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CITY SIZES AND QUALITY OF LIFE: SOME OBSERVATIONS

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Whether city or country life is better has been a matter of fashion and debate for centuries. The Whites [13] and Williams [14] have written important surveys of these changing views which show that each of us is ambivalent on these matters, and that our views and values (if not our behavior) are the product of symbolism which is deeply rooted in our culture and historical circumstances. As defenders of the great cities we tend to take Faustian positions, to see the higher values of civilization as flowing out of civitas. As advocates of rural and small town life, we tend to stress the value of more intimate and stable relations with people and with nature.

A number of opinion surveys in past decades in this country, most of which are ably summarized by Dillman [3], consistently show that people say they would prefer to live in small towns and rural areas to a much greater extent than they now do. Indeed, according to the Gallup Poll, the percent of people who say they would prefer to live in small towns or rural areas rose from 49% in 1966 to 55% in 1972, while the number preferring to live in a city as such declined from 22% to 13%. There is no way to establish firmly what coincidence there is between the census classification of current place of residence and the stated preference; but it is clear that, as we are now a nation of metropoles, people are saying to the polsters that they would prefer a pattern more dispersed and in smaller units than that which prevails.

Of course, these surveys must not be interpreted literally. For one thing, hypothetical questions always receive unreliable answers. In this case people are saying one thing and behaving in quite another fashion. Further, if a question asked is implicitly laden with symbolism, as this one is, people are apt to express attitudes rather than reasoned preferences, to give symbolic responses rather than intimations of behavior. And indeed, more probing studies cast shadows on these findings. Thus Fuguitt and "Zuiches [4] find that most of those who opt for small town and rural places want to live within thirty miles of a large city. If these are included, as well they might, the percentage of Americans expressing a metropolitan preference rises to 80%.

It is not my intent here to sort out the differences between what people say and what they mean, or what they say and what they do.

Rather, I want to call attention to the reinforcement to our traditional national anti-urban attitudes which is provided by the credence given to simple surveys. During the 1972 presidential election campaign, which seems so long ago, both the Nixon and the McGovern camps paid a great deal of attention to the reports of such surveys in designing their campaign strategies. And, as interest grows in the formulation of a "national growth policy" (by which is meant not growth, but a policy dealing with the geographic distribution of population and economic activities), such findings are used to bolster calls for reversing the pattern of urban concentration which has prevailed for the past centuries. Usually under the rubric of "balanced growth," politicians of both parties and a growing number of intellectuals and concerned citizens argue for policies of decentralization.

My opinion is that most such views are oversimplifications which misread preferences and misunderstand the geographic dimension of the economic and demographic dynamics of our social system. Many otherwise sensible people stand like King Canute ordering the tide to recede. I mention my opinion not to argue or document it in these brief pages but to give fair warning to the reader. In terms of this long debate, my own position is Hamiltonian while the prevailing one is Jeffersonian.

My purpose here is to take issue with some distinguished voices which have recently joined the debate with a novel line of reasoning which may be termed the "urban disamenities premium theory" or, more briefly, the "disamenities theory." This theory has been laid out in most detail and with greates documentation by Irving Hoch in a series of papers [6,7,8,9] and has been mentioned by others. But it has gained prominence from its inclusion by William Nordhaus and James Tobin in their widely noted proposal for a modified aggregate measure which will more truly reflect national well-being than does the Gross National Product [11]. Most recently, Paul Samuelson has summarized these arguments in the ninth edition of his immensely popular Economics text [12], thereby insuring that tens of thousands of economics instructors and millions of undergraduates will be exposed to them and generally accept them.

What troubles me, to quote Keynes's celebrated passage, is that "the ideas of economists and political philosphers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist. Madmen in authority, who

hear voices in the air, are distilling their frenzy from some academic scribbler of a few years back" [10, p. 383]. And goodness knows that the issues of urban and territorial policy tend to attract more than their share of madmen and men who believe themselves practical.

The urban disamenities premium theory in essence runs as follows. People prefer to live and work in small places. In the United States, as in other countries, one can observe that there is a strong association of higher wages with larger urban places, even after account is taken of corrections such as those for differences in living costs, population characteristics and industrial composition [1]. If other things were equal, labor would be strongly attracted to places where it could earn more, and the increasing supply of labor in these places would drive wages down until they were everywhere equal. But the pattern of wage differences seems stable,* so that these enduring differences must be shadow prices. This by induction, must be some bundle of "bads" or negative goods associated with larger agglomerations, such as higher pollution and civil unrest, greater anomie, inaccessibility of open spaces, longer commutes and so forth.

By this argument, if wages are higher in one place than in another, it does not mean that its workers are more fortunate. Rather, it means (by assumption) that both are equally fortunate, and that the difference in wages is a "disamenity premium" paid to workers in the apparently richer area to put up with a less desirable quality of life.

^{*}Hoch [6] performs a test on the possible historical convergence of incomes, and finds none. Nordhaus and Tobin [11] rather inadequately deal with the matter by including net migration as one of their independent variables in a regression upon income.

The magnitude of this adjustment to material well-being is not trivial. Nordhaus and Tobin place it at \$34.6 billion (in 1958 prices) for 1965, which is 5.6% of the GNP in that year and 8.7% of personal consumption. Hoch [4 p.34] places it at 13.3% of personal income. Thus the issues involved are of some importance, and one may conceive of a trade-off between material productivity associated with scale economies of urban concentrations and human well-being associated with more dispersed patterns of human settlement.

The argument as it stands, although I disagree with it, is powerful and intriguing because of its multi-dimensionality. Insofar as it is a refinement of the GNP, it is a statement of the performance of the economy in terms of its efficiency. Insofar as it makes a statement as to the differences in well-being in different regions, it considers equity, if only to say that there is no problem of interregional equity because (by assumption) people in all places are equally well-off. Finally, it not only considers environmental integrity and quality of life, but even goes on to give dollar measures of differences in these among localities. In spite of the flaws I will try to point out in it, the multi-dimensionality of this approach makes it a valuable point of departure for asking serious questions about the spatial distribution of people and economic activities for the purposes of policy.

Nonetheless, the argument as it stands is severely flawed, largely because of the heavy baggage of explicit and implicit assumptions which it carries. It assumes (a) that there is a homogeneity of residential preferences in the population, whereas there is not; (b) that these

preferences are characterized by an aversion to urban size, which is true for some people in certain ways, but not for others; (c) that urban size is an easily defined variable, whereas in fact, in our complex urban constellations, the concept of "size" must be at least bi-variate in its nature, and presents one of the most difficult aggregation problems in current quantitative analysis; (d) that mobility is nearly perfect and that migration may be described deterministically in accord to economic rationality, whereas it appears best described as probabilistic in terms of a larger calculus; (e) that the supply of workers is elastic to jobs and income, whereas it appears that, at least during prosperous times, jobs chase people as much as people chase jobs; and (f) by assuming that the system is in equilibrium or near to it, that a static analysis is sufficient, whereas there is strong evidence that the patterns of social geography are reflections of economic and demographic sub-systems characterized by hysteresis. Finally, (g) the disamenities analysis makes certain assumptions concerning the identity of private and public or aggregate costs. These last are, I think, particularly important as they involve questions of externalities and public goods which are central to matters of policy and the design of programs for its implementation. while calling attention to this matter, I will not develop it here because it is rather complicated.

In this short paper I cannot deal with the theory and empirical evidence relating to all these points and, in candor, even if there were more space I do not have all the results in hand. I only want to suggest the fragility of the arguments and the conclusions of the disamenity theory in the hope of slowing what appears to be a rush to its acceptance.

Consider first what has happened to a central social issue, that of the problems of equity among regions or cities, which arises because some are poor while others are rich. According to the disamenities theory, this problems does not exist. It has disappeared because, assuming that men follow a certain rationality, that they are free to move, and that human geography is essentially in equilibrium, it follows that the sum of real money income and psychic income is everywhere the same. Having assumed it the same, the theory makes it so by calling the unexplained differences shadow prices for an unobserved variable, the quality of life. It is striking how here too, as has so often happened in our social history, issues of social inequality are transformed into something else, more appealing to the middle classes.

Consider next some simple evidence for the purposes of getting some perspective. The 1969 per capita income in 1967 dollars of the San Francisco SMSA is \$4,658. That of Wilkes-Barre is \$2,858, that of Terre Haute is \$2,912, and that of McAllen-Pharr-Edinburg is \$1,663. While I am sure that these three metropolitan areas have many estimable virtues, I cannot believe that they are so compelling that it would be necessary to give some \$2,000 compensation to people living in the San Francisco area to prevent their seeking out these virtues by moving to these other areas. As I look at various places and study their incomes, it seems to me a plain fact that many poor places are not very nice and that many nice places are rich. To put it plainly, the disamenities theory paints a picture of a world which I do not recognize in this troubled planet. It seems to me that places differ in their real income, and that often these differences are compounded rather than cancelled by differences in the qualities of the lives they afford.

Thirdly, consider some of the implications of the disamenity theory for policy. We all wish, I am sure, to diminish crime and pollution in our large urban areas. Should we manage to do so, according to the theory, this would bring about a population explosion in them as the money wage differences which had compensated for the sorry earlier conditions now exceed the "premium" needed. Eventually the surge of migrants would drive local wages down to a new equilibrium. I find it hard to believe that if social programs reduce crime and new technology reduces pollution, the consequence must be a vast growth of large urban areas and a decline in their money wages.

Fourthly, consider the old chestnut that tastes vary. Every survey reveals that there are many who love large urban areas, especially among those who live in them; others, of course, hate them. If we accept this, it follows that there are many in large urban areas for whom the additional wages are not a disamenity premium, for they would willingly live and work there for lesser wages than they would elsewhere. Others might prefer lesser concentrations to some degree, but, being fairly neutral about the matter, still not require much inducement. Finally, at the margin there are those who hate the place and require full payment of the differential to join the local population and labor force. From my experience with people in general, there is always such a mix of feelings.*

Now, from the point of view of those who would live and work there for less than the going wage, the difference in wages or "disamenity

^{*}Hansen's [5] surveys provide some quantitative picture of this for certain populations.

premium" is pure gravy; or, in more academic terms, it is a producer's surplus to their labor. It is clearly a net contribution to their welfare, and by contrast to the "disamenity premium" it might be called an "urban bonus."

In examining the effects of such income differences among localities, therefore, we must not take the whole of the difference as a disamenity premium if we allow that, large as a place may be, there are those who love it. If we are to evaluate aggregate well-being in the fashion of Nordhaus and Tobin, we must subtract from GNP the disamenity premium but we must retain the urban bonus. If we were to compare well-being between a large and a small city, we would subtract disamenity premiums from the income of each: the bonus paid lovers of small cities needed in big cities and the hardship pay often needed to get cosmopolitans to live in provincial centers. But we would retain in each city those payments to individuals who like the place anyway above the wage needed to keep them there. These people benefit by sharing in wages set by the higher costs of attracting at the margin those who would rather be elsewhere.

These matters are simply put in a diagram. Figure la shows the basic logic of the disamenities premium theory. For simplicity assume a country consisting of a large metropolis and an undifferentiated rural remainder. The disamenities theory holds that people would rather live in the rural portion, and that if the prevailing rural wage is P*, PX is the wage needed to attract enough people to the metropolis. The difference between P* and PX is the disamenity premium, and the shaded area in Figure la is the amount to be deducted from GNP in arriving at a more proper estimate of national welfare.

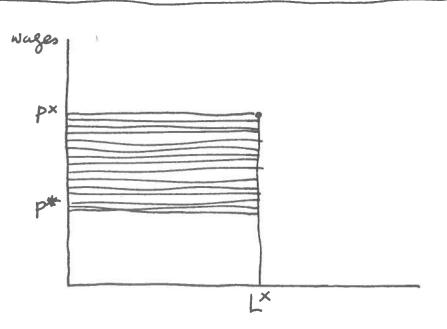


Figure 1(a). The Simple Disamenity Premium Theory

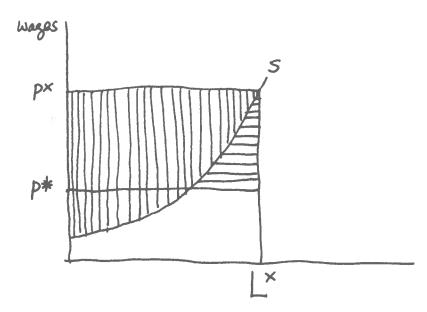


Figure 1(b). Urban bonus and urban disamenity when taster vary

P*: wages in the city

P*: wages in the rural remainder

L*: population or labor force size of the city

S: unban disamenity curve for L*

: disamenity premium : urban bonus

In Figure 1b we consider that some people like to live in metropolitan areas a great deal, others somewhat, others less, and others hate them. Therefore we show curve S, which represents the wages at which various people would work in the metropolis given that rural wages are P*. Individuals are rank ordered from city-lovers on the left to city-haters on the right. Some, who hate the country, would willingly work for less in the city, and thus the curve starts below P*. As we proceed to consider the opportunity costs from the view point of people who progressively favor a rural over an urban setting, the curve rises.* Its intersection with the urban wage level, P^X, determines the size of the urban area. Presumably all of the remaining residents in the rural area find the current premium an insufficient incentive.

The horizontally shaded area over P* under the curve S, which might be called an urban disamenity curve, is the total disamenity premium paid.

But the vertically shaded area over the curve to P^X is the urban bonus, or the total producers' surplus to residents. The difference between the shaded areas would be the addition to welfare. It is worth noting that if the portion of the urban bonus under P* is greater than the disamenities premium, the conventional GNP measure would actually under rather than overstate aggregate welfare or well-being, at least with respect to urbanization aspects.

The introduction of the reality of a variety of tastes reintroduces inequality. Within the metropolis we are still assuming uniform wages, but there are differences in the level of well-being, with those who like cities being better off than those who require a substantial disamenity premium. Between the metropolis and the countryside, there is now inequality in well-being in favor of the city if we believe that

^{*}This curve resembles a supply curve, but it is not a straight-forward one. It is the curve of opportunity wages give P* and the particular size of the city, L^X. If the city were of a bigger or smaller size, the tradeoffs of individuals might vary upwards or downwards as would their ordinal place along the curve, given P*. A fuller analysis would develop

those remaining in the countryside have tastes similar to those of the marginal recruits into the metropolis. The aggregate value in favor of the city is the shaded area above the curve S in Figure 1b, the urban bonus. Equity problems re-enter, within and among localities, although they now involve tastes and well-being as well as real money income.

I will consider here only another slight complication to the disamenities theory. This is the assumption that the system is at or near equilibrium, and that migration is only based on the maximization of a utility calculus by which people maximize the sum of their money and psychic income. Since the system is presumed nearly at equilibrium, migration is a small force whose function is to preserve this equilibrium. Under the theory's assumptions, migration will occur only in certain directions; namely from places where the sum of money and psychic income is lower to where it is higher.

The resulting pattern of migration is a triangulated matrix of flows, where if there is a flow from one place to another, there is no flow in the opposite direction. But we know, especially from the studies of gross migration of the past few years, that this is not the case. In fact, if there is a heavy flow from one place to another, there will be a nearly equal flow in the opposite direction. Net migration is a thin residual left from the much larger flows of gross migration.

Actual behavior, in the form of gross migration, does tend to be attracted toward higher income. But, there is very strong evidence that the probability that a migrant will go to a large city is greater than the probability of his going to a smaller one. This might be interpreted

such a curve for each urban size and P*. The least lower bound of this set of curves for any P* would be the supply curve of labor for various sizes of the city.

as a revealed preference for larger places. But the ratio of these probabilities is less than proportional to the ratio of the population sizes of the potential destinations.* This may be interpreted as evidence of size aversion if we assume that the opportunities offered at either place are proportional to their population sizes. The interpretation of the migratory evidence, therefore, depends on the theory on which it is made.

It is quite clear, however, that many factors determine migration in addition to population size and income differences. Among these other factors are the location of friends and relatives; commonalities and diversities in racial, religious, ethnic, and industrial composition of origin and destination; climate; class and age composition and migratory history; and many others. Thus population size and income are but contributors to the complex pattern of flows that shapes the pattern of stocks which is the population distribution at any given time.

The question then is whether the population system may not form itself into equilibria which are not characterized by equality at all locations of real money and psychic incomes.

Consider a simple example for a system consisting of two cities,

A and B. B is half the size of A in population and has a lower wage or, if
you wish, has a lower combination of real wage and psychic income. Because
many factors cause and direct migration, there is movement of people in both
directions. But we retain enough of the hedonistic calculus of economic rationality to expect that the probability of a resident of B going to A is

^{*}Some of the evidence on this question is presented in W. Alonso [2]. There the exponent of population at the destination is 0.9, where gross migration is the dependent variable.

twice as high as that of a resident of A going to B. In this case, because the population at risk is twice as large at A, the two flows will be equal in absolute terms, and there will be no change resulting from migration either in incomes or population sizes.

The possibility that we are dealing with a largely stable system with largely permanent inequalities seems to me likelier than the equilibrium with equality through shadow prices of the disamenities theory. An analogy may be drawn from the history of economic thought. In classical economic theory it was though that equilibrium was only possible at full employment. The Great Depression showed vividly that equilibrium was sadly possible at less than full employment, and the Keynesian contribution was to a large extent a demonstration that alternative equilibria were possible. I think that the likelihood is that dynamic equilibria in geography are characterized by inequality.

To summarize, I have tried to make two points. The first is that the disamenities theory, which has become so widely and so rapidly accepted, is a doubtful one on many grounds. It seems to me to lead to mistaken diagnoses of our regional and inter-urban problems and to incur the danger of suggesting counterproductive policies.

The second point is that the dimensionality of the theory is extremely suggestive, linking stocks and flows of population with considerations of efficiency, equity, and quality of life. It strikes me as a very productive point of departure for examining these issues, and one that invites the imaginative combination of economic fact and theory with attitudinal and other socio-psychological studies and with the rapidly evolving body of empirical and mathematical studies of migratory systems.

I devoutly hope that we will have the wit to mine this intellectual quarry, but that we will not be deceived by the pirite on top.

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