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# Reflections on Rural Demography Rural Society and Predicting Social Behavior

by

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REFLECTIONS ON RURAL DEMOGRAPHY, RURAL SOCIETY, AND  
PREDICTING SOCIAL BEHAVIOR

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It interests me to see in how many stages of history one can find expressions about the relative merits of rural and urban life, rural and urban people. Euripides offered the opinion in the 5th century BC that "The first requisite to happiness is that a man be born in a famous city", surely one of the earliest expressions of urban fundamentalism. Things seem not to have improved by the 2nd century BC, for the writer of Ecclesiasticus (a book of the Apocrypha) asks, "How can he get wisdom who holdeth the plow?" Already, one infers, a sense of rural isolation and backwardness had developed.

But there are more favorable views of rural life and more critical views of the city, from Cicero to Rousseau and our own Thomas Jefferson. Jefferson buoyed generations of farm people by his assertion that "Those who labor in the earth are the chosen people of God". He was scornful of "...the mobs of great cities who add just so much to the support of pure government as sores do to the strength of the human body." And, in my own early days at the Department of Agriculture, I recall Sec. Ezra Benson writing that "America's rural people are her bulwark against crackpot programs and foreign isms". No doubter of rural virtue, he.

As a native of Washington, D.C., it was unlikely that I would ever work in rural sociology or the Department of Agriculture. My parents had left the Virginia countryside and I was very glad they had, for social and material conditions differed so starkly between Washington and rural Virginia as I grew up that the country life did not attract me at all. I sided with Euripides. But a mutual need ultimately brought me to USDA in 1953. I had been laid off at the Census Bureau, at the end of the 1950 Census period, and USDA needed another demographer. It was farm-reared people who were preferred at USDA then and my boss, the rural sociologist Margaret Hagood, kept rather quiet about my big city background. To my pleasure, I found that I enjoyed doing research on rural issues, and I stayed.

Rural America was undergoing extraordinary change at the time. People were leaving farming at a pace far beyond that seen in the farm crisis of the 1980s. The number of farms was falling by 3 and 4 percent a year, and a net average of 1 million people a year left the farm population during the 1950s by outmigration or by ceasing to farm (Banks and Beale, 1973). But, the nonfarm rural economy grew and modernization of rural life proceeded rapidly.

In 1960, the sociologist Richard Dewey wrote a conceptual critique called, "The Rural-Urban Continuum: Real but Relatively Unimportant" (1960). Neither our agency at USDA nor the academic Departments of Rural Sociology closed up shop as a result, but the empirical question of whether substantial rural-urban differences still existed was formally joined in 1966. Leo Schnore, the prominent urban sociologist, stressed the continuing importance of rural-urban differences in "The Rural-Urban Variable: An Urbanite's Perspective" (1966). The ensemble of that paper, with discussions from Robert Bealer and Thomas Ford and Schnore's rejoinder, is one of the most literate exchanges (and certainly the most amusing) ever published in Rural Sociology.

Once the agricultural dominance of rural society was lost, and the major material deficiencies of rural living were corrected (e.g., through electrification and all it implies, modern plumbing, central heat, paved roads), there clearly was a narrowing of rural-urban differences in occupations and levels of living. What is left today of differences in characteristics, conditions, or trends that is significant? I don't intend a summary review of this topic, but would like to point to several areas of importance or interest to me.

Rural fertility.--Trends in childbearing are changing and illustrate both rural-urban convergence and disparity. The premise that urbanites have fewer children than rural people is one of the oldest -- and hitherto most valid--observations in demography. Benjamin Franklin noted it well before the Revolution, citing the higher cost of city living and a greater propensity to remain single there (Grabill et al, 1958). Rural ratios of children to women were far above those in urban areas all during the 19th Century, although falling. The difference narrowed further in the 20th Century. Surprisingly large drops in childbearing were evident in the rural Southern Appalachians at midcentury, as so well analyzed by Gordon De Jong (1968). The concurrent Baby Boom was disproportionately an urban phenomenon. But as late as 1960, although rural women comprised only 27 percent of all U.S. women 35-44 years old, they had produced about 66 percent of the childbearing from that age group that was above replacement needs and that thus led to population growth (Beale, 1972).

Thereafter, however, rural fertility rates fell further, for example, very noticeably in Catholic farming communities of the Midwest, and later among rural minorities. By 1980, rural women 35-44 years old had only borne 11 percent more children per 1,000 women than had urban women. Thirty years earlier, the difference was about 50 percent. On a metropolitan-nonmetropolitan basis the Census Bureau annually obtains fertility data in its national sample survey and also asks women how many future births they expect. In 1988, for the first time, nonmetro women 18-34 years old did not expect to have any more lifetime births than did metro women. Each group expected completed childbearing of 207

children per 100 women (Bureau of the Census, 1989b). This is a development I had never expected to see.

One fertility feature on which metro and nonmetro women continue to differ without signs of convergence is early childbearing, with nonmetro women continuing to have more of their births before age 25 (Bureau of the Census, 1989).

Of greater significance, however, is the incidence of abortion, as best we know it. Fourteen states now report abortions to the Public Health Service by place of residence of the woman. All major regions of the country are represented. Somewhat over a fourth of the nonmetro population is covered. In 1987, these states reported a ratio of 392 abortions to each 1,000 live births in their metro areas, but only 164 abortions per 1,000 births in nonmetro counties (National Center for Health Statistics, 1990).

This is an extraordinary difference, with the metro ratio being 2.4 times as large as the nonmetro ratio. Indeed, in my opinion, the difference in the propensity of pregnant women to end a conception in abortion is the most significant social differential now existing between U. S. rural and small town society and metro urban-suburban society. Is it the result of the much greater access to abortion facilities in metro areas, or to differences in belief systems and sexual practices between small scale and large scale communities? I believe it is some of each.

If the ratio of abortions to births in the reporting states is representative of the nation (and I think it to be reasonably so), then the rate of conceptions for all women of childbearing age (exclusive of spontaneous miscarriages) is now somewhat lower in nonmetro than metro areas. The two residential groups now differ widely in aborted fertility, but not much in overall actual childbearing.

Racial and ethnic composition.--The racial and ethnic makeup of the population is another area with sizeable urban-rural differences. Before World War I, the Black population was predominantly agricultural and comprised 14.3% of the total rural population in 1910, compared with 6.3% of urban people (Bureau of the Census, 1923). With the vast farm to city movement of Blacks that took place thereafter, especially after 1940, the percentages reversed. By 1980, Blacks were just 6.6% of the rural total, but were 13.5% of urban residents (Fuguitt *et al*, 1989). A highly rural people became one of the most urban. Hispanics and Asians have sought the cities even more disproportionately than Blacks, despite the prominent role that Hispanics continue to have in agricultural labor. The combined result is that in 1980 Blacks, Hispanics and Asians comprised 23.4 % of the urban population, but just 9.5% of the rural (Ibid.). This is a major difference, and I expect it widened somewhat further during the last decade.

The introduction of a question on ancestry into the 1980 Census provided an opportunity to quantify rural-urban differences in the origins of the white population beyond the broad patterns known through historical inference, everyday experience, and sample surveys.

The new data revealed that people of Eastern European or Mediterranean ancestry were 27% of whites reporting a single ancestry in urban areas, but 8% of those in rural areas (Fuguitt et al, 1989). Much of their own or their ancestors' immigration occurred during the era of industrialization and city building. In contrast, those of British descent -- the dominant Colonial strain -- were more rural, being 33% of the rural white single ancestry population compared with 24% of that in cities (Ibid.).

The most heavily rural white residents, however, were those who reported themselves simply as "American". Forty one percent of the 13 million "Americans" lived in rural territory, compared with 26% of the total population and just 11% of single ancestry Mediterranean and Eastern Europeans (Ibid.). Their distinctiveness is more than rurality, however.

The use of "American" for ancestry most commonly occurred in the South, in areas of Anglo-Colonial background, being used by more than a fifth of the nonmetro white population in Alabama and Georgia, and a fourth in a number of Southern Appalachian counties. In Northern states, by contrast, only one in every 10 to 20 whites gave such a response (Ibid.). The location of most "Americans" implies that the population of British descent is considerably more understated in the ancestry data than are people of other backgrounds. It also would seem to be evidence that people of Southern Anglo-Colonial origin are less likely than others to think of themselves any longer in European nationality terms -- especially if they happen to be rural. In general, I would say that these people are well aware of their early American origin, but often have no knowledge of who their specific immigrant ancestors were. I suspect their usage of "American" may often also express a degree of philosophical nativism, after nine or more native-born generations, that may be correlated with other belief or attitudinal patterns.

Taken as a whole, the continuing differences in racial and ethnic origin of the rural and urban populations are substantial, shaped by a variety of historic and current influences, and quite large enough to continue to have social and political consequences.

Jobs, education and earnings.--An issue of very direct relevance to the economic health of rural America is the job structure of the rural and small town economy and its link to education and earnings. As late as 1950 only a fifth of adult farm residents had completed high school (Bureau of the Census, 1953). The figure of two-fifths for the urban population was

twice as high, although hardly a heroic proportion. The lowness of both numbers is a reminder of just how recent mass secondary education is. Farm people were almost notorious for not placing a high value on formal education. This has changed radically insofar as high school is concerned. By 1988, 81% of adults in farmers' households had completed high school, exceeding the 76% found in all other households (Butler, Forthcoming). The problem today is in the metro-nonmetro gap in college education and in the lower financial rewards to education in the nonmetro setting. Some of this disparity may simply be inherent in the greater complexity of services and specialized occupations that is possible in large dense urban settlements, and, if so, it may never disappear. Some 27% of persons 25-44 years old had completed college in metro areas in 1987, compared with 16% in nonmetro areas (Bureau of the Census, 1988). Earnings for college educated men 25-34 years were about 28% higher in metro than in nonmetro locations (McGranahan and Ghelfi, Forthcoming). Part of this difference is probably offset by lower nonmetro costs of living.<sup>1/</sup> What is most troublesome about the earnings disparity is that it was only about 14% just eight years earlier in 1979 (*Ibid.*). The ratio of metro to nonmetro earnings widened for other educational classes of men as well, but not nearly by the same degree as for the college educated. The pattern for women was also for widening rewards to metro women at all levels of schooling, but without any greater widening for the college group.

To paraphrase my colleague, David McGranahan, is the rural problem one in which economic difficulties stem from the low education levels of the rural population, or is it the result of the urban orientation of the evolving economy, and a lack of growth in types of jobs that can readily be located in rural areas? The answer is important for strategies of rural development and their likelihood of success.

He and Ghelfi note that in the production sector of the economy (including producer services), that usually forms the base of local economies, 75% of new jobs in the 1980s required some college education, compared with about 35% in the 1970s -- a major change -- and the jobs went disproportionately into metro areas (*Ibid.*). Simultaneously, the proportion of all college graduates who live in nonmetro areas declined in the '80s, while the proportion of people with only grade or high school training who are nonmetro increased (*Ibid.*). (About 28% of persons who did not complete high school were in nonmetro areas in 1988, compared with only 14% of college graduates). There was a strong positive correlation in nonmetro areas in the '80s between education and outmigration.

The gist of these interrelated trends is high metro demand for college graduates, high metro earnings for such graduates, nonmetro outmigration of the well-educated, and growing metro/nonmetro disparity in the presence of college graduates and in their level of earnings.

Of the themes I have touched on -- fertility, race and ethnicity, jobs, education and earnings -- there are examples of convergences, enduring differences, and widening disparities. In general, where comparative rural/urban change has occurred (regardless of direction), it has often been surprising in occurrence, pace, extent, or timing. This leads to my comments on the difficulty of projecting trends in social behavior.

Projecting social behavior.--The rural demographic turnaround of the '70s re-illustrated for me the limited likelihood that demographers or other social scientists have of predicting turning points in patterns of measurable social behavior. I do not know of anyone who foresaw in 1970 the major reversal in nonmetro employment and population trends that was about to occur. The most dangerous temptation is to become convinced of the inevitable continuation of trends that (like rural outmigration) persist so long that they come to seem immutable. I first became impressed with this during the 1940s when the Baby Boom began. Every reputable demographer who offered an opinion from 1942-47 on the extent to which the wartime and postwar rise in births and family size would continue got it wrong.

I joined the Census Bureau in June 1946, just as the postwar increase in births was about to begin, the war having ended 10 months earlier. It was an exciting time for demographers. Births began to rise so rapidly that we ran a monthly betting pool at the Bureau on the general fertility rate. Because it was obvious that demobilization would bring an increase in births, the Bureau had convened a group of fertility specialists in the fall of 1945 to estimate postwar births and adjust the Bureau's population projections. They came up with the usual high, medium, and low projections. Their high series did not foresee as many as 3 million births in any postwar year (Bureau of the Census, 1947). The reality is that in the 45 years that have passed since then, we have never had as few as 3 million births in any year.

The whole psychology of marriage and childbearing changed during the 1940s (and '50s) in a manner that was inconceivable to demographers who had begun their professional careers in the 1920s and '30s when the birth rate was falling throughout the western world. Yet these people included many distinguished scholars who made other lasting contributions to the discipline. Eventually it took a nondemographer from the Stanford Food Research Institute, Joseph Davis, to write a persuasive piece noting the failure of both the pre- and postwar population projections and arguing that the upsurge in births represented a real increase in family size and that we were not about to revert soon to prewar levels (Davis, 1949).

Thirty years later in the 1970s, the "rural turnaround" deservedly received much attention as an unanticipated population trends, but was not the only such trend that social scientists



failed to foresee or forecast incorrectly in that decade. There were at least 5 other major American demographic surprises at that time (Beale, 1985):

1. The birth rate. In 1970 the Census Bureau issued new projections of the U.S. population and then a year later revised them upward in the belief that the average age of women at childbearing would fall. All 8 series of birth projections exceeded the actual number that occurred in the decade by a wide margin, and the direction of the 1971 revision proved to be the opposite of the course of events underway. By 1970, it was the high marriage and birth rates of the 1940's, 50's, and early 60's that were still on people's minds and the direction of error was opposite that of 25 years earlier.

2. The death rate. Projected deaths during the decade exceeded the actual number by 10 percent, or over 1.75 million. Improvement of life expectancy had been slow in the 1960s, and was projected to become even slower, but it suddenly quickened in the 1970s, bringing seven times the projected amount of increase. Thus even mortality -- which had been touted by demographers as being predictable over the near term -- proved capable of quickly changing course.

3. Household size. A third surprise of the 1970s was the accelerated fall in average household size and the consequent rapid growth in number of households. Eight projections of household size for 1980 were all too high and did not succeed in bracketing the observed average. The interaction of lower birth rate, lower death rate, and changed living arrangements produced a result that was beyond any thought worthy of consideration.

4. Regional Shifts. Continued migration to the West and South was correctly foreseen, but not its dimensions. The most ambitious set of population and economic projections during the decade predicted that from 1972-1980 the northern industrial states would garner 39 percent of the nation's population growth. Instead, only 6 percent actually occurred there. The South and West were expected to acquire 60 percent of national growth, but had 90 percent. Despite the poor quality of these projections, their local use was required in some federally funded planning work.

5. The role of illegal and refugee immigration. By its very nature, the amount of illegal immigration is difficult to estimate, much less to project. Whatever the true amount, its increase was beyond expectations and is believed to account for a considerable part of the 5 million higher-than-expected 1980 Census count. In the case of refugees, no one would publicly factor in an allowance for the probable fall of Vietnam, Laos, and Cambodia and the subsequent influx of those groups.

I have taken some time to elaborate this. My point is not to belabor the forecasters. Rather, the projections typically reflected the prevailing wisdom. I view the problem as intrinsic to social science. It strikes me that there is an inherent conflict between, on one hand, the eternally optimistic premises of modern science, abetted by the truly insatiable demand for predictions, and, on the other hand, the limits of forecasting

human behavior. It may be maddening for planning purposes that we are not a more predictable people, but I find it rather comforting in a way that human nature continues to be perverse, continues not to be typecast, and continues through a host of individual decisions to respond with unforeseen collective social changes to new values and conditions.

Clearly, we will go on making forecasts, whether we diffidently term them projections or assert them as predictions. Divining the future is one of the most ancient human urges, and the advent of the computer increases the temptation. How easy it is to use a computer routine to cast a view of the future that would have been too daunting for a room full of clerks with Fridens and Marchants in the past. But the record proves that a healthy skepticism is warranted -- even of one's own forecasts. (I made the mistake in 1968 of predicting a near doubling in two years time of the number of counties that have more deaths than births. Hardly were my words in print than the number began to decline, not rise).

Recent rural demographic trends.--What has happened to the surprising rural turnaround that saw a net of 4.5 million people move into nonmetro counties in the 1970s where no net inmovement at all had been foreseen? So far as projections go, I can't think of anyone who committed himself or herself to any firm view of what the 1980s would hold. But I think most of us were surprised at the extent, depth, and length of the economic crisis that beset rural and small town America in the first two-thirds of the decade in agriculture, mining, and manufacturing. Even so, it took until 1984 for the nonmetro migration rate to become negative. It remained so for four years, but by 1988 was just barely positive again. Despite the sense of crisis that arose in nonmetro areas, the estimated net outmigration from nonmetro counties from 1980-88 was only 22,000 people, a trivial amount when related to an average population base of 56 million people (Beale and Fugitt, 1990). 2/

When counties are grouped by whether they had net in or out movement, a more informative picture emerges. Nonmetro counties with outmovement -- which amount to nearly 2/3 of the total -- had 1,965,000 net outmigration. They clearly show the demographic consequences of the farm crisis and the general recession, being common in the Farm Belt, in energy and metals mining districts, and among older nonmetro industrial counties of the North (Fig. 1). This is the nonmetro America that is unable to support its current level of settlement or retain its potential natural growth.

In contrast, all other nonmetro counties experienced net inmovement of 1,943,000 people. Retirement destination counties alone attracted two thirds of this migration, and are often also recreation or second home areas for younger people. Other counties are in the urban penumbra -- to use Zelinsky's term -- and are growing from metro sprawl (Fig. 2) . Counties such as

Pike, Pa., and Barnstable, Mass., are affected by all of these factors. The current diversity of nonmetro America is well illustrated by the way in which the negligible overall net migration number masks such widely different trends by economic function or location.

The other most interesting feature to me of recent nonmetro population change is the decline in natural increase--the margin of births over deaths. Since 1980, the rate of metro natural increase has sailed along, very slowly rising except in the worst of the recession, sustained partly by the influx of young immigrants. The nonmetro rate, however, declined every year from 1981 to 1988, losing a third of its value in that time (Fig.3). It is now much below the metro rate, which it was shadowing in the late 1970s. The decline stems in part from age structure changes as young adults have moved out of most rural areas and retired people have come in, but about half of the loss since 1980 is from an actual drop in age-specific birth rates among nonmetro women. If the difference between metro and nonmetro natural increase rates had not widened after 1980, the nonmetro population would have grown by about a fourth more than it actually did from 1980-88 (Ibid.). Because the nonmetro rate of natural increase is not more than half as high as it was in the 1960s, rather modest rates of outmigration today result in population declines, because there is usually little (and sometimes no) excess of births over deaths to offset them.

Conclusion.--So what of the future for rural and small town America? I can't predict it, but that does not absolve me from commenting on it. It is apparent from the data reported on by Glenn Fuguitt in his visit here last year that the map of residential preferences is not a duplicate of the map of current settlement. There are still many more people who believe they would like to live in a rural or small town community than now do so, even if such a move meant a somewhat lower income (Fuguitt and Brown, Forthcoming). It is critical that this ideational support for rural living still exists, albeit it at a somewhat lower level than in the 1970s. But it does not mean that there is the same desire to live in remote areas as there is for locations convenient to metro areas.

Indeed, because of persistent outmigration we find ourselves once again hearing that ugly word of despair, "triage", in reference to policy towards declining small towns of the Great Plains. It is not surprising when one considers, for example, that over two thirds of all nonmetro towns of the Dakotas, Nebraska, and Kansas are estimated to have declined in population from 1980-88 as a result of the economic conditions and centralizing forces of that period in agricultural areas (Bureau of the Census, 1990). Is there some fate for the Plains better than the "Buffalo Commons"? This may be the toughest rural development question.

In large part, it seems to me, the major single problem of the nonmetro economy east of the Plains in counties that are not caught up in metro sprawl or recreation/retirement use is to find a suitable supplement for manufacturing as the mainstay of job growth and "export" industry employment. For much of the country, manufacturing worked nicely as the successor to farm employment after World War II, when persons primarily working in agriculture fell from 7.9 million in 1947 to 3.5 million in 1970, after which the number largely stabilized (Bureau of Labor Statistics, 1981). Growth in industrial jobs did not offset all of this loss, but manufacturing employed 28% of the rural labor force in 1970, compared with 18% of a somewhat smaller labor force in 1950 (Bureau of the Census 1972 and 1953). This heavy role is too large to write off simply because manufacturing is no longer a growth sector of the national economy. Yet how can more of the better new manufacturing jobs of today, with their higher wages and skill requirements, be acquired by smaller communities, given recent educational trends?

If producer services that are currently very metro-oriented are now the fastest growing jobs in the economy, what future do they have in nonmetro America? I hear of examples of computer-based service businesses, such as processing insurance claims and travel reservations, that have newly located in small towns, even in the Great Plains. They mostly offer lower wage jobs and it is quite unclear how numerous they will become. Even so, it is gratifying to see come to fruition some of the confident assurances of a generation ago that the computer could eliminate many of the economic costs of space for rural areas.

Whatever the practical answers to those rural-urban differences that exist in a problem context, it is fair to say that rurality still matters in some important ways, both social and economic, but that it frequently is not evident from one period to another what the nature of rural change will be relative to that elsewhere.

#### Footnotes

1. We cannot estimate metro and nonmetro incomes adjusted for cost of living differences, however, because of the frustrating fact that rural and small town residents continue to be excluded from the surveys on which the consumer price index is based.

2. I have used numbers derived from unrounded data of the Federal State Cooperative Program for Population Estimates (FSCPE). For published rounded county migration estimates, see (Bureau of the Census, 1989a). National estimates of residential migration are also available from the Current Population Survey (CPS), and imply much more net outmovement from nonmetro areas than do those used here. For various reasons, I judge the FSCPE

data to yield a better estimate of national nonmetro net migration for 1980-88 than do those from the CPS.

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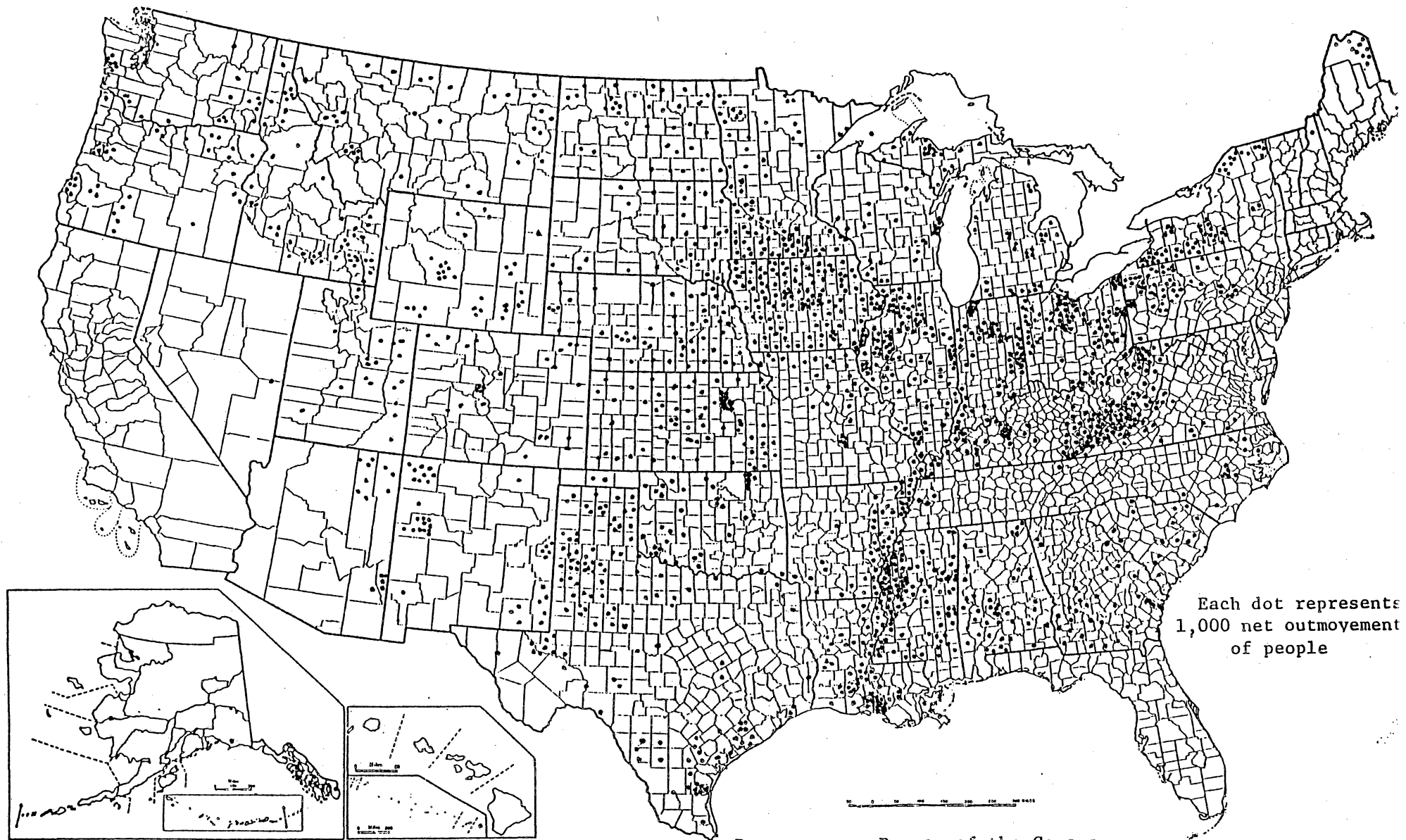
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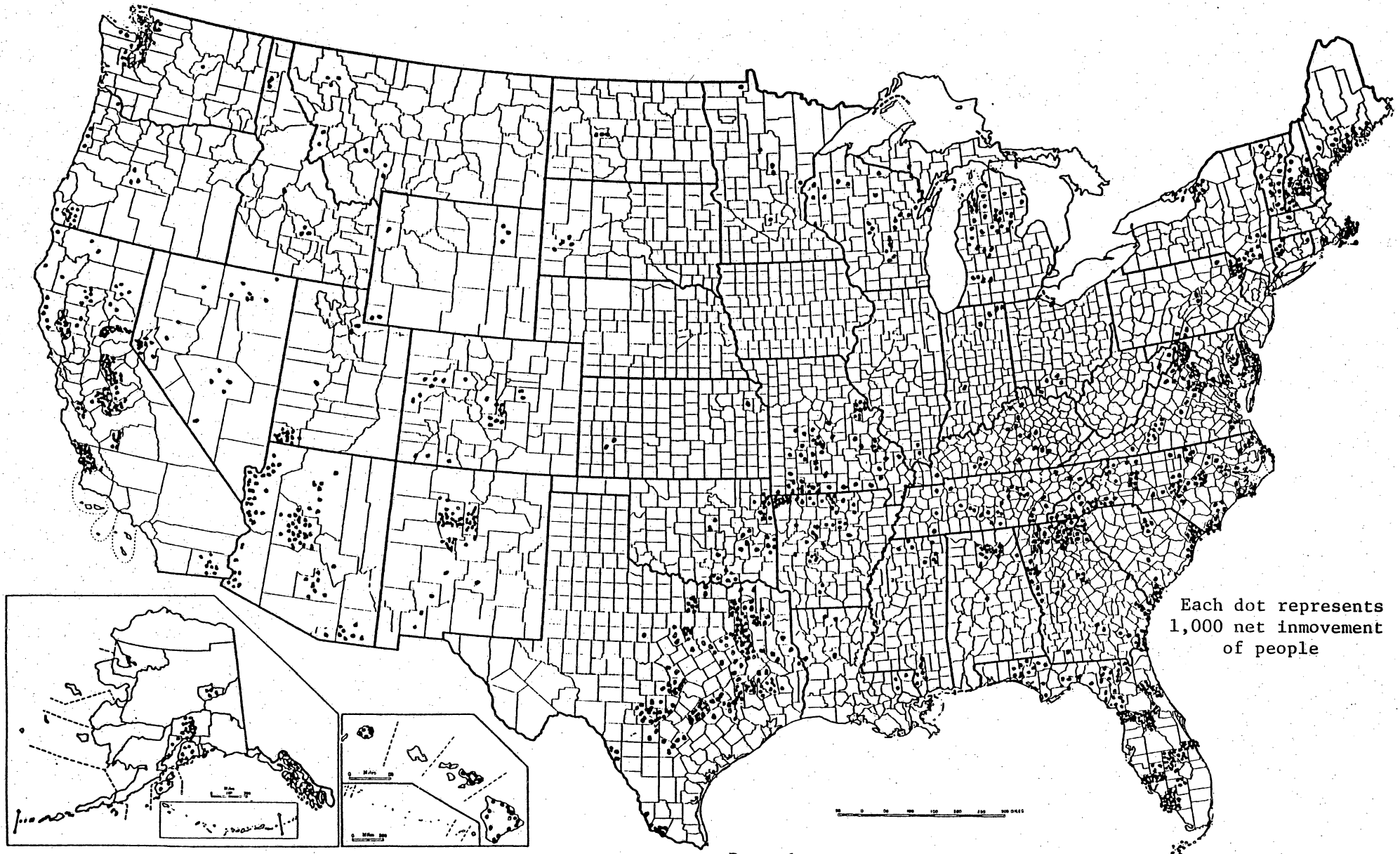
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Fig. 1 NET OUTMIGRATION FROM NONMETROPOLITAN COUNTIES  
1980-1988



Data source: Bureau of the Census  
Prepared by CLBeale, Economic Research Service, USDA

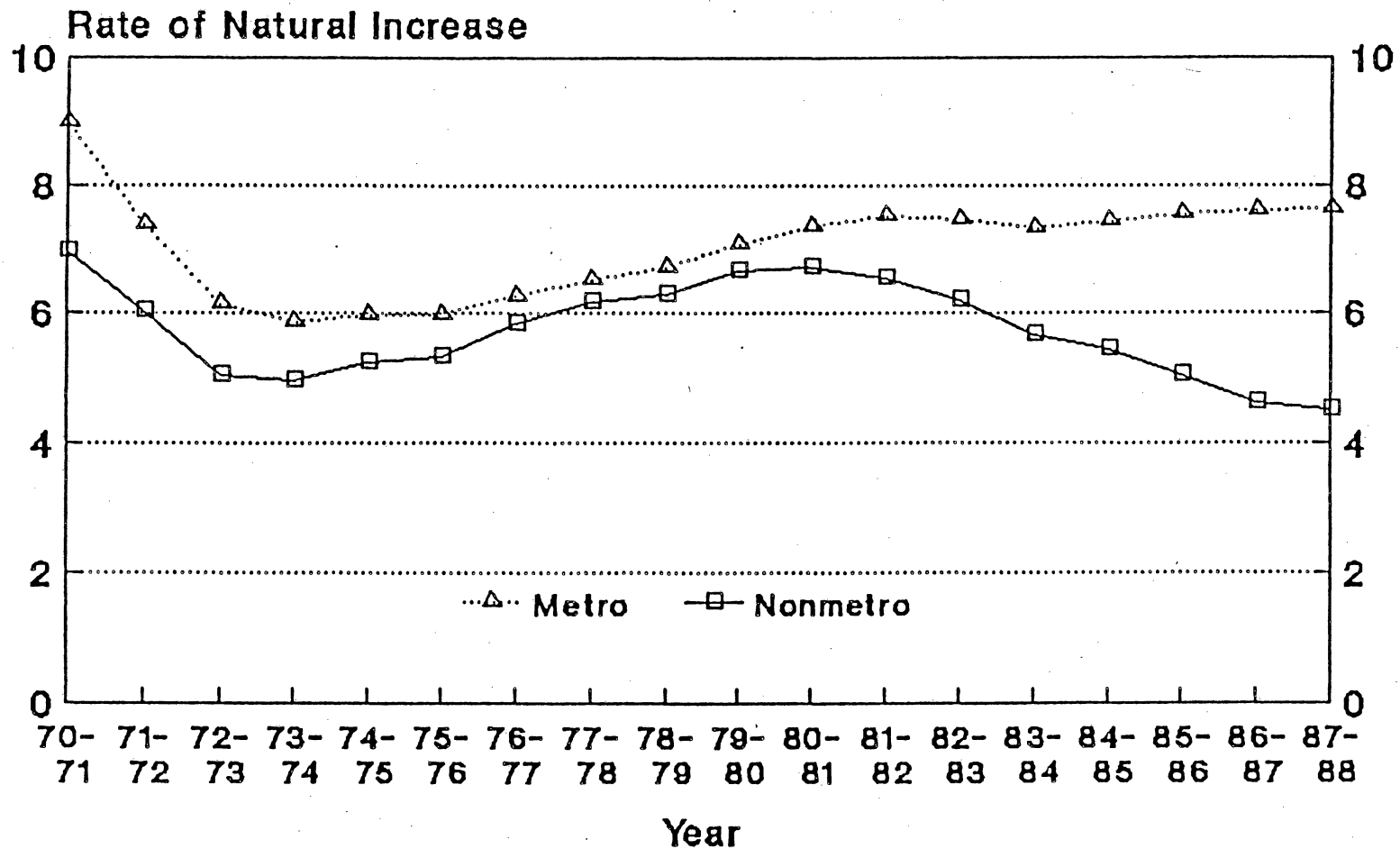
Fig. 2 NET INMIGRATION TO NONMETROPOLITAN COUNTIES  
1980-1988



Data source: Bureau of the Census  
Prepared by CLBeale, Economic Research Service, USDA



Figure 3  
**RATE OF NATURAL INCREASE/1000**  
**METRO AND NONMETRO U.S. 1970-1988**



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CALVIN A. BEALE

A native of the District of Columbia, "Cal" Beale received his education at Wilson Teachers College and the University of Wisconsin. He returned to the nation's capitol to establish his career in government as a demographer, first with the Bureau of the Census, and since 1953, in the United States Department of Agriculture. Currently, he is the Senior Demographer and Head of the Population Section of the Economic Research Service.

Cal Beale's name has come to be synonymous with reliable information on farm and rural population, rural-urban and/or urban-rural migration, ethnic minorities and regional variations of populations in the United States of America. Among his honors is the Distinguished Service Award of the United States Department of Agriculture recognizing his work in interpreting demographic trends related to agriculture and rural life.

The Penn State Press has recently published a collection of Beale's writings under the title: A Taste of the Country, edited by Peter A. Morrison of The RAND Corporation. One reviewer wrote, "His observations and interpretations offer an uncommon 'taste' of this country and the directions of change that are underway."

## M. E. JOHN LECTURE SERIES

The annual M.E. John Lecture is in honor of Macklin E. John (1906-1983), who was head of the Department of Agricultural Economics and Rural Sociology for 23 years, beginning in 1946.

A native of Paw Paw, Illinois, Dr. John earned both the baccalaureate and masters degrees at Iowa State University before entering the doctoral program at Cornell University. Appointed to the faculty at Penn State University in 1936, he was promoted to Professor of Rural Sociology in 1944. He retired in 1971 with emeritus status.

Family and friends have established the M.E. John Memorial Fund. Administered by the University Office of Development, earnings from the investment support this annual lecture which is intended to invite notable scholars in the social sciences to interact with current faculty and students in the Department of Agricultural Economics and Rural Sociology, and to present a public lecture, to be published and made available to interested persons upon request.

The 1990 lecture is the seventh in the series. Other guest lecturers have included C. E. Bishop, L. A. Fouraker, D. A. Dillman, a symposium of recent graduates, F. C. Fliegel, and John A. Hostetler.

Contributions to the M. E. John Memorial Fund may be sent to:

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