The Study of the Tension Between Human Equality and Social Inequalities
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INEQUALITIES IN INCOME AND WEALTH

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This paper seeks to present in short compass some of the basic facts about the great inequality in income in the advanced world, together with some discussion of the causes of inequality in our contemporary capitalist system, to the extent that we understand them, and of the philosophical and ethical foundations of policies to achieve geater equality. I seek only to make presentations of the current state of thinking on these matters rather than present an advocacy position.

It must be stressed that inequality in income is not identical to inequality in wellbeing. Even if we take such objective measures of wellbeing as longevity or literacy, we find that they are not entirely correlated with income. Beyond this, income may be only slightly related to moral and spiritual attainment. But these questions clearly go beyond the scope of this paper. It is nevertheless true that, in a market economy, income is an important determinant of human ability to achieve goals of a better life.

I. Some Data on the Inequality of Income

These will be drawn from United States sources, since they are most easily available to me. Most other industrialized countries have somewhat more equal income distributions, but the basic picture is similar.

The data I present will relate to the present and immediate past. Over longer periods of time, there is no question that the distribution of income has become much more equal. The causes of this change are complex, but the wide diffusion of education and state intervention through social insurance and progressive income taxation have undoubtedly been major elements, the first probably more than the second.

To clarify one point that may not be obvious from popular discussion, the distinction between property income and wage income (or earnings) is *not* today the major source of inequality. The conventional picture of rich property-owners and poor wage-earners is no longer accurate. The inequality *among* wage-earners is the main component of inequality. The simple fact is that earnings constitute about 75% of all personal income, property income only about 25%.

It is true that property income is strongly concentrated among high income earners, so that the presence of property income does add to the inequality of income. It is also true that the present proportion of earnings in personal income is much higher than in the past or indeed than in many developing countries, such as Turkey or Brazil. The picture of income distribution in some nineteenth-century economists, such as David Ricardo or Karl Marx, in which workers receive subsistence wages while 50% or more of income goes to recipients of profits, interest, and rent, was more nearly true when they wrote than it would be today.

Let us now turn to some data on the distribution of income in recent years. Table 1 contains some figures on income distribution for the United States for 1980 and 1989.

The presentation uses a standard form. The income recipients are arrayed in increasing order of income. A quintile is one-fifth or 20% of the total number. Thus the lowest quintile contains the lowest 20% of the incomes; the middle quintile contains those between two levels, the level below which exactly 40% of the income recipients lie and the level above

TABLE 1 - *Selected shares of pretax and posttax adjusted family income.*

Income Group	Year			
	1980		1989	
	Max AFI*	Income Share	Max AFI	Income Share
Lowest Quintile	1.50	4.3 (5.1)%	1.50	3.6 (4.3)%
Middle Quintile	3.77	16.0 (16.7)%	4.02	14.7 (15.3)%
Highest Quintile	—	46.7 (44.2)%	—	51.4 (49.5)%
Top 1%	—	9.2 (8.1)%	—	13.0 (12.3)%

* Adjusted family income = ratio to poverty level at upper end of quintile.

Parentheses denote aftertax shares.

Source: 1992 Green Book, Committee on Ways and Means, U.S. Congress, Appendix Tables 19, 22, and 23.

which 40% lie (or below which 60% lie), and the highest quintile contains the highest 20%. If income were perfectly equally distributed, each quintile would receive 20% of total income. Thus, when we see that the lowest quintile received 3.6% of total income in 1989 (before taxes), we understand that they receive 18% (3.6 divided by 20) of the average income. If we compare the lowest with the highest quintile, which have the same number of people by definition, we see that the highest quintile received almost *fourteen* times as much income. In fact, we see that the highest 1% of income recipients received almost four times as much as the lowest 20%, although the latter were twenty times more numerous.

The figures not in parenthesis are based on money income (adjusted for family size in a way that I will not go into) before taxes. The figures in parenthesis are based on money income after taxes. The differences give some idea how effective the tax system is in reducing inequality. As can be seen, the after-tax shares of the lowest and middle quintiles are increased from the pretax shares, while the opposite occurs in the highest brackets. Nevertheless, the effect is not very large; the tax system is not the source of any massive redistribution.

An important lesson is learned by comparing 1980 and 1989 figures. As can be seen, they show unequivocally a deterioration in the share of the poor and an increase in the share of the rich, most strikingly of the very rich (the upper 1%). This, as I have noted earlier, is a reversal of the long-term trend. Growing income inequality over the last fifteen years is not universal in the advanced countries. It is striking in the United States and in the United Kingdom but much less in evidence in Japan or the Continent of Europe. Northern Europe (Scandinavia and Germany) show no change at all in income inequality, which was always lower than in the United States. The causes of this growing inequality are in dispute among scholars. One thing is clear; government policy in taxes and transfer payments has played a very small role in the change. The causes are rather to be found in the distribution of earnings, but it is not clear why this has changed.

Table 1 dealt with the *distribution* of income. As a background, it might be worthwhile to look at *average* earnings. To avoid the difficulties of comparing part-time and full-time workers, the data in Table 2 are confined to full-time workers.

It is important everywhere in the advanced world to distinguish between wages and compensation. The latter refers to all the costs incurred by the employer and therefore includes payroll taxes devoted to old age pensions and medical insurance for the aged plus some other forms of deferred income. If we look at male earnings, we see stagnation. Although *per capita* national income has grown, though admittedly more slowly than

TABLE 2 - *Economic inequality trends in mean earnings.*

Year	Male Earning Full time (1990$)	Female Earnings Full time (1990$)	Hourly Compensation (Index Number)
1970	$28,374	$16,845	116.1
1980	$29,594	$17,451	135.2
1988	$29,425	$ 19,435	141.3

Source: 1992 Green Book, Appendix F, Table 37.

in the exuberant 1960's, real wages have not. Female full-time wages, on the other hand, have grown, indeed more rapidly in the 1980's than before, reflecting the dropping of barriers to entry.

However, the last column is important. It shows that total labor compensation is steadily increasing, but it is more and more devoted to providing for old age in the form of pensions and medical care. Both problems are universal. The increase in longevity and the slowing of economic growth have created a larger obligation met by a relatively smaller base of workers whose income is not growing. This is a universal problem of advanced countries. The increased cost of medical services, partly due to increased longevity but also to the increasing use of technology, is also universal, though it has, for some reason, risen to its greatest heights in the United States.

The growing inequality in earnings is in part due to an increased wage premium for education. Table 3 presents the changes in real wages for those who graduate from secondary school and then leave the educational system compared with those who graduate from college.

In the 1970's, the real wages of college graduates fell considerably, while those of high school graduates rose slightly. The relation was completely reversed in the 1980's. What is surprising about the second period is that the outcomes seem opposite to those implied by supply and demand. More and more students are going to college. The relative proportions of high school graduates (who do not go further) fell by 5% in each of the two periods. The relative proportions of those graduating from college *rose* by 24% in the first period and by 16% in the second. The rise in the first period was interpreted by economists as explaining the fall in earnings of

TABLE 3 - *Changes in real wages by education level.*

Education Level	1970-1979	1979-1987
High School	1.4%	– 4.0%
College	– 10.1%	7.7%

Source: L.F. KATZ and K.M. MURPHY, *Changes in relative wages, 1963-1987: supply and demand factors*, «Quarterly Journal of Economics», (1992): 35-78, Table I, p. 40.

college graduates; but the continued increase in the relative numbers of college graduates has been accompanied by a rise in their earnings.

The standard explanation is that that the nature of modern industry puts these higher skills in greater demand. I do not wish to enter into this discussion here, but there are problems with this explanation.

Finally, I want to review the role of property income and of wealth, from which property income is derived, in the distribution of income. Table 4 reviews the distribution of full time earnings for the years 1978 and 1988.

Comparison with Table 1 confirms that the distribution of income is largely the distribution of earnings but not entirely. The highest quintile, for example, has 51% of total income but only 41% of total earnings in 1988-9. The discrepancies are due to the fact that property and property income are concentrated in the highest earnings levels. Table 4 also shows that the *increase* in income inequality over the 1980's is largely an increase in inequality of earnings.

TABLE 4 - *Distribution of full time earnings* (% Share of Group).

Earnings Group	Year	
	1978	1988
Lowest Quintile	7.4	6.7
Middle Quintile	17.5	16.9
Highest Quntile	37.3	41.0

Source: 1992 Green Book, Committee on Ways and Means, U.S. Congress, Appendix F, Table 39.

TABLE 5 - *Distribution of private wealth, 1983* (Net worth).

Wealth Group	% Share
Bottom 90%	37.9
90th to 99th Percentile	33.1
99th to 99.5 Percentile	6.8
Top 1/2 Percentile	22.2

Note: These figures include residence.
Source: 1992 Green Book, Appendix L, Table 3.

The distribution of private wealth (defined as net worth) is given in Table 5 for a representative year. It should be noted that in this table individuals and families are ranked by wealth, not by income, so this table gives too high a figure if we want to ask how wealthy are the high-income earners. Nevertheless, the inequality in the holding of wealth (property, whether real or financial) is very striking, far greater than the inequality of income.

II. Possible Causes of Inequality of Earnings

A. *Productivity and Earnings*

The standard economic approach to earnings is to explain it as a payment for the productivity of the worker. According to this viewpoint, differences in earnings have to be explained by differences in productivity. This viewpoint also has an appealing ethical ring; individuals receive back what they contribute to the product of society.

It is necessary to state the economic theory of earnings a little more carefully to show that, even to the extent that it is valid, the ethical and practical implications are less clear-cut than they might appear. In the first place, economic theory implies that a worker receives his or her *marginal value* product. Let me explain these terms.

By, "marginal", is meant the *additional* product due to the work done by the worker, *given* the efforts of other workers and the presence of machinery and other tools of production as well as of raw materials. By, "value", is meant that the additional goods have to be evaluated by the willingness of consumers to pay for them as compared with other goods. All the skill in the world at producing a product that no one wants will not earn an income, at least not in a competitive market economy.

Thus, the earnings of an individual will depend on a lot of factors, many of which are outside his or her control. It will depend on the presence of capital goods, natural resources, and other workers. It will depend on which goods are demanded by the members of society in the sense of willingness to pay for them. It will of course also depend on factors within the individual, his or her abilities at production and his or her degree of effort. The abilities may also be a product of effort; thus, skills may be acquired through education, working at menial jobs, or vocational training. But only in part are the earnings determined by characteristics of the individual and even in smaller part are they determined by the individual's will. Hence, the ethical value of the determination of earnings by marginal value product in the market is at any rate not very clearly justified.

One kind of ability keeps on playing a larger part in popular and even scholarly discussion than it does in fact. That is measured intelligence. It was originally designed for predicting success in academic endeavors, and it does that fairly well. In spite of all the discussion, it is not a very good predictor of income. (To be fair, there are no particularly good predictors of income). On the average, more intelligent individuals, as measured by standard tests, get higher incomes. But among individuals with the same intelligence there is an enormous disparity of income. This is true even though intelligent individuals have a better opportunity to be educated, and education, on the average, improves income.

Properly speaking, income should be viewed over a lifetime. As was already observed by Adam Smith, some individuals may get low or even zero incomes for a time because they are being trained for occupations with high incomes later (e.g., physicians). The high income in later periods should be adjusted for the delay in coming to it. One might think of this as a rational choice to trade current low income for higher income later on. In fact, though, non-economic motives and institutions play a significant role. The most obvious is the public provision of education, even higher education, which removes the cost of this training from the individual to society at large.

Inequality in earnings may therefore be generated by differential opportunities to use the educational system and to take advantage of other publicly or socially provided aids to increased future income. In the United States, with its highly decentralized school system, different localities provide very different opportunities. Even in centralized systems, such as the French, it is clear that, for a variety of reasons, the quality and even quantity of education may vary geographically.

A more subtle effect is that of the family. The ability to learn from a school system may depend on parental intervention, the books in the house, the parents' own attitude towards the value of education, the conditions in the house which may be more or less suitable for study. Hence, the value of education in increasing future income (and for other purposes) will depend on family status as well as schooling, and this effect shows plainly in statistical studies.

B. *Chance*

An alternative or supplement to productivity-based theories of wages is emphasis on the role of sheer chance. Income may be thought of as a path-dependent lottery. Initial chance choices of location or initial job will themselves create different opportunities for further development. In a very complex labor market, it is hard to believe that individuals and jobs are automatically matched well. Certainly, many of us can easily see that with slightly different conditions our careers might have been very different. Further, it is plausible and at least consistent with the evidence that higher initial incomes cause subsequent incomes to be higher. The chance fluctuations then do not average out over a lifetime.

This is consistent with another finding. No matter what variables are used to explain incomes, there is a very large unexplained element. Put another way, if we consider a subpopulation of individuals with a given amount of education, given status of parents, given intelligence, and so forth, there will still be a very considerable heterogeneity in the incomes. In fact, in the United States at least, income heterogeneity within groups defined by education and experience has been increasing in the last decade. Certainly, this degree of heterogeneity is consistent with the view that pure chance plays a considerable role.

No doubt the chance element is greater in a society with decentralized control over wages, high labor mobility, and rapid change in industrial structure. A bureaucratic society would have lower variation. In fact, in industries with strong industrial unions, earnings inequality is less than in other industries.

III. Ethical Evaluations of Income Distribution

I can only sketch with desperate brevity a large literature which examines the justification for government policies which attempt to correct the distribution of income by heavier taxes on the rich and transfer to the poor. It must be emphasized that, apart from ethical issues, the opportunities for redistribution are limited by incentive considerations. Put crudely, heavy taxes on the rich (and especially on those trying to become rich) will discourage effort and therefore result in a smaller total national income. The poor may not in fact be better off with a bigger portion of a smaller total. However, within the constraints imposed by reduced incentives, there are still alternative policies possible, and there is a rich, if inconclusive, literature.

A. *Utilitarianism*

A classical view which has influenced economic thought on inequality but has never dominated it is called utilitarianism. It assumes that each individual values income according to the satisfaction or *utility* he or she derives from it. It is further assumed that the additional utility derived from additional income is less the more income the individual already has. This assumption is called, "diminishing marginal utility". Now make a further and more dubious assumption; assume that the utilities of different individuals are comparable so that it is meaningful to add them. Then the aim of society, it is held, should be to make the sum total of utilities as large as possible.

This argument does not seem to have anything to do with distribution. But in fact it does. For a given total income, it follows from diminishing marginal utility that shifting income from the rich to the poor will increase total utility (provided everyone has the same utility function). Hence, the conclusions are radically egalitarian, restrained however by incentive considerations.

Of course, utilitarianism has other policy implications. Anything which increases total income is certainly good, since redistributing it could make everyone better off.

B. *Rawls's Difference Principle*

John Rawls has proposed a different approach to the concept of justice. He imagines the individuals of the society meeting before they know who they are to decide on the rules of the society. In that context, he argues, they would want to make the worst-off individual as well off as possible. Inequalities would be justified only if the worst-off individuals would benefit from them, perhaps because of the incentives created.

From a practical viewpoint, the recommendations of utilitarianism and of Rawls would not differ greatly. Both would encourage redistribution. In particular, both take the view that individual talents are to be used for the benefit of society as a whole.

C. *Private Property as Justice*

I conclude with a very different point of view, put forth by the philosopher Robert Nozick; a similar argument, less thoroughly developed, appears in the work of Milton Friedman. Essentially, the argument is that each individual is entitled to the fruits of his talent, any voluntary transfer or exchange is just, and only such transfers are justice. State compulsion, as through taxes and social insurance payments, are unjust. In this viewpoint, justice resides in the procedure, not in the outcome. Even great income inequality is regarded as defensible if it has arisen through free transaction. To be sure, Friedman somewhat qualifies his views by regarding the relief of poverty as a legitimate aim of public policy; he objects primarily to redistribution of income among the nonpoor, say from the very rich to the middle class.

IV. Conclusion

I am not going to summarize this brief paper. I have simply tried to state the facts about income distribution in the advanced society, indicate some possible causal factors, and give a short account of some approaches to ethical evaluation.