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Social Security Does Not Redistribute Income

Many people think that Social Security is a progressive program which redistributes income from the rich to the poor. But according to new research by **Julia Lynn Coronado, Don Fullerton,** and **Thomas Glass,** Social Security does not redistribute from people who are rich over their lifetime to those who are poor. In fact, it may even be slightly regressive.

In **The Progressivity of Social Security** (NBER Working Paper No. 7520) the authors concentrate on redistribution within, rather than across, generations. The Social Security benefit formula explicitly transfers money from people who earned more during their working years to those who earned less. This is why it is commonly seen as a progressive program. And, most economic studies have confirmed that Social Security is redistributive.

But the common perception and these previous studies fail to include a range of relevant individual characteristics that determine whether people really are lifetime rich or lifetime poor, the authors argue. When people are properly classified, no redistribution is found.

This research is based on estimated lifetime wage profiles and actual earnings data for a sample of 1800 individuals. The researchers use mortality probabilities to calculate expected payroll taxes and retirement benefits. They test redistribution in terms of net tax rates (the present value of expected tax minus expected benefit) and also measure levels of income inequality in the population before and after Social Security taxes/benefits are included. The result is a measure of how progressive the system really is.

As a first cut, the researchers classify individuals by income in a single year, to represent all U.S. citizens, working and retired, who take part in the system. The result is that Social Security is shown to be highly progressive: it has a measure of "effective progression" of 1.27. (A value of 1 implies that Social Security makes no difference—there is no redistribution.)

> "Social Security does not redistribute from people who are rich over their lifetime to those who are poor. In fact, it may even be slightly regressive."

The second step is to shift the analysis to lifetime income, to reflect the fact that Social Security is like a retirement saving program, to which people make contributions during their working years and receive benefits in retirement. Taking into account the taxes paid and benefits received over a lifetime, the researchers find that Social Security is far less progressive: the measure of effective progression falls to 1.05.

The third step is to take account of the cap that Social Security puts on earnings subject to the payroll tax. If one person earns the taxable maximum during the working life, and another earns twice the maximum, both pay the same amount of tax and receive the same benefits. But the tax takes up a higher proportion of the lifetime income of the first person. Removing this distortion, the researchers show that the program is slightly less progressive: the measure of effective progression is just under 1.05.

The fourth step is to take account of the fact that people may choose to work part time, or to take career breaks, in order to do nonmarket work at home or to enjoy leisure time. Unlike periods of involuntary unemployment, the researchers say, periods of time that people choose to spend outside the labor market should not be counted as reducing lifetime income for the purposes of evaluating redistribution. Accordingly, they shift the analysis from

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actual lifetime income to *potential* lifetime income (the discounted value of a person's wage rate multiplied by 4,000 hours for each year). This measure captures the value of leisure and home production. On this basis, Social Security is hardly progressive at all, with an effective progression measure of 1.01.

The fifth step reflects the fact that husbands and wives pool their resources. For the purposes of assessing the progressivity of Social Security, a low-wage spouse of a high-earner should not be treated as poor, the researchers say. Therefore, they add the potential income of husbands and wives together, and divide by two. Because a low-earner with a high-earning spouse is no longer counted as lifetime poor, Social Security is shown to be less progressive: the measure of effective progression falls to slightly above 1.

The sixth step is to incorporate different life expectancies into the model. Mortality rates differ with potential income: rich people tend to live longer than poor people, and so collect more years of benefits. Taking this into account in the calculation, the researchers show that Social Security is no longer progressive: the effective progression measure is barely above 1.

Most previous research—and the first six steps of this paper—used a discount rate of 2 percent. Coronado, Fullerton, and Glass change the discount rate to reflect the return on an asset with comparable risk (the risk that the government will default on its obligations). Their seventh step increases the discount rate from 2 to 4 percent, in line with the return on indexed Treasury bonds. Raising the discount rate puts more weight on the earlier, regressive payroll tax and less on the later, progressive benefit formula. With a 4 per cent discount rate, the authors find that Social Security is actually slightly regressive, with an effective progression measure of 0.998.

—Andrew Balls

Schooling Spending Differences are not the Source of Income Inequality

Analyses of income inequality invariably highlight the central role of education and "human capital," leading naturally to parallel policy concerns about differences in school quality. Despite controversy about the impact of spending on school quality, government policy and court actions continue to focus on altering resources for schools. In **Schooling, Inequality, and the Impact of Government** (NBER Working Paper No. 7450), **Eric Hanushek** and **Julie Somers** investigate spending differences both across and within states and find little support for a link between governmental school spending policies and labor market inequalities.

The authors note that about two-thirds of the variation in spending on schools comes from differences in average spending levels across states. Federal spending has been small (7 percent of the total) and has focused mainly on disadvantaged populations, but it has led to little equalization of overall spending across states. More importantly, the differences in spending have not had an important effect on the growth in student achievement in the states. Using achievement data by state for the 1990s from the National Assessment of Educational Progress (NAEP), Hanushek and Somers find that growth in math and reading scores between the fourth and eighth grade is not related to spending differences across states, although it is related to parental education levels. This is also consistent for white, black, and Hispanic students, suggesting that spending is not the explanation for the racial and ethnic convergence of overall NAEP scores during the 1980s.

> "Growth in math and reading scores between the fourth and eighth grade is not related to spending differences across states."

To date, most of the attention to spending inequalities has focused on variations within states, though. For the three decades following the landmark *Serrano v. Priest* case in California, lawsuits have drawn attention to inequalities in spending across state school districts. But, although courts in a third of states have overturned their state funding laws, little is known about the effects of spending inequality or equalization efforts on outcomes.

The authors directly investigate the effects of spending disparities on subsequent labor market inequality. They begin with school spending variations within each state for different classes attending high school between 1968 and 1996 and combine these data with data on family backgrounds. They then investigate the effect of both on variations in 1990 earnings.

They find that for white men and white women, there is a statistically significant negative relationship between variations in school spending and variations in later earnings; that is, the more uniform school spending is, the more inequality appears in subsequent earnings. For black men, the relationship between spending and earnings is not significant. Only for black women does reducing variation in school spending appear to reduce earnings inequality.

The Effects of Repealing Prevailing Wage Laws

Most states have "prevailing wage laws" which require private contractors bidding for state or local public works projects, or private projects that are financed in part by public funds, to pay a minimum package of wages and benefits to their workers. Although details of the laws differ from state to state, the effects of these laws on construction labor costs, and on construction labor markets more generally, have been the focus of an extensive policy debate.

In **Prevailing Wage Laws and Construction Labor Markets** (NBER Working Paper No. 7454), NBER Research Associates **Daniel Kessler** and **Lawrence Katz** examine the consequences of several states' repeal in the 1970s and 1980s of their prevailing wage laws. By comparing trends in construction labor markets in "repeal" states to trends in labor markets in states that did not change their laws, they find that the average wages of construction workers (in repeal states) decline slightly after repeal—by about 2 to 4 percent.

However, they also find that the small overall impact of law repeal masks substantial differences in outcomes for different groups of construction workers. The negative effects of repeal on wages are borne primarily by unionized and by white workers. First, repeal leads to a decline of approximately 10 percentage points in the long-run union wage premium earned by construction workers, or almost half of the total union wage premium in construction. Since union members account for approximately 25 percent of all construction workers, the 10-percentage-point decrease in the union wage premium explains almost all of the (approximately 2 to 4 percent) decline in construction workers' wages.

Second, despite the negative overall effects of repeal on the wages of construction workers, the repeal of prevailing wage laws does not appear to lower the wages of black construction workers. According to the authors' estimates from census data, prevailing wage law repeal actually raises the construction industry wage premium for black workers by approximately 4 percentage points relative to other workers.

The implications of these findings, and their applicability to other states considering repeal of their prevailing wage laws, depend crucially on the mechanism causing the differential impact of repeal across groups. The differential impact of repeal by race and union status may reflect a decrease in discrimination caused by a weakening of construction unions, or a change in union behavior arising out of a declining union wage premium. On the other hand, if repeal affects workers in heavy construction (for example, road and sewer construction) more than workers in light construction, and if heavy construction workers are more likely to be white and unionized, then the differential impact of repeal by race and union status may simply reflect the differential composition of workers in the two segments of the construction industry.

> "Repeal leads to a decline of approximately 10 percentage points in the long-run union wage premium earned by construction workers...but does not appear to lower the wages of black construction workers."

Unfortunately, as Kessler and Katz point out, they cannot distinguish definitively between these two possibilities based on the information collected by either the census or the Current Population Survey. They conclude their analysis with some possible ways that future research might investigate the mechanism through which prevailing wage laws affect wage schedules.

—David R. Francis

Would Collective Action Clauses Raise Borrowing Costs?

In **Would Collective Action Clauses Raise Borrowing Costs?** (NBER Working Paper No. 7458), **Barry Eichengreen** and **Ashoka Mody** find that, contrary to the view of some policymakers and many market participants, collective-action clauses in fact reduce borrowing costs for the most credit-worthy borrowers. But for less credit-worthy borrowers, often the poorest countries, the authors find that the opposite is true.

Contractual provisions designed to facilitate the orderly restructuring of problem debts have been suggested as an alternative to expensive international rescue packages for developing countries experiencing a sudden outflow of capital leading to a sovereign debt crisis. Collective-action clauses, which are typically included in bonds subject to U.K. law, allow a qualified majority of bondholders to pass binding resolutions altering the value and timing of interest payments. This contrasts with bonds subject to U.S. law (in practice, the law of the State of New York), under whose terms the unanimous consent of all bondholders is required. The addition of collective-representation clauses can thus be thought of as a small step in the direction of providing some of the functions of an international bankruptcy court. Doing so was sug-

gested by the G10 following the Mexican crisis and endorsed in a series of G7 and G22 reports in the second half of the 1990s. U.S. Treasury Secretary Robert Rubin spoke out in favor of collective-action clauses in 1999, and G7 finance ministers endorsed them at their Cologne Summit.

At the beginning of 2000, the U.K. government issued an international bond including collective action provisions. And in an April press release, the Canadian government committed itself to include collective-action provisions in all its future international bonds. Yet despite the argument that making provision for restructuring could render emerging-market issues more attractive, developing countries have resisted the notion of adding collective-action clauses, arguing they would raise their borrowing costs.

This is the question examined by Eichengreen and Mody. Their study compares the spreads on British-style bonds in the London market, where collective-action clauses are typically present, and equivalent American-style instruments, where such clauses are typically absent. Their data, from the Capital Bondware database, contains 2,619 bonds, virtually every international bond issued by emerging markets between 1991 and 1998.

Focusing on bonds subject to U.K. and U.S. laws, Eichengreen and Mody analyze the impact of legal provisions on spreads, while factoring in such variables as the maturity of the issue, whether it was privately placed, whether the issuer was private or governmental, the currency in which the issue was denominated, whether the interest rate was fixed or floating, global financial conditions, and a variety of country characteristics (macroeconomic variables, financial variables, and a measure of political risk).

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The authors find that collective-action clauses raise borrowing costs for less credit-worthy borrowers (by on average 150 basis points), while lowering them for more credit-worthy borrowers (by on average 50 basis points). These are significant numbers (relative to a typical emerging-market spread of 600 basis points). The authors' interpretation is that while more credit-worthy borrowers benefit from the ability to avail themselves of an orderly restructuring process, for less credit-worthy issuers those benefits are offset by the moral hazard and additional perceived default risk associated with the presence of renegotiation-friendly loan provisions and greater ease of restructuring. In the short run, mandating the inclusion of collective-action clauses would thus mean higher borrowing costs for low-rated sovereign borrowers, typically the governments of the poorest countries. In the long run, however, it would apply additional pressure, via market discipline, for them to upgrade their economic and financial practices and improve their credit worthiness.

—Matt Nesvisky

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