COMMENT ON: URBAN-REGIONAL ECONOMIC ANALYSIS: CONCEPTS, MEASUREMENT AND DATA*

Benjamin Chinitz, University of Pittsburgh

I have long been disturbed by the preoccupation of regional economics with the problem of allocating national economic activity among regions. The implicit assumption that the nation moves ahead under its own momentum with little or no reference to what is happening in different regions has always struck me as artificial and impractical. True, there is a sharp difference in degree between international mobility and interregional mobility. But the degree of interregional immobility is surely high enough to qualify as an important variable in national economic development.

If we view the national economy as independent of regional patterns we threaten the very raison d'etre of regional economics. Who cares whether City A is growing faster than City B if the sum of the two is a constant--unless you happen to own real estate in City A. If the growth in productivity in the nation is a given, then if I make City A more efficient I must somehow be making City B less efficient and I lose interest in the whole venture.

On the other hand, if I view national performance as an average of regional performances, I leave the door open for measures applied in particular areas which can raise the average and this offers a much more compelling motivation for the geographically impartial social scientist or public servant.

It is in this context that I find Wilbur Thompson's manuscript most refreshing and reassuring as to the future course of regional economics. For he has unequivocally taken the position that the urban area--like the time honored industry--is a meaningful unit of analysis, an arena in which to observe the processes of economic development. He recognizes full well that the urban area is very much of an open-ended economy and as such is vulnerable to seasonal, cyclical, and secular shocks originating outside the system. But he makes it quite clear that the tracing of exogenous impulses is not the be-all and end-all of regional economics.

Turning now to some specific points in Thompson's paper, I call attention first to his "roll out" concept in the theory of local wage level determination. He makes the point that high wages in the export sector make for high money income which may partly be dissipated in high prices for locally produced goods and services because the high wages in the export sector "roll out" to the local sectors. We in our study of the Pittsburgh economy find substantial evidence to support the "roll out" hypothesis but not exactly in the form implied by Thompson. We find indeed that the high wages of steel workers make for relatively high wages in other sectors of the economy but not in all of them, and especially not in local trade and service sectors.

How do we explain such a pattern? In the first place, demand factors, on balance, work against the "roll out" effect. Pittsburgh's export sector employs a lot of men but very few women. But men and women typically come in pairs so that the supply of women is a function of the demand for men, as much as it is a function of the wages paid to women. With an inelastic supply and a low demand, wages should be low. They can't be low in the export sector because this is the battleground for the countervailing' monopolists. So they are low in the trade and service sectors where union power is a lot weaker.

A second aspect of demand which works against the "roll out" effect is the generally slow growth of the export sector. The labor force is constantly growing through natural accretion. Outmigration, though large, is not large enough to prevent that growth. With little or no growth in the demand for labor in the export sector the influence of the export sector on the whole area's wage pattern diminishes.

In other words, the "roll out" can work through the demand side in a rapidly growing area whose export sector is not lopsided in terms of the labor force it employs. But if the demand route is blocked, then the "roll out" can only work through the exercise of monopoly power against the employers in local trades and services. The outcome depends then on the extent to which these industries are unionized. The construction industry fits Thompson's model very well, but most trade and service activities do not.

Thus, in our comparison of Pittsburgh's wage structure with that of 33 other areas, we found that Pittsburgh has one of the most 'stretched out' wage structures, occupying very high ranks in manufacturing and construction industries and very low ranks in retail and service industries.

Thompson, in his full-length manuscript, though not in his brief paper, develops a growth model of the urban area in which he deals very effectively with the implications of growth for the filling out of the local sector and the feedback effects of this on the export sector. There's no question that aggregate size is a

* Paper by Wilbur Thompson presented at 122nd Annual Meeting of the American Statistical Association, Minneapolis, Minnesota, September 9, 1962.

critical variable in determining the structure of the local sector. Self-sufficiency requires a minimum scale of demand. This scale varies between activities. Hence, as areas grow in size their complex of local activities changes.

But in my own work, some of which was stimulated by some worksheets I inherited from Thompson and Mattila, his colleague at Wayne, I have been impressed by the substantial variation around the size function. Recently, for example, I computed per capita employment in 127 trade and service industries in 67 urban areas and identified Pittsburgh's rank in each industry. Pittsburgh is in the first decile in absolute size, but in 94 of the 127 industries it was below the median, and only in 7 cases was it in the first decile of the distribution.

This leads me to my final point which is, that we need some new research technology in trying to explain the dynamics of the urban economy. So far I can only point to one distinctive tool, the mix test. This crops up again and again in almost every major work in the field. What would the area look like with U. S. weights and regional values? This has been applied to wage levels, income levels, rates of growth, cyclical behavior and so on.

This is certainly a useful exercise and a necessary one. I don't mean to demean it. In fact, in our work in Pittsburgh we have used it extensively to explain why the Pittsburgh economy behaves as it does.

But we need other new tools and approaches to cope with the residuals. Thompson refers repeatedly to multivariate regression analysis and has used it extensively in his own work. In principle it is hard to argue against the potential value of this tool. But the results are so often disappointing and frustrating, mainly, I think, because the tool is too blunt to deal with the subtle variation we are trying to explain, given the kind of data available to us. Our observations are too few, and our variables are too aggregative. Both problems could be alleviated if we had more data on plants instead of industries and on households instead of the labor force. With the aid of the computer, we can digest a lot more; hopefully we can convince the federal and local agencies to increase the feedings.