering large, persistent losses in income. One might think that someone who was working at a high-paying job could find another employer who would be willing to hire him or her at nearly the same wage. But in reality, getting a good job is hard, and often takes many years. Losing a good job—especially for older workers—can mean the end of a rewarding career and relegation to the secondary sector, where many jobs are part-time, and few offer health insurance or pension benefits.

In this article, I will argue that having a “good job” is mainly about working at a “good firm” that offers a higher wage for all (or nearly all) its employees. To many people, I suspect this is obvious. To economists, it’s a major puzzle. On one hand, good firms appear to be more productive than other firms, and some of the higher pay at these jobs appears to be due to a sharing of the fruits of this higher productivity between the firm and its workers. Standard economic theory has a hard time explaining the wide variation in productivity we see in modern economies like the United States. In theory, competition should drive out the unproductive firms and only the most productive will survive. The reality is obviously different. On the other hand, even if a firm is highly productive, why should it pay its workers more than the “market wage”? Is it possible that by offering a higher wage, a good firm makes its workers more productive, and can therefore offset its higher wage costs?

After discussing the emerging evidence on the importance of firm-specific wage policies—whereby some firms pay more than average for a given worker, while other firms pay less—I turn to a review of some of the major facts about the labor market behavior and outcomes that appear to be intimately related to these policies, including the effects of recessions, the nature of careers, and the wage gaps between women and men.

Background

In the standard working model that economists use to study the labor market, firms do not come into play; different industries are acknowledged, but all firms are considered to be the same. These kinds of models are regularly used to consider the effect on the labor market of many issues that affect poverty and low-income workers, including trade, immigration, human capital, minimum wages, and occupational choice.

There is now a newer class of models, arising out of the “new trade” literature, that do take firms into consideration.¹ This set of models acknowledges differences between employers, such as the willingness to experiment with newer technology, which may, for example, help to explain why some firms will take advantage of a fall in tariff barrier to enter the export market, while others will not. However, even in this newer class of models, each worker is considered to be paid the “market wage,” and there is no special link between the firm that employs an individual worker and his or her income. One good, high-paying firm is equally beneficial to all of the workers in the labor market, regardless of whether they work for that firm or not.

What do we know from earlier work?

Earlier work can provide some insight into the role of firms in the labor market. For example, studies of the behavior of unionized firms over time conducted by labor economists in the 1980s showed that even at a large well-established firm, individual wages would still rise and fall with the labor market, and were thus relatively sensitive to outside conditions.² Another finding from this literature is that wages adjust slowly, and, during an era of inflation, can be out of equilibrium for extended periods. The problem with this literature is that it studies groups of workers covered by the same union contract. There are no individual workers in the data, only “job categories.” Thus, these models do not allow for the possibility that workers at some firms are paid more than workers at other firms because they are better workers.

In the 1970s and 1980s, another set of studies drew on new, large data sets that came out of the War on Poverty and the surge in interest in income and poverty dynamics. These data sets allowed individual workers to be followed over time. This body of work showed that there is a large amount of job mobility, particularly among young workers, and that many of the wage gains made by workers in the early years of their careers came not from wage increases on the job, but from moving to a better job.³ Another finding was that older workers tended to settle into long-lasting jobs.⁴ Finally, a number of studies looking at why income fluctuations occur, and how they translate to consumption and family well-being, found

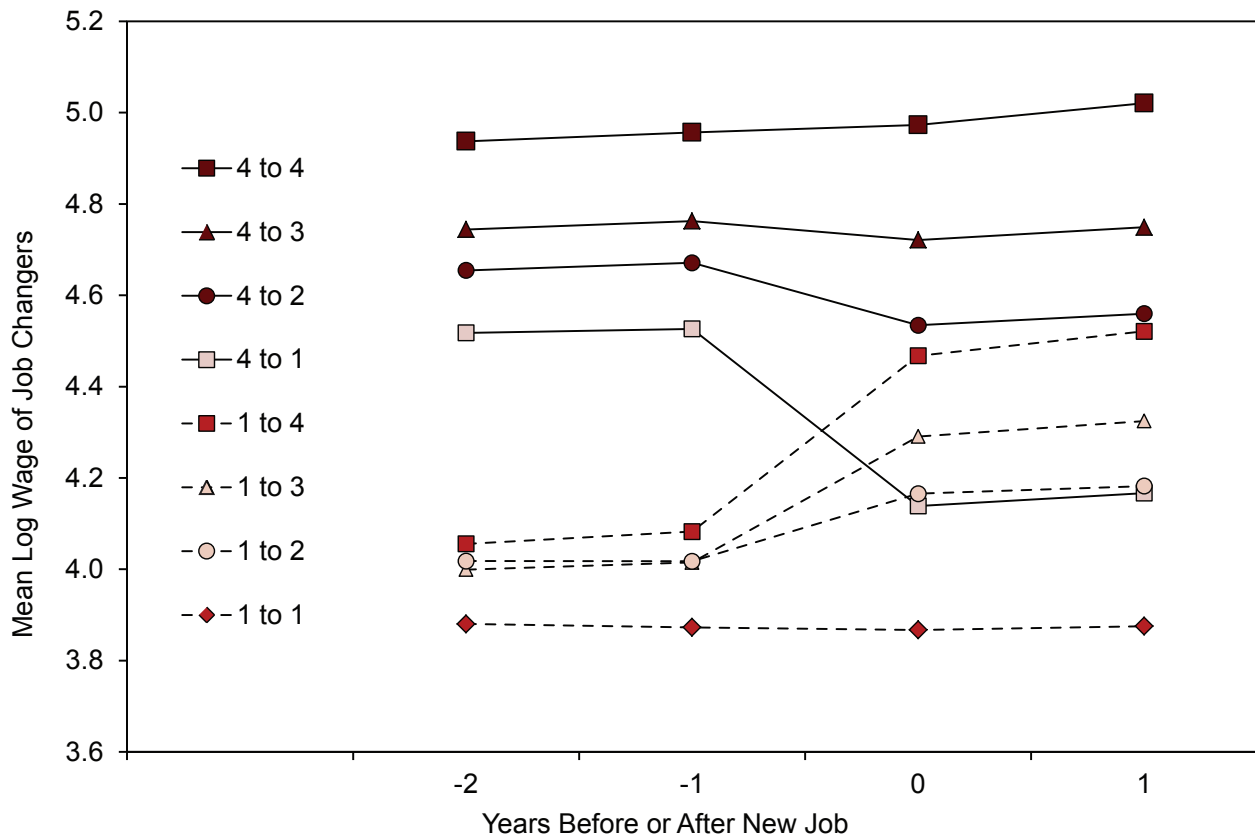


Figure 1: Mean wages of job changers, classified by quartile of mean wage of coworkers.

Notes: Figure shows mean log wages of male workers observed during 2002 through 2009, who changed jobs in 2004 through 2007, held the preceding job for two or more years, and held the new job for two or more years. “Job” refers to the establishment from whom each worker received the most earnings in the year, excluding part-time work. Each job is classified into quartiles based on mean wage of coworkers.

Source: D. Card, J. Heining, and P. Kline, “Workplace Heterogeneity and the Rise of West German Wage Inequality,” *Quarterly Journal of Economics* 128, No. 3 (August 2013): 967–1015.

an important “job” component in the level and variance of wages and earnings.⁵

One important lesson from this work is the distinction between “match effects” and “firm effects.” Match effects reflect the degree of fit between a particular individual’s skills and characteristics, and the needs of a particular firm. Firm effects refer to a firm-wide characteristic (most often, the level of pay) that all workers receive when they work at a given firm. The prevailing view in economics is that the reason people tend to do better when they move to another job is because of the match effect. That is, the new employer is not necessarily a better firm for everyone, but is a better firm for the new employee. Under this perspective, having a successful career means both learning the necessary skills, and also figuring out which employer can make the best use of your particular characteristics.

During the recession of 1982, considerable research was done on displaced workers. In particular, researchers using Pennsylvania Unemployment Insurance data were able to document that workers who lost their jobs during that recession suffered very large and persistent wage losses.⁶

Subsequent research looking at job losses more broadly, found that wage losses are substantially bigger during recessions than during economic expansions.⁷ These findings led some economists to question whether these wage losses were too big, and too persistent, to be driven primarily by match effects. Perhaps, indeed, there was some other major factor in wage determination besides simply how well a particular employee fit with a particular firm.

Another type of research using firm-level data provides information on firms’ “productivity,” or the value of sales minus inputs and fair payment for capital to the firm’s owners. This research has documented the high level of variation in productivity and wages across firms, even within the same industry.⁸ Again, what is lacking in this literature from the labor market point of view is information on workers.

Finally, we come to a new strand of research, which uses matched data on workers and firms. This research has shown that you can break down a person’s wage into two main components: (1) a part that captures what they would earn no matter where they worked, and (2) a wage premium associated with a particular firm.⁹ This paradigm, which al-

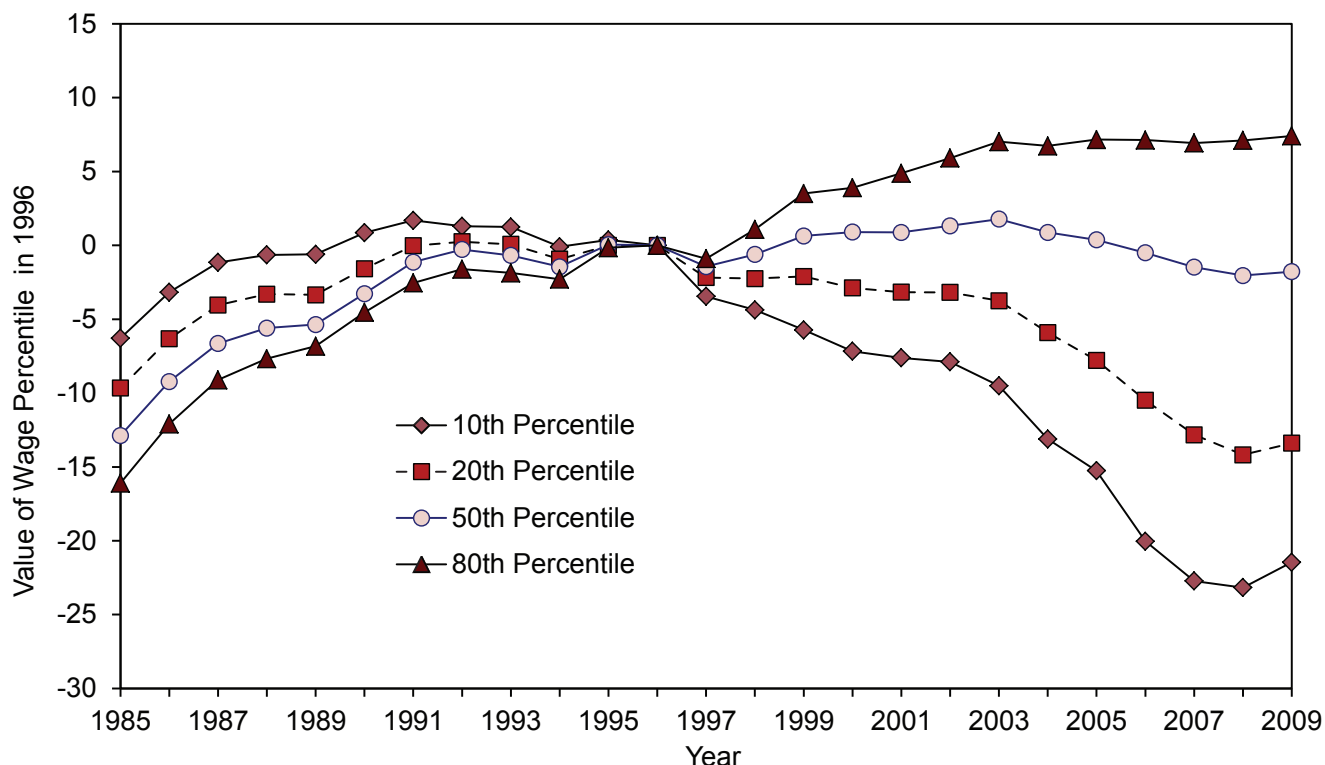


Figure 2: Trends in percentiles of real log daily wages for West German men.

Note: Figure shows percentiles of log real daily wage for full-time male workers in their main job, deviated from the value of the same percentile in 1996, and multiplied by 100.

Source: D. Card, J. Heining, and P. Kline, “Workplace Heterogeneity and the Rise of West German Wage Inequality,” *Quarterly Journal of Economics* 128, No. 3 (August 2013): 967–1015.

lows heterogeneity in both workers and firms, is what I am going to build on. It is worth noting that despite acceptance by (some) labor economists, this has not been a widely-embraced template to date, partly because it is very difficult to come up with a precise economic theory of what this model represents. Nonetheless, I believe that this model can be very helpful in explaining rising inequality and other aspects of the labor market. While I would like to be able to apply this framework to the rise in U.S. wage inequality, I have not been able to obtain the data to do so. Instead, much of my work in this area uses available data from Germany, Austria, and Italy.

How much do firms matter in wage setting?

The first issue I examine with this framework is how much firm effects matter in wage levels. In a recent paper with Joerg Heining and my colleague Patrick Kline, we use data on male workers in West Germany who changed jobs, and find that those who moved to a firm with higher paid coworkers received a wage increase, while those who went to a firm with lower-paid coworkers sustained a wage decrease.¹⁰ Figure 1 shows the time profile of average daily wages in the two years before a worker changes jobs, and the two years after. Surprisingly, the gains and losses for those who move between firms with higher and lower average co-worker pay are ap-

proximately symmetric: the gain in going from a low-paying firm to a high-paying firm is similar to the loss in moving in the opposite direction. Another feature visible in Figure 1 is that there is no clear trend in pre- or post-transition wages; those who ended up with wage losses after the transition did not experience wage slippage on the job before the transition.

Next, looking at full-time male workers in West Germany, we consider data from 1985 through 2009, a time period that comprises four distinct eras: 1985 through 1991, largely before the 1990 reunification, when the economy was doing relatively well; 1990 through 1996, after reunification, a time of substantial immigration from East Germany and a very slow recovery from the 1990 recession; 1996 through 2002, when the economy was doing very poorly relative to the rest of Europe; and 2002 through 2009, during a period of dramatic economic recovery.¹¹

Figure 2 shows wage trends over the entire period 1985 through 2009, with percentage point deviations from the group-specific wage level in 1996 for four groups ranging from the 10th percentile (the lowest-skilled workers) to the 80th percentile (the highest-skilled workers). From 1996 to 2009, real wages fell about 20 percent for the lowest-skilled workers, while rising about 5 percent for the highest-skilled. While average overall wages dropped slightly over this period, more notable is the

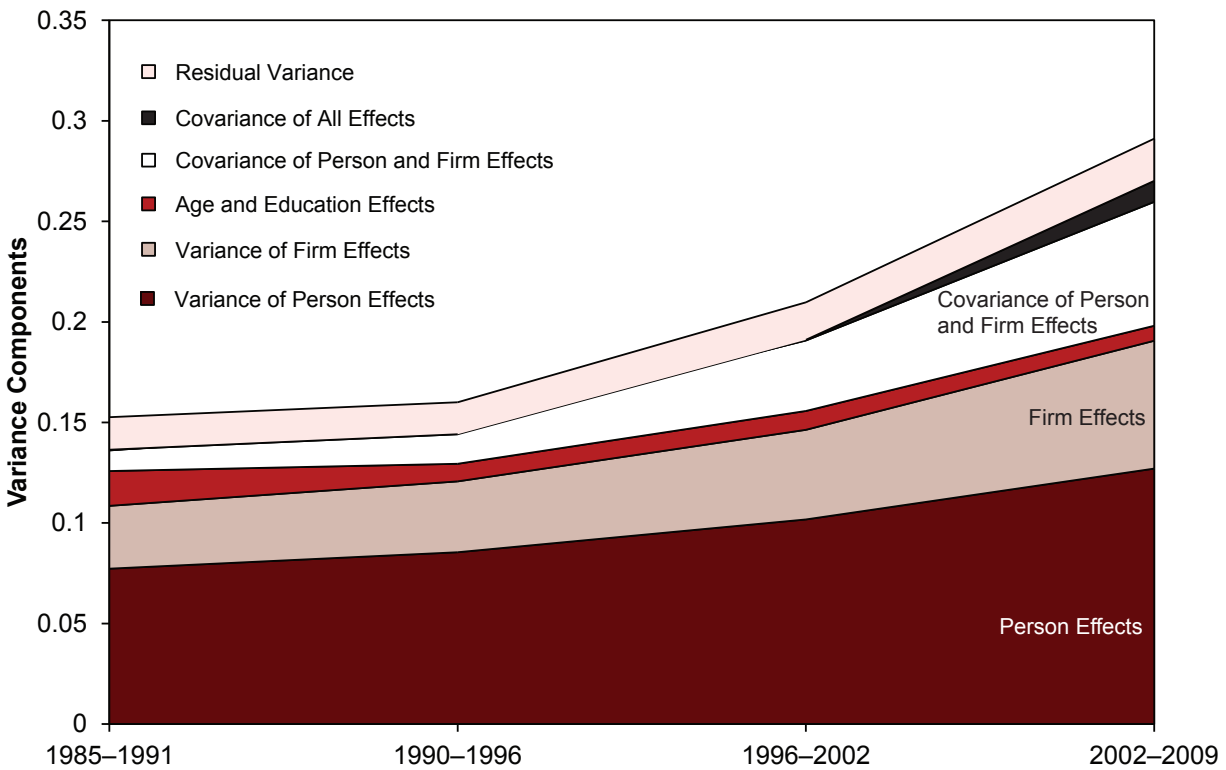


Figure 3: Decomposition of variance of log wages.

Source: D. Card, J. Heining, and P. Kline, “Workplace Heterogeneity and the Rise of West German Wage Inequality,” *Quarterly Journal of Economics* 128, No. 3 (August 2013): 967–1015.

very large expansion of inequality between the top and the bottom. A similar analysis done for the United States with the turning point being 1979 rather than 1996 would look nearly identical; between 1979 and 1992, wages dropped dramatically for the lowest-skilled workers while growing a modest amount for the highest skilled, and the overall average wage dropped slightly.

A simple but useful measure of wage inequality in the West German labor market is the variance of log wages for full-time male workers. Figure 3 shows a decomposition of the trend in this variance between the four (overlapping) time periods. The total variance in log wages starts at a relatively low level and rises over time, rising particularly steeply after 1996. The component of this variance due to differences in the “portable” component of wages that different workers bring to the labor market (person effects), rises gradually over the period. The component of variance due to a rise in the dispersion of the firm effects in wages—the part attributed to higher or lower wage premiums offered to different workers at different employers, also rises steadily over time. The covariance between the person and firm effects starts as a very small component of variance but rises dramatically. This trend reflects the rapid increase in the probability that a highly skilled worker is employed by a firm that offers *all* of its workers a larger wage premium. This rising tendency for the highest-skilled workers to get the best jobs is a major driver of rising wage inequality

in Germany. Finally, there is some variance that is left over after accounting for person effects, firm effects, the covariance between the two, and the role of other control variables; this residual variance is relatively small and does not increase at all in size over the period. This means that nearly all of the rise in inequality can be explained by these three components: person effects, firm effects, and match effects.

Interpretation

The implications of these findings have not yet been exhaustively explored, but there are several things that we do know that can help us interpret these results. For one, firms that pay higher wages survive longer; this means that they are more profitable, despite the higher labor costs. It is also the case that jobs at high-wage firms tend to last longer; thus, it does not appear to be the case that workers at those firms are worked so hard that they prefer to work less hard elsewhere for a lower wage. There has been some modest widening of wage premiums over time between firms that have persisted over the entire period; however, the main source of rising inequality between firms in Germany is the emergence of low-wage firms that specialize in hiring low-wage workers. This appears to be happening in the United States as well, although we do not have the data to establish that with certainty.

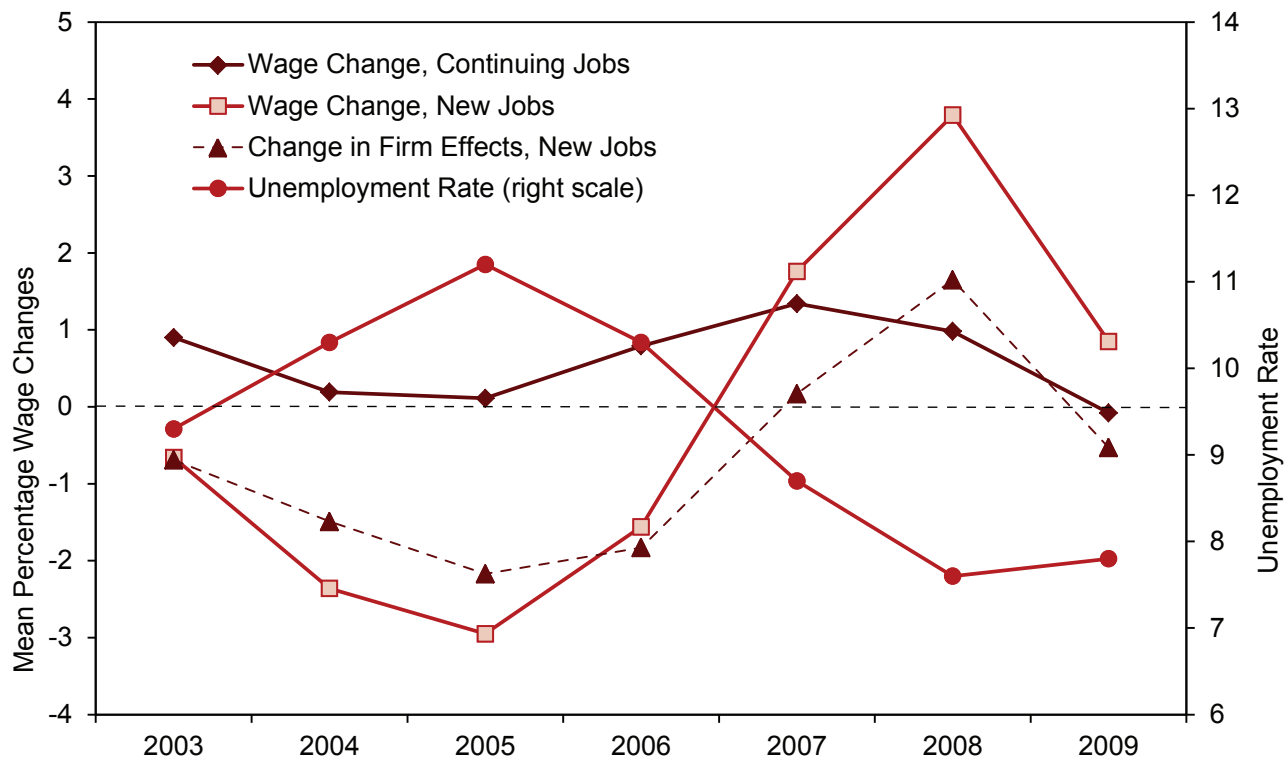


Figure 4. Cyclicality in wage changes for continuing and new jobs.

Source: D. Card, J. Heining, and P. Kline, "Workplace Heterogeneity and the Rise of West German Wage Inequality," *Quarterly Journal of Economics* 128, No. 3 (August 2013): 967–1015.

One possible interpretation of the wage premiums offered by the best-paying firms in Germany is "rent-sharing"; that is, workers at more profitable firms are paid a share of the higher profits—perhaps because they have some bargaining power, or a successful union. Rent sharing does not appear to be the whole story, however. Recent studies of rent-sharing (including one I conducted with co-authors using data for workers and firms in Italy) typically find quite a small response of wages to shifts in firm profitability, such as the opening up of trade, or the granting of a patent.¹²

The good news for poverty research is that the firm-specific wage premium appears to be the result of higher productivity, rather than the cause. For example, a case study of a company that switched from hourly pay to piece rates found that the firm got more productivity out of their workers after the change, but the workers also earned more.¹³ Workers who did not like the new system left, while the new workers who came in had much higher productivity. This reflects what appears to have happened in Germany on a larger scale; the emergence of new kinds of firms with new kinds of pay policies, which attracted the more highly skilled workers, got more productivity out of them, and paid them substantially more.

What other features of the labor market can be explained by firm wage premiums?

Firm effects may also be useful in explaining other features of the labor market besides wage inequality. For example,

why do wages change during the business cycle, and to what extent do wages change for people who switch jobs, compared to people who stay in the same job? During a recession, wages tend to drift down because (1) the wage at a given job does not keep up with inflation, and (2) job changes during a recession tend to generate wage decreases. Again, this pattern can be largely explained by firm effects. Figure 4 shows that in Germany during the 2000s, as the economy went through first a recession and then an expansion, wages for continuing jobs stayed fairly flat, while wages for job changers dropped steeply during the recession, and rose even more during the expansion. The dotted line on the figure shows how much of this is explained by knowing the average wage premium paid by the firms being switched between; this line accounts for nearly all the difference in wage changes between continuing jobs and new jobs. Also important is where the jobs come from. The relative share of new jobs that are in the bottom quintile of job quality tracks very closely with the unemployment rate; if you are trying to get a job during a recession, most of the new jobs available will be low-paying ones.

Another labor market feature that can be informed by firm effects is early career progression. Figure 5 compares annual wage increases for two groups of young workers, those who changed jobs and those who stayed in their first job, over the first five years of their careers. On average, there is a large wage gain after the first year of employment, then smaller wage gains each following year. Those who change jobs achieve even larger wage gains. About two-thirds of that

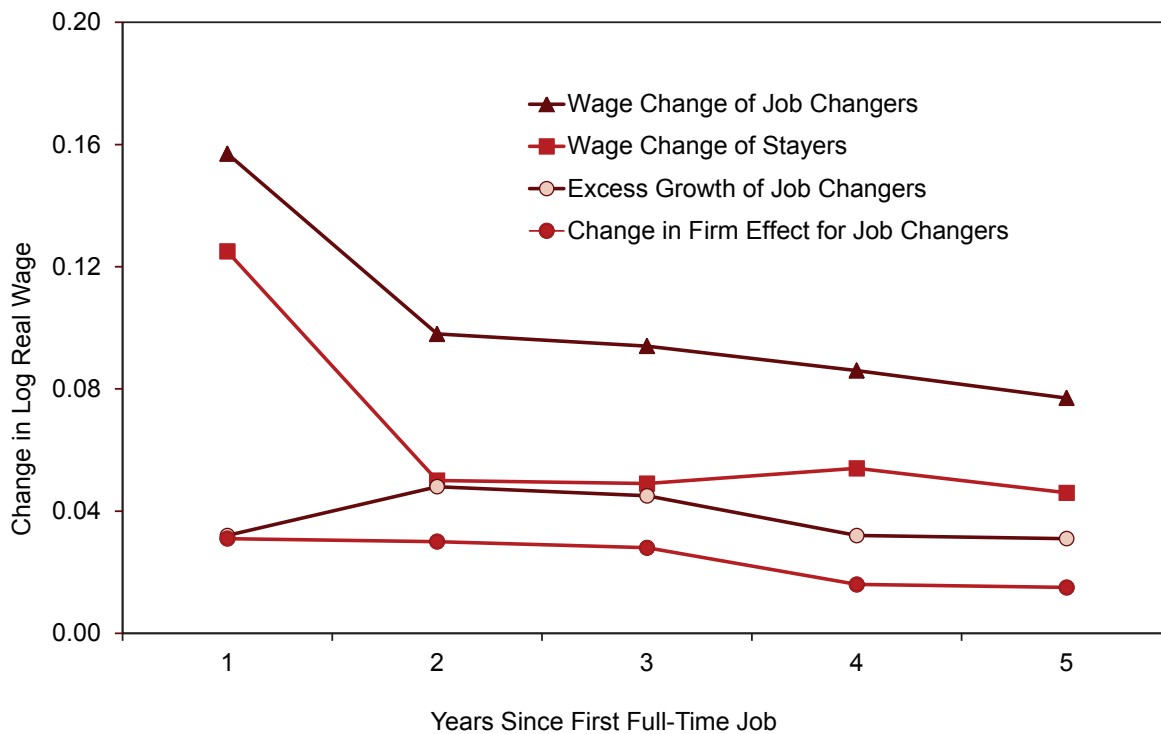


Figure 5. Wage gains to job mobility in the first five years of a career.

Note: The sample includes German men who had their first full-time job during 1986 or 1987 at age 22 to 24.

Source: D. Card, J. Heining, and P. Kline, “Workplace Heterogeneity and the Rise of West German Wage Inequality,” *Quarterly Journal of Economics* 128, No. 3 (August 2013): 967–1015.

difference is attributable to the tendency of young workers to move to firms with larger firm-specific pay premiums. In other words, a large share of career wage growth appears to be related to the process of finding a job in a “good firm.”

Finally, firm effects can be useful in understanding gender-based wage gaps. Firms with higher proportions of female employees tend to pay less than those with higher proportions of male employees, with a wage difference between all-female and all-male firms of about 15 percent. How much of this gap is explained by all employees at a given firm being paid less, and how much to women being paid less than men? In a study using data from Portugal, my colleagues and I found that 20 to 25 percent of the average gender gap is because women are clustered at firms where both men and women are paid less.¹⁴ A smaller, but still potentially important share is explained by the fact that women seem to get a little less out of working for “good firms”—perhaps because they spend less time and effort bargaining for the highest possible wage. While we do not have the data to do a similar analysis in the United States, the limited analysis that has been done leads me to believe that about the same proportion of the U.S. wage gap between men and women is attributable to gender distribution among firms.

What else might be related to firm wage premiums?

There are other wage gaps that may be related to firm-specific wage premiums. For example, I believe that a substantial portion of the racial wage gap can be explained by differential access to better-paying jobs. There is also an education gap, documented in the German data. Heining, Kline, and I found that nearly all the rise in return to education in Germany can be explained by an increasing concentration of highly educated workers at firms that pay higher wages to everybody. The benefits of being at the higher-paying firms are increasingly going to those with more education. Finally, work on wage patterns among immigrants in Portugal found that about one-third of the rise in wages after arrival in the country can be attributed to new immigrants beginning in low-paying jobs, then gradually transitioning to better-paying firms.

There are a couple of other areas where I believe this framework could be very helpful. One is networks, such as friends and other social groups. I believe an examination of network structures would document the utility to job-seekers of having people with high-paying jobs in their social networks. Similarly, this model could be useful in looking at inter-

generational correlation in earnings. Data from Scandinavia show that a very large proportion of young blue-collar workers start out working at a firm that one of their parents works at.¹⁵ This means that if your parent has a good job, you are more likely to get a good job.

Conclusions

A framework that acknowledges the importance of firm-specific wage premiums represents an important new direction in which we could take labor market analysis, and appears to be quite helpful in explaining rising wage inequality. Other areas in which this paradigm may be helpful include cyclical wage variation, early career progression, and gender wage gaps. There is still considerable theoretical work to be done in explaining the empirical results, but what has been found so far appears to be quite useful in understanding how the labor market works. It is really important to get a good job, now more than ever. ■

¹See for example, M. J. Melitz, “The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity,” *Econometrica* 71, No. 6 (November 2003): 1695–1725.

²See for example, W. C. Riddell, “The Empirical Foundations of the Phillips Curve: Evidence from Canadian Wage Contract Data,” *Econometrica* 47, No. 1 (January 1979): 1–24.

³R. H. Topel and M. P. Ward, “Job Mobility and the Careers of Young Men,” *Quarterly Journal of Economics* 107, No. 2 (May 1992): 439–479.

⁴R. E. Hall, “The Importance of Lifetime Jobs in the U.S. Economy,” *The American Economic Review* 72, No. 4 (September 1982): 716–724.

⁵See, for example, J. M. Abowd and D. Card, “On the Covariance Structure of Earnings and Hours Changes,” *Econometrica* 57, No. 2. (March 1989): 411–445.

⁶L. S. Jacobson, R. J. Lalonde, and D. G. Sullivan, “Earnings Losses of Displaced Workers,” *The American Economic Review* 83, No. 4 (September 1993): 685–709.

⁷S. J. Davis and T. M. von Wachter, “Recessions and the Cost of Job Loss,” NBER Working Paper No. 17638, December 2011.

⁸See C. Syverson, “What Determines Productivity?” *Journal of Economic Literature* 49, No. 2 (June 2011): 326–365.

⁹See, for example, J. M. Abowd, F. Kramarz, and D. N. Margolis, “High Wage Workers and High Wage Firms,” *Econometrica* 67, No. 2 (February 1999): 251–333.

¹⁰D. Card, J. Heining, and P. Kline, “Workplace Heterogeneity and the Rise of West German Wage Inequality,” *Quarterly Journal of Economics* 128, No. 3 (August 2013): 967–1015.

¹¹There is some overlap between these periods, described in detail in Card, Heining, and Kline, “Workplace Heterogeneity and the Rise of West German Wage Inequality.”

¹²See D. Card, F. Devicienti and A. Maida, “Rent-Sharing, Hold-up, and Wages: Evidence from Matched Panel Data,” *Review of Economic Studies* (forthcoming 2013).

¹³E. P. Lazear, “Performance Pay and Productivity,” *The American Economic Review* 90, No. 5 (December 2000): 1346–1361.

¹⁴D. Card, A. R. Cardoso, and P. Kline, “Bargaining and the Gender Wage Gap: A Direct Assessment,” UC Berkeley Center for Labor Economics Unpublished Working Paper, August 2013.

¹⁵F. Kramarz and O. N. Skans, “When Strong Ties are Strong—Networks and Youth Labor Market Entry,” working paper, Institute for Evaluation of Labour Market and Education Policy, Uppsala, Sweden, 2011.

Waiting tables for a living: How employers and geography affect working conditions

Anna Haley-Lock

Anna Haley-Lock is Associate Professor and Associate Director of the School of Social Work at the University of Wisconsin–Madison and an IRP affiliate.

U.S. welfare policy researchers are increasingly considering the role of low-wage job conditions as they seek a deeper understanding of the process by which welfare recipients “churn” in and out of employment.¹ This work, drawing on perspectives from sociology, industrial relations, and management studies, builds on more dominant scholarship on workers’ individual-level characteristics—for example, personal barriers to employment such as having young children, mental or physical illness, and lack of transportation. Incorporating organizational and other contextual approaches to the study of employment at the front lines of the labor market, researchers have noted that workers in similar low-wage and low-skill jobs face very different working conditions within and across firms, net of workers’ human and social capital qualifications and often within the same local labor market. That is to say, organizations—in this case, workplaces—matter.

The paper on which this article is based built on this line of scholarship, reporting on the results of a study that involved in-depth interviews with operators of 15 full-service restaurants. The purpose was to investigate how organizational and other contextual factors corresponded with the quality of waitstaff jobs, including their compensation and access to work hours.² I found that job quality varied by three major structural attributes of the restaurants, including whether they were urban, suburban, or rural; their staff size; and their status as independently owned versus chain-affiliated. This result points to the constraining role that these structural factors have over employers’ discretion to set compensation, staffing, and scheduling. Equally notable, I observed that waitstaff jobs were paid and scheduled differently across establishments that were structurally similar. This variation suggests that even when sharing major structural characteristics, restaurants choose a range of strategies to manage labor expenses, some “higher road” (meaning practices whose benefits extend beyond profits to include workers and sometimes the community) and others “lower road.” Each of these scenarios has implications for the economic vulnerability of waiters and potentially other minimum wage workers.

How employers shape job quality

The U.S. approach to employment regulation gives employers considerable discretion to shape the employment contract. Aided by historically weak labor unions and the extended economic downturn, employers operating within the growing service sector have tended to respond to customer demand for high quality at low cost by taking robust steps to minimize labor expenses. Indeed, in many cases front-line managers are given a limited number of payroll hours within which they are required to staff their cash registers, kitchens and dining rooms, hotels, and call-in centers.³ Firms are free to decide whether or not to offer fringe benefits such as paid time off or health insurance, how much if anything to contribute towards employee insurance costs and supplemental retirement savings, and how long and how many hours a week employees must work in order to be eligible for benefits.⁴ The federal minimum wage, \$7.25 per hour since July 2009, is set relatively low, and payment of increments above that rate are fully voluntary on the part of the business (18 states and the District of Columbia have higher rates, with Washington state the highest at \$9.19). Firms are not required to guarantee a minimum number of hours per employee, as minimum daily pay laws do in other countries. In these ways, employers are able to limit their fixed labor expenses. Firms also use additional strategies for managing variable labor costs. Minimizing the number of workers per shift and engaging in “just-in-time” scheduling—including calling employees in at the last minute when customer traffic is high and sending them home when it slows—provide firms with the flexibility to allocate labor only as dictated by short-term business demand.⁵

Within restaurants specifically, employers can draw on a range of other tools for minimizing employee payroll costs. By requiring (or imposing a strong expectation) that waitstaff share a portion of their tips with nontipped staff—called “tipping out”—employers effectively benefit from having the wages of their nontipped staff subsidized by their tipped coworkers, and can thus pay nontipped workers less. American waiter jobs are typically paid at or near the prevailing minimum wage, so U.S. federal and state minimum wage laws are a core constraint on cost containment; in all but seven states, however, “tip credit” laws permit restaurants to pay a subminimum wage for tipped employees (ranging from \$2.13 in 13 states to \$7.00 in Hawaii) that has over time been raised far less often than the regular minimum.

Even when cost-neutral, restaurants' approaches to employee scheduling can dramatically affect waiters' take home pay due to variations in tipping levels across times of day (breakfast versus dinner), days of the week (weekdays versus weekend), and even sections of the restaurant (back room versus central "people watching" area of the establishment). How hours are doled out can also affect employees' capacity to work them: posting schedules at the last minute, changing shifts after they have been set, and offering employees minimal control over their work hours can all make it challenging to secure child care and transportation.

Job quality by firm geography, size, and ownership

In my study of low-end, full-service restaurants in Washington state, I examined how firms' geographic location (urban, suburban, and rural); number of employees; and independent ownership versus chain affiliation aligned with the compensation and scheduling of waitstaff jobs. Washington offers a striking case for investigating low-wage jobs that are typically paid at the legal minimum rate—waiters—given that the state has the highest minimum wage in the country (\$8.67 at the time of the study), one that is adjusted annually for cost of living changes; and that Washington is one of the seven states that does not permit a subminimum wage to be paid to tipped workers. As such, Washington restaurant employers face an unusually strong constraint from the financial effects of the law, and a strong incentive to counter these effects.

Geographic location

Research from the fields of sociology and geography suggests that rural, suburban, and urban location may shape firms' employment practices through relationships to characteristics of labor demand and supply. With respect to urban environments, research on social polarization suggests that economic restructuring has diminished the quality of jobs there.⁶ City labor markets have hollowed out as large multinational firms have created a simultaneous demand for high-level professional positions and low-level service jobs. The rise of labor offshoring by firms has further reduced choices of high-quality jobs at the lower end of the labor market in many urban areas.⁷

Meanwhile, suburbs have enjoyed "relatively high rates of new firm entry, survival, and growth," generating many new service sector jobs.⁸ This workforce may be dominated by married women with children who, in the face of domestic responsibilities, place limits on their geographic mobility for work and thus face wage penalties. The presence of better compensated partners may also render these workers more open to jobs that pay little or offer few or no fringe benefits, especially in exchange for scheduling flexibilities that facilitate dual work and care responsibilities. These conditions render this labor pool a relatively captive audience for local employers, and result in the "suburbanization"—or reduction in quality—of some jobs.⁹

Finally, in rural settings, a higher proportion of employers than in metropolitan areas pay just minimum wage and offer unstable, part-time hours.¹⁰ As a result, a higher proportion of rural than urban workers have low-wage, hourly jobs.¹¹ These conditions have several causes, including a concentration of low-end services and small firms that focus on lower-skilled production, the small size and geographic isolation of the rural labor force, comparatively weak governmental regulations and unions, and growing labor competition from globalization.¹²

I considered the association between restaurant geographic location and employment practices by comparing sites located in five urban, five suburban, and five rural areas. Average hourly tips increased from rural to suburban to urban settings, spanning \$1 to \$22.50 at rural sites; \$7 to \$22 in the suburbs; and \$13.50 to \$50 in the urban areas.¹³ Firms' policies for requiring waiters to share their tips also showed some slight geographic patterning, with rural restaurants imposing higher tip-out expectations than sites in the suburban area; urban restaurants generally required still less tip sharing than the suburbs. The combination of lower tips and higher tip-out requirements was particularly constraining on rural waiter incomes. Further compounding this, owners from two of the rural independent restaurants were alone in reporting that they made seasonal reductions in waiter hours or waitstaff. More rural restaurants provided paid vacation than their suburban and urban counterparts, however. In contrast, in addition to offering higher tip-earning prospects, the urban restaurants had the most full-time waiters: three of the five urban sites had half or more of waiters working full-time hours. Full-time status was especially meaningful because eligibility for health insurance, when offered, was limited to full-time employees.

Firm Size

Two divergent perspectives describe the relationship between firm size and a range of organizational and worker outcomes as being shaped by organizational resources and culture. In the first account, small businesses lack the resources to pay workers as well as their larger competitors.¹⁴ Consistent with this, one study found that smaller firms (10–24 employees) were twice as likely as larger ones (50–99 employees) to pay one-fourth or more of their employees just the minimum wage, at 13 percent versus 6.5 percent; 11 percent of companies in the middle-size range paid one-fourth of workers the minimum.¹⁵ According to the second, "small is beautiful" notion, one not mutually exclusive of the resource constraint story, firms with smaller staffs are often run with an informal and personal approach, where workers may be willing to accept lower wages in return for a more congenial work environment.¹⁶

Although firm size has often been depicted in research by employee headcount, scholars have begun to document a trend that may be rendering the measure an increasingly poor indicator of functional firm size: employers' keeping many more employees on payroll than they typically schedule as

a strategy for covering nontraditional work hours or sudden spikes in business.¹⁷ Historic relationships between staff numbers and a range of organizational and job characteristics may be affected as a result.

I examined the relationship between firm size and employment practices by comparing the six small, three medium, and three large independently owned restaurants. Average hourly tips were lowest at the smallest restaurants, ranging from \$1.50 to \$15.00, though two small sites were alone in paying incrementally above minimum wage. Among the independent establishments, only the larger sites—all of the “large” and one of the “medium”—provided employee health insurance. The small sites also had particularly low levels of full-time waiter positions relative to their larger peers. Still, schedules were generally more stable at the smaller restaurants, which also tended to concentrate more hours on their waiters. More than one-half of the nine small and medium establishments, but none of the large sites, scheduled more than one-half of waitstaff for busy shifts, and one-third or more when slow.

Chain affiliation

A firm’s affiliation with multisite chains through corporate ownership or franchising agreements constitutes a third characteristic with implications for employer practices. Through corporate relationships, chain-associated establishments have access to greater resources than their independent competitors, including economies of scale when negotiating and purchasing employee fringe benefits. Chain-owned long-term care facilities have been found to provide better wages and health care benefits than their independent peers.¹⁸ Chain-affiliated businesses may skimp on job quality, however, if their overseeing corporations emphasize efficiency. In addition, their corporations’ lack of connection to the communities in which they are situated may limit chain sites’ orientation to providing supportive employment opportunities.¹⁹

I considered the association of firm ownership status and employer practices by comparing the three independently owned “large” sites with the three affiliated with a chain. These two types of larger restaurants exhibited identical employment practices with one exception: the independents in the rural and urban areas gave waiters input on work hours, whereas their chain counterparts did not. All of the chain locations and large independents offered employee health insurance and paid vacation. According to the three chain managers, their sites’ uniform provision of benefits was a product of corporate headquarters’ oversight in setting employee compensation, provided in two tiers. Managerial staff was offered better, more affordable health insurance as well as a retirement savings plan, and hourly workers a more limited insurance plan at higher out-of-pocket expense and no retirement option. Owners of the large independents made no mention of distinct classes of benefits.

As noted earlier, a set of independent restaurant owners—but notably, no chain site managers—distinguished themselves in energetically lamenting the business impacts of the state minimum wage mandate. They were particularly displeased with the lack of a tip credit that would otherwise permit them to pay waiters less than the base rate, and the annual imposed “pay raise” (cost of living adjustment) for those same workers.

Job quality as a matter of employer discretion

In addition to finding variation in waiter compensation and scheduling that was patterned by firm geographic location, staff size, and ownership, I observed that the restaurants shared many approaches to constructing the waiter job irrespective of structural attributes. These practices make the job more or less stable and sustainable for its occupants.

Fluctuations in customer tips

Though the American concept of customer-paid gratuities is to differentiate and reward service of varying quality, restaurant operators well knew that tipping was often out of the hands of waiters. In some cases, a restaurant’s ambience limited tip levels, as with the small rural independent restaurant, whose owner reported that a competing chain site “has good tips for waiters because they’re well-known and people like dining over there. Here, people don’t consider it a tip place. They consider it like a McDonald’s, even though there is a server that waits on them.”

Employers also strongly influenced their waiters’ tip income, however. The section to which waiters were assigned also played a big role in their prospects for tip earnings. Managers and owners talked about waiters’ needing to “earn” their sections, and even that being assigned “better sections” was how the restaurant provided pay raises to waitstaff. Not surprisingly, the task of section assignment was closely guarded, typically limited to managers or owners and sometimes senior waiters, who could assign themselves the best sections. Assignments were typically based on performance and seniority, so that new waiters often had to accumulate extended work history before they could access this potential higher income source.

In spite of this openly discussed variation in tip levels, all 15 restaurants expected waiters to share their tips from each shift. Rates of tipping out ranged across restaurants from a specified dollar amount per non-waitstaff coworker, to a percentage of sales, to distribution of shares from a tip pool. In each restaurant, however, these tip-out rules did not appear to vary by waiter section, shift traffic, or hours worked.

The burden of benefits

Restricted benefits were broadly the norm in the restaurants studied, with some variation observed within that narrow range, as reported above. No employers gave paid sick days;

nine of the 15 sites offered paid vacation. Although health insurance was offered by seven restaurants, owners and managers—both at sites that did and did not extend the benefit to waiters—raised several concerns about doing so, including high cost, administrative burden, and lack of employee interest. The owner of a small rural restaurant reported that she had looked into arranging medical and dental coverage through the state restaurant association, a business lobbying group for the industry, and was told that she needed at least three employees to participate; at the time of the interview only she and her husband, both restaurant employees, wanted to enroll.

Strategic staffing and scheduling

Use of part-time waiters was widespread, with just four of the 15 restaurants having one-half or more of waitstaff working full-time. Although offering reduced hours to certain employees such as students and primary caregivers can reflect an employers' attempt to make work-life accommodations, numerous owners and managers spoke of a primarily fiscal reason for this practice, including avoiding benefits eligibility. As reported by an owner of a small urban restaurant, "You have to provide benefits for employees working full-time. The restaurant would go broke if we gave benefits to all."²⁰

Managers also restricted waiter hours to maintain desired ratios between labor costs and customer sales, which could fluctuate during, as well as across, shifts, days, and seasons. Two owners of large independent establishments, one rural and one urban, spoke in detail about this practice. The rural owner reported that he had set a goal of 21 percent for the ratio of labor outlays to total sales by the end of each day. He and his managers reviewed labor and sales information every half-hour of the business day. "The labor percentage can't exceed 29 percent at 3 p.m., or it's unlikely to drop to 21 percent" by the end of the day, he explained. "At that point, managers know to ask some folks to go home," with weaker performers typically sent home first. The urban owner reported a similar if somewhat more lax goal: "You need to keep employee costs to about 30 percent." Strikingly, the rural owner noted that he had lost many employees to the competing chain site that has a reputation for high wages and tips—but that restaurant "won't give them any hours, so we get them back."

Eleven restaurants permitted waiters "some" or "a lot" of input into their work days, though rarely hours. Yet comments from interviewees suggest that restaurants' accommodation of scheduling requests often had limits, and that giving input presented several potential costs to waiters. Four managers noted that waitstaff could declare availability upon hire, but that shifts were largely fixed once factored into the restaurants' master schedules. The manager of the suburban chain site observed that "restaurant workers have their jobs because they are flexible," revealing a blurring of the notion of scheduling flexibility that is driven by employees versus that which employers expect from employees. Several managers noted that they prioritize waiter seniority and performance

in approving requests for schedule changes. Owner and manager comments also revealed the potential costs to waiters of giving scheduling input. The rural chain manager, for example, reported that she tries "to give [waiters] whatever they ask for, since they will stay if you keep them happy." But she subsequently stressed that waiters who make multiple changes to their availability may be let go because "the general manager has to think about the team and not the individual. If a server's availability changes once, that's okay." These conditions may have made any waiters eager for work hours hesitant to make schedule requests.

Discussion

The findings illuminate how owners and managers in low-end restaurants establish key working conditions related to take-home income, benefits access, and scheduling within specific contexts for doing business that are partially, though not entirely, set by public policy and organizational geography, size, and ownership. Although waiters at the restaurants in this study all earned at or near the minimum wage, employers had considerable influence over waiter take-home pay in order to minimize costs, optimize productivity, or both. This effect played out in three critical ways: employers shaped tip amounts—reduced for some, increased for others—through their strategic assignment of restaurant shifts and sections that were associated with variable tip earnings; they further diminished tip amounts by requiring waiters to share, or tip out, their gratuities with other staff; and they controlled the allocation of hours by limiting the number that waiters receive up front and eliminating hours for waiters sent home during slow business times. Even the flexibility that some waiters reportedly enjoyed by being able to provide scheduling input bore a risk of losing hours and thus pay, and possibly job security.

With respect to the three structural factors, I found modest support for the established perspectives on the relationships between job quality and firm size, ownership and location. That health insurance was available in all of the large restaurants but just one smaller ("medium") site suggests that the resources conferred by restaurant scale facilitate provision of comparatively high-cost employee benefits. Paid vacation was also more often offered by the largest restaurants, which are logistically better able to accommodate waiters' requests for time off given the larger number of employees on the payroll to fill in. The large chain restaurants exhibited practices nearly identical to the large independents, with the exception among the rural and urban sites of permitting waiters less input on their work hours (neither large suburban restaurant allowed much hours input, either). The chain restaurants may have more rigid scheduling conventions as a product of corporate oversight that emphasizes cross-site standardization, to the disadvantage of local employees who may seek schedule flexibilities.

Restaurants with smaller staffs did extend a range of benefits related to scheduling, generally granting waiters more stabil-

ity and concentrating work hours on fewer staff. The only two sites to pay hourly rates incrementally higher than the legally mandated minimum were also small. These practices may reflect the “small is beautiful” perspective, and thus efforts by resource-constrained firms to provide affordable, compensating supports intended to cultivate employee commitment. The appropriateness of headcount as a proxy for firm size varied in this sample, however, as restaurants with the most waiters on payroll tended to schedule lower proportions of them than smaller sites. “Large” on paper, was not always as large in practice.

Comparing geographic locations, the observed patterns in employer practices echo studies finding relatively poorer quality employment opportunities at the lower levels of rural and suburban labor markets. The urban waiter jobs, with their greater access (in medium and large sites) to the combination of health insurance, paid vacation, opportunity for full-time status, and relatively high take-home income, were the best of the three geographic areas.

The study has several limitations, including reliance on a small sample that restricts the depth and generalizability of comparisons by the three firm features of interest. As documented by a range of past studies but not examined here, firms’ strategies for market differentiation—for example, by offering a high-quality versus low-cost product—may explain some of the divergence in employer practices.²¹ Local labor market conditions may also have been more influential over employer practices than accounted for here.

Policy implications

The variation seen in employers’ approaches to employee compensation, staffing, and scheduling illustrates the influence employers have over working conditions. The results also show the many components that go into achieving a stable income “floor,” only the wage component of which is addressed by current minimum wage laws. A more comprehensive approach to ensuring minimum pay would guarantee workers minimum hourly wages, minimum hours of work, and minimum advance schedule notification.

While the study results are for waiters, aspects of the challenges described here are shared by other low-wage workers. Retail cashiers and stock clerks, hotel housekeepers, and call center workers do not experience hourly fluctuations in earnings driven by tip variation, but do face many of the same risks of losing paid work hours when they are sent home during slow periods, not scheduled during their stated windows of availability, and scheduled at the last minute when it is too late to make child care arrangements.

Restaurants’ tipping, staffing, scheduling, and benefit provision practices are also related to their geographic location, size, and ownership. This suggests additional structural sources of vulnerability for those workers with limited bargaining power, including lower-skilled and easily replace-

able workers, particularly those without seniority or with limited scheduling flexibility. Of course, it would be untenable and likely undesirable for public policy to center on encouraging business attributes shown here to correspond with job quality, such as urban location, large size, and chain ownership. A more feasible approach would be aimed at neutralizing the disadvantages in providing high quality jobs disproportionately faced by smaller and independently owned businesses due to their lack of economies of scale. One example of such an initiative would be supporting the creation of small-employer collectives that could negotiate for employee health benefits as a larger risk pool, and thus obtain lower rates. Another would be encouraging temporary employment organizations that offered high-quality jobs to individuals filling in at smaller organizations during staff leaves.

Decoupling health insurance from employment through nationalizing health care may represent an ultimately necessary, if perhaps still politically infeasible, strategy to raise job quality at the lower end of the labor market. This would eliminate the cost of health insurance as a deterrent for employers to concentrate work hours on full-time staff, while simultaneously making the remaining part-time jobs a more sustainable option for those employees who preferred them. Once the provision of the 2010 Affordable Care Act requiring employers with 50 or more full-time workers to provide affordable health insurance goes into effect (currently planned for 2015), individuals regularly working at least 30 hours a week should see increased access to health care; however, given fines for not providing coverage, employers will have more motivation than ever to reduce full-time workers to part-time, or to keep their workforces below the threshold. ■

¹ See, for example, R. Selekman and M. Ybarra, “More Than Meets the Eye: Gaining Insight into the Lives of ‘Successful’ Welfare Leavers.” *Journal of Policy Practice* 10, No. 3 (2011): 206–224.

² This article is based on A. Haley-Lock, “The Structural Contexts of Low-Wage Work: Restaurant Employment Practices Across Firm Geography, Size, and Ownership Status,” *Journal of Poverty* 16, No. 4 (2012): 447–468.

³ See, for example, S. Lambert, “Passing the Buck: Labor Flexibility Practices that Transfer Risk onto Hourly Workers.” *Human Relations* 6, No. 9 (2008): 1203–1227.

⁴ Under the Patient Protection and Affordable Care Act, employers with more than 50 full-time employees will be required to provide health insurance to employees who regularly work at least 30 hours a week, or else face a fine.

⁵ S. Lambert, A. Haley-Lock, and J. Henly, “Schedule Flexibility in Hourly Jobs: Unanticipated Consequences and Promising Directions,” *Community, Work & Family* 15, No. 3 (2012): 293–315.

⁶ S. Sassen, “Global Cities and Survival Circuits,” in *American Studies: An Anthology*, eds. J. Radway, K. Gaines, B. Shank, and P. Von Eschen (West Sussex, UK: Wiley-Blackwell, 2009).

⁷ M. Fisher and B. Weber, *The Importance of Place in Welfare Reform: Common Challenges for Central Cities and Remote-Rural Areas*. Report prepared for the Brookings Institution Center on Urban and Metropolitan Policy and Rural Policy Research Institute, June 2002.

⁸C. Ding and R. D. Bingham, "Beyond Edge Cities: Job Decentralization and Urban Sprawl," *Urban Affairs Review* 35, No. 6 (2000): 837–855.

⁹See Haley-Lock, "The Structural Contexts of Low-Wage Work," for a review of this literature.

¹⁰D. K. McLaughlin and A. J. Coleman-Jensen, "Nonstandard Employment in the Nonmetropolitan United States," *Rural Sociology* 73, No. 4 (2008): 631–659.

¹¹15.4 percent of rural workers have low-wage, hourly jobs, compared to 13.5 percent of Urban workers. See W. O'Hare, *Rural Workers Would Benefit More Than Urban Workers From an Increase in the Federal Minimum Wage*, Fact Sheet No. 4, Carsey Institute, Durham, NH, 2007.

¹²McLaughlin and Coleman-Jensen, "Nonstandard Employment in the Nonmetropolitan United States."

¹³The \$50 per hour tip income estimated by the owner of the large urban independent site is striking in the context of a study of low-end restaurants. The restaurant's menu had pricing in the range of other establishments in the study, suggesting that the site is a very high-volume sales environment; in addition or instead, customers frequenting this site may tip more generously.

¹⁴J. Arrowsmith, M. W. Gilman, P. Edwards, and M. Ram, "The Impact of the National Minimum Wage in Small Firms," *British Journal of Industrial Relations* 41, No. 3 (2003): 435–456.

¹⁵R. McNabb and K. Whitfield, "'Worth so Appallingly Little': A Workplace-Level Analysis of Low Pay," *British Journal of Industrial Relations* 3, No. 4 (2000): 585–609.

¹⁶A. Wilkinson "Employment Relations in SMEs," *Employee Relations* 21, No. 3 (1999): 206–217.

¹⁷S. N. Houseman, "Why Employers Use Flexible Staffing Arrangements: Evidence From an Establishment Survey," *Industrial and Labor Relations Review* 55, No. 1 (2001): 149–170.

¹⁸See, for example, A. Haley-Lock and J. Kruzich, "Serving Workers in the Human Services: The Roles of Organizational Ownership, Chain Affiliation and Professional Leadership in Front-Line Job Benefits," *Nonprofit and Voluntary Sector Quarterly* 37, No. 3 (2008): 443–467.

¹⁹J. Banaszak-Holl, W. Berta, J. Baum, and W. Mitchell, "Comparing Service and Quality among Chain and Independent Nursing Homes during the 1990s," unpublished manuscript, 2002.

²⁰Interestingly, this owner reported not providing a health insurance option to his employees. U.S. employers are not currently required to provide health insurance. The owner may believe either that he is required to offer such coverage to full-time workers, or that full-time workers would demand it even though it is not legally required.

²¹R. Batt, "Strategic segmentation in front-line services: Matching Customers, Employees and Human Resource Systems," *International Journal of Human Resource Management* 11, No. 3 (2000): 540–561.

***Focus* is now distributed solely as an electronic publication.**

To reduce the environmental impact and production costs of *Focus*, we have discontinued printed copies.

If you do not already receive “IRPFocusAlert” e-mail notifications (you should have received one about this issue), please send a message to irppubs@ssc.wisc.edu with the phrase “FOCUS ELECTRONIC” in the subject line. Please include the following in the body of the message:

Name

Mailing address

E-mail address

In addition to receiving an e-mail and link when a new issue of *Focus* is available on our website, IRPFocusAlert subscribers also receive notification of each new issue of *Fast Focus*, our electronic-only brief on recent poverty research.

We welcome your input. If you have questions or comments, please e-mail *Focus* editor Emma Caspar at ecaspar@ssc.wisc.edu.

*Rest assured that we will not share your e-mail address with anyone.

Focus

**Institute for Research on Poverty
University of Wisconsin–Madison
1180 Observatory Drive
3412 Social Science Building
Madison, Wisconsin 53706**