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### **The Working Poor and Welfare Reciprocity**

Marlene Kim and Thanos Mergoupis  
Working Paper No. 151, December 1995

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Many participants in the current welfare debate assume that welfare recipients are taking unfair advantage of government programs by avoiding work. However, a growing body of research indicates that this assumption is untrue. In this working paper Resident Scholar Marlene Kim and Thanos Mergoupis, of the Department of Economics at Rutgers University, show that many who qualify for benefits-food stamps, aid to families with dependent children (AFDC), and Medicaid-do not receive assistance. Moreover, many who qualify work many hours, are in families headed by married couples, are in their prime working years, and have at least a high school education.

In their study of the decision by individuals to participate in welfare programs, Kim and Mergoupis used the reduced form of an administrative decision-making model in which a net utility function depends on the level of benefits for which a family qualifies, earnings, and the implicit tax rate (for AFDC).<sup>1</sup> The authors concentrated on participation patterns among the working poor. Using data from wave seven of the 1987 panel of the Survey of Income and Program Participation (SIPP), they derived estimates of the number and proportion of the working poor who were eligible for benefits.<sup>2</sup> Eligibility for food stamps and AFDC were simulated to follow as closely as possible each state's administrative requirements. Medicaid eligibility was limited to the categorically needy, that is, those who qualified for Medicaid because they participated in AFDC or Supplemental Social Security.

The populations of the working poor who qualified for different benefits were strikingly similar. More than half of those who qualified for benefits were between 25 and 45 years of age (56 percent of those eligible for food stamps and 55 percent of those eligible for AFDC), and most worked (55 percent of those eligible for food stamps worked full-time and 69 percent of those eligible for AFDC worked at least half-time). A large percentage had at least a high school education (71 percent among food stamp qualifiers and 81 percent among AFDC qualifiers). In addition, most were employed in historically low-paid occupations and industries such as clerical and service jobs and retail trade and professional industries, especially health care and residential care.<sup>3</sup>

Kim and Mergoupis found that most (68 percent) of the working poor who qualified for food stamps did not receive them; 36 percent of the working poor who were eligible for AFDC and 17 percent of those eligible for Medicaid did not receive benefits. In addition, nearly half (48 percent) of the working poor eligible for food stamps were married-couple families, and 84 percent of those eligible for AFDC were women.<sup>4</sup>

Kim and Mergoupis state that previous research indicated that nonparticipation was the result of eligible recipients' being unaware that they could receive benefits. Other reasons the authors suggest are administrative problems, such as difficulty in filling out forms; accessibility problems, such as lack of transportation and child

care; perceived or real lack of need; and stigma. They explored lack of need as a factor in nonparticipation.

Kim and Mergoupis examined lack of need in two ways. First, they looked at the incomes of nonparticipants relative to participants, reasoning that those who decided not to participate would have higher incomes on average than those who chose to participate. They found the reverse was the case, that is, nonparticipants had lower incomes on average than those who received benefits. This finding was supported by the results of a probit analysis (see Exhibit 1). Increases in income were associated with a higher probability of participating in the food stamp program. The authors' findings indicate that "failure to participate in welfare programs does not seem to be due to the lack of need" and that the actions of the working poor with regard to welfare participation do not mimic the general population of the poor.

Second, Kim and Mergoupis looked at the level of benefits nonparticipants would have qualified for, reasoning if the level were inconsequential, individuals might decide not to participate because the cost in effort to secure such payments would be greater than the benefit of receiving them. However, Kim and Mergoupis found that the incomes of those who qualified for but did not receive food stamps would have risen by 90 percent had they obtained the benefits, and the incomes of those who qualified for but did not receive AFDC would have risen by 70 percent had they obtained the benefits.

Kim and Mergoupis note that given the portrait of the working poor who qualified for welfare benefits, it does not appear that they were poor because of their educational status, family structure, or work ethic, but because they worked in unstable, low-paying occupations and industries that tended to be nonunionized. The authors conclude, then, that any discussion of alleviating poverty among the working poor needs to address the problem of the type of jobs available in the United States. No longer does employment come with guaranteed benefits or a living wage that rises over the course of tenure with a firm; therefore, "full employment economies no longer ensure reduced poverty and less income inequality." Policymakers must recognize that many work but still remain poor. Government programs can be useful in assisting the working poor only if their designers understand why and how families chose to participate in them. Research exploring participation in existing programs is needed.

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## Notes

1. Their model is a slightly modified version of the model developed in Rebecca M. Blank and Patricia Ruggles, "When Do Women Use AFDC and Food Stamps? The Dynamics of Eligibility vs. Participation," National Bureau of Economic Research working paper no. 4429.
2. When information determining eligibility for benefits was missing, Kim and Mergoupis used the most conservative assumptions possible in making their estimates. They therefore feel that their estimates of absolute numbers of working poor who qualified for benefits were vastly underestimated, but have great confidence in their estimates of the proportion of the working poor who qualified for benefits.
3. The authors state that those who qualified for Medicaid are similar to those who qualified and received AFDC. Therefore, exact figures were not provided.
4. The authors attribute the lower figure for those eligible for but not receiving AFDC benefits (as compared to food stamps) to the fact that qualification requirements for AFDC are stricter, requiring that recipients be far more indigent than those receiving food stamps. They attribute the high percentage of women eligible for AFDC benefits to the structure of the program.

## Technology and the Demand for Skills

Edward N. Wolff

Working Paper No. 153, December 1995

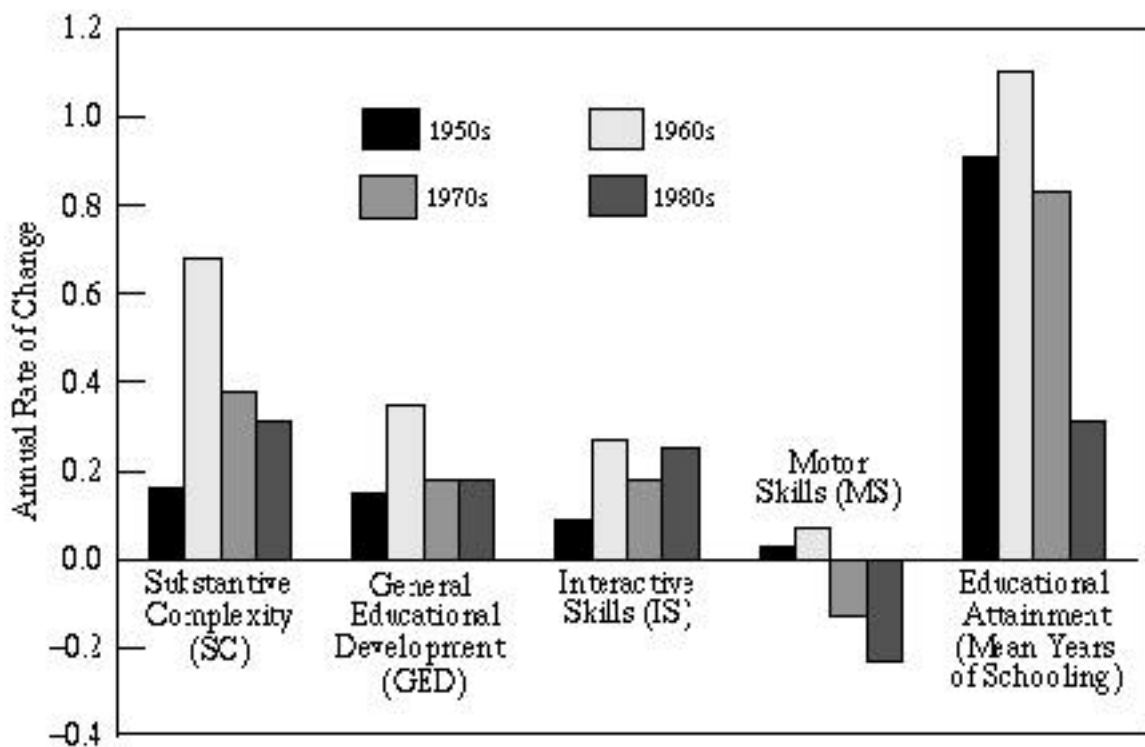
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In this working paper Research Associate Edward N. Wolff documents changes during the period 1950 to 1990 in aggregate skill levels of the workplace. He investigates skill trends at the sectoral level, paying special attention to changes in skill requirements in service and goods-producing sectors, and examines the role of

technological change in changing the demand for skills. He reports the results of a regression analysis in which he relates changes in skill indexes to various measures of technological activity.

To obtain aggregate skill levels, Wolff defined four measures of labor skills for each occupation based on the *Dictionary of Occupational Titles* (DOT) and a fifth measure derived from data in the 1970 *Census of Population*. The DOT-derived measures are (1) general educational development (GED), a measure of language and reasoning skills; (2) substantive complexity (SC), a composite measure of skills derived from a factor analytic test of DOT variables; (3) interactive skills (IS), scaled from mentoring (the highest degree of interactive skills) through negotiating, instructing, supervising, diverting, persuading, and speaking-signaling to serving or taking instructions (the lowest degree); and (4) motor skills (MS), a measure of motor coordination and manual dexterity. The fifth measure, derived from Census data, is median years of schooling, which measures actual educational attainment compared to job educational requirements. For comparison purposes, Wolff examined three measures of actual educational attainment of the workforce for each of the census years: (1) percent of the population aged 25 or older having a high school degree, (2) percent of the population aged 25 or older having a college (B.A.) degree, and (3) mean schooling of the workforce. Average industry skills were computed as a weighted average of the skill scores of each occupation, with the occupational employment mix of the industry used as weights. Computations were performed for each of the decennial census years between 1950 and 1990 for 267 occupations and 64 industries.

**Exhibit 2 Changes in Workplace and Workforce Skills, 1950-1990**



Wolff notes that general occupational trends—the rise in the shares of professional and technical workers, managers and administrators, clerical and sales workers, and service workers and the decline in the shares of crafts workers, nonfarm laborers, domestic servants and other household workers, and farm workers—have had the effect of raising skill requirements (other than motor skills) in the job market during the forty-year period. However, growth in educational attainment dwarfed the rise in workplace skills (see Exhibit 2). Moreover, Wolff notes that the demand for cognitive skills (as reflected in the GED and SC measurements) has been less than the supply of such skills (as reflected in the educational attainment of the population).

Wolff found "striking differences" in the skill requirements among industries. He found that SC levels were

about 20 percent higher, median years of schooling were about 10 percent higher, and IS levels were almost twice as high in the service sector than in the goods-producing sector in 1970. In contrast, MS levels were 14 percent higher in the goods sector than in the service sector. Wolff states that changes in overall skill levels are a result of changes in the skill levels of individual industries (through changes in the occupational mix) and employment shifts among industries. Wolff decomposed the changes in overall job skill requirements into industry and occupational effects and found the following.

All the growth in SC during the 1950s was attributed to changes in the occupational composition of the workforce within industry (technological change), while during the 1960s the contributions of occupational and industrial shifts to SC growth were positive and strong. During the 1970s and 1980s the occupational shift effect was much smaller and the industrial shift effect fell slightly, resulting in an overall decline in SC growth.

Almost all the growth in average IS during the 1950s was attributed to changes in occupational composition, a factor that increased in importance during the 1960s. During the 1970s and 1980s, however, the occupational composition effect declined significantly. In contrast, the industry shift effect became stronger after the 1960s; as a result, overall IS growth in the 1980s equaled its pace in the 1960s.

Occupational composition had a negative effect on MS in each of the four decades examined, reflecting the shift of employment within industry from blue-collar to white-collar jobs. The industry shift effect was positive and relatively strong during the 1960s, accounting for the positive increase in overall MS during that decade. The industry shift effect was negative during the 1970s and 1980s as the industry mix shifted from manufacturing to services.

Almost all the growth in average educational requirements during the 1950s was attributed to shifts in occupational composition, a factor that increased in importance during the 1960s. Both occupational composition and industrial shift effects fell sharply in the 1970s and 1980s.

Because other research suggests a strong correlation between skill growth and technological change, Wolff conducted a regression analysis for the period from 1970 to 1990 to examine this relationship. He found that

Growth in cognitive skills (GED, SC) was strongly and positively linked to the rate of new investment. Growth in motor skills was not.

The rates of computerization and R&D intensity both had a significant, positive effect on IS.<sup>2</sup>

R&D intensity had a significant, positive effect on SC growth in all industries, although its effect in goods-producing industries alone was insignificant.

Computerization had a significant, positive effect on SC growth in goods industries, but not in all industries.

Total factor productivity growth had a generally negative effect on skill growth, suggesting that technological change by itself tends to simplify tasks and reduce reliance on skilled workers.

Relative factor prices of capital and labor were not significant determinants of changes in skills.

Of the organizational variables examined, only the percent of union employees had a significant effect on changes in skills. It had a significant, negative effect on IS in goods industries and a significant, positive effect on MS in all industries.

Import competition did not appear to affect skill growth, although industries exporting a high percentage of output had greater than average growth in IS (in goods-producing industries) and MS (in all industries).

Wolff concludes that there is no evidence that deskilling took place during the 1980s, except in motor skills. Moreover, changes in the educational attainment of both the population and the workforce outstripped changes in required workplace skills. These results emphasize the lack of correspondence between the growth in the demand for cognitive skills and the supply of such skills; during the 1970s and 1980s the U.S. educational

system produced far more educated workers than the workplace could absorb.

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## Notes

1. Ann R. Miller, Donald J. Treiman, Pamela S. Cain, and Patricia Roos, *Work, Jobs, and Occupations: A Critical Review of the Dictionary of Occupational Titles* (Washington, D.C.: National Academy Press, 1980), Appendix F.

2. The rate of computerization is measured as investment in office, computer, and accounting machinery over the previous several years per full-time equivalent employee; R&D intensity is measured as the ratio of spending on R&D to industry sales.

## Unemployment, Inflation, and the Job Structure

James K. Galbraith

Working Paper No. 154, January 1996

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In this working paper James K. Galbraith, professor of economics at the Lyndon B. Johnson School of Public Affairs at The University of Texas at Austin, rejects the analytical construct within which many economists currently operate, that is, the construct in which, in the extreme, macroeconomic behavior is identical to the behavior reflected in microeconomic demand and supply curves. He rejects it on the theoretical and practical grounds that microeconomic categories (supply, demand, price, and quantities) "have little bearing on important policy questions." The markets that have a bearing on policy either are asset markets (for which the rules are dramatically different from those for flow markets) or are not really markets at all, but rather a set of deeply structural social relations. According to such thinking, microeconomic issues become secondary in the policy arena and macroeconomic policy tools—spending, taxes, income policies, and interest rates—take the fore.

### A "Market" for Labor

According to Galbraith, the predominant theoretical constructs in economics today preclude active macroeconomic intervention, with the current spectrum of policy rules ranging "from a principled indifference to actual macroeconomic conditions" (for those who, for example, are strict adherents of the theory of a natural rate of unemployment) "to a very limited case for intervention in extreme cases" (for those who are adherents of the idea of a nonaccelerating inflation rate of unemployment, or NAIRU). Given the limited role that macroeconomic policy can take within such strict confines, such policy appears to be limited to actions by the Federal Reserve. To conduct policy effectively, the Fed must be able to estimate accurately the actual NAIRU. Galbraith notes two problems with such an assessment.

First, since the NAIRU is not stationary over time, it is difficult, if not impossible, to estimate it correctly at any one (current) point. If this is so, attempts to evaluate the direction of policy become futile.<sup>1</sup> Second, the components of current inflation—primarily the boom in profits and rents and, to a lesser extent, the rise in interest costs resulting from earlier hikes in interest rates—are not consistent with a theory underlying either a natural rate or a nonaccelerating inflation rate of unemployment in which inflation would be predicted to stem from rising wage costs resulting from too low a level of unemployment (excess demand for labor); in reality, even nominal wage growth has remained relatively flat.

How can such contradictions be explained? According to Galbraith, they cannot be, at least not within the framework of a natural rate theory. Tracing the movements of monthly inflation-unemployment pairs (with unemployment measured as a 12-month moving average) from 1960 onward, Galbraith finds no evidence for a single natural rate or for a rate shifting in line with known changes in the supply of labor.<sup>2</sup>

Galbraith uses these observations, as well as the fact that workers are highly differentiated by skill level, job history, and reputation, to deduce that a labor "market," in which money wages change to equalize the demand for and supply of labor, does not exist. If, indeed, an aggregate labor market does not exist, the concepts of a natural rate of unemployment or NAIRU collapse, forcing economists to evaluate inflation and unemployment without necessarily assuming that the two are linked. Employment policy would then be concerned with, for

example, linking individuals to specific tasks, and inflation policy would be concerned with the management of particular elements of cost, including wages, materials, rent, and interest. In particular, inflation policy would be concerned with the existence, extent, and management of specific institutional mechanisms of pattern bargaining that transmit destabilizing pressures from one part of the productive apparatus to another. Such a switch in the direction of policy would divert research from the abstract to the concrete and widen the acceptable scope of policy discussion.

## **The Job Structure**

Galbraith defines the job structure as "a historically, socially, and politically specific set of status and pay relationships in the economy, within and between firms, within and across industries," and uses this structure to explain wage disparities. Galbraith disputes the concept that wages are determined by the marginal productivity of labor by noting, first, that the mechanisms for determining marginal productivity in a differentiated job structure do not exist. There is no evidence at the micro level indicating that firms make any effort to calculate marginal value or that there is any automatic mechanism to calculate it for them.

Second, although the idea of wage differentials could be a function of labor rents, if all or most of the wage reflects compensation for the rental value of specific human capital, then the job structure must primarily be the result of segmentation; if so, the idea of an aggregate labor market dissolves. In turn, extreme segmentation and differentiation may mean that although labor demand could cause real wages to rise at the margin (that is, in specific jobs or industries), the only way that such pressure could be transmitted to wages in general would be if some institutional mechanism existed, for example, a pattern of collective bargaining that itself was linked to cyclically sensitive wages or commodity prices or an economywide indexation scheme.

Galbraith disputes the findings of studies that propose that the increased spread in wage differentials is the result of exogenous changes in technology that have raised productivity (and, hence, wages), but only among those who know how to use that technology. This explanation is appealing for many reasons, not the least of which is that it puts the onus for overcoming new hurdles on the individual and leaves the ex post distribution of income unchallenged. However, such an explanation is not dispositive; other explanations, such as a shift in profitability across industries, could be at least as responsible, and empirical studies thus far have made little serious effort to dismiss this possibility. Moreover, according to Galbraith, we should expect the effects of computerization to be uniform domestically and across countries irrespective of national income. However, relative wage advantages have not been uniform across countries; rather, advantages have flowed to skilled workers (relative to semiskilled workers) in the United States and European countries and to semiskilled workers (relative to all other workers) in the lesser-developed nations. Such asymmetry, notes Galbraith, is inconsistent with a technology-driven labor demand model of wage change (although it is consistent with a model of North-South labor substitution).

## **A Structural Approach to Relative Wage Determination**

A structural approach starts with the proposition that a single solution to the labor-pricing problem cannot be given by patterns of demand and supply alone; rather, the solution is a matter of historical developments and social relations. "Market forces" can at best act as influences within a social matrix that may include factors such as quasi-political relationships.

Using this approach, Galbraith and Paulo Calmon found patterns of lateral relationships (relationships between related industries, such as sales and the associated manufacturing industry) in wage changes.<sup>3</sup> For example, the wage path of shoe store workers more closely resembled that of leather manufacturing workers than the wage path of grocery store workers. According to Galbraith, this implies that acquisition of certain skills is undertaken only to become a member of a particular group and is not necessarily related to productivity enhancement and therefore higher wages. Such a pattern also raises questions about the appropriateness of specific education and training requirements and the appropriate wage differentials between industries. It should be recognized that such questions often are more political than economic and should be faced squarely in terms of that recognition.

## **The Role of Public Policy**

Acceptance of an analytical construct that reduces macroeconomic intervention to cases of deep recession leaves a role for only microeconomic supply-side policies—training, education, relocation, spending on R&D and infrastructure—aimed at enhancing productivity and competitiveness. Although such programs are generally considered good things, there is, according to Galbraith, "little direct evidence that they help the measured performance of the economy in any definite way." Education and training programs help only when there is a shortage of skilled labor (which there is not), not when there is a shortage of jobs (which there is). Galbraith asserts that R&D spending helps only those working directly in export-oriented, high-technology manufacturing firms. This sector is relatively small (no more than 6 million workers) and its workers' pay is at the top of the manufacturing wage ladder. Finally, evidence that infrastructure spending reduces private sector costs and raises productivity is, according to Galbraith, thin, with most researchers relying on aggregate statistical measures and few on detailed analyses of how particular projects contribute to private sector efficiency.

A structural approach to analyzing economic problems leaves the door open much wider for macro policy. Questions regarding the distribution of incomes and the relative returns to risk, to capital and labor, and to high- and low-skill workers become relevant policy issues to be resolved by political means, be those means collective bargaining agreements, income and wealth taxes, or minimum wages. Wages would adjust according to average productivity growth, although this brings up the question of how those gains should be distributed. Galbraith responds that "a structural perspective points to a general preference for structural stability once (if!) a reasonable consensus about appropriate differentials has been reached." It is probably better to distribute such gains broadly (in order to make returns social rather than industrial or individual) and to avoid arbitrary disturbances to the structure (such as those that arise from price shocks with some groups better indexed than others). In addition, under a structural approach there is no longer an inflationary barrier to full employment; accordingly, stabilizing investment demand becomes the central macroeconomic issue related to employment.

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## Notes

1. For example, a NAIRU of 5.9 to 6.0 percent in early to mid 1995 was inconsistent with actual unemployment rates of 5.5 to 5.7 percent and falling and minimal rates of inflation.
2. Galbraith found that while the actual Phillips curve trade-offs do move from shallow to steep to ultimately vertical during the course of several business cycles (1960 to 1969, 1971 to 1974, and 1977 to 1980), "on no two occasions did the accelerating inflation rate of unemployment" (AIRU) coincide. Moreover, we do not know what the nomadic but observable AIRU is today or whether it still exists.
3. James K. Galbraith and Paulo Du Pin Calmon, "Industries, Trade, and Wages," in Michael Bernstein and David Adler, eds., *Understanding American Economic Decline* (New York: Cambridge University Press, 1994), 161-198.

## Seminar

### How Credible Are Estimates of the Economic Returns to Schooling?

Orley Ashenfelter, Professor of Economics and Director of Industrial Relations, Princeton University

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How credible is the link between educational attainment and income? Several explanations have been offered for the fact that average earnings of college graduates exceed earnings of high school graduates of all ages and races. One explanation is that schooling confers skills and, by using these skills, individuals can earn more income. A second explanation rests on the assumptions that there is a correlation between income and IQ level and that IQ levels tend to be higher among college than high school graduates; therefore, those who attend college would have earned more than the average high school graduate even if they had not gone to college.<sup>1</sup>

In order to test the two explanations, Orley Ashenfelter, professor of economics and director of industrial



relations at Princeton University, and Cecilia Rouse, assistant professor of economics and public affairs at Princeton, attempted to examine the link between education and wages by studying the schooling and income of individuals with the same background and abilities. In order to eliminate genetic differences and reduce differences in family background as factors in earning differentials, they studied identical twins.

Ashenfelter and Rouse collected a longitudinal sample of twin pairs over a four-year period. They found, as shown in [Exhibit 3](#), that the return to an additional year of schooling (measured as the difference in the log of years of schooling versus the difference in the log of the hourly wage and adjusted for family background) was 7.8 percent within twin-pair groups, or 9.9 percent when corrected for measurement error. According to Ashenfelter, "these estimates provide measures of the correlation between earnings and schooling that may be contaminated by the effect of genetic endowments and family background on earnings." [Exhibit 3](#) shows a 10.6 percent return when the estimate is not adjusted for differences in family background, which implies a bias of roughly 25 percent arising from family background differences (as compared to the simple estimate of the effect of schooling on income). Ashenfelter concluded that although some of the correlation between income and schooling could be explained by family background or genetic differences, most of the relationship must be caused by some other factor or factors.<sup>2</sup>

Ashenfelter also reported on a slightly different research method in which researchers attempted to find a "natural experiment" that would replicate the findings of an ideal experiment by looking for exogenous events that might alter decisions about schooling but would not be expected to independently alter income. The cited studies found a return to schooling of 8.1 to 18.5 percent for each additional year of school ([Exhibit 4](#)). Ashenfelter noted that the credibility of these estimates depends on the extent to which we believe the experiment's event has no effect itself on income. Taken together, however, these findings indicate that education is a determinant of earnings.

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## Notes

1. Such reasoning can be found in Richard J. Herrnstein and Charles Murray, *The Bell Curve* (New York: The Free Press, 1994).
2. According to Ashenfelter, however, these findings are not conclusive. We do not know, for example, how and why twin pairs might be different from the rest of the population. In addition, we cannot be sure that there is not some difference in nongenetic ability between twins, such as environmental factors that we cannot account for.

## Seminar

### American Standards of Living

Clair Brown, Professor of Economics and Director of the Institute of Industrial Relations, University of California at Berkeley

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In her lecture Clair Brown, professor of economics and director of the Institute of Industrial Relations at the University of California at Berkeley, outlined the work contained in her book *American Standards of Living* and the implications of this work for the direction of public policy.<sup>1</sup> To find whether, during what periods, and for whom American living standards had declined, Brown constructed a standard of living (SoL) index, a composite of three categories of spending: basics, variety, and status. Basics spending is defined as spending to meet fundamental needs and minimum requirements for social integration. Variety spending is undertaken to make life more interesting and comfortable. Status spending is spending on items of higher quality or that mark social position through decoration, showiness, or exclusivity. The SoL index was applied across three types of worker: laborer (unskilled and service worker), wage earner (semiskilled and skilled worker), and salaried employee (professional and managerial, non- and self-employed worker). By looking at the composition of spending by worker type over time, Brown sought to establish how type of work related to income and how income related to consumption to define social norms.

Brown measured spending by category in five representative years (1918, 1935, 1950, 1973, and 1988) for the 60 percent of workers not included in the upper and lower quintiles of the income distribution (Exhibit 5). She found that basics spending increased over time by about the same amount for all types of worker. Although variety and status spending also increased for all types, these categories rose more markedly among wage earners and salaried employees.

Brown also examined the dynamics of spending according to three types of change: emulation (related to patterns as described by Veblen), which is imitation, as income rises, of the spending pattern of a higher income class; innovation, which is a pattern of higher spending for reasons other than emulation; and economizing, which is a pattern of lower spending for reasons other than emulation. She found that during the first half of the century, a period of rapid growth of mass consumption, emulation was the main force governing the dynamics of spending. During the second half of the century, when basics had largely been met and when computerization and rapid technological change increased rapidly, innovation became the main force governing consumption. She concluded that "rising affluence intensifies the struggle over variety and status once society believes that basics are available to employed families or through social programs," that "growth has intensified the need for paid work," and that "affluence has increased the desire for economic distance across classes."<sup>2</sup>

Brown's major finding on spending patterns before 1988 was that families switched from an inward focus to an outward focus, that is, from the home and physical needs to social concerns. This dynamic was witnessed in the shift in family budgets from food and clothing to recreation, transportation, and insurance. The shift also implied that a woman's work in the home could no longer easily substitute for purchased items. In addition, differences among types of worker became more apparent as spending became centered on variety and status items rather than on basics.

Between 1973 and 1988 spending by laborer families increased modestly, but incomes declined, indicating that a rising SoL was being financed by dissaving. The SoL rose for wage earner families, whose incomes were rising, but their incomes were not rising as fast as the rise in their spending. This was also true for salaried families, although they experienced the largest rise in spending among the groups measured. Brown noted that by 1988 wage earner families were spending nearly as much on status purchases as on variety purchases and had more active social lives than laborer families. Computers became important purchases in defining economic distance.

A cursory look at 1993 data shows that past trends have continued, with all workers spending more to maintain a growing standard of living. Although incomes among laborers and wage earners declined (by 5.0 percent and 7.0 percent, respectively), their SoL did not fall as much (declining by only 2.0 percent and 2.6 percent, respectively). Inequality in living standards rose over the period, with salaried employees experiencing an income decline of 1.0 percent, but a 2.5 percent rise in SoL. Brown surmised that the 1993 data were collected "shortly after the recession"; more recent data could indicate that living standards did not decline as much as the 1993 data indicated.

Brown concluded that standards of living have not declined, but economic insecurity has risen because of workers' inability to meet short-term needs (such as unforeseen medical expenses) and retirement costs. Brown inferred from this that policy should be directed at increasing saving. Moreover, if the rise in saving can be used to increase growth through greater investment and productivity, policy should also pay attention to how increased growth is directed. In any case, programs aimed at increasing saving should focus on changing social valuations regarding consumption, as these were found to be the most important factors determining spending.

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## Notes

1. Clair Brown, *American Standards of Living* (Cambridge, Mass.: Blackwell, 1994).
2. Brown defines economic distance as "how the actual difference in spending between two classes is translated into improvements in consumption norms and daily activities."

## Program Scholars

Research Associates **William J. Baumol** and **Edward N. Wolff** will conduct a research project entitled "Protracted Frictional Unemployment as a Heavy Cost of Technical Progress." Baumol and Wolff, professors of economics at New York University, argue that there is more substance to the public's fears that new production techniques can threaten jobs than is acknowledged by either neoclassical or Keynesian economists. They note that neoclassical economists, who believe that the market tends automatically to bring the economy back either to full employment or at least to a natural rate of unemployment, seem inclined to believe that this process wipes out any joblessness created by technological change with a modest delay. The Keynesian economists, who believe that the level of employment can be adjusted by macroeconomic policy, are inclined to believe that policy is capable of eliminating the joblessness engendered by labor-saving innovation.

Baumol and Wolff suggest that the rapid pace of technological change can have two profound employment effects. First, it can materially increase frictional unemployment. Second, it can affect some classes of workers more than others because of the sunk-cost attributes of retraining workers to enable them to use the constantly emerging novel techniques. The least-educated workers; older, former jobholders; and women, particularly of childbearing age, are likely to be the groups most affected by the pace of change, suffering declining relative wages or protracted and possibly lifetime unemployment.

Weighing the evidence of the human cost of protracted unemployment, Baumol and Wolff note that it is simply not true that unemployment of one person for five years is somehow equivalent to unemployment of ten persons for six months each. In their research they will explore the costs of joblessness beyond the loss of income, considering divorce, mental illness, suicide, violence in the home, and other social costs. The research will conclude with an appropriate public policy response.

Research Associates **Robert Haveman** and **Barbara Wolfe** are conducting research that addresses the relationships among economic activity, underemployment, and human capital in the United States from 1973 to 1990. They endeavor to (1) document the growth of human capital in the U.S. economy since the early 1970s, (2) estimate inequality in the distribution of human capital within the working-age population and document any changes in inequality, (3) explore patterns of utilization of human capital within the working-age population (that is, changes in the overall utilization rate of human capital during the past 20 years) and the contribution of shifting patterns of human capital utilization among age, gender, and ethnic groups to changes in the overall capacity utilization rate, (4) identify factors that have determined measured changes in the growth, distribution, and utilization of human capital, and (5) explore the duration and determinants of underutilization over time.

If the objective of policy is to increase the utilization of human capital and, therefore, economic activity, so that every race, gender, education, and age group in the working-age population is working close to its capacity, then it is important to understand the aggregate level of underutilization and its distribution within the working-age population. Does the greatest potential lie in reducing economic inactivity among younger or older workers, among males or females, or among less-educated or more-educated workers? The answer to these questions will indicate whether policies targeted at youths (such as Jobs Corps and youth employment policies), older workers (changes in Social Security and disability benefits), or young women (changes in welfare policy) are likely to be more effective in increasing economic activity. Haveman is John Bascom Professor of Economics and Public Affairs at the University of Wisconsin, Madison, and Wolfe is professor of economics, preventive medicine, and public affairs at the University of Wisconsin, Madison.

Research Associate **David R. Howell** focuses on the implications of changes in industry characteristics, especially the adoption of information technologies, for employment, skill requirements, and earnings. Specifically, he is examining the effects of recent employment restructuring on young workers by race and gender. His results thus far imply a strong link between changes in the rates of labor market discouragement and changes in job opportunities, job quality, and educational requirements. Howell teaches at the Graduate School of Management and Urban Policy of the New School for Social Research and is a research associate at the C. V. Starr Center for Applied Economics at New York University. He received a Ph.D. in economics from the New School for Social Research.

Continuing the work he conducted while a resident scholar, Research Associate **Takao Kato** is examining the

relationship between human resource management practices (HRMPs) and productivity. In his current research he is examining interactions between various human resource policies in Japanese firms—such as employment stability, investment, and collective bargaining—and economic performance. Because much of the discussion concerning economic and business policies in the United States compares its domestic policies with those of Japan, an investigation of Japanese business may provide insights into changes in domestic policies that would enhance performance. Kato, associate professor of economics at Colgate University, received a Ph.D. in economics from Queen's University, Kingston, Ontario. He is the author of *Public Policy Brief No. 19, Cooperate to Compete*, "Employee Participation and Productivity: Evidence from a New Survey of Japanese Firms."

Resident Scholar **Marlene Kim** is conducting work on welfare policy, discrimination, comparative worth, and paysetting. She is simulating pending federal legislative proposals in order to estimate their effect on the working poor. She is also examining the extent to which current welfare policies meet the needs of the working poor. Preliminary findings suggest that most of the working poor are married, work long hours, and are in their prime working years and that most do not receive welfare benefits for which they qualify, even though these benefits would raise their standard of living substantially. Kim received a Ph.D. in economics from the University of California at Berkeley and is an assistant professor of economics at Rutgers University.

Research currently being conducted by Resident Research Associate **Oren M. Levin-Waldman** focuses on restructuring the welfare and unemployment insurance systems to achieve greater efficiency, equity, and effectiveness in the delivery of services. Levin-Waldman's research, which overlaps work being conducted in the Levy Institute's federal budget policy research program, also includes an examination of worker displacement due to plant closures. In particular, he is evaluating the effectiveness of the 1995 federal plant closing law in protecting workers and facilitating labor market adjustments. If the legislation represents a step in a process that will lead to a comprehensive national employment policy, it will have repercussions with respect to the overhaul of the current unemployment insurance system. Levin-Waldman is the author of *Public Policy Brief No. 21, The Consolidated Assistance Program*, and a forthcoming *Public Policy Brief* on the deficiencies of and alternatives to the current unemployment insurance system. His book *Reconceiving Liberalism: Dilemmas of Contemporary Liberal Public Policy* is to be published later this year by the University of Pittsburgh Press. Levin-Waldman received a Ph.D. in political science from Temple University.

Senior Scholar **Joel Perlmann** is guiding a research initiative entitled "Ethnicity and the Economy in America—Past and Present." The initiative focuses on the processes by which immigrants and their descendants are assimilated into U.S. economic life. It is hoped that this work will shed light on policy issues (relating to international competitiveness, the labor market, income distribution, and poverty) associated with current immigrants.

Perlmann is engaged in three research projects to further this initiative. The first, "The Jews Circa 1900: Social Structure in Europe and America," focuses on social characteristics that help explain the rapid socioeconomic rise of East European Jewish immigrants who entered the American economy at the turn of the century. Perlmann is using Census data that were previously unavailable or not machine readable to examine social and economic characteristics of East European Jewish populations who emigrated to the United States and those who remained in Europe.

Perlmann's second project, "Assimilation and the Third Generation," explores the assimilation of immigrants into the socioeconomic mainstream of the United States and the social and economic experiences of their native-born children. Special attention is paid to a few large groups whose absorption seemed especially slow and painful during the first and second generations: Irish immigrants who arrived in the mid nineteenth century, Italians and Poles who immigrated between 1880 and 1920, Mexicans who arrived throughout much of this century, and southern-born blacks who migrated to the North. Perlmann uses Census data in new ways in order to identify and trace second- and third-generation Americans.

Perlmann's third project, "The New Immigration's Second Generation," conducted with UCLA professor of sociology **Roger Waldinger**, reviews literature that deals with the economic progress and difficulties faced by children of immigrants today and compares their experiences with those of children of turn-of-the-century immigrants.

Perlmann, who also holds the post of Levy Institute Research Professor of History at Bard College, received Ph.D.s in history and sociology from Harvard University.

## **Biennial Budgeting for the Federal Government: Lessons from the States**

Charles J. Whalen

Working Paper No. 149, December 1995

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A two-year budget and appropriations cycle at the federal level has been endorsed by Republicans and Democrats during the past 20 years. The first congressional proposal for a federal biennial budget appeared in the late 1970s and several others have since been submitted. There are two dominant models for a biennial budget: the stretch model, which expands action on the budget resolution over a two-year period, and the split-sessions model, which confines budget resolution and appropriations actions to the first session of Congress. In this working paper Resident Scholar Charles J. Whalen reviews states' experience with biennial budgeting and outlines policy implications of extending the budget period.<sup>1</sup>

### **Evidence from the States**

States have a long history of biennial budgeting. In the century before World War II all but four switched to a two-year budgeting process. In the immediate postwar era most states returned to annual budgeting, but during the past decade biennial budgeting has been revived at the state level. Currently 20 states employ a split-session model of a two-year budget.

Studies of state budgeting practices undertaken in the 1970s and 1980s showed that adoption of a biennial budget led to reduced budget preparation work and more time for executive budget staff to conduct analyses. In contrast, moving from biennial to annual budgeting was followed by increased budget workloads and less time spent on budget execution and program analyses. The studies also found that budget adjustments were not used significantly more often in states with biennial budgets than in states with annual budgets. In a 1994 survey distributed by New Jersey's Office of Management and Budget, a majority of the eleven states that practice biennial budgeting and responded to the survey reported that biennial budgeting saved considerable time and allowed more time to be devoted to policy evaluations, management studies and planning, staff training, and program operations.<sup>2</sup> All respondents agreed that budget adjustments required less work under biennial budgeting than under annual budgeting.

Evidence from the studies of the states supports the view that biennial budgeting results in some loss of flexibility and legislative control. The New Jersey survey found better forecasting accuracy and more fiscal flexibility under annual budgeting. Although all respondents to the survey indicated that two-year budgets increased stability and certainty, some noted that major changes in the economic or political climate nullified potential gains. The states identified economic fluctuations, unstable federal funding, and unanticipated Medicaid expenses as the primary complications of a biennial budget process. Therefore, it appears that state and local governments would be among the beneficiaries of the stability provided by two-year federal budgeting because much of their budget uncertainty is traced to or is influenced by federal actions.

### **A Federal Biennial Budget**

Given the evidence from the states, Whalen suggests that a two-year federal budget period would eliminate much procedural repetition and enable executive agencies and Congress to devote more time to pursuits other than developing and defending budgets. Because each federal budget cycle requires about 39 months of preparation, three or four cycles are likely to overlap at any given time; proponents of the two-year cycle believe that adopting a biennial budget would eliminate much of this overlap. One study that reviewed a federal experiment with biennial budgeting undertaken at the Department of Defense named better-quality decisions and more efficient resource utilization as the ultimate benefits of the two-year cycle.

Whalen contends that two-year budgets can be compatible with both macroeconomic stability and fiscal discipline if policymakers place heavy reliance on automatic stabilizers and establish a budgetary structure that generates deficits only during recessions. Although a two-year budget might make it more difficult to reach a

particular target during a period of economic instability, this problem is not new; as Whalen notes, legislators have always had to decide between balancing the overall economy and balancing the budget with precision. Moreover, despite suggestions by some that a two-year budget might cause Congress to write additional "micro management" provisions into the law, Whalen states that evidence and opinion to the contrary contradict such a suggestion.<sup>3</sup> He therefore finds that executive-legislative relations should not be altered significantly by biennial federal budgeting. Whalen concedes that some trade-off exists between the flexibility of annual budgeting and the stability and increased opportunity for policy analysis and planning of biennial budgeting. However, he agrees with Alice Rivlin that the current annual federal budget permits too much flexibility and suffers from too little stability, continuity, and policy planning.<sup>4</sup> Whalen recommends that the federal government adopt a biennial budget process that involves split sessions and separate appropriations for each year.

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## Notes

1. See also Charles J. Whalen, "Should the U.S. Government Adopt a Biennial Budget?" Working Paper no. 128, The Jerome Levy Economics Institute of Bard College, November 1994.
2. New Jersey Office of Management and Budget, *Biennial Budgeting Survey* (Trenton: New Jersey Office of Management and Budget, 1995).
3. Morton A. Meyers, "Biennial Budgeting: The State Examples-Summary of the Major Issues" (Washington, D.C.: General Accounting Office, Program Analysis Division, 1988), 29; Charles W. Wiggins and Keith E. Hamm, "Annual Versus Biennial Budgeting?" (College Station, Tex.: Public Policy Resources Laboratory, 1984), section III, 27; and Thomas Mann, in testimony before the Subcommittee on Legislation and National Security, Committee on Government Operations, U.S. House of Representatives, October 7, 1993.
4. Alice Rivlin, "Reform of the Budget Process," *American Economic Review* 74, 2 (1984): 133-137; and "Congress and the Budget Process," *Challenge*, March-April (1981): 31-37.

## Reforming Unemployment Insurance: Toward Greater Employment

Oren M. Levin-Waldman

Working Paper No. 152, December 1995

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In this working paper Resident Research Associate Oren M. Levin-Waldman builds on earlier work (see Levy Institute Working Paper No. 140) to argue that the unemployment insurance (UI) system is in need of reform. At a minimum, Levin-Waldman states, the system "needs to be tightened in such a way that it results in fewer layoffs." In addition, it should be changed in order to "offer greater assistance to the growing population of the long-term unemployed."

Levin-Waldman examines demographic data to compare the long-term unemployed and the short-term unemployed. Compared to the short-term unemployed population, the long-term unemployed population had a relatively higher percentage of workers who

Were older (35 to 64 years of age)

Were male

Were black and Asian or Pacific Islander

Had a high school education, college degree, or more

Worked in blue-collar crafts industries, service industries, or blue-collar service industries

Worked in managerial and professional specialty positions; blue-collar manufacturing; technical, sales, and administrative support positions; and armed services occupational groupings

Were unemployed for reasons other than being laid off, quitting, reentering the labor force, or being a new entrant to the labor force

Some arguments for leaving the unemployment insurance system as it is are based on the fact that the majority of UI recipients receive benefits for less than 26 weeks and, therefore, the system meets its goal of providing

basic insurance protection to the unemployed. Arguments for reforming the system so that "it offers greater opportunity for individuals to match their skills with those demanded by employers" focus on the number of workers who are unemployed for more than 26 weeks. At least 20 percent of the sample examined by Levin-Waldman were unemployed for 27 weeks or more, and, given past trends, we can expect that percentage to increase. Therefore, the UI system should do more than provide basic short-term insurance and should move toward providing the skills necessary for the long-term unemployed to become marketable again.

Because the unemployed population is not homogeneous, Levin-Waldman suggests a two-tiered system that would distinguish between the short-term and long-term unemployed. For the short-term unemployed, the system should continue to function as an insurance system. At the same time the system could be "tightened" to reduce short-term unemployment by changing the current experience rating for UI premiums to make it more costly for firms to lay off workers and through work-sharing agreements.

The second tier of an improved UI system would include programs aimed at reducing long-term unemployment. Policies to be enacted in this area would depend on what are assumed to be the reasons for this unemployment. Some people have argued that the long-term unemployed do not retain new jobs because their reservation wages are too high. It is argued that UI benefits, by providing if only a minimum level of support, allow the unemployed to refuse work and to set a higher reservation wage than they could with no or less support. A solution might therefore be to tax UI benefits.

Levin-Waldman contends that this reservation wage reasoning is based on several false assumptions. It assumes that jobs exist and that there is a match between these jobs and the unemployed's skill levels. According to Levin-Waldman, jobs may not exist in sufficient number and, even if they do exist, there is often a mismatch between workers' skills and the skills required by the jobs. He questions whether any social benefit is derived from forcing professionals (who make up a higher percentage of the long-term unemployed than of the short-term unemployed), for example, to take jobs for which they are clearly overqualified. And since the wages of those in professional and specialty occupations far exceed the benefits they would receive under the UI program, "it isn't clear why these people would prefer not to work and to be on UI at a fraction of their previous wages." Moreover, the demographic characteristics of the long-term unemployed population—older, white males who are married and who Levin-Waldman assumes are family heads and the primary earners in their families—make it "hard to believe" that such individuals would have any incentive to subsist on UI benefits that represent a fraction of their previous wage if they had the opportunity to earn a higher wage. Another argument offered by Levin-Waldman against the reservation wage hypothesis is that a large proportion of involuntarily unemployed workers—44.7 percent of the long-term unemployed and 62.9 percent of the short-term unemployed—have not or do not receive UI benefits, a fact that challenges the idea that UI artificially inflates wages.

Rather than assuming that the UI system is a source of unemployment, policymakers should look at the system as a means to assist those who seek to be reemployed. Levin-Waldman suggests that for those who are unemployed for more than 26 weeks, UI benefits could be contingent on training. He also suggests implementing a worker profiling and reemployment system. Under such a system a profile would be created when a claimant received his or her initial UI payment. A model would then be used to project the statistical probability that that particular worker will become part of the long-term unemployed. "Identified" claimants would be directed to services tailored to individual needs, such as training programs, advice on employment possibilities, and workshops on writing resumes and interviewing. Job training might be required at a stage of unemployment before the point at which benefits cease (26 weeks). Levin-Waldman claims that although retraining does not assist all of the long-term unemployed, there is reason to believe that it could be beneficial to a significant number of that population. A majority of the long-term unemployed (64.4 percent) have a high school education or less, and industries that are expected to grow in the next decade will require a higher degree of skills than the blue-collar manufacturing industries that are the source of a sizable percentage of the long-term unemployed.

Levin-Waldman notes that while various programs to increase workers' educational and skill levels could benefit those who previously lacked such education and training, they will not assist workers who are older and slightly better educated and have been displaced from professional specialty positions. Levin-Waldman suggests that such workers, many of whom have been "downsized" out of work, would benefit from a system

that eased them into consulting so that they could continue to perform the jobs they previously had performed, but for several firms rather than one firm. Also, the total value of extended benefits could be offered to such workers as a lump sum with the aim of helping them form their own business.

### Program Scholars

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Resident Research Associate **Neil H. Buchanan** is concerned with issues related to public finance and fiscal policy, focusing on budgeting procedure, public investment, and the budget deficit. The first of his two current research projects is an examination of the macroeconomic consequences of current proposals to revamp or replace the federal income tax system, including an explicit analysis of the effect of such tax changes on the national saving rate. The second is a longer-term effort to continue development of the Levy Institute/New Cambridge model (Levy/NCM) of the U.S. economy, a model created and developed during the past two years by Distinguished Scholar Wynne Godley. By integrating the domestic and international accounts, the Levy/NCM allows users to create simulations that capture all of the domestic and international interactions caused by changes in the U.S. economy. Buchanan is a Ph.D. candidate in economics at Harvard University.

**Jonathan M. Neale**, Cambridge University Visiting Scholar for the 1995-96 academic year, is examining Keynes's influence on U.S. economic policy from 1920 through the 1960s. Included in his investigation is a consideration of the validity of revisionist interpretations that loosely classify some U.S. classical economists as "Keynesian" prior to the publication of *The General Theory*. Neale is a Ph.D. candidate in economics at Cambridge University.

Resident Scholar **Charles J. Whalen** is exploring various aspects of fiscal policy, including historical, theoretical, and comparative aspects of biennial and capital budgeting. His goals are to assess current policy proposals and to suggest federal budget reforms to improve the economic performance of the United States. Whalen, former assistant professor of economics at Hobart and William Smith Colleges and former visiting fellow at the New York State School of Industrial and Labor Relations at Cornell University, received a Ph.D. in economics from the University of Texas at Austin. He is the author of *Public Policy Brief No. 20, Assessing the Constitutional Route to Federal Budget Balance*.

### ***New Public Policy Brief***

#### **Revisiting Bretton Woods**

Raymond F. Mikesell

*Public Policy Brief* No. 24/1996

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Last year's fiftieth anniversary of the signing of the Articles of Agreement of the International Monetary Fund (IMF) and the World Bank was celebrated at meetings in Washington, D.C.; at Bretton Woods, New Hampshire; and at the annual meeting of the Boards of Governors of the IMF and World Bank held in Madrid. The many addresses at the 1994 meetings praising the contributions of the IMF and World Bank were overshadowed by the widely held conviction that both institutions are seriously in need of overhauling. However, there is no consensus on how they should be changed. Some analysts believe that one or both have outlived their usefulness and should be abolished, and others believe that they should continue to operate, but with new responsibilities and enhanced resources.

Underlying proposals to alter or abolish the institutions is the belief that neither has been successful in dealing with the world's current economic problems. The IMF has had virtually no influence on the international monetary system since the early 1970s, and it has not had a laudable record in promoting balance of payments equilibrium and financial stability in the developing countries. The World Bank has fallen short of achieving its primary goals of reducing world poverty and putting the world's poorest countries on the road to sustainable development.



In this *Public Policy Brief*, Raymond F. Mikesell, professor of economics at the University of Oregon and participant at the 1944 Bretton Woods conference, outlines the original goals of the IMF and World Bank, describes the activities the institutions assumed as they evolved, and evaluates the success of the institutions in meeting both past and subsequent goals. He analyzes the current debate about whether the IMF should play a more active role in managing the international monetary system, in managing currency crises (such as the one recently experienced in Mexico), and in providing credit to newly capitalist countries. Mikesell examines proposals that the World Bank do more to promote private investment in developing countries, make more loans for social and economic objectives (such as reducing poverty, promoting greater equality of opportunity, improving health and education, and maintaining the environment), and improve the efficiency of its operations.

Mikesell cautions that he cannot state his conclusions with unequivocal conviction or passion; the issues are too complex, the arguments on both sides of the debate too persuasive, and the reputations of the debaters too impressive. Given the large financial resources and the highly competent staffs of the IMF and World Bank, Mikesell does feel that the two institutions should be doing a better job promoting trade and reducing poverty. However, because there is general agreement that there is a need for multilateral institutions to promote world trade and reduce world poverty, he feels that abolishing the institutions is not the answer. Rather, he makes the following recommendations.

First, the World Bank Group (WBG; composed of the World Bank and three associated member organizations) and the IMF should be merged, with each executive director serving as an executive director for both institutions. The new organization would be called the World Bank and Fund Group (WBFG) to preserve the identity of the two major institutions. The financial accounts of the organizations would be kept separate and the financial transactions of each organization would be done in accordance with its own charter. The staffs of the two organizations would be completely integrated, although paid from different sources. The president of the World Bank, the managing director of the IMF, and the chair of the joint board would serve as the governing council. Responsibility for enforcing the IMF's rules on exchange restrictions and multiple exchange rates would be given to the World Trade Organization.

Second, the IMF should not be given responsibility for establishing and managing an exchange rate target zone system or for stabilizing the exchange rates of the major currencies. Such a system is unlikely to succeed because (1) it is unlikely that the IMF or any other agency would be able to determine a pattern of rates that would be consistent with a given pattern of current account balance targets, (2) it is unlikely that any set of procedure and policy guidelines could maintain market exchange rates in reasonable approximation to a pattern of exchange rate targets without frequent changes in the pattern or without very large commitments of reserves for intervention in the exchange markets; and (3) it is highly unlikely that the major countries could agree on a pattern of target exchange rates or would adopt the policies necessary to control market rates when these policies were not in accord with their domestic objectives.

Third, the establishment of a special IMF facility to deal with financial crises should be deferred. The IMF already has the authority to assist countries experiencing financial shocks from whatever source, but it should not devote large amounts of its resources to crises engendered by capital flight. Free capital markets inevitably involve risks to both creditors and debtors; efforts to lessen these risks with public international funds may result in the unproductive use of scarce resources.

Fourth, the WBG should move rapidly to change the composition of its lending by making fewer loans to governments and state enterprises and increasing its loans to the private sector, including nongovernmental, nonprofit entities.

Fifth, the WBG should be gradually downsized by reducing the number of countries eligible for loans. As countries reach a path of sustained development, they should no longer be receiving multilateral financial assistance. Also, the United States and other governments are more likely to reduce than to increase their contributions to multilateral development organizations in the future. Therefore, the number of countries eligible for WBG loans should be decreased.

A possible constraint on reducing (or not increasing) the resources of the WBG is the role that it is

expected play in the transition of the former Soviet bloc countries to capitalism. This financial constraint poses a political question that ought to be faced by the G-7 countries. In Mikesell's view, financial assistance for the transition should be provided by the major Western powers and the European Bank for Reconstruction and Development. Financial assistance from the WBG should be delayed until these countries have achieved political and economic stability and have acquired the institutions, markets, and degree of privatization that would define them as functioning private market economies.

*Editor's note: This Public Policy Brief includes an analysis of the status of both the IMF and the World Bank. In Levy Institute Working Paper No. 150, "Proposals for Changing the Functions of the International Monetary Fund (IMF)" (December 1995), Mikesell examines the activities of the IMF in more detail. A similar working paper on the World Bank is forthcoming.*

## **Seminar**

### **R&D and Innovation**

Paul Geroski, Professor of Economics, London Business School

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Paul Geroski, professor of economics at the London Business School, discussed factors determining the extent of innovation by firms and public policies that might encourage firms to be more innovative. He listed four strands of research pertaining to innovation: Schumpeter's work on innovation and market strategy; work on supply-based versus demand-based models of innovation; Zvi Griliches's work on identifying production functions with R&D inputs and innovation outputs; work by Geroski and colleagues John Van Reenan and Chris Walters on what they call "Jack's problem," that is, finding the correct policy to make firms more innovative.

Geroski set up and estimated a dynamic model of innovation and then used these estimates to simulate the effects of three policy alternatives to encourage innovation: stimulating demand, subsidizing R&D at the industry level, and cutting corporate taxes to increase the amount of cash flow available for innovation. Geroski assumed in the simulations that funding to support any one of the policies was limited to £500 million and that industrial policy could not be discriminatory.

Geroski found that R&D spending was not a good measure of innovativeness and that a measure of outputs was more important than a measure of inputs. He therefore changed his model to distinguish between patents (or invention) and innovation (or implementation). He described innovation as major technological breakthroughs that were commercially viable. Geroski applied data that he collected from three sources on 600 U.K. firms from 1972 to 1982. One data source included the firms' balance sheet statistics and another source provided the firms' patenting activities in the United States. The third source was a database created by the Science Policy Research Institute on major innovations in which innovations were identified as commercial successes and technological breakthroughs. Geroski estimated his three-equation dynamic model using this data sample. Using many lagged variables to allow a comparison of long- and short-term effects, he found little difference between them.

The three policy variables—demand, R&D subsidies, and cash flow—produced different results. Demand had virtually no effect on patenting and a positive effect on innovation. R&D subsidies were positively correlated with patenting and not correlated with innovation. Geroski's explanation for demand's effect on innovation was that invention (patenting) is driven by basic science while implementation (innovation) is driven by demand. Because of the limited window of opportunity to make a profit, innovations are put on the market under the best circumstances: in conditions of high demand. Cash flow had almost no effect on patenting and only a timing effect on innovation; innovation increased when cash flow increased, but declined as the cash flow increase subsided, leaving the total number of innovations unchanged.

Geroski simulated the effects over a 20-year period of spending £500 million on each of the three policy alternatives. He found that the demand and cash flow policies had basically no effect, and the R&D policy

resulted in 60 additional patents and 1 additional innovation per year. Applying average measures of value for patents and innovations yielded a total value of outputs under the R&D policy of £10 million, a return on a £500 million investment that Geroski found hardly worthwhile and morally questionable.

Given these results, is there a role for technology policy? Geroski reviewed the data from the three sources and found that most firms do not innovate and the firms that do innovate tend to be in the engineering and chemical sectors. He relaxed his nondiscriminatory assumption and reestimated the models for firms in these sectors. He found that targeting these firms doubled output value to an estimated £20 million on an initial investment of £500 million. On closer examination of the data, he also found that large firms and firms that had innovated in the past were more likely to innovate. Reestimating the model for these types of firms, he found the output value to be minuscule in comparison to the investment. Targeting specific firms or sectors, then, did not produce a significant enough change in the value of output effects.

Each of the nondiscriminatory and targeted policies resulted in either minor or no effect on output; none made the investment worthwhile. He offered several possible explanations. First, the policy must be big enough to get firms to innovate and to continue to innovate. Geroski surmised that an initial threshold of innovating three times per year or patenting five times per year must be met in order for firms to be induced to continue to innovate or patent in the future; only 1 percent of the firms in Geroski's sample met this initial threshold. Second, the rates of return to innovation were underestimated in Geroski's model because innovation generates externalities that were not accounted for in his model. He contended, however, that such effects were likely to be relatively small.

Geroski stressed that technology policy should focus on supply and meeting the needs of its users. Although the rates of return of such policies are unknown, policy actions could stimulate innovation; for example, subsidizing university research could diffuse and unlock information that could have a stimulating effect. Policy actions could also unite producers and users in the laboratory. Geroski dismissed an industrial policy because many firms, even in high-innovation sectors, do not innovate. However, U.S. and U.K. government procurement driven by defense spending could be used as a model of a successful technology policy. The government acts as a consumer and is willing and able to finance projects that the private sector could not afford. Eventually, enough demand is generated so that costs decline and innovation is diffused throughout the private sector. Geroski submitted that the aircraft, semiconductor, and computer industries derived benefits from successful government procurement policies and concluded that there is indeed a role for technology policy.

### Program Scholar

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Distinguished Scholar **Wynne Godley**, on leave from the Levy Institute for the 1995-96 academic year, is a professor of applied economics at Cambridge University. Godley developed an accounting-based model, the Levy Institute/New Cambridge model (Levy/NCM), of the open U.S. economy that utilizes accounting stocks and flows measured at both current and constant prices. He has used the model to pose questions about the efficacy of the international payments adjustment system in light of the deterioration of the U.S. trade deficit since 1991. When he returns during the 1996-97 academic year, Godley will head a unit that will use the Levy/NCM to prescribe policies for the United States that also will have implications for the rest of the world. With co-author George W. McCarthy Jr. of Bard College, Godley recently completed an economics textbook, tentatively titled *An Introduction to Institutional Economics*, based on his model. Godley is the author of *Public Policy Brief No. 23, A Critical Imbalance in U.S. Trade*. His other recent publications include "U.S. Trade Deficits: The Recovery's Dark Side?" (with co-author William Milberg), "The British Economy Under Mrs. Thatcher" (with co-author Ken Coutts), and "Time, Increasing Returns and Institutions in Macroeconomics." Professor Godley received a Ph.D. in applied economics from Oxford University.

### Program Scholars

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Distinguished Scholar **Hyman P. Minsky** has contributed to many academic journals and the public press.

Minsky's work-encompassing the financial fragility of and the current crisis in banks, thrifts, insurance companies, and junk bond markets-is the impetus for and the guide of the public policy research program on financial sector restructuring. He also is a member of the Levy Institute's Board of Advisors. Minsky, professor emeritus of economics of Washington University, St. Louis, received a Ph.D. in economics from Harvard University.

Research Associate **Steven M. Fazzari** is associate professor of economics at Washington University, St. Louis. His current project (which also falls into the area of the federal budget policy program) is an empirical estimation of the relative importance of the channels through which fiscal policy affects investment. Fiscal policy may affect investment through its influences on (1) interest rates and the cost of capital, (2) the business cycle, and (3) firms' financial conditions. Policies aimed at affecting interest rates-such as tax incentives, budget deficits, and saving incentives-are thought to influence investment by reducing the cost of capital. Policies aimed at influencing the business cycle are believed to have a short-term effect on the health of the economy and possibly a longer-term influence through investment effects. Finally, policies aimed at altering firms' financial condition-either through internal cash flow or through external debt-could affect the cash that firms use to finance investment internally or the health of the financial sector that provides investment finance through debt or equity issues. Fazzari's work will help direct policymakers' attention to those policies that seem to be most efficient at stimulating investment and, hence, economic growth. Fazzari received a Ph.D. in economics from Stanford University.

Research Associate **L. Randall Wray** addresses the ability of the Federal Reserve to conduct monetary policy. He reviews the actions of the Fed under the direction of Paul Volcker and Alan Greenspan, during which time monetary policy has been especially restrictive. Focusing on the Fed's recent history, Wray examines the Fed's use of particular variables to gauge economic performance and monetary trends and explores the effectiveness of these variables in predicting inflationary pressures. Wray, a professor of economics at the University of Denver, received a Ph.D. in economics from the University of Washington, St. Louis.

## Program Scholars

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Distinguished Fellow **Walter Cadette's** areas of special interest include public policy, business capital spending, and international trade. Cadette is examining the options available in the aftermath of the failure of the Clinton administration's health care plan. This examination will include (1) a description of the health care delivery system in the United States, including Medicare and Medicaid, the private third-party payment system, sources of escalating health care costs, and the rising number of uninsured; (2) an analysis of responses of the government and the private sector to rising health care costs; and (3) an analysis of the policy choices available to remedy existing problems. Cadette is a former vice president and senior economist at Morgan Guaranty Trust Company and editor of the bank's publication *World Financial Markets*. He received an M.A. from Georgetown University and did further graduate work in economics and finance at New York University.

Research being conducted by Research Associates **Kris Feder** and **Michael Hudson** will assess the extent to which capital gains accrue as economic rent and, based on this estimate, the distribution of benefits of a capital gains tax cut to the real estate industry. In one study Feder and Hudson calculate a value for economic rent in order to assess the effect of rent on consumer budgets. National Income and Product Accounts (NIPA) statistics show that rental housing has remained a steady 4 percent of national income since World War II, while the imputed rent for owner-occupied housing has risen from 4 to 8 percent. Bureau of Labor Statistics data show that during the same period rental costs have risen from 21 to 25 percent of disposable personal income. Feder and Hudson's initial findings suggest that the real estate gains of landlords and bankers during this period have been made at the expense of consumers and state and local governments. Their preliminary analysis from a second study, on the neglected role of real estate in the capital gains debate, reveals that 60 percent of capital gains accrue as real estate gains. Therefore, a reduction in the capital gains tax rate would benefit primarily the real estate industry, rewarding land speculation more than new direct investment.

Kris Feder, assistant professor of economics at Bard College, previously taught at Franklin and Marshall

College, West Chester University of Pennsylvania, and Temple University. Her areas of specialization are public sector economics and history of economic thought. Feder received her Ph.D. in economics from Temple University. Michael Hudson is a visiting scholar at New York University. He has served as consultant to institutional investors on balance of payments and flow of funds analysis and as economic adviser to government agencies and the United Nations Institute for Training and Research. He was research director for the Henry George School of Economics and Sociology. He received his Ph.D. in economics from New York University. Feder and Hudson are co-authors, with G. J. Miller, of *A Philosophy for a Fair Society*, published by Shephard-Walwyn.

## Two New Members of the Board of Advisors

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The Levy Institute welcomes **Preston Martin** to its Board of Advisors. Martin, former vice chairman of the Federal Reserve Board of Governors, is currently chairman and CEO of HomeVest Financial Group, Inc., and Martin & Associates, financial services firms based in San Francisco.

In addition to his position at the Fed, Martin has served in the public sector as chairman of the Federal Home Loan Bank Board, where he engineered legislation creating the Federal Home Loan Mortgage Corporation (Freddie Mac), and as savings and loan commissioner for the State of California, where he initiated the first adjustable rate mortgage legislation.

In the private sector Martin was partner with William E. Simon in both WSGP and William E. Simon and Sons. He founded enterprises for Sears, including PMI Mortgage Insurance Co. and PMI Mortgage Corporation, of which he was chairman and CEO. Martin was chairman and CEO of several other Sears real estate subsidiaries, including Seraco Enterprises, Homart Development Company, and Allstate Savings and Loan.

In the academic world Martin was professor of finance and director of executive programs at the University of Southern California.

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The other new member of the Board of Advisors is **John D. Sterman**, professor of management science at the Alfred P. Sloan School of Management of the Massachusetts Institute of Technology and director of MIT's System Dynamics Group. His research areas include systems thinking and organizational learning, computer simulation of corporate strategy, and the theory of nonlinear dynamics. He is a leading expert on the long-term dynamics of the macroeconomy and the challenges for organizations posed by the current transformation of the world economy.

Sterman's research centers on improving managerial decision making in complex systems. He pioneered the development of "management flight simulators" of corporate and economic systems. These simulators are now used by corporations and universities around the world. He is a leader in the Sloan School's Organizational Learning Center, a research program dedicated to developing, evaluating, and disseminating tools to promote systems thinking and continuous learning in organizations. Currently, in partnership with the National Science Foundation and several leading corporations, he is studying the dynamics of quality improvement programs, such as total quality management and business process reengineering, to help firms design and implement sustainable programs.

Sterman was awarded the Jay W. Forrester Prize for the best published work in system dynamics and is a three-time winner of the Sloan School's Award for Excellence in Teaching. His recent publications include, with J. D. W. Morecroft, *Modeling for Organizational Learning* (Portland, Ore.: Productivity Press, 1994); with N. Repenning and F. Kofman, "Unanticipated Side Effects of Successful Quality Improvement Programs: Exploring a Paradox of Organizational Improvement," in *Management Science* (forthcoming); with C. Kampmann, C. Haxholdt, and E. Mosekilde, "Entrainment in a Disaggregated Economic Long Wave Model," in *Open Systems and Information Dynamics* (forthcoming); and "Mode Locking and Entrainment of Endogenous Economic Cycles," in *System Dynamics Review*.

## Presentations by Levy Institute Scholars

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Resident Scholar **Charles J. Whalen** chaired a session entitled "The Employment Act: Fifty Years Later" at the annual meeting of the Eastern Economics Association in Boston. Papers presented at the session included "Radical Tax Restructuring, Progressivity, and Full Employment" by Resident Research Associate **Neil H. Buchanan**, "Economic Insecurity and the Institutional Prerequisites for Successful Capitalism" by Distinguished Scholar **Hyman P. Minsky** and Whalen, and "The Consumer Price Index as a Measure of Inflation and Target of Monetary Policy" by Executive Director **Dimitri B. Papadimitriou** and Research Associate **L. Randall Wray**. Whalen and James Tobin were session discussants.

Buchanan will head a roundtable entitled "Redefining the Family: Men, Women, Children, and Economic Coercion" at a meeting of the International Association for Feminist Economics to be held at American University in Washington, D.C., on June 21-23. He also will present a paper entitled "Fiscal Deficits on Saving, Investment, and Net Exports: Experiments in the Spirit of Eisner" at the University of Tennessee's International Workshop in Post Keynesian Economics, to be held from June 27 to July 3.

### Thanks to Reviewers

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The Board of Governors wishes to thank the following people for their willingness to serve the Levy Institute as reviewers of research proposals.

Willem H. Buiter  
Charles W. Calomiris  
James R. Crotty  
Paul Davidson  
Lord Megnad Desai  
Gerald Epstein  
Steven M. Fazzari  
James K. Galbraith  
Robert J. Gordon  
Ricardo Grinspun  
Robert Guttman  
Robert Heilbroner

Upcoming Events

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### Conference on the Current State of Employment

On April 25 and 26 at Blithewood the Levy Institute will hold a conference entitled "The Employment Act of 1946: 50 Years Later." The conference will build on the insights and developments of the conference "Reflections on the Eve of the 50th Anniversary of the Employment Act of 1946" held in April 1995.

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### Forum on Immigration and Ethnicity

The Levy Institute will host a forum entitled "Immigration, Economy, and Policy in America," to be held at Blithewood on May 3, beginning at 2:00 p.m. The forum is part of the Institute's research initiative "Ethnicity and Economy in America-Past and Present," under the guidance of Senior Scholar Joel Perlmann. The program for the forum is as follows:

**Session I.** Economic Effects of Immigration: Past and Present  
David Card, Princeton University

Stanley Engerman, University of Rochester

## **Session II. The Present Moment in Immigration Reform**

Alexander Aleinikoff, U.S. Immigration and Naturalization Service

Frank D. Bean, University of Texas, Austin

Muzaffar Chishti, Union of Needletrades, Industrial, and Textile Employees (UNITE)

## **The Levy Institute on the World Wide Web**

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To obtain information about ongoing research, publications, and upcoming events (including conference programs and on-line registration), visit The Jerome Levy Economics Institute at its web site:

<http://www.levy.org>

The Levy Institute web site can also be accessed via the following directories and public policy links:

C-SPAN <http://c-span.org>

Electronic Policy Network (EPN) <http://www.epn.org>

McKinley (Magellan) <http://www.mckinley.com>

Rand Journal of Economics <http://www.rand.org/misc/rse>

WebEc <http://www.helsinki.fi/WebEc>

Yahoo <http://yahoo.com>

New Book

## **Stability in the Financial System**

Edited by Dimitri B. Papadimitriou. Macmillan and St. Martin's Press, 1996.

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The S&L crisis of the 1990s has given many a reason to review the events that led to the banking crisis of the 1930s and the subsequent passage of the Emergency Banking Act, the Banking Act of 1933, the Banking Act of 1935, and other related legislation. The restructuring of the financial system accomplished by this legislation led to the longest period of financial stability in U.S. history, lasting half a century. This book has two goals: to show why the banking reforms enacted in the 1930s were so successful and to present policy proposals that include the institutional provisions necessary for the financing of the capital development of the economy and a safe payments system.

## **Working Papers, 1995 to 1996**

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*Explaining Japan's Savings Rate*

David W. Campbell

**No. 135, January 1995**

*Statistical Inference via Bootstrapping for Measures of Inequality*

Jeffrey A. Mills and Sourushe Zandvakili

**No. 136, February 1995**

*Closing the R&D Gap*

Thomas Karier

**No. 137, February 1995**

*U.S. Foreign Trade, the Budget Deficit, and Strategic Policy Problems: A Background Brief*

Wynne Godley  
**No. 138, April 1995**

*On Stock Market Returns and Monetary Policy*  
Willem Thorbecke  
**No. 139, April 1995**

*The Deficiencies of the Unemployment Insurance System:  
What Are the Alternatives ?*  
Oren M. Levin-Waldman  
**No. 140, April 1995**

*Financial Innovation and Risk Management:  
The Cross-Guarantee Solution*  
Bert Ely  
**No. 141, May 1995**

*Industrial Change and Social Mobility: Black Men in New York City and London, 1970-1990*  
David Ladipo  
**No. 142, May 1995**

*The Productivity Effects of Human Resource Management Practices: Evidence from New Japanese Panel  
Data*  
Takao Kato and Motohiro Morishima  
**No. 143, June 1995**

*The Distributional Effects of Disinflationary Monetary Policy*  
Willem Thorbecke  
**No. 144, July 1995**

Financial Derivatives: Harnessing the Benefits and Containing the Dangers  
Willem Thorbecke  
No. 145, August 1995

*The Stock Market and the Corporate Sector: A Profit-Based Approach*  
Anwar M. Shaikh  
**No. 146, September 1995**

*Capital Gains Tax Cuts, Investment, and Growth*  
Steven M. Fazzari and Benjamin Herzon  
**No. 147, October 1995**

*Does an Independent Central Bank Violate Democracy?*  
David A. Levy  
**No. 148, November 1995**

*Biennial Budgeting for the Federal Government: Lessons from the States*  
Charles J. Whalen  
**No. 149, December 1995**

*Proposals for Changing the Functions of the International Monetary Fund (IMF)*  
Raymond F. Mikesell  
**No. 150, December 1995**

*The Working Poor and Welfare Reciprocity*  
Marlene Kim and Thanos Mergoupis



**No. 151, December 1995**

*Reforming Unemployment Insurance: Toward Greater Employment*

Oren M. Levin-Waldman

**No. 152, December 1995**

*Technology and the Demand for Skills*

Edward N. Wolff

**No. 153, December 1995**

*Unemployment, Inflation, and the Job Structure*

James K. Galbraith

**No. 154, January 1996**

**Public Policy Briefs, 1995 to 1996**

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**The Economics of Aging**

*Can We Afford Grandma and Grandpa?*

S Jay Levy

**No. 18/1995**

**Cooperate to Compete**

*Employee Participation and Productivity: Evidence from a New Survey of Japanese Firms*

Takao Kato

**No. 19/1995**

**Assessing the Constitutional Route to Federal Budget Balance**

*The Balanced Budget Amendment: Toxic, Not Tonic*

Charles J. Whalen

**No. 20/1995**

**The Consolidated Assistance Program**

*Reforming Welfare by Synchronizing Public Assistance Benefits*

Oren M. Levin-Waldman

**No. 21/1995**

**Closing the R&D Gap**

*Evaluating the Sources of R&D Spending*

Thomas Karier

**No. 22/1995**

**A Critical Imbalance in U.S. Trade**

*The U.S. Balance of Payments, International Indebtedness, and Economic Policy*

Wynne Godley

**No. 23/1995**

**Revisiting Bretton Woods**

*Proposals for Reforming the International Monetary Institutions*

Raymond F. Mikesell

**No. 24/1996**

**Conference Proceedings, 1995**

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*The U.S. Financial Structure in the Years Ahead: Domestic and International Issues*

Blithewood; April 6-8, 1995

*Reflections on the Eve of the 50th Anniversary of the Employment Act of 1946*  
Blithewood; April 28-29, 1995

*American Prosperity in a Hazardous Global Economy*  
National Press Club, Washington, D.C.; October 26, 1995

## **Letter from the Executive Director**

To our readers:

This issue of the Summary reports on activities in three research programs. In the employment and labor market structure program there are three new working papers and two seminars. In the first working paper Resident Scholar Marlene Kim and Thanos Mergoupis, of the Department of Economics at Rutgers University, show that many who qualify for benefits-food stamps, aid to families with dependent children (AFDC), and Medicaid-do not receive assistance and that those who do qualify tend to be in families headed by married couples, to be in their prime working years, to have at least a high school education, and to work many hours. The second working paper, by Research Associate Edward N. Wolff, documents changes in aggregate skill levels of the workplace between 1950 and 1990. Wolff investigates skill trends at the sectoral level, paying special attention to changes in skills in the service and goods-producing sectors, and examines the role of technological change in the changing demand for skills. In his working paper James K. Galbraith, professor of economics at the Lyndon B. Johnson School of Public Affairs at the University of Texas at Austin, rejects the analytical framework within which many economists currently operate on the grounds that microeconomic categories (supply, demand, price, and quantities) "have little bearing on important policy questions." Instead, he proposes a structural approach to employment, inflation, and income distribution problems. In the seminars Orley Ashenfelter, professor of economics and director of industrial relations at Princeton University, considers estimates of the economic returns to schooling, and Clair Brown, professor of economics and director of the Institute of Industrial Relations at the University of California at Berkeley, describes her standard of living index.

Two new working papers in the federal budget policy program are summarized. Resident Scholar Charles J. Whalen updates earlier research on federal biennial budgeting by reviewing states' experiences with biennial budgeting and outlining policy implications of the longer budget period. Resident Research Associate Oren M. Levin-Waldman argues that the unemployment insurance system should be reformed to reduce the incidence of layoffs and to offer more assistance to the growing population of the long-term unemployed.

The summary of the international trade and competitiveness program includes a new *Public Policy Brief* and a seminar. In the *Public Policy Brief* Raymond F. Mikesell, professor of economics at the University of Oregon, outlines the original goals of the International Monetary Fund (IMF) and the World Bank and other functions they assumed as the institutions evolved; evaluates their success at meeting past and subsequent goals; and analyzes the current debate about the appropriate role for the IMF and the Bank in managing the international monetary system, promoting social and economic objectives, and improving the efficiency of their operations. In the seminar Paul Geroski, professor of economics at the London Business School, discusses factors that determine innovation by firms and public policies that might encourage innovation.

There are several Levy Institute news items in this issue. We extend a warm welcome to two new members of the Board of Advisors: Preston Martin and John D. Sterman; list some presentations at various meetings by Levy Institute scholars; give special thanks to those who have assisted the Levy Institute by acting as reviewers; and note our next conference and forum. We provide a list of web site addresses at which you can obtain information about ongoing research, publications, and upcoming events. Also included, as usual, is a list of our recent publications.

As always, I welcome your comments on the Summary.

Dimitri B. Papadimitriou  
Executive Director