

Labor Market Institutions and Earnings Inequality

Most explanations of the decline in the real earnings of American workers and of the rise in earnings inequality here in the 1980s and 1990s focus on factors that shift the demand for and the supply of labor. On the demand side, the favorite shifters are technical change, notably computerization, and trade, especially trade with less developed countries, both of which can contribute to deindustrialization of employment (an earlier favorite shifter). On the supply side, the favorites are the decelerated growth in the number of college graduates relative to less educated workers, and the influx of low-skill immigrants. The influx of women into the work force has been mentioned as an additional possible factor.

Each of the popular causes of change has its supportive evidence; for a summary, see Levy and Murnane (1992). Each also has its evidentiary problems.

- If our labor market problems are due to technical change, why has productivity growth been so modest, and why has that growth not translated into higher real wages, as in the past?
- If the cause of inequality is exclusively imports from less developed countries, how does a mere 2 to 3 percent of the economy dominate wage-setting, and why have women, who disproportionately work in industries that compete with LDC imports, not suffered the huge losses of real wages that hit men? Why has the proportion of skilled workers risen in all sectors, despite the contraction of low-skill-intensive, import-competing sectors that displace low-skill labor to other parts of the economy?
- If the 1980s' decelerated growth in the supply of college graduates was so important, why has the accelerated growth of the 1990s not reduced the college/high school earnings gap?
- If immigration harms native workers, why have natives in immigrant-intensive cities not suffered huge wage or employment losses?
- Finally, if the cause is any or all of these, why has pay inequality

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risen within all detailed occupations—among waiters, laborers, carpenters, mathematicians—groups subject to technical change and trade, groups not so subject, and so on? Why have earnings differentials increased within all deciles of the earnings distribution?

Explaining a major economic change is no easy matter. The argument in this paper is not that the usual suspects are innocent. I believe that they have contributed to the rise in inequality and that some of the preceding questions can be answered satisfactorily. Rather, my argument is that the shortcomings noted above (and others) show that, even taken together, the suspects fall short of offering a full explanation of the extraordinary rise in inequality. This suggests that we should widen the range of suspects.

My candidates for additional suspects are changes in labor market institutions, notably the decline in

Candidates for additional causes of the rise in income inequality are changes in labor market institutions, notably the decline in collective bargaining, and the reduction of the government role in the job market.

collective bargaining, and the reduction of the government role in the job market, evinced, for instance, in the reduced real value of the minimum wage. Changes in labor market institutions have, I argue, contributed to the rise in inequality overall and to the increase in inequality within groups that other factors cannot readily explain. My claim is not that institutions are everything. Rather, my claim is that changes in the institutional structure are a contributing factor to the earnings problem, and that the evidence for their effects is at least as strong and arguably stronger than the evidence for the other proposed causal factors. I leave it to others to speculate why many economists and government officials give short shrift to institutions in explaining the failure of the U.S. economy to reward workers in the past two decades.¹

¹ The 1994 *Economic Report of the President* notes that several studies conclude that the decline of unionization accounts for about

My claim rests on three bodies of evidence:

1) Cross-country evidence that labor market institutions largely explain the difference in earnings inequality between the United States and other advanced countries. A factor that explains cross-country differences in inequality merits serious attention as an explanatory factor of changes over time.

2) Shift-share calculations that show declining union representation to account for at least one-fifth of the rise in earnings differentials and dispersion of pay within groups.

3) Evidence from analyses of the shape of earnings distributions that the declining real minimum wage has contributed to the rise in inequality, to which I would add the counterfactual assessment that the failure of the government to lean against the market wind has also played a role in the observed trend.

Some may object to the theme of this paper on the grounds that institutions are mere epiphenomena—the smokescreen through which market forces operate. If the labor market of the past two decades had been at full employment and competitive pressures put every firm on the knife-edge of existence, with no discretion in pay policy, I would take this objection to heart. But a wide body of research has shown that industries and firms have scope for independent pay policies, be it because they have economic rents or because they can strike innovative, efficiency-wage contracts. And it is difficult to characterize the past two decades of sluggish economic growth and rates of joblessness as full employment. Displaced workers cannot readily obtain jobs at their previous pay, and even huge wage reductions have left jobless large proportions of the less-skilled. In a world with rents and pay discretion, and with labor market slack, institutions have greater scope to affect outcomes than in tight job markets.

In any case, the evidence provides a compelling set of facts to add to the story of this epoch of increased inequality.

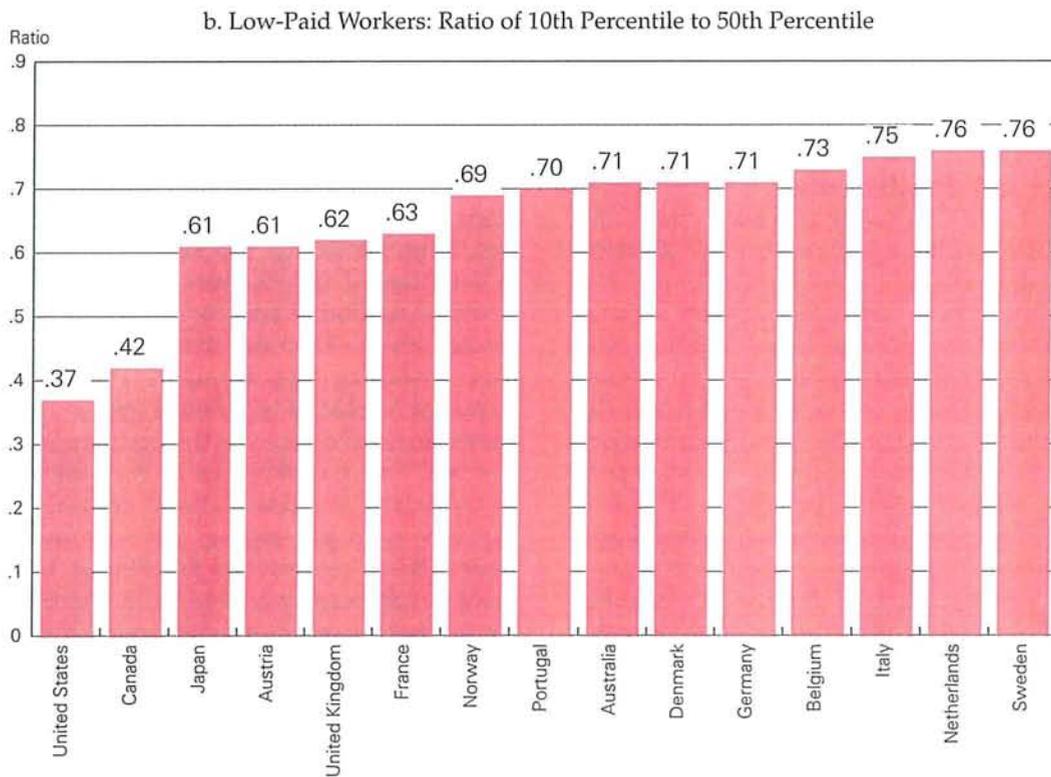
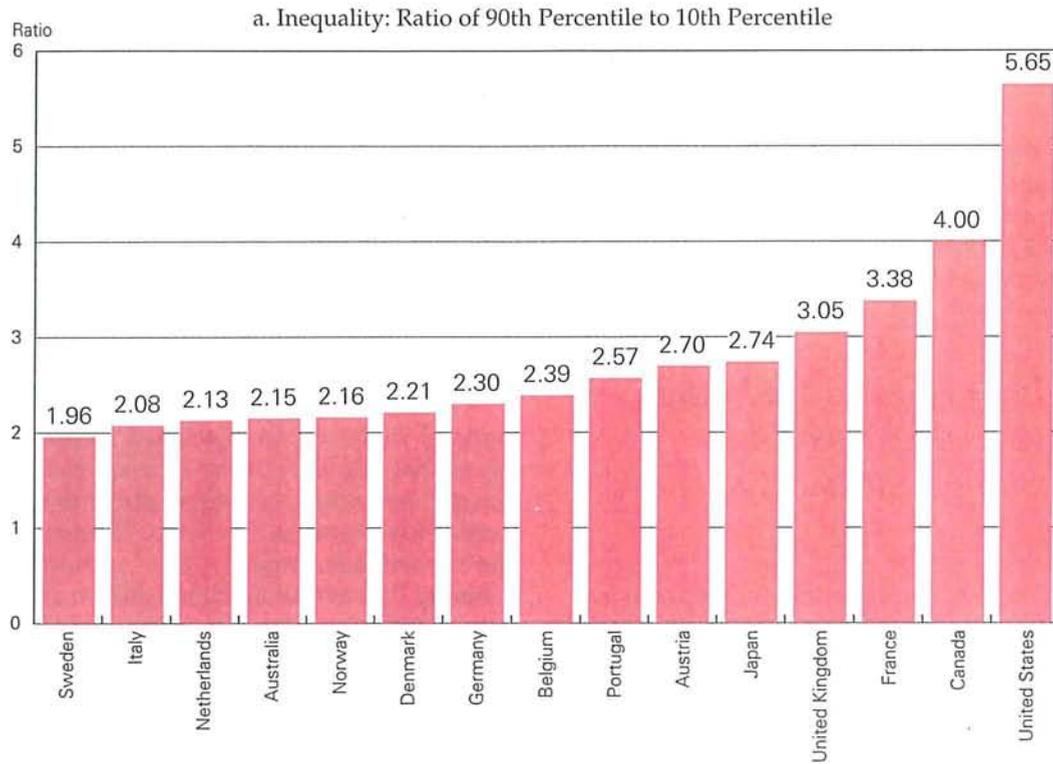
Claim 1: Labor Market Institutions Explain the U.S. Lead in Earnings Inequality

First, for the fact: the United States leads the industrialized world in earnings inequality. Figure 1A, based on OECD data, makes this clear. The ratio of the earnings of the top decile of American full-time

20 percent of the increase in inequality, but this point did not gain much attention (Council of Economic Advisers 1994, p. 120).

Figure 1

Spreads of Earnings Differentials



Source: Bjorklund and Freeman (1996).

male earners to the earnings of those in the bottom decile is far greater here than in other countries. A major reason for this is the low pay of Americans in the lower income deciles. Figure 1B shows that workers in the bottom decile earn just 37 percent of the median wage in the United States, compared to 60 to 76 percent of the median in most other countries. Since, on average, Americans earn only moderately more than Europeans in purchasing power parity of pay (we earn a lot less at current exchange rates than workers in several other countries), the disparity in

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earnings at the bottom translates into markedly lower real earnings for poorer Americans. A full-time American worker in the bottom decile of our earnings distribution earns per hour, for instance, less than half of what a comparable German worker earns, and three-quarters as much as a comparable British worker (Freeman 1994).

The position of the United States as the industrialized world's leader in earnings inequality is not unique to these earnings distribution data. During the 1980s and 1990s, educational differentials widened in the United States to create exceptionally large premia for the more educated. In the 1960s and 1970s, industrial wage differentials widened to produce an exceptionally wide interindustry wage structure. The United States also has large size-of-firm pay differentials and large differentials in pay by age (Japan has sizable differentials here, too). Differentials among women are exceptionally large here (although the male advantage in pay has dropped), and so too are differentials among young workers just entering the job market (although the age or experience premium has risen). Moreover, data on fringe benefits—pensions, medical insurance, and the like—show that low-paid U.S. workers have fewer benefits than high-paid U.S. workers, adding to the inequality in money compensation. Finally, data on family incomes, before-tax or after-tax, show this country at or near the top in overall income inequality. And, we are far ahead of comparable countries in child poverty, whether measured in relative terms or, as I prefer, in absolute family earnings adjusted for purchasing

power parity. At the other end of the spectrum, the United States rewards its CEOs more relative to employees than do other countries; academic economists, bankers, and rap singers also do fine, thank you.

The facts on inequality are clear and beyond dispute. Even before the rise in inequality in the 1980s and 1990s, the United States had a more dispersed distribution of pay than other countries. Before trying to explain the rise of inequality in the United States over time, it will be fruitful to see what underlies the greater inequality here at *any* point in time.

People or Wage-Setting Institutions?

Two possible explanations can be offered for high earnings inequality in the United States. One possibility is that this inequality reflects our diversity: the not-quite-complete mixing of ethnic groups. After all, unlike homogeneous Sweden or Germany or Japan, or the Netherlands, or Italy, we are a diverse people with differing cultures, education, ethnic backgrounds, living in diverse regions on a large continent. Surely, a diverse society can be expected to generate more inequality in pay.

A second possibility is that U.S. inequality reflects the way pay is determined here—our great reliance on market forces compared to labor market institutions, versus other advanced countries. Unlike most of OECD-Europe, we have a “thin” structure of labor market institutions: We do little to regulate pay by statute, we have no employer federations to speak of, and we use collective bargaining less than virtually every other country.

Is it the people or is it the wage-setting institutions that produce inequality, at U.S. levels? To find out, I proposed the following experiment. From a population of babies from an advanced European country, randomly select a few and move them to the United States. Then watch those babies grow up and reach working age. Compare their distribution of earnings to that of a “control group” of brothers or sisters in the old country. If inequality is in the people, we will find no difference in the spread of earnings between the experimental and control groups. If inequality is in pay-setting, we will find large differences. Now, reverse the experiment with American babies: Take a sample, send them overseas, and watch as the babies grow up, enter the job market, earn a living. Will the American babies have as great an inequality in earnings overseas as in the United States? Is inequality in us, or is it in wage-setting and other social institutions?

For unknown reasons, the National Science Foundation discouraged my undertaking this experiment,² so I will report to you the results of the closest approximation I could make using nonexperimental data—a pseudo-experiment. My pseudo-experiment compares the distribution of earnings of U.S.-born men of Swedish descent working in the United States with the distribution of earnings of men of Swedish descent working in Sweden. By looking at the descendants of Swedish immigrants rather than at immigrants, I eliminate the danger that the data will be driven by the selectivity of immigrants.³

To identify persons of Swedish background in the United States, I used the “ancestry” question in the U.S. Census of Population. In 1990 the question was: “What is this person’s ancestry or ethnic origin?” The coding allows persons to report two ancestry groups (for example, German-Irish). I extracted from the 1990 Census the record of all men who listed Swedish ancestry and obtained a sample of 53,468 observations. For comparison, I also extracted a random sample of 98,181 Americans of whatever ancestry. These samples are sufficiently large to provide reasonably accurate measures of earnings and incomes distributions.

On the Swedish side, my co-worker, Anders Bjorklund, extracted a sample of persons with Swedish parentage who grew up in Sweden (which eliminates immigrants and the children of immigrants) from the leading socioeconomic survey of individuals for that country.⁴ The number of observations is considerably smaller than those in the U.S. samples, but still sufficient for the pseudo-experiment (Bjorklund and Freeman 1996).

Table 1 presents the results of this analysis in terms of the 90/10 and 10/50 percentiles of hourly earnings ratios for male workers. The line labeled all U.S. men gives the distributional measures for Americans, regardless of ancestry. The line labeled U.S. men of Swedish ancestry gives the same statistics for per-

Table 1
*Hourly Earnings Differentials for Men,
Sweden and United States, 1989 to 1991*

	Ratio of Earnings, 90th Percentile to 10th (90/10)	Ratio of Earnings, 10th Percentile to Median (10/50)
All U.S. Men	5.53	.39
U.S. Men of Swedish Ancestry	5.05	.41
Swedish Men in Sweden	2.02	.77
Non-Nordic Men in Sweden	1.85	.74

Source: Bjorklund and Freeman (1996).

sons of full Swedish descent in the United States. The line labeled Swedish men in Sweden refers to persons of Swedish ancestry working in Sweden, while the line labeled non-Nordic men in Sweden refers to persons of non-Nordic ancestry working in Sweden.

When we first conceived these calculations, I anticipated that the men of Swedish descent in the United States would have a distribution of earnings narrower than that of other Americans but wider than that of Swedes in Sweden. They were, after all, more homogeneous than the “average” American. I planned to use the differences to calculate a kind of heritability (both genetic and environmental) coefficient for earnings dispersion. But, as you can see, such an analysis would have no point: Persons of Swedish descent living in the United States have a dispersion of earnings similar to that of other Americans—a distribution utterly unlike that of Swedes in Sweden.

Too few descendants of American immigrants live in Sweden to permit the reverse experiment, but Bjorklund noted that we could examine how adults born of all immigrants fare in Sweden. Contrary to the image of homogeneous Sweden, 15 percent of Swedish residents aged 20 to 64 reported in 1991 that one or both their parents were not Swedish citizens at birth; many said that the language at home was something other than Swedish; and half of them said it was a non-Nordic language (Bjorklund and Freeman 1996). We tabulated the hourly earnings distribution for all 20- to 64-year-old adults who reported that at least one parent was not Swedish and that the language at home was neither Swedish nor another Nordic tongue. The 90/10 and 10/50 ratios of earnings for these descendants of immigrants are

² My suspicion is that the National Science Foundation felt the study team should have had M.D.s or Ph.D. biologists rather than economists on it.

³ This leaves the dangers of selectivity among the immigrant parents (which they pass on to their children through genes and home environment), and of possible differences as to which parents have children, between Swedes in Sweden and in the United States. My suspicion is that selectivity among immigrant parents would produce a less dispersed distribution of children here than in Sweden, as immigrants usually come from one social group rather than being a random sample of persons in the sending country. I have no idea about the differential behavior of Swedes in Sweden and of Swedish immigrants in the United States.

⁴ This is the LNU survey, or the Survey of Living Conditions.

comparable to those for persons with parents born in Sweden. The Swedish system of wage determination produces a dispersion of earnings among those with foreign parentage comparable to that of other Swedes.

Sweden is, to be sure, more committed to egalitarianism than other capitalist countries. The most conservative Swedes are "off the map" of American political life by their desire to give the poor a decent living standard. But while Sweden is at the top of the scale in reducing pay differentials (Figure 1), it is not an outlier. Its distribution of earnings is comparable to that of other advanced European countries; it is in its tax and transfer policies that Sweden differs from other European Union countries. The United States is

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the outlier. If we performed the same "pseudo-experiment" comparing Americans of French, or German, or Italian or whatever parentage with their peers born in the old country, I predict that the results would mimic those for Swedish-Americans. Americans have unequal earnings because we have a wage-setting system that produces inequality. The earnings distribution is not "in us" nor "in our stars" but resides in the institutions that set pay in our country.

What Are Those Institutions?

In the United States, pay in the private sector is largely determined by companies subject to market constraints. Only a modest proportion of workers have their pay set by collective bargaining, and few have their pay set by industrywide bargaining with an employers' federation that covers all firms. Governmental pay rules, such as minimum wages or mandatory extension of collective bargaining (whereby the government extends the terms of a collective bargain to firms and workers not party to the bargain), also affect only a small number of U.S. employees. And the

proportion of the work force in the public sector is less than in most other countries.

We are not the only country that relies on the decentralized market to determine pay. The United Kingdom and Canada also rely heavily on markets, although they have larger union movements and greater public sector employment than we do. With a modestly sized and declining firm-based union movement, Japan might also fit into this grouping, but perhaps not: Japan's Shunto Offensive for wage-setting and in general the Japan, Inc. corporate behavior have led some analysts to classify it with Europe's more centralized labor systems. All of these countries—the United States, the United Kingdom, Canada, and Japan—are among the top five in inequality in Figure 1, although Japan is comparable to OECD-European countries in having a fairly moderate differential between the median worker and the 10th decile worker.

By contrast, in Western Europe (save the United Kingdom and Ireland), most pay setting is by labor market institutions. Collective bargaining sets the pay of 92 percent of workers in France, of 68 percent in Spain, of 95 percent in Finland, of 90 percent in Germany (OECD 1994, Table 5.8). In some countries, bargaining takes place at a national level, though this is declining in importance. In most countries, it occurs at an industry or industry-region level. In France, minimum wages are also important, since the government has set the basic minimum at about 60 percent of the average pay (compared to a U.S. minimum of about 35 percent of hourly earnings in manufacturing in recent years). Finally, government employment tends to be large in many European countries, so that public pay policies affect national wage determination to a substantial extent. Katz and Krueger (1991) show that, in the United States at least, public sector pay is less dispersed than private sector pay and pay inequality increased much less in the public sector than in the private sector in the 1980s.

Institutional pay-setting reduces inequality by three mechanisms. First, institutional determination compresses pay within a firm. Unions, in particular, seek to establish pay by rules rather than by management discretion. As a result, pay differences among union workers are smaller than pay differences among otherwise comparable nonunion workers in all countries for which we have data (Freeman 1982).

Second, institutional wage determination, especially industry bargaining with mandatory extension of collective bargaining agreements, reduces differences in pay among establishments. As a result of such

extensions, union/nonunion differentials in European countries are modest compared to the differentials in the United States (Blanchflower and Freeman 1992).

Third, for whatever reason, institutional pay-setting reduces industry differentials. The United States and other decentralized wage-setting countries have greater differences in pay across industries compared to countries that rely on institutions to set pay, including those that make extensive use of industry bargaining.

The "deeper" reason that underlies all of these relations is that institutions operate on averages; they

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represent average workers or firms, whereas markets operate on margins; they represent the pressure of supply and demand on the marginal firm/employee. Institutions are insurance mechanisms for employees and firms; they may reject changes that reduce the well-being of the average employee/firm even though this change fits with the marginal calculus.

The 1980s and 1990s were a good period to assess the difference in market and institutional pay-setting. When supply and demand operate to reduce inequality, market and institutional wage-setting produce changes in the same direction (as in the 1950s and 1960s), and it takes a subtle analyst to discern their relative importance. When, by contrast, supply and demand operate to increase differentials (as in the 1980s and 1990s), markets move rapidly in that direction, while institutions "lean against the wind."

Claim 2: Declining Unionization Is a Big Cause of Rising Inequality

Unionization declined precipitously in the U.S. private sector from the 1970s through the 1990s. In most advanced countries, unionization grew in the 1970s as workers sought protection from inflation, then fell in the 1980s and 1990s, though only to levels

at or above those in the 1960s. Here the decline was continuous, with the private sector fall overwhelming a rise in public sector unionization in the aggregate. As a result, the United States was further from the OECD mean unionization rate in the 1990s than in earlier decades.

But changes in union density have different consequences for collective bargaining among countries. As the United States does not rely on industry-level bargaining nor extend collective bargaining contracts within an industry,⁵ the decline in density translates into a decline in coverage and thus in institutional wage-setting. By contrast, even in European countries where union density dropped sharply, such as the Netherlands, the percentage of workers covered by collective bargaining barely changed. Why? One reason is that firms remained part of their sector's employers' association, which obligated them to follow the contract the association bargained with the union. A second reason is that mandatory extension laws required firms that were not members to abide by the conditions of the contract in their sector. The bottom line is that declining unionization had a much greater effect on earnings outcomes in the United States than in European countries.

How much of the increase in earnings inequality here might we attribute to the decline in collective bargaining coverage? One way to answer this question is to conduct a shift/share analysis, weighting observed changes in coverage by estimates of the effect of coverage on pay outcomes. In the U.S. private sector, collective bargaining produces higher wages for blue-collar employees and reduces white-collar/blue-collar pay differences, by roughly the same amount. From 1973 to 1993 union coverage fell by roughly 20 points. Assume that the union wage differential was 25 percent and that union wage gains did not spill over to other employees. Then, a 20-point drop in coverage would lower the pay of blue-collar workers by 5 percentage points ($= 20 \times .25$). This is about one-half of the increased white-collar/blue-collar differential among men (Freeman 1992). Since college and high school graduates are found in both white-collar and blue-collar jobs, the power of the decline in unionization to explain the rise in the college/high school wage premium is smaller: it accounts for about one quarter of that change (Blackburn, Bloom, and Freeman 1990; Freeman 1992).

⁵ Save for the Davis-Bacon Act, which the government interprets as requiring that federal contractors pay going union wages in most cases.

In the United States (and elsewhere) collective bargaining coverage is also associated with lower dispersion of earnings among covered workers. Reduced collective coverage thus offers one possible explanation for the increase in within-group inequality. Multiplying the 20-point drop in collective coverage by the estimated effect of unionization on dispersion of pay within sectors (measured by the standard deviation of the logarithm of wages), I estimate that about 20 percent of the rise in overall dispersion can be attributed to the drop in unionization. Note that this is only a rough estimate of the determinants of the rise in dispersion within groups. More sophisticated estimates (Blackburn, Bloom, and Freeman 1990; Freeman 1992; Card 1992; DiNardo, Fortin, and Lemieux 1994) give comparable results. Bell and Pitt (1995) have reported a similar finding for the United Kingdom. The uniformity of the estimates is impressive: It is rare in economics for different techniques applied by different analysts in different countries to come up with approximately the same estimate.

The 20 percent estimate is, however, almost certainly an underestimate of the true effect of declining union density on inequality. It is, after all, based on a

A rough estimate is that about 20 percent of the rise in within-group inequality of pay can be attributed to the drop in unionization in the U.S. private sector.

simple counterfactual—that the decline of unionization affects inequality only by reducing the share of the less dispersed or higher-paid blue-collar work force in employment. But it is highly likely that such a decline has “spillover” effects to other workers as well. Consider how the U.S. job market might operate if the percentage of private sector workers covered were two or three or four times the 1995 level of 10.5 percent. With private sector union density of 20 percent (the level in the mid-1970s), or 30 percent (early 1960s), or 40 percent (mid-1950s), I would expect union wage agreements that reduce dispersion to spill over to nonunion firms. In the 1950s and 1960s, many nonunion firms paid union rates or introduced union-

style pay structures in order to remain nonunion. The smaller dispersion in pay within union workplaces would thus be extended to nonunion workplaces, at least to some extent. The hard question is to obtain a valid and robust estimate of how big that “to some extent” would be now.

One way to measure the possible “full” effect of labor market institutions on pay inequality is to compare collective bargaining coverage/unionization and measures of inequality across countries, using a regression analysis. Given estimates of the effect of labor market institutions on inequality, one can—bravely—use the coefficients to infer how much lower U.S. earnings inequality might be if we had higher levels of collective bargaining coverage. Since many things differ between countries, and collective bargaining coverage means something different in different settings, such an analysis will be at best indicative. Still, for the purpose of gauging the possible effects of labor market institutions on economy-wide earnings distributions, a cross-country exercise will at least be provocative. If one believes that entire economies are the right units of observation, there is not much else one can do in any case to get the “full impact” of labor market institutions.

Table 2 gives levels of collective bargaining coverage and union densities⁶ and the two measures of inequality from Figure 1. There is a positive relationship between coverage and the nearness of the 10th decile to the median, and between coverage and the ratio of the earnings of the 90th to 10th deciles, but there are also clear divergencies: Japan has the second lowest collective bargaining coverage, but a “European” distribution of low pay; Sweden has less inequality than Germany, which has higher coverage, and so on. There is also a relationship between the two measures of inequality and unionization. The regressions at the bottom of the table summarize these patterns: They show that collective bargaining coverage is more closely linked to the level of inequality than is unionization per se.

The regressions provide one indicator of the potential effect of differences in national coverage and union density on differences in inequality. Consider, for example, the difference in inequality between the United States and Germany. In the early 1990s, collec-

⁶ The reader will note that in Japan collective coverage is slightly below the unionization rate. One possible explanation for this is that it reflects the crudeness of the data. But it could also be a real phenomenon, as some unions may have membership that is not large enough to produce collective contracts.

Table 2
*Collective Bargaining Coverage,
 Unionization, and Earnings Inequality,
 by Country*

Country	Coverage	Unionization	Earnings Ratio	
			90/10	10/50
United States	.18	.16	5.65	.37
Japan	.23	.25	2.74	.61
Canada	.38	.36	4.00	.42
United Kingdom	.47	.39	3.05	.62
Netherlands	.71	.26	2.15	.76
Norway	.75	.56	2.16	.69
Portugal	.79	.32	2.57	.70
Australia	.80	.40	2.15	.71
Sweden	.83	.83	1.96	.76
Germany	.90	.33	2.30	.71
Belgium	.90	.51	2.39	.73
Austria	.98	.46	2.70	.61

Summary Regressions (standard error in parentheses)
 90/10 differential = 4.95 -2.03 coverage -1.89 union $R^2 = .55$
 (.85) (1.23)
 10/50 differential = .39 +.29 coverage +.13 union $R^2 = .55$
 (.10) (.15)

Source: OECD 1993; 1994.

tive bargaining coverage was 0.18 compared to 0.90, and unionization was 0.16 versus 0.33. Taking the regression coefficients from the equations, I estimate that much of the U.S.-German difference in inequality is due to differences in pay-setting institutions. The U.S.-German difference in the 90th/10th decile of earnings is 3.35 points; the regression suggests that 1.79 points of this difference is due to the differences in coverage and unionization—a bit over one-half. Similarly, the U.S.-German difference in the 10th decile/median of earnings is 0.34; the regression suggests that 0.23 points of the observed difference between the countries is due to differences in collective bargaining coverage and unionization—about two-thirds. While these data are limited to one period⁷ and do not cover all the OECD countries, they are consistent with the notion that a significant portion of the U.S.-European gap in inequality is associated with differences in wage-setting institutions. On the other hand, the regression does not account for the U.S.-Japanese difference in inequality. Whether this is because the coverage variable incorrectly specifies Japanese institutions

⁷ I cannot readily analyze earlier periods because the source for collective bargaining coverage, the OECD *Employment Outlook* for 1994, does not provide figures for earlier periods.

(nearly all Japanese firms raise pay by nearly the same percentage amounts, after the Shunto Offensive) or for other reasons I am not prepared to say.

But the issue of concern is whether declines in collective bargaining coverage are associated with rising inequality. Table 3 summarizes the limited available data in terms of the change in coverage and the absolute and percentage increases in the 90th/10th decile earnings ratios. The countries with the largest declines in density of collective bargaining coverage had the largest increases in inequality in absolute and percentage terms; countries with modest declines had modest changes in inequality; while those with little change or an increase averaged even smaller growth in inequality. But the country variation in these groups is substantial: The U.S.-Canada comparison shows that Canada had as substantial a percentage increase in inequality as the United States, with essentially no change in density, whereas the decline in density in the United Kingdom is associated with a large increase in inequality. The overall pattern is in the expected direction, but here we clearly need more data over more time periods, and perhaps a more careful look at the U.S. and Canadian contrast. Card and Freeman (1993) and ensuing work suggest that Canada did not have as large an increase in inequality as the United States, contrary to the picture given by the OECD figures on which my table relies.

These diverse calculations show that while the U.S. might or might not have a more effective economy if union density were higher, it would surely be a less unequal society.

Claim 3: Government Interventions Affect Inequality

The United States government might have intervened in the labor market in various ways to lean against the winds of inequality in the 1980s and 1990s. It could have directly intervened in wage-setting, through increases in the minimum wage. It could have provided greater support for job training or higher education. It could have offered public sector employment or wage subsidies to employers for lower-paid employees. Going beyond the labor market, the government could have acted to offset the effects of rising labor market inequality on disposable incomes by redistributive tax and transfer policies. Note, however, that cuts in the income tax for the low-paid or increases in the earned income tax credit might potentially raise before-tax inequality (assuming that they

Table 3
Changes in Collective Bargaining Coverage and in Measures of Inequality, 1980s^a

	Change in Coverage		Change in 90/10 Ratio		Change in 10/50 Ratio	
	Percent	Absolute	Percent	Absolute	Percent	Absolute
Countries with Large Drops in Coverage						
United Kingdom	-23	.95	40	-.10	-14	
Australia	-8	.27	14	-.04	-5	
United States	-8	.92	15	-.03	-7	
Countries with Modest Drops in Coverage						
Japan	-5	.25	10	-.02	-3	
Netherlands	-5	.05	2	-.04	-5	
Countries with Little Change in Coverage						
Germany	-1	-.08	-4	.04	6	
Canada	1	.50	14	-.04	-10	

^aThe years covered are 1979 to 1991 or to the latest year available (U.S. to 1989, Canada 1981 through 1990). See OECD (1993, Table 5.2).

have an incidence similar to payroll taxes), requiring us to look as well at after-tax earnings patterns. In any case, the range of possibilities is substantial, and beyond the scope of this study. I consider the one that has recently attracted considerable attention: the minimum wage.

Studies have estimated the effect of maintaining the real value of the minimum wage on the distribution of earnings, usually under the assumption that such a change in policy would have little or no effect on employment. As estimates of the effect of higher minima on employment invariably yield modest elasticities—the most reliable “large” elasticity is -0.24 (Neumark and Wascher 1995)—this is a tenable initial assumption. For men aged 25 to 64, few of whom are paid the minimum, Blackburn, Bloom, and Freeman (1990) simulated that maintaining a minimum wage at its 1979 real level throughout the 1980s would have had only a modest effect on the earnings of less skilled workers, but these estimates appear to be overly conservative. Using a more sophisticated simulation methodology, DiNardo, Fortin, and Lemieux (1994) estimate that failure to maintain the minimum wage at its 1979 real value accounts for 10 percent of the increase in the standard deviation of adult male wages over the period and for 30 percent of the increase among adult women workers. Card and Krueger (1995) compare earnings inequality and the propor-

tion of workers covered by minimum wages across states and come up with a 30 percent estimate of the contribution of the decreased real minimum to the inequality among all workers. Mishel and Bernstein (1994) come up with the biggest estimates. Their simulations suggest that had the minimum wage been maintained at its 1979 real value, the growth of the 90/10 earnings differential inequality among adult men would have been some 50 percent lower in 1993 than it actually was, and the growth of the differential among women would have been two-thirds lower. Without endorsing any of these figures, this line of research can be seen as showing that maintaining the minimum wage at historically plausible levels relative to the average would have helped limit the near free-fall in wages at the bot-

tom of the earnings distribution that characterized the U.S. job market in this period.

A second possible set of government activities is on the quantity side of the market. Inequality in pay is less evident in the public sector than in the private sector. As noted, Katz and Krueger (1991) show that inequality was lower and increased less in the 1980s in the public sector than in the private sector. But the change in public sector employment was modest and between 1980 and 1993 the public sector share of nonagricultural employment fell from 18 percent to 17 percent, so that this change could not have contributed much to the change in overall inequality. Still, a more active government policy that used the public sector to hire low-skill workers directly or to subsidize the employment of low-paid workers, say through reductions in payroll taxes, might have reduced inequality. Such policies would raise the employment of the low-skilled, but not necessarily their pay, in the short run; but over time, earnings consequences would follow as the low-paid would accrue greater job experience, the number of jobless would decline, and so forth. I have not estimated the possible impact of such a program on the earnings of the low-paid and on inequality, nor whether its benefits would exceed its costs. My suspicion is that a reasonably sized, targeted employment program would have at least modest effects on inequality.

Conclusion

Assume that you accept the evidence and argumentation in this paper that you cannot tell the economic history of the rise in inequality and fall in real earnings in the United States in the latter decades of the twentieth century without bringing labor market institutions into the story. Does this mean you should run out and demand that your favorite political candidate copy FDR and declare "As President, I want workers to join unions?" (Do it, guys—it may not be popular but it's right!) Or that you should risk your job by trying to organize your fellow employees into a union? Or try to organize your fellow employers into a European-style employers' federation?

Not necessarily. The causes and cures of problems are not necessarily linked. We cure myopia (a largely genetic disease) with glasses and contact lenses. We develop new genetic strains of animals or plants to deal with environmental diseases or rusts that threaten those animals or plants. Similarly, the best cure to the problem of falling real earnings and rising inequality may be unrelated to the factors that caused the problem. If you believe that trade is *the* cause of rising inequality, you can still reject protectionism, on the grounds that the potentially large costs to trade barriers outweigh any benefits in the form of reduced inequality. Or, if you believe that technology has impoverished low-skill workers, I suggest you do not trash your computer or march on M.I.T. The costs of stopping the advance of technology (were it possible) far outweigh any benefits in the form of reduced inequality.

You can logically look instead in other directions for cures. Maybe the most efficacious solution to rising inequality is a more progressive tax and transfer system or greater expenditures on public goods, which the poor consume equally with the rich. Or maybe it is providing laptops for every poor child, so that they become more adept at dealing with modern technology.

In the case at hand, I believe that institutional interventions in pay-setting have potential costs, some substantial. These costs have exercised Europeans for

some time. Europe has not had much job growth. OECD-Europe has lower employment/population rates than the United States. OECD-Europe has long spells of joblessness. I am not convinced that the "right" institutional pay-setting necessarily lowers employment by enough to worry about in a country whose problem is not job creation but earnings inequality. The workers whose pay has fallen in the United States have also experienced loss of time worked, and the minimum wage studies suggest that elasticities of demand for the low-skilled are small. Still, I would not dismiss the potential cost of labor market institutions in employment.

At the same time, labor market institutions bring benefits beyond lower inequality—the voice benefits of democracy in workplaces—that must be factored into any overall assessment of those institutions. A society in which bosses boss and workers obey—where workers have no independent say in the decisions that affect their working lives ("if you don't like the way the company does it, leave")—is likely to miss out in efficiency (see Freeman and Lazear 1995) as well as in fairness and decent treatment of all. An assessment of any scheme to rebuild American labor institutions must take account of the full spectrum of costs and benefits of those institutions.

The message of this paper is not that the best or only cure to inequality and impoverishment of workers is increased institutional wage-setting. For what it is worth (full disclosure of biases and all that) I believe that greater reliance on labor institutions is a plausible cure to rising inequality and is probably a necessary part of any solution. But this is belief, not evidence. The message of the paper is that institutions are important in distributing earnings, and that institutional developments in the United States in the past several decades have contributed to our earnings problem. To ignore the role of unions and government policies is to ignore part of the real world—not a wise strategy for understanding what happens in the economy nor for devising policy solutions to improve outcomes. Rising inequality is too serious a national problem for us to exclude from discourse any set of potential candidates for cause or cures.

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Discussion

Peter Gottschalk, Professor of Economics at Boston College

In this paper Richard Freeman has put the best case forward for the importance of labor market institutions in explaining the level and trend in earnings inequality. Motivated by his broad reading of the literature and unhindered by any fear of going too far out on a limb, Freeman offers us what is probably an upper bound on the importance of labor market institutions. Many will wince at his willingness to draw broad conclusions from bivariate relationships. However, as is usually the case, many of his observations show real insight.

I view my role as the sympathetic yet cautious observer who enjoys seeing the daring of others, while at the same time wanting to bring a mild dose of caution to this endeavor. My hope is that my more restrained case for the importance of labor market institutions will strike the proper balance.

Do institutions matter? The answer is obviously "Yes." One simply cannot believe that market forces have been so consistently different in the Nordic and Northern European countries than in the United States and the United Kingdom as to generate such wide and persistent differences in earnings inequality. So the question is not whether institutions matter, but how much they matter. This raises the question, "How much compared to what?" If there is going to be a horse race, one needs to have at least one other horse on the track. The most obvious competition is between the importance of market forces and that of institutional forces.

Conceptual Issues

Before moving to the empirical evidence, let me raise three conceptual issues. The first focuses on the difference between explanations for changes in earnings inequality that focus on *levels* and on *changes* in institutions. Conceptually, nothing is wrong with thinking that both levels and changes may matter. Institutional constraints may provide an imperfect screen limiting changes in the wage distribution. The tighter the screen, the slower the growth in inequality. Therefore, levels may matter. Likewise, tightening the screen may reduce the growth in inequality. Therefore, changes in institutions may matter.

While nothing is conceptually wrong with using

both the level and the change in institutions to explain trends in inequality, this gives the institutional explanations a great deal of latitude. If a country has tightly regulated labor markets which are then weakened (as was the case in many countries during the 1980s), then one can explain either increases or decreases in inequality. If inequality did not rise, it was because of the level of institutional constraints. If inequality rose, it was because of the changes in constraints.

The pattern of large increases in inequality in countries with the more decentralized labor markets forms the core of the argument for the importance of institutions.

This degree of latitude, of course, can be limited by imposing some structure on the data. In principle, nothing stops us from including more than one explanatory variable in a regression with changes in inequality as the dependent variable. But this raises the second issue. Any cross-national comparison is limited by the very small number of countries. Most studies compare just two or three countries. Ten countries is a large sample. To ask these data to distinguish between the effects of levels and trends in institutions while holding other relevant factors constant (changes in relative supply, change in international trade, and the like) is asking a lot.

The third conceptual issue is that a full answer to the question of the relative importance of institutional and market forces would have to take account of feedback between the two. Inasmuch as institutional changes are caused by changes in market forces, one would need to allocate this endogenous change to market forces, not to changes in institutions. The most obvious example is the decline in unionization, which was certainly caused in part by increased foreign competition that weakened the bargaining power of workers. But causation does not go only from markets to institutions. For example, the downsizing of government, which is clearly an institutional change, results in a change in relative demand for skilled workers as long as the public and private sectors differ in skill intensity. I mention this endogeneity problem not because it is solvable at this stage, but only to

be clear about the accounting exercise we are involved in. As a practical matter, my guess is that endogeneity is small potatoes compared to the other empirical problems.

Empirical Evidence

With these preliminaries out of the way, let me turn to the empirical evidence presented in Freeman's paper. The first claim is that institutional differences explain much of the differences in levels and trends in inequality. I will focus my comments on changes in inequality over time, since this is what has preoccupied the profession recently and because I have little doubt about the importance of institutional differences in explaining levels of inequality. (Differences in market forces could not be large enough to explain the substantial cross-national differences in the levels of inequality that have persisted over decades.)

The strongest case for the importance of institutions comes from the simple correlation between almost any ranking of countries by the degree of centralization of wage setting and by increases in earnings inequality. Finland, Sweden, and the Netherlands experienced small increases in inequality, followed closely by Israel and France. These are all countries that have either strong union coverage or other forms of centralized wage setting. The sole exception is France, which has fairly decentralized labor markets but has a widely applied and rising real minimum wage. At the other extreme are the United States and the United Kingdom, which experienced large increases in inequality and have very decentralized labor markets. This pattern of large increases in inequality in countries with the more decentralized labor markets forms the core of the argument for the importance of institutions.

It is, however, instructive to go behind these aggregate measures of inequality and to look at changes in inequality between and within groups. The large increase in overall inequality in the United States and the United Kingdom reflected increases in the education premium, increases in the experience premium, and increases in inequality within groups. The pattern is not nearly as uniform for countries that experienced little or no increase in inequality. The small changes in inequality in Sweden and Finland reflect a decline in the age premium matched by an increase in the education premium. In the Netherlands, the pattern is just the opposite, with the age premium rising but the education premium falling. So the first question to ask is whether market-based

or institutional-based explanations fit these within-country differences better.

Two additional sources of information can help inform the debate. If changes in relative supplies of factors are consistent with changes in relative wages between education or experience groups, then this is clearly consistent with a market-based explanation. On the other hand, if institutional rigidities kept wages from falling to market-clearing levels, then one should observe a change in the relative employment rates of the least skilled.¹ My claim is not that changes in relative supplies or changes in relative unemployment rates provide conclusive evidence for market-based or institutional explanations, but rather that they provide additional evidence which helps get us beyond the simple cross-country correlations between changes in overall inequality and levels of institutional barriers.

France and Sweden provide the strongest case for the importance of institutional constraints.² In France, the minimum wage (the SMIC) increased faster than the average wage during the first half of the 1980s, then slowed later in the decade. These changes in the minimum wage closely parallel the relative stability of inequality through the mid-1980s followed by a mild increase in inequality during the late 1980s and early 1990s. If the minimum wage was a binding constraint, then we should observe an increase in the relative unemployment rates of the young and less-educated workers. This is exactly what we observe.

Likewise, the patterns of changes in relative unemployment rates are consistent with an institutional explanation for the change in inequality between experience groups in Sweden. During the 1980s, the earnings of young workers actually rose faster than the earnings of older workers. This was mirrored by an increase in the relative unemployment rates of young workers in Sweden, strongly suggesting that institutional constraints were propping up the wages of the young while demand for their skills was falling.

The Netherlands and Finland also have institutions that potentially could have limited the rise in inequality. The evidence on changes in relative supply and unemployment rates suggests, however, that these constraints were not binding. Recall that in the Netherlands, the small increase in overall inequality

¹ Unemployment would not rise if demand were totally inelastic, an assumption that Freeman rejects implicitly when he writes about the cost of institutional interventions in pay setting as taking the form of lower employment/population rates.

² Change in returns to skills, relative supplies, and relative unemployment rates are from Gottschalk and Joyce (1995).

reflected two fairly large but offsetting forces. The education premium dropped considerably, while the age premium increased. The drop in the education premium does not seem to be the result of institutional constraints on wages of the least educated. Rather, a substantial increase occurred in the relative supply of college-educated workers in the Netherlands during the 1980s. This market-driven force offset the increase in demand for educated workers, with the result that wages of college-educated workers actually fell relative to wages of less-educated workers. The importance of institutional factors is further undermined by the fact that the relative unemployment rates of less-skilled workers did not increase.

The only policy that I would add to Freeman's list is changes in the earned income tax credit. This seems to be a straightforward way of dealing with changes in the earnings distribution.

The pattern in Finland is similarly consistent with a market-driven explanation. Here, the small overall increase in inequality reflects an increase in the education premium countered by a decline in the age premium. But the increase in the relative wages of younger workers is consistent with a market explanation, since the relative supply of younger workers also decreased in Finland. Furthermore, changes in relative unemployment rates again do not point to binding constraints on wages of young workers, even in this country with centralized labor market institutions.

In summary, the raw correlation between the level of institutionalized wage settings and changes in earnings inequality gives an incomplete picture. In essence, it shows only one horse in the race. When we look behind these numbers at changes in relative supplies, we find that roughly half of the countries with centralized wage-setting institutions also experienced changes in relative supplies that are consistent with the data. In essence, the raw correlations tell us only about the potential for binding constraints, not whether these constraints were binding. It should come as no surprise that in some countries constraints were binding, while in other countries they were not.

The second claim in Freeman's paper is that declining unionism was a big cause of the rise in inequality. He provides two types of evidence. The first is a summary of studies of the United States that have tried to estimate the impact of changes in unionism on inequality. As he points out, all but one of these studies come to similar conclusions. Roughly 20 percent of the increase in inequality came from the decline in unionization. I have no quibble with this body of research, other than to point out that changes in unionization may have partially reflected changes in market forces. But as a purely accounting statement, the number 20 percent seems reasonable. Whether 20 percent is large or small is clearly in the eye of the beholder. One can make equally strong statements about the importance of foreign trade, computerization, or other factors that explain part, but by no means all, of the change in inequality.

The second body of evidence provided by Freeman (his Table 3) uses cross-national comparisons to try to tease out the importance of declines in unionization. This is one of those cases where his creative imagination may have taken him a bit too far. While the correlation between changes in inequality and overall measures of centralization of wage setting is fairly strong, the relationship between changes in this specific institution and changes in inequality is far from overwhelming. When these data are plotted, one sees that the negative relationship is almost totally driven by the United Kingdom. Even if one were to draw conclusions from simple correlations like this, one would not want to bet on the institutional horse, based on these weak patterns. In my opinion, this cross-national comparison does little to strengthen the case for the importance of institutions.

The third claim is that government interventions can affect inequality. I have no objection to this claim. As Freeman himself points out, the causes and cures of problems are not necessarily linked. The United States could have done substantially more than it did to offset the changes in the labor market, even if changes in institutions were not an important cause for the increase in inequality.

The only policy that I would add to Freeman's list is changes in the earned income tax credit. In 1993, a low-income worker with children was eligible for a 19.5 percent tax credit on earnings. This was supposed to be raised to 40 percent by 1996. While one can argue about the incentive effects of the EITC and the difficulty of administering a program that encourages people to overstate their earnings, this seems to be a very straightforward way of dealing with changes in

the earnings distribution. The question is not whether changes in government policy can offset increases in inequality, but whether the nation wants to offset the declines in earnings of persons who, through no fault of their own, were born during a century when wages of less-skilled workers plummeted.

In summary, I come away from this paper with the conclusion that institutions can and, at times, do matter. What Freeman has offered us is an upper bound on the importance of institutions. Even if one

moderates his conclusions, one is left with the impression that institutions provide binding constraints in some countries in some periods. Furthermore, the United States could have done a great deal more than it has done to offset changes in labor markets.

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Policy Implications: A Panel Discussion

A Statement of Our Concerns

Moderator Anita A. Summers

Professor Emeritus of Public Policy and Management, the Wharton School of the University of Pennsylvania, and Senior Research Fellow at the Wharton Real Estate Center.

I will begin with two general comments and then summarize the possible policy implications that flow from today's papers.

Defining the Problem

To my mind, an important issue remains that we have not discussed, and should: the fact that we are all here because we agree that existing inequalities are too great. We have not really demonstrated that such inequalities are so terrible, however, and we need to lay out the welfare function explicitly. It is not clear that the current Congress has the same welfare function in mind as the one that seems to prevail here.

The biggest divisions about what is the right amount of inequality can be described as follows. One way of thinking would support some sort of safety net that would protect medical care, housing, and education at a minimal level, while leaving the rest up to the market. The other way of thinking about inequality argues that we should allow the market to operate sufficiently to ensure that such programs maintain an efficient purpose in society. The United States now has such a large group relying on our safety net precisely because we have not done so, according to this point of view. Some statement about the actual level and reasons for concern about earnings inequality should accompany any policy discussion.

My second general comment relates to the decision, in this conference, to focus on both spatial and labor market contributions to earnings inequality. Spatial inequality analysis usually emphasizes the group with the lowest level of income, the bottom

decile, the underclass. We have concentrations of the poor, and growing disparities between the city and the suburbs in income and many related socioeconomic measures. Policies derived from spatial inequality studies emphasize improved mobility of residential location, and improved ability of people living in one place to get to employment in another. Such policies assume that if the poor were more dispersed, we would have fewer problems.

Labor market inequality analysis, on the other hand, looks at the whole range of the income distribution. A researcher may compare the lowest income group to the highest, or measure the difference between the second and the eighth deciles. Such studies are interested in how the market rewards skills in relation to productivity, and in wage determination as it is related to the demand for and supply of labor. The focus on the lowest income group, in some labor market studies, overlaps the similar focus of most studies of spatial distribution. The policies flowing from these studies are directed to education, training, the minimum wage, and the role of internal private sector management.

Mobility and Neighborhoods

The spatial papers—the overview paper by Mayer, and the papers by O'Regan and Quigley, and Holzer and Ihlanfeldt—point strongly and clearly to both the role of transportation and the role of neighborhood effects in the spatial reinforcement of earnings inequality. Such papers provoke much discussion and interest here, because we operate at the margin in determining which is more important: neighborhood effects or transportation effects. As empirical social scientists, however, we must understand the tension that exists between the partial equilibrium or individual questions that drive our research and the general equilibrium reality in which both transportation and neighborhood play an important role.

Over the past quarter century, one of the great flaws in public policy has been to use single-pronged policy programs to aid those at the lowest end of the income distribution, rather than to use the more

complex, multi-pronged approaches. We who do research have helped to drive that misguided policy approach. We identify one or another input as a significant coefficient in our regressions and tend to design policies accordingly. Much of the current thinking in research circles and in the experimentation funded by large foundations has shifted to ways to assist low-income families by addressing many areas simultaneously. While specific research projects may point to one approach, effective results will require combining the knowledge from all our research efforts into a comprehensive policy program.

Much of the current thinking about assisting low-income families emphasizes addressing many disadvantages simultaneously.

The research results on transportation and neighborhood effects discussed today combine in the following questions: Can an individual freely choose where to live, given the income constraints? Does every geographic area provide a supply of residential locations for whoever wants to live there? And can people get to the places where the jobs are located? The papers presented today said that mobility matters and that neighborhoods do have effects on earnings.

So what are the policies to think about? In our policy discussions, we must take into account the devolution of power that is taking place in this country. How much, and in what form, we may not know yet, but some devolution surely will take place. One tool to implement devolution is block grants to state and local governments. Although block grants have received much support, little attention is being paid to just how they will be distributed—not even by big city mayors, who will certainly be among those most affected. This is clearly a case where it is all in the details! There is a well-known example from the 1970s of the need to understand the details. The formula for the distribution of Community Development Block Grants used the log of the unemployment rate to calculate funding. How could big city mayors have allowed the log to get in, rather than the level? The question is whether states, with their increased power,

will regard spatial and labor market inequalities as a major concern. And the question is also whether the federal government will use the block grant formulas to give incentives for them to do so.

How much will be spent on increasing mobility by tailoring transportation to provide access to jobs? Will there be constant legal pressure for the availability of housing for all who can pay? Much of the current immobility comes from a certain fixity, or even expansion, in the size of the underclass, the poorest group. We have not been successful in breaking through that fixity, and it is not clear that transportation will change it, either. Marginal effects are important, so we should ensure that transportation is available, but we should think about them as marginal effects.

When thinking about neighborhood effects, it is important to focus on the dispersion of poverty. No systematic study has been done on what happens to income inequality if neighborhoods are changed by a reduction in the spatial concentration of poverty. In New Jersey, for example, the latest Mt. Laurel decision was interpreted to mean suburbs could “pay” or “play”—either contribute financially or build low-income housing—and all opted to pay. If the decision had been to put low-income housing in many of these suburbs, rather than sharing only fiscally, this would have been a good case study for the effect of dispersion policies. That is the only such court decision I know of that has gone so far in trying to alter the poverty concentration—and legal scholars differ as to whether that decision will, in fact, have wide implications.

A few years ago, I organized a conference that took place in that great urban setting, Bellagio on Lake Como, comparing urban economic development in Western Europe and the United States. A major conclusion emerging from the comparison was that European cities are healthier than U.S. cities for two reasons. First, the poor are much more dispersed in Europe than in the United States; lower-income families tend to live around the periphery of major cities, not in the center, as in the United States. Second, most European cities receive centralized funding. Their state of well-being is nowhere near as dependent on the local tax base as that of cities in the United States. So, I encourage thinking about deconcentration policies.

The Kain-Singleton paper suggests that spatial inequality translates into fewer resources going to schools in poor and minority communities than to schools in more affluent areas. We still do not know whether these resources matter. If they do, we need

to think about ways to add or reallocate dollars to resources that in fact have an impact on education. If resources do not matter, then we are left thinking about policies that do not necessarily involve resources but, rather, involve a major restructuring of the organization and incentives of our educational system.

Labor Market Issues

What are the real labor market issues in connection with earnings inequality for those at this conference? If they are not primarily issues about those at the bottom, then what is there to worry about? We might worry about those unemployed who have a temporary skills mismatch for labor market needs, who need help with mobility or retraining. We might worry about today's middle class that has less income

Immigration policy has strong spatial implications, as well as general implications for the labor force as a whole. In the past decade, most of the new immigrants ended up concentrated in the central cities.

than its predecessors. To my mind, this does not seem to be such a worrisome thing to contemplate. We might worry about international competitiveness, in which case we want to ensure that international markets are freed up, leaving it to the market to translate those changes into the labor market. It is the group at the bottom, however, that warrants most of the attention from public policies—a view that probably reflects the social welfare function of the participants in this conference.

Peter Cappelli and Richard Freeman see some possible solutions in the private sector. Cappelli argues that managers influence the wage structure; but if you believe in markets, then presumably they manage the wage structure so as to maximize profits. It is difficult to think of managers of private companies as the guardians of more equality; they have quite dif-

ferent roles. I do not see any significant public policies about income inequality arising from the activities of internal management, although the notion of an independent role for internal management in lessening earnings inequality is quite interesting—profit-driven training programs and educational standards for hiring, for example.

Richard Freeman's policy recommendations were based on a reexamination of a number of institutions that affect earnings. I agree with Peter Gottschalk that such institutions are largely endogenous. They obviously have been supported by laws, but on the whole, they emerged from our society endogenously rather than exogenously.

So to address inequality in the general distribution of earnings and income, the list of non-spatial public policies would include changing tax policies, raising the minimum wage, improving training and higher education opportunities for low-income individuals, and changing immigration policy. Immigration policy, of course, has strong spatial implications, as well as general implications for the U.S. labor force as a whole. Five metropolitan areas in the United States received 58 percent of all new immigrants in the past decade, with Los Angeles accounting for 24 percent. Most of the new immigrants ended up concentrated in the central cities. Although immigration policy is set nationally, the effects are concentrated in a limited number of metropolitan areas. In the central cities of those areas, the fiscal impact of that concentration affects the local governments' abilities to provide services to those at the bottom of the income distribution.

Cities Are Special

As we look ahead, new policy options will emerge as power devolves from the federal government, largely in the form of block grants to states. These grants offer a new opportunity to build in incentives that would encourage state and local governments to reduce the inequality of income by reducing the spatial concentration of poverty. We do not know now how policymakers will choose to structure these block grants, but they certainly open up the possibility of establishing incentives to change the spatial distribution of the poor within a state, to change the minimum wage, and to alter tax policy. It is a big challenge to our current thinking to focus our concerns about income inequality on the roles of state and local governments. In the past, based on very

sound public finance principles, redistributive policies were activated on the federal level. Now, we will have 50 political arenas to consider. This certainly suggests that spatial inequality will not be addressed in a uniform way, and that we will have to concern ourselves, increasingly, with the effects of competition among the states in welfare reform—who will spend the least?

Income Trends and the Housing Market

Panelist Ann B. Schnare

*Vice President for Housing Economics,
Federal Home Loan Mortgage Corporation*

I was asked to address the impact the mortgage market may be having on income inequality. I find that a difficult hypothesis to address and have decided to turn it around a bit. I will discuss the impact that income trends are having on the housing market and the pressures they are putting on the mortgage industry as well as on the housing programs that serve the poor, such as those run by the Department of Housing and Urban Development (HUD).

Let me begin with a few words on how the effects of earnings inequality have played out in the housing market historically. Enormous and rapid improvements occurred in the homeownership rate after World War II. We went from a nation of renters to a nation of owners. But in the early 1970s, homeownership rates began to decline and continued to do so until last year. Many feared that the American Dream of homeownership was being threatened.

If you look at the numbers, much of the decline in the homeownership rate can be explained by demographic trends, for example, the rise of single-person households. But more important, in my view, are the income trends we have examined today. Younger, middle-class households between 25 and 35 years old, the classic first-time homebuyers, have experienced stagnating or even declining wages. Homeownership rose among younger households without children, both singles and married couples, but it fell significantly for both single and married parents with chil-

This should leave us worried about one of America's greatest problems—our large old cities, where the biggest inequalities of income are found. Within the states with these large cities, the vote counts of the suburbanites plus the rural areas exceed the vote of the cities. That is not grounds for optimism about the likelihood of reducing income inequality in the United States!

dren. These were also the groups who experienced declining incomes.

Poverty in the Cities

The middle class certainly has been affected, as the stagnation in wages put pressure on homeownership rates, but the big impact has been on the rental market, as both relative and real incomes fell for those at the bottom of the income distribution, the people who traditionally have been renters. As a result, there is a large and growing gap between what it costs to operate an apartment building and the rents households can afford to pay. This has led to two problems,

Not only are individuals pulling apart, so are neighborhoods and communities. Increasingly, the poor are concentrated in highly impacted neighborhoods within the city.

the physical decay we see in urban areas and an increased demand for government subsidies. And HUD has been severely hit by reductions in the resources put into low-income programs, a trend that will only intensify in the future, in my opinion.

These are individual effects, in a way. But the papers we discussed earlier make clear that not only are individuals pulling apart, so are neighborhoods and communities. Increasingly, the poor are concentrated in highly impacted neighborhoods within the

city. Most who can get out have been getting out. These changes are having a growing impact in turn on the fiscal health of cities and their ability to pay for essential services. And city fiscal difficulties may in turn intensify some of the negative neighborhood effects that we have discussed today. The problems of urban areas are now linked intrinsically to problems of income distribution. To what extent they are contributing to or causing such problems is a matter for debate, but income distribution problems certainly are affecting the future viability of urban areas.

Implications for the Mortgage Industry

What does this mean for the mortgage industry? Certainly there is a lot of concern about the ability of low- and moderate-income households, especially minorities, to get access to the mortgage market. Following the Boston Fed study, as well as other work on mortgage flows in low-income and minority neighborhoods, the response by the mortgage industry has been fairly dramatic as we reexamined our underwriting criteria to see if we had unnecessary barriers to getting credit to inner-city neighborhoods.

This reexamination has led to a lot of experimentation, which has intensified in recent years. Unfortunately, the initial results are not very comforting. The mortgage industry has seen a real decline in credit quality, due in part to a drop-off in loan origination volumes. Mortgage originators were staffed up, and then they saw the refinancing market go away. Thus, there has been increasing economic pressure to preserve volume as well as political pressure.

At Freddie Mac we have found it important to distinguish between the performance of special programs and that of mainstream programs as they relate to the income of the borrower. In our special programs designed to lift certain underwriting guidelines, the record is not very good. These programs are relatively new, but as the data begin to come in, they are showing significantly higher default and foreclosure rates. These are low-equity loans, where only 2 percent of the money comes from the borrower's equity, and often even this is paid by or borrowed from the bank. Other aspects of risk are typically involved as well; in fact, layering of risk appears to be a significant problem. In my opinion, it is bad public policy to put individuals into houses they cannot afford to support. Some of the biggest abuses of government

programs occurred in FHA during the early 1970s, when neighborhoods were blown away by bad underwriting.

If one examines mainstream programs, in particular the relationship between loan performance, borrower income, and neighborhood income, some interesting results appear that we do not fully understand yet but that relate to spatial effects. We have found, for example, that low-income loans perform the same way as high-income loans, with not much difference between the two groups. The important factor seems to be, rather, neighborhood income, which may mean that neighborhood income is picking up something more fundamental about permanent income than is revealed by examining only the current income of the borrower.

In looking at Freddie Mac's own mortgage purchases, we have found again that credit quality is not related to the borrower's income but rather to neighborhood income. This gets at the fact that serving distressed inner-city neighborhoods does involve more risk, that these are very difficult loans to do. The lending industry has much to learn. It is doing a lot of experimentation but concern remains about how far to go.

People versus Places

Shifting the focus now from Freddie Mac to HUD, one issue HUD has always been unsure about is whether it should subsidize people or places, rely on supply-side programs or on voucher programs. HUD has tried to serve both purposes with the same set of programs. Over time, as HUD monies dried up, they have increasingly targeted their subsidies to the poorest of the poor. The problem is that they locate such households in precisely the neighborhoods they are trying to upgrade. While housing programs may improve individuals' bricks and mortar, public housing has consistently reduced the quality of the neighborhoods people are living in, compared to equally poor households not involved in housing programs—a pretty serious indictment. These findings suggest several policy recommendations: One is to increasingly regard vouchers and mixed-income developments as solutions; another, more fundamental, is to break the link between trying to provide assistance to the poor and doing community development. Trying to do both together simply has not worked.

Inequality, Growth, and Restructuring

Panelist Frank Levy

Daniel Rose Professor of Urban Economics,
Massachusetts Institute of Technology.

What is the effect of inequality on growth? In particular, will growing income inequality retard growth? The answer, I think, is mixed. In the long run, increasing inequality may limit the national rate of growth, for reasons I discuss below.

In the short run, I think the causality works in exactly the opposite way. The inequality we now see is a by-product of enormous industrial restructuring that began in manufacturing in the early 1980s and spread to the services sector by the end of the decade. On the one hand, this restructuring is responsible for raising the rate of productivity growth across the economy. On the other hand, this same restructuring has sharply reduced the demand for semi-skilled labor, and their falling wages have significantly increased earnings inequality.

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The underlying problem is that labor demand can shift much faster than labor supply. In this case, the demand for semi-skilled labor can fall much faster than semi-skilled labor can acquire new skills. The issue is much bigger than minority communities in central cities. Median earnings for 25- to 34-year-old men with a high school diploma or a GED is now \$20,500. This is a big decline; 15 years ago, similar men earned about \$28,000 in today's dollars. The number is particularly significant because 40 to 45 percent of all 30-year-old men have not gone beyond high school. A plausible connection can be made between these wage numbers and the "angry white males" we hear about in political argument. A lot is

at stake. We need short-run policies to address how we can get through this period without atomizing our society. We need longer-run policies to help us get out of this situation.

In the short term, I would recommend that we treat the situation as an unanticipated natural disaster—like a flood or a hurricane. In response, we might expand our safety net to ensure that, say, health care is not linked to jobs, since the trends that are pushing down wages also reduce fringe benefits. In addition, we could expand or at least strengthen the earned-income tax credit. In all of this, we must recognize that for a large part of the population who played by the rules, the rules have changed in the middle of the game, leaving people in economic jeopardy when it may be too late to alter their choices. In this regard, we know from training studies that it is difficult for workers to pick up new skills at the age of 35 or 40.

Special Role of Schools

As for the future, the major issue is education and the provision of human capital; this is where the spatial aspect of these problems comes in. Schools, in particular our public schools, run on routines, like most organizations. In the 1970s, the established routines were perfectly adequate because high school graduates still could get decent jobs. The labor market has changed quite fast since then, but it is hard to get schools to change their routines in response. The highly decentralized structure of our schooling system makes it doubly hard. Local schools operate within their state's context. And states have become something of a deregulated industry themselves, with the federal budget playing a much smaller role in supporting state budgets. This leaves the states in very intense competition for jobs, putting pressure on resources. Within states, schools are governed in fairly income-homogeneous local districts. So the schools and communities that have been hit hardest must make the biggest adjustments. The towns where all the parents are highly educated have fine schools to begin with, and their taxpayers are also doing pretty well. But poorer working-class communities that have been hit harder by economic restructuring are also the places that need to make the biggest changes in their schools.

As John Bishop noted, kids make decisions early that have a kind of path-dependence in terms of which classes or tracks they are put in. The issue of their access to information about what is out there for them is very important. Programs such as apprenticeships

for students in low-income high schools, like Project ProTech here in Boston, change the information on which kids are acting.

But more than that, we must keep saying that states should be upgrading educational standards and imposing minimum requirements, even though it may run against their short-run interests. These standards and measures should give parents some sense of what their kids are learning. In a period when we need to upgrade standards and increase the provision of human capital, providing more information externally to the school district is crucial.

The Migration Question

I will close with one final issue, migration, that I

wish had been discussed more this morning. Massachusetts, for example, recently flirted with zero population growth. During the "Massachusetts Miracle" of the 1980s, the wage structure got pushed much higher than national wages because of a lack of in-migration. The loss of manufacturing jobs here was masked by a construction boom, then the construction boom ended. Anecdotally we hear that fewer decent jobs remain for less-educated people, although well-educated people have few problems. Is zero population growth being pushed by the out-migration of less-educated or more-educated workers? A more general question is, to what extent is migration affecting the distribution of human capital around the states and the underlying issue of earnings inequality? I hope this issue will be discussed more in the future.

Shifts in Labor Demand and Supply

Panelist Lawrence F. Katz

Professor of Economics, Harvard University.

The presentations at this excellent conference have shed further light on rising inequality, one of the truly big stories in American economic life over the last 20 years. The enormous disparities in the fortunes of American families in recent years have largely been associated with labor market changes that have increased overall wage inequality and shifted wage and employment opportunities in favor of the more-educated and more-skilled. Less-educated young men have suffered unprecedented losses in real earnings and are at greater risk of nonemployment than in years past, both in absolute terms and relative to more-skilled workers. In short, the U.S. labor market has experienced a massive twist against "disadvantaged" workers—those with limited education or skills or from impoverished families and neighborhoods—that has diminished their earnings prospects and made it more difficult for them to keep their families out of poverty and intact.

Many analysts believe a key driving force behind

these changes has been a strong shift in relative labor demand against the less-educated and those doing more routinized tasks and toward more-educated workers and those with problem-solving skills. Changes over time in wage inequality can be thought of as being the outcome of a footrace between technology (the demand for skills) on the one side and the supply of educated labor on the other side. It is clear that the technology and demand side has been winning the footrace, outstripping supply and stretching out the wage structure during most of the past two decades. These demand shifts favoring the more-skilled have been reinforced by changes in pay-setting norms, increased competition in many product markets, increased immigration of less-educated workers, and the weakening of institutions that have protected non-college workers (for example, the decline of unions and the erosion of the real value of the minimum wage). While much debate exists concerning the relative importance of these different underlying causes of rising inequality and increased returns to skill, none of the suspected factors show any apparent signs of abatement.

The Role of Macro Policy

Strong macroeconomic performance traditionally has been a crucial factor in improving the labor market

prospects for disadvantaged workers. But the experiences of the long boom of the mid and late 1980s and the current U.S. expansion suggest that sustained economic growth by itself, unassisted by specific initiatives to deal with increased structural labor market barriers facing the less-skilled, is unlikely to be sufficient to reverse recent trends in inequality or to overcome increased labor market barriers facing the disadvantaged in America's inner cities.

Market incentives for increased individual educational investments and skills upgrading can play some role in alleviating growing inequality in the United States. The large increase in the college wage premium in the 1980s has been associated with an increase in college enrollment rates from 49 percent of high school graduates in 1980 to more than 60 percent in the early 1990s. Evidence from U.S. time series and cross-country studies strongly suggests that rapid expansion of the supply of more-educated workers narrows earnings differentials and improves the labor

Rapid expansion of the supply of more-educated workers narrows earnings differentials and improves the labor market position of the less-skilled. But the process of supply adjustment can take many years.

market position of the less-skilled. But the process of supply adjustment can take many years, and many disadvantaged individuals face financial and informational barriers to pursuing further education and training. Furthermore, the overall supply of college graduates has not grown very rapidly in recent years, as John Bishop showed, because the current baby bust cohort is quite small. Not many 40-year-olds return to college when the college premium expands.

These facts suggest a number of different strategies. First, we could try to improve the supply side of the labor market, as Frank Levy discussed. Obviously, primary and secondary education is key to that, although access to higher education is important as well. Second, we could try to affect the demand side of the labor market. We are not going to shut down the borders to trade; that would be foolhardy. But we

could undertake some form of targeted demand policies, such as employer-side wage subsidies for economically disadvantaged workers, based either on people or on place. Third, government could play a better role in trying to make work pay, through an expanded earned income tax credit, possibly a higher minimum wage, or even doing more with the tax system. Fourth, we could do more to match up jobs and people who have very little connection to the labor market, such as welfare recipients and disadvantaged youth. Given that a lot of state and local governments will be making these decisions, we should draw lessons from the past on which approaches work best.

Choosing Policies That Work

Our 30 years of experimenting since the Great Society with training and wage subsidies and location-based assistance policies have given us a menu of options from which government can make its current decisions. We have had a number of negative messages, but this is probably the one area in the government budget where we have the most random-assignment evidence on which programs actually might work. So from this menu of options, policymakers such as state governors could make better-informed decisions than those made in the past.

The first thing we have learned on the negative side is that it is extremely hard to turn around the lives of people who have become disconnected from the mainstream educational system and dropped out of high school. Countless programs have attempted to help disadvantaged youth who have dropped out of high school and, aside from the Job Corps, a very expensive residential program, almost all have shown very little return. On the other hand, a number of recent demonstration projects suggest we can be more successful by starting earlier to work to keep kids in high school and prevent dropouts. The Quantum Opportunities program is a good private sector example, and the Department of Education has run a number of very successful demonstration projects: not traditional programs that help a 16-year-old get a summer job and do not last very long, but rather programs that start at age 14 or earlier and set up an inexpensive infrastructure with extra tutoring, together with a group at school responsible for helping kids make connections to the labor market. Some of the best examples, like the "I Have a Dream" programs, also guarantee some financial assistance for

college. A number of these programs have had substantial effects on high school dropout rates and college attendance rates, and certainly they seem like potentially good uses of the funds that states will have available.

The second thing we have learned is that the returns to getting more education, such as attending college, are particularly high for those from disadvantaged backgrounds. Thus, the limited response of this group is not because they themselves do not generally experience high returns. When we have seen interventions such as increasing access to college or cutting tuition levels and studied them as natural experiments for estimating the rates of return to schooling, people

Access to education combined with information seems to have a very high return for low-income people with high abilities.

from lower-income households have been the most affected. These are people on the margin who decide whether or not to go to school when you change access or tuition levels. When you estimate their rates of return, as David Card did in a recent survey, they look higher than the average difference in earnings between college- and high-school-educated workers, which suggests that capital market constraints are important. That does not mean that we know exactly the right ways to reduce the cost of education. But access to education combined with information seems to have a very high return for low-income people with high abilities. Policies to prevent dropouts and increase access to college do not work complete miracles, but they are also not that expensive when targeted to those at the margin, for example, in inner cities.

In another area, we have learned from the Gautreaux program and from a number of other quasi-experimental programs that neighborhoods, and the spatial concentration of the poor, do seem to matter. There is no chance in the world that the public will agree to huge residential dispersion policies, as the Baltimore experience with the Moving to Opportunity (MTO) program and the Mt. Laurel decision indicate. Small-scale attempts have a role, however, as shown

in the current MTO program that, despite Baltimore talk radio disparagement, is in operation in the Baltimore metropolitan area as well as in Boston, Chicago, New York, and Los Angeles.

A striking characteristic of this program is that the majority of those who agree to participate in it say that the primary reason they want to move out of their neighborhood is because of problems with crime and worry for their children, but they lack the resources to leave public housing. Most claim to have been victimized by crime within the previous six months. In terms of transportation, 87 percent of them do not have cars, and the vast majority do not have driver's licenses. It is, therefore, plausible that these people are not choosing a place to live after evaluating neighborhood and transportation possibilities, but rather that public housing is the one place where they can get a subsidized living situation. Dispersion policies could accomplish a bit here, and what I call place-based people policies could do a lot more. This would not be subsidizing employers with tax breaks for setting up warehouses in enterprise zones, but rather targeting training and human resources funds towards areas with greater needs. Such programs may be less stigmatizing than those based on individuals' characteristics, such as the targeted jobs tax credit.

Finally, good returns may come from greater investments in improving information for kids. A number of mentoring programs provide such connections. Project Strive in Harlem is a good example: It provides training and two years of follow-up services for youth, where they try to make connections with and help resolve problems with employers. States and localities can do a lot to break down the barriers between the offices of central-city Job Training Partnership Act agencies and suburban employers, providing connections beyond just the transportation link.

In conclusion, massive increases in human capital investments would be required to overcome the changes of the past 15 years, increases in the \$100-billion-a-year range for a decade, based on some estimates by Jim Heckman. We are certainly not going to embark on such an investment. But in a limited "cut and invest" budget situation, we could probably target our money better. States and localities should be looking at the research on what has worked and what has not, to determine how to use possible future block grants and their current resources. Also, these policies will be more effective in an environment of tighter labor markets.