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Part VIII

Directions of Further Inquiry

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THE SIZE DISTRIBUTION OF INCOME is an aspect of the economic process that links activities of enterprises with those of individuals. This linking lends high value to the analysis of income size distribution as a datum affecting activities and attitudes of individuals as both producers and consumers. It also indicates the variety of directions in which the analysis can be pursued, the difficulty of pushing it in some apparently strategic directions, and the obstacles to getting adequate data.

Further inquiry should be directed along four lines: historical changes and area differences; causal factors in the size distribution of income; factors in the relation between the size and use of income; normative valuations.

A HISTORICAL CHANGES AND AREA DIFFERENCES

Since our understanding of economic processes is usually attained by a continual interplay between partly hypothetical analysis and empirical observations on the dimensions and patterns of these processes it is unfortunate that data on historical changes in the size distribution of income are woefully scanty. We know something about the rate of growth of aggregate income and the trend in its industrial composition for several countries and for a fair, although too short, period; and even something about its responsiveness and that of its various components (industrial, type of product) to business cycles. But we are almost completely ignorant about trends that may have characterized the size distribution of income, and have only recently begun to get a glimpse into its short term changes. Likewise, we recognize international and inter-regional differences in income levels per capita and in the industrial structure of income – as evidenced by the recent discussion dealing with the problems of 'mature' and of underdeveloped countries. But we know much less about relative income inequality in countries at different stages of development and with different social structures.

Clearly we need to enrich our knowledge of historical changes and area differences in the size distribution of income. Unless we do, the first prerequisite for understanding both the causes and consequences of the size distribution and its significance in the functioning of the economy will be

lacking. We think of this functioning as long and short term changes or spatial differences the economy manifests in adapting to changing or different conditions. If we do not have the bare facts on how the size distribution of income has changed over time or differs in space, there is little hope of establishing the determining factors or of linking the distribution with what we know about other aspects of the economic process.

What is needed is more data on the size distribution to cover both longer periods and a wider variety of areas. The 'production' of such data is slow and costly, beyond the reach of individual scholars or even groups. For our own country the absence of such data for the past must be deplored; and one must admit also the impossibility of filling the gap now. While we can use a combination of federal and state income tax data, with estimates of state income payments, to study state differences in shares of upper income groups the results apply to only a small segment of the size distribution in each state.[1] But there may be other countries for which data on the size distribution of income, though incomplete, cover a longer period; and there may be countries at different stages of development and with different social structures for which at least some approximate picture of the income size distribution can be gained. It would seem particularly important that future studies pay more attention to the data for other countries, in an attempt to add to our knowledge of historical changes and inter-country differences.

This attempt to use data for foreign countries will naturally encounter difficulties of a kind not met in using the data for the United States. It is not easy to become familiar with the host of peculiarities that always affect economic data and that differ from one country to another. But it should nevertheless be possible to take advantage of the fact that in many countries in the orbit of western civilization, with a tradition of statistical study, the field is much richer than ours. This may well be the case in Great Britain and some other areas of the Commonwealth, e.g., Australia, in Germany and Switzerland, and perhaps some Scandinavian countries. At any rate, this is a direction of inquiry that seems worth exploring, and one that may be within the reach of lone scholars.[2]

[1] See the suggestion in Shares of Upper Income Groups in Income and Savings, NBER *Occasional Paper 35* (1950), Section D.

[2] A review of current work leaves us with the impression that the relative emphasis on data limited to the United States is even greater than in the past. In the old days the few scholars who worked in this field were driven by the extreme paucity of data for this country at least to look at those for other countries; see the writings at the end of the 19th century and early in the current century by C. B. Spahr, F. H. Streightoff, and W. I. King. In recent years analysis has concentrated almost exclusively upon United States data. The reasons seem to lie partly in the rapid accumu-

B Causal Factors

Our knowledge about why the size distribution of income reveals the inequalities it does has grown rapidly in recent years, as the accumulated data have suggested the weights of such factors as occupation, age (indicative often of years of experience), and residence. The classification suggested by Milton Friedman of compensating factors, i.e., those that compensate for differences in cost of training, cost of living, etc., and of restrictive factors, i.e., those that create income differentials by restricting entry into or practice in a given field, may prove useful. One may hope that further accumulation of data and analysis will cut more finely in the way of describing factors already recognized more distinctly and measuring the specific weight of each more precisely.

Let us set aside consideration of the inequality in the distribution of property and its contribution to that in the distribution of total income, a problem that should lend itself to adequate analysis. For the distribution of earned incomes alone, three types of analysis emerge: explanation of differences in average level among various groups; explanation of differences within the groups assignable to specific factors; explanation of residual variance.

1) Differences in average level among groups (occupation, industry, place of residence, sex, race, etc.) are partly reducible to either compensating or restrictive factors, along the lines Friedman suggested. But such reduction is only part of the answer. One has the feeling that *after* one accounts for these factors, differences in *real* income per capita are still not fully explained. There appear to be persistent, long term differences in real income, e.g., between agriculture and other industries, or within urban industries between those that are growing rapidly and the rest, only partly reducible by allowances for differences in training, experience, restriction, and the like. In other words, mobility of individuals is not sufficient, even in the longer run, to bring about equality of return – though no formal restrictions on mobility exist.

If this hunch, and it is nothing more, is correct, one promising direction of inquiry lies in investigating the mechanism of inter-group migration. As far as the latter is confined to one country, and it could perhaps be best

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lation of new data which leads analysts to try to catch up with the supply; partly in a larger proportion of scholarly work developing under government auspices, with the consequent emphasis on results directly relevant to domestic policy problems; partly in a rise of statistical standards, which makes evaluation and acceptance of foreign data all the more difficult. While such increased provincialism of our research efforts, if true, can perhaps be easily explained, its disadvantages remain.

studied in one country, it is an aspect of internal migration processes to which demographers have paid increasing attention in recent years. However, my impression is that they have naturally concentrated on the demographic characteristics of migration propensities: differences in age, sex, race characteristics between migrants and residents, with some consideration of the directions and distances of migrations. They have not paid much attention to economic factors. On the other hand, economists have neglected the quantitative aspects of the internal migration process. If this impression is correct, there is considerable promise in an economic analysis of internal migration, which would be concerned largely with why people do not move and thereby equalize, at least in the longer run, real returns after allowance for various compensating and directly restrictive factors. In this analysis the work of demographers in the field will be useful; and it may well be that the vast body of data lying dormant in our censuses could be put to work in ways that have not yet been adequately exploited.

2) Income differences within some obvious classificatory group can in turn be partly reduced to tangible subfactors. For example, variation about the average income level in a given occupation may be associated with number of years of experience. In that sense there may be an hierarchy of factors in which some are subordinate to others. Number of years of experience may thus have meaning only within occupational groups and there would be little sense in conceiving it as an income dominating factor to which occupation was subordinate.

In this particular area there may still be room for productive model building. Consider the general question: how does the number of years of experience affect differences in income within an occupation? In trying to answer it one can visualize the number of earners in the occupation; the range of possible differences in experience permitted by the occupation; and the relative weights of entries and exits. Clearly, occupations differ with respect to these factors: some permit a wide range of experience with number of years of pursuit, others a much narrower range; some are growing rapidly, so that the number of new and relatively young entries is large compared with the number of established earners – whereas others grow slowly; some have exit rates determined only by physical retirement or mortality, whereas in others exit rates are heightened by the ease with which another occupation can be entered. It should be possible to construct models that would embody at least the three characteristics suggested: the length of active life in years; the increase (and subsequent decline) in income relative to increase in years of experience; entry and exit relative to the length of residence in the group. Such models could be made realistic

by reference to already available data on income differences within occupations with number of years of experience and on the rates at which total numbers within occupations change over time (reflecting differences in entry and exit). From these models, embodying varying assumptions, one could derive size distributions of income for an occupation. Construction of models that directly embody the specific factors that produce intra-group variance in income would seem to promise better understanding of the size distribution of income – at least of earned income.

3) After all inter-group income differences are recognized, and after some intra-group differences have been associated with certain systematic factors, considerable unexplained income variance will probably remain. Part will disappear if we think of average income for a period short enough not to obscure secular differences in income position but long enough to cancel purely transient elements of income change. Even so, substantial differences in income size would probably remain, if only because individuals differ in ability, and the differences will necessarily be reflected in income inequality.

Is it possible to study differences in individual ability, via some tangible and measurable characteristic, itself independent of income position and its associated systematic factors? The difficulty of finding the answer lies precisely in the requirement that the differences in individual ability be recognized as residing in the individual as such, not in the social and economic conditions within which they operate and that differ from one group to another. I am too ignorant of developments in psychology and related disciplines to contribute to an answer. But if differences in individual ability are establishable and measurable as suggested above, there is promise in pushing the analysis toward seeing how much they contribute to inequality in the distribution of income.[3]

C Income Size and Use

That the size of a person's income determines the size and pattern of his expenditures and savings is a proposition that seems at first too obvious to merit much examination. The more one thinks about it, however, the

[3] The only example from the past that comes readily to mind is that by H. L. Moore in *Laws of Wages* (Macmillan, 1911). Moore's attempt to interpret the distribution curve characteristics of wage rates as evidence that they conform to the distribution of 'natural' abilities is, I suspect, in the 19th century tradition of an easy translation of formal distribution curves of human physical characteristics into their consequences in the field of social phenomena. The limitations and dangers of such an approach are evident (cf. Part II).

more qualifications come to mind. Income may have a compulsive and a permissive bearing on a person's expenditures and savings. But the compulsive effects associated with differences in income size, i.e., the amount a person is forced to spend or save to continue earning his income, e.g., for a car or a house considered indispensable for maintaining his income earning position, or savings necessary for an individual entrepreneur to protect himself against possible business vicissitudes, would probably account for only a minor part of the differences in expenditures and savings among persons at different income levels. When one thinks of income as a permissive element, i.e., as a factor that permits the recipient to spend more if he wishes, numerous qualifications arise also. It is not the given year's income, or even that of the immediate past, but these in combination with the expected income, the income horizon, that govern expenditure and savings patterns. Furthermore, there is the matter of fund balances and credit potentials. Finally, in examining different categories of expenditures, one may find that whereas for some categories the income recipient unit should be narrowly defined, for others it should include not only the immediate family but also the older generations and the cousins thrice removed, e.g., for catastrophic sickness expenditures.

If we are to go beyond easily derived, mechanically projected, and analytically dubious consumption and savings functions, propensities, elasticities, and the like, the analysis of the relation between income size and other variables, on the one hand, and expenditures and savings on the other, needs to be sharpened in several respects. Dealing with the cross-section analysis first, one may suggest that the basic problem is how to bring in, at a point of time, past and prospective income experience; and bring it in with full consideration of the differing conditions under which similar income streams may be viewed by different economic groups. Some recent attempts to reformulate the consumption function, e.g., those of Modigliani and Duesenberry, are steps in that direction. But there is a genuine question whether much progress is possible if our data continue to accumulate only in the form of short term cross-section surveys dealing with a varying body of units.

The question raised here, again with some hesitation, is whether we do not need two somewhat different bodies of data relating to income-expenditure patterns. One would consist of histories, which would attempt to cover the full life cycle of income and of expenditures of given family units. Their special contribution would lie in tracing through time the systematically changing relation between the streams of income and of uses of income; and would thus compel the analyst to realize that any relation observed at a given time is a section at some phase of a life cycle for every

given unit of observation. Such emphasis might suggest why in any cross-section analysis certain units with low incomes are such lavish spenders: they may be young, at the beginning of their life cycle, and in general responsive to new consumer goods; whereas others are moderate spenders: perhaps they are older, more settled, and have ceased to respond to the presumptive attractions of new goods – in fact may consider them nuisances. I must confess that I do not see clearly how such records can be effectively obtained. But there is need, particularly in the consideration of expenditure and savings patterns, to pay much more attention to the life cycle of the family unit. Indeed, it seems to me that so far, even though we have been talking about family or spending units, we have conceived them too mechanically as existing bundles rather than as organic units with a long life time span and a systematic process of birth, growth, and dissolution.

The other body of data, not dissimilar to that just described, would be provided by an intensive analysis of the unit's behavior, with respect to both income getting and spending. This would be a return to LePlay's detailed and intimate budget study. In the light of our greater knowledge and experience, such intensive studies, made with complete familiarity of a unit's day to day life over a sufficient period, might yield more in the way of cumulative results than LePlay achieved. At the very least, it might give us a richer body of clues to questions that could then be tested, more easily, via sampling studies of the kind we have learned to carry through so efficiently.

In suggesting these two ways of getting better insight into cross-section analysis, I do not mean to deny that possibilities of fruitful analysis exist even with the already available sample data, or when our efforts are confined to modifying and extending the questions now covered in the sampling studies. Even with the available data, and more so with the new data already planned we can perhaps go much further in distinguishing among various socio-economic and regional groups in the country. As almost everywhere, analysis is lagging behind accumulation of data. It is important to say so, lest the emphasis on different bodies of data be interpreted as precluding more analytical effort on the already existing primary information.[4] And if the questions suggested by the additional bodies of data

[4] Not only can we learn more about differences in consumption-savings patterns among various occupational and area groups in this country but inclusion of the experience in foreign countries would be helpful. In the latter we find extremes of income position at the lower range that cannot be found here; and extremes of consumption patterns at the top income levels that are probably quite different from the patterns observed in this country.

on life cycles or on the full context of family life within which income is earned and spent can be answered, at least in part, by extending the present sampling methods – all the better.

When one passes from cross-section analysis at a point of time to the relation of income size and use over time, the first impression is that their *formal* relation has not been clearly described. If in cross-section analysis one finds n groups of income recipients, each with a different functional relation between income size and, say, total expenditures, the transition to a statement of the income-expenditure relation over time consists of two distinct steps: for each of the n groups the income-expenditure relation observed at a point of time (among the various units in the group classified by income size) will apply (unchanged or modified in some specific way) to the *change* in the average income of the group from time point 1 to time point 2; the proportional weight of each group (in total income) will remain the same (or change in a specific way) from time point 1 to 2. Both steps are major; and the first step particularly is a jump, the empirical evidence for which would be hard to find.

In working out the formal relations between the cross-section analysis and change over time analysis, the first step may have different validity for points of time that are close together and for those separated by secular periods; and sometimes one might derive a more reliable approximation for the first step for group n_1 from a cross-section function constructed from group averages for n_1, n_2, etc., than from the cross-section function for group n_1 itself. It is also clear that in the very process of examining the validity of the first step or the classification into n groups that spells the task for the second step, the cross-section analysis of the relation between income size and use would have to be refined – if only to distinguish carefully the elements that could be expected to hold over time from those that could be observed in a distribution at a given point of time alone.

D Normative Valuations

It may be useful for expository purposes to distinguish sharply between translations of income distributions into welfare or satisfaction equivalents and statements of what the distribution should be. The former are empirical procedures in that the scholar, however unsuccessfully, attempts to pass from one level of observable reality, i.e., nominal income size, to another level, i.e., feelings or satisfactions. Statements of what the income distributions *should* be are normative, not empirical, no matter how close the norm may be to experience. These statements imply postulated criteria

adduced as positive or negative. The criteria yield norms against which we measure the existing distributions and recognize their adherence or shortcomings.

If such criteria and the resulting normative valuations are to be of much interest, they should express some consensus of a wide variety of members of society. The wider the consensus the more invariant the criterion is to differences over time or in space among social groups. For example, if we believe that life is good and death is bad, that a full stomach is better than an empty one, these criteria may have significance in the normative valuations of existing income distributions. But one must note that even such apparently obvious criteria have, at some time and place, been either rejected or at least severely qualified: to a Christian ascetic or some of the living Hindu holy men, a full stomach is not necessarily better than an almost empty one, and life is not necessarily preferable to death.

Normative valuations common in the literature that attempt to use some empirical data are, however, ordinarily grounded in the egalitarian and material welfare minded philosophy of western civilization of the recent century or two. It might be well, therefore, to confine our attention to the basic set of assumptions of the latter. The major problem that then arises, and that I can suggest only vaguely, lies in the difficulty of setting up criteria that are invariant to class and group differences; and in the resulting conflict between the basic egalitarian assumptions of the normative approach and the dependence of the criteria that must actually be employed upon class and group differences.

This point can be made more concrete by a specific example. Assume that our basic criterion for judging a distribution of income by size is provision of income to each member of the society adequate for basic needs. What are basic needs? Science may tell us that the human organism needs a given minimum of food ingredients. But even if this statement is unequivocal, the minimum is procurable in a variety of combinations of food products at vastly different economic costs. Do we set the minimum food provision at the minimum cost of any possible combination of foods providing the necessary vitamins, etc., or do we set it at the combination that is considered socially acceptable because it has evolved historically in a given society? We ordinarily do the latter rather than the former. But if we set up the historically evolved pattern of a society's consumption as a criterion, what basis is there for accepting the given historical pattern with respect to, say, the food basket, then combining it with egalitarian claims on behalf of an individual *qua* individual, as a member of the human race? And if we cannot avoid accepting socially set, which means essentially class and group set, patterns as criteria of what 'should' be in

the case of food, the impossibility of doing anything else in the case of other 'needs' is obvious.

This social and class relativity of standards in normative valuations of income distributions can hardly be subjected to empirical investigation; but it does require further thinking through and explicit recognition. It calls also for careful scrutiny of past writings on the subject. Such scrutiny may reveal that what is called a 'need', a *must*, is largely a reflection of class standards, suggested to one class by a class that it considers higher in the social hierarchy. There is nothing invidious about this: there is no reason why the income distribution should not be judged in terms of desires measured against the performance of a group that is considered well off on the social scale. But there is an element of confusion when these socially determined criteria of desires are presented as objectively established 'needs' of human beings viewed in their general and invariant role as members of *homo sapiens*.

If normative valuations in terms of socially invariant criteria are recognized as impossible (especially once we pass the lowest physiological minimum of food and shelter), the way is open for a more realistic view of such valuations. In such a view they would come close to, but not merge with, the translations of income distributions into welfare or satisfaction equivalents from which we so sharply distinguished them at the outset. The normative valuations would then set criteria of welfare or satisfaction either in the way of minimum dissatisfaction or maximum satisfaction – against which the translated income distribution will be measured. But the socially determined character of welfare or satisfaction, and especially the unavoidability of a minimum dissatisfaction imposed by the existence of economic stratification, will have to be explicitly recognized.

The notes above are largely in the nature of impressionistic comments, reflecting partly the Conference discussion and partly some personal judgments. Indeed, it is rather presumptuous to indicate directions of further research in so complicated a field. Such indications can be not much more than personal musings; and they are presented here as such, for whatever response they may provoke – not in any way as firm recommendations.

These notes attempt to avoid repetition of the more specific indications set forth in the summary of *Shares of Upper Income Groups in Income and Savings* where the specific character of the study naturally suggested more concrete lines of further work. Here I have tried to deal with the field as a whole – which may serve to explain the disjointed character of the comments.

One may easily feel discouraged at the variety of tasks still to be faced

in the field, and the extent of our ignorance of the most elementary facts about the size distribution of income. This is hardly the place to deal with the reasons our data and analysis lag so badly behind what we need to know. If there is any consolation in the reflection, may I suggest that this lag is so long not because the absolute additions to our empirical knowledge are smaller than they have been in the past but because we are impelled to ask more searching questions. Recent historical changes and the resulting expansion of our intellectual horizons have made us less willing to accept the simple beliefs of some of our predecessors in the invariance of social phenomena and the validity of the laws that presumably govern the latter. The rate of increase in the number and complexity of questions that we ask is, therefore, much higher than the rate of addition to our stock of facts and particularly to our stock of analyzed observations.

COMMENT

Clark Warburton, *Federal Deposit Insurance Corporation*

The purpose of the concerted attack by economists on the consumption function was to verify a hypothesis that its character and rigidity is a basic causal factor in occasional or chronic lapses from full employment. In reality the consumption function is quite flexible: it becomes adjusted to a large variety of circumstances such as the number in the family, the age of its members, the customary standard of living in the community and of the group in the community to which the family feels it belongs, and also to various changes in the economy over time. Lags in these adjustments doubtless play a role in business fluctuations, but the results of a large amount of work on the consumption function are essentially negative with respect to the hypothesis concerning the relation of the consumption function to business fluctuations. Meanwhile other lines of attack on the problem of causal factors in lapses from full employment have been far more fruitful.

It seems to me that the focus of studies of the use of income should be changed. Instead of emphasizing the division of income between savings and consumption I believe we should emphasize the patterns of use of income. Recently I have been looking over some unpublished doctoral

dissertations concerned with monetary problems. One, by Frederick Weaver Moyer, appraises the attempts of economists to divide the use of personal income between consumption and savings.* He suggests that this dichotomy be abandoned, and that the concept of savings be replaced by that of warranties. He uses warranties to include insurance of all types and other expenditures made for the purpose of providing security of income, without distinguishing between the portions for current and future protection. He suggests a more detailed classification of income uses in which warranties are distinguished from cash balances and investments as follows: taxes, fixed commitments such as rental and instalment contracts, clearing balances or changes in cash holdings, goods and services, gifts, warranties, and investments. While I do not wish to endorse the details of Mr. Moyer's categories I believe that analysis of the use of income (or cash receipts) by individuals and families should be directed in the future along these lines.

The 1889-90 study that Mrs. Brady used is unique among large scale collections of information on family expenditures in several respects: it is so large that sizable samples can be selected for particular purposes; the expenditures of each family are printed for the categories for which the data were collected; and while the families were selected from employees of industries that were in competition with European industries the selection is not limited by family type or income as was the case in later large scale studies of the Department of Labor. The data from this study might well be placed on punched cards which could be sorted on any of the variables for which the information was collected. I believe this would provide far more information, relative to cost, than can be obtained from new studies designed to provide samples for particular purposes.

Another suggestion for future research pertains to Mr. Kuznets' reference to our lack of a theory of distribution of income by size. One phase of this problem, which is also a phase of the field of study to which our April 1950 meeting was devoted, is the theory of property values. Work on the theory of property values would be very fruitful, and should be stimulated by the Conference on Research in Income and Wealth.

* *The Development of Monetary Theory Since 1900* (Ohio State University, 1949).