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FUTURE ROLE OF SMALL COMMUNITIES: INTERREGIONAL COMPARISONS

By

Wilbur R. Maki

Department of Agricultural Economics

University of Minnesota
Institute of Agriculture
St. Paul, Minnesota 55108

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The future of small communities is linked to the growth of metropolitan areas, not only competitively, but also in complementary ways. In Minnesota, 95 percent of all the incorporated places have less than 10,000 population, but the future of the 95 percent is very much dependent upon the remaining five percent. For some small communities, metropolitan growth means local growth, but for a majority of these communities, metropolitan growth occurs at the expense of small communities.

In much of the interior of this country, from Spokane, Washington to Michigan's Upper Peninsula and from El Paso, Texas to the Canadian border, the majority of small communities are likely to decline and disappear. In much of the American Manufacturing Belt, however, many small communities are likely to grow as a result of the dispersion of industry and population from high-rent and congested metropolitan core areas. Whether growth is a gain or loss, however, depends on the consequences for individual choice and human welfare.

I would like to test some statements about the future of the small community against the criterion of human welfare, by which I mean the quality of human life as measured by per capita income, individual opportunity and social involvement. Ultimately, we return to the productivity of human effort and the ways in which technology interacts

with consumer demands and resource supplies to make possible the attainment of the kind of life that we seek as a community. In short, I would like to know how much the existence or disappearance of small communities increases transportation costs, reduces local resource development potentials, increases business uncertainties, and reduces output? At the same time, how much does the existence or disappearance of small communities increase the options open to people, improve access to opportunity, conserve human and social capital, and increase the variety of human experiences? And to what extent, finally, does the dispersion of population into small communities facilitate communication, feedback and participation -- essential elements in the attainment of social consensus?

While relating the future of small communities to the social goals of efficiency, diversity, and participation, I will refer to the consequences for small communities of differences in the density of human settlement and in the alternative patterns of urbanization. Also, I want to look at the potentials for a national policy on urbanization and the consequences of such a policy for small communities.

Economic Structure and Constraints

The present settlement structure imposes constraints upon the future role of small communities. Two distinctly different patterns of settlement are apparant -- one in the densely-populated coastal areas and the American Manufacturing Belt, the other in the sparsely-populated

Mid-Continent Region. While small communities may be primarily industrial and residential towns in the Manufacturing Belt, they are primarily agricultural service centers in the Mid-Continent Region. Because of difference in their location and spatial position, the futures of small communities differ, also.

American Manufacturing Belt

For much of the American Manufacturing Belt, particularly in Appalachia, the idea of concentrating local economic development at growth poles makes real sense. Economic activity focuses on growth centers -- cities of 20,000 or more people. Surrounding each growth center are local service centers, including small communities of less than 10,000 population.

What differentiates the small community from a growth center, besides population size, is the degree of specialization in high-order services. Central offices of manufacturing and wholesaling businesses, research and development facilities of large industrial enterprises, innovative and rapidly-growing manufacturing establishments, a large university, a medical complex, and other service systems that require a large clientele for their support are found only in the growth center. In the local service centers are the goods and services needed more frequently by more people that are located advantageously in close proximity to the resident. Also in the small service centers are new manufacturing

plants attracted by a competitive site -- not only because low rent, but also access to productive labor and nearby markets.

I would like to lay out the bare bones of an economic region and the place of the small community in the larger regional framework. By superimposing population maps of United States over 10-year periods, some features of a national settlement system begin to emerge, namely, a series of "strip cities", extending from Boston to the District of Columbia, (Boswash), from Chicago to Pittsburgh (Chipitts), and from San Francisco to San Diego (Sansan).^{2/} Also apparant is the westward expansion of the major industrial region of the Nation -- the American Manufacturing Belt, and the emergence of a Southern Crescent extending from Virginia to San Diego. I mention the Southern Crescent as well as the American Manufacturing Belt because much of the population growth since 1960 has occurred in the coastal regions connecting the two sea-board megalopoli.

Significantly, a strip city is emerging also from a coalescing of rapidly expanding urban places in the Willamette Valley-Puget Sound areas of the Pacific Northwest and along the eastern edge of the Rockies. We see the bare outlines of still another strip city joining Kansas City and St. Joseph with Omaha and Sioux City.

Differences in city-forming and city-serving functions, as Alexandersson has demonstrated in his book, Industrial Structure of American Cities, distinguishes the cities of the American Manufacturing Belt from those in the Mid-Continent Region. In the American Manufacturing

Belt, the small community relates to a large urban-industrial center rather than a trade center; in both cases, however, the small community typically serves a hinterland of open-country settlement. Also, strip cities in both regions show a high degree of self-sufficiency in services and market-oriented production generally.

Because of an abundance of financial resources and talented people coupled with a constant stream of new entrants into the local labor force and quick access to expanding local markets, the largest metropolitan focal areas have become centers of invention and innovation -- a thesis held by two eminent students of the American City, namely, Allan Pred^{3/} and Wilbur Thompson.^{4/} Lesser places in the metropolitan-oriented settlement system, according to the Thompson-Pred thesis, provide the backbone and muscle power for producing a vast array and quantity of products in manufacturing plants in which the bugs in both production and distribution have been worked out by talented people in the big cities.

In the American Manufacturing Belt the big city is the growth center of a functional economic area -- a "FEA" using the short-hand of Brian Berry and Karl Fox.^{5/} The FEA, as suggested earlier, is essentially a multi-county commuting field organized around a growth center of 20 thousand population or more, and including 150 thousand people or more within 50 miles or one-hour travel time of the growth center.

Because many growth centers in the Manufacturing Belt are large cities, frequently more than a quarter million population, new industry is seeking the less congested but equally accessible local service

centers, which are of sub-metropolitan status. Thus, the local service centers may grow more rapidly in population than their growth centers as a result of the expansion of their economic base, i.e., the new export-producing manufacturing businesses. Substantial residential development occurs also, both in the local service center and in its surrounding area. A "filling in" process thus characterizes much of the rural-urban landscape in the Manufacturing Belt.

Mid-Continent Region

Turning to the Mid-Continent Region, I refer, first, to Calvin Beale's recent findings based on the 1966 population census of the United States.^{6/} ("Demographic Dimensions of U.S. Rural Economic Policy", Journal of the American Association of Agricultural Economists, May, 1969). Beale notes that the Mid-Continent Region is the only segment of the Nation experiencing a continuation of the high 1950-60 levels of rural-to-urban migration. Both old and young are leaving farms, and young people particularly are leaving small communities, in search of jobs and opportunities elsewhere. Consequently, per capita tax burdens are rising, quality of services is declining, and the efficiency of agricultural enterprise is being threatened.

Great Physical distance is the Achilles heel of Mid-America. A national asset -- wide, open space -- when translated into low population density, is a tremendous local liability. While population density in Iowa is one-half of the Pennsylvania figure, in Montana, it is only 1/10th of the Iowa figure. Population is even sparser in eastern Montana than for the state as a whole -- 2.3 people per square mile as

compared with 4.6 for all of Montana and 49.2 for Iowa. Eastern Montana is roughly the size of the state of Iowa in square miles, but in population it is smaller than an average Iowa FEA, having only 100,000 people.

Because of population sparsity, substantial excess capacity is necessary in all service facilities so that peak loads can be handled adequately. Consequently, per capita costs, even with lower local wage levels, will run much higher in eastern Montana than in Iowa or in the American Manufacturing Belt. Both the growth center and the smaller communities, therefore, might be viewed, as Karl Kraenzel suggests in a recent paper^{7/} (on "Area Development as Exemplified by Sixteen County Cooperation in Sparsely Populated Montana"), as a "multi-legged special service complex" -- a kind of social organization for the sparsely populated places to bring about interdependence between a "depot" center and several "subdepot" communities. Kraenzel points out that "Modern two-way communication would be brought into play so that there can be a quick flow of services of both specialists and generalists to bear on the needs of people where they live". Kraenzel, in his concept of the "multi-legged special service complex," takes strong issue with Berry and Fox in their definition of a functional economic area that focuses on a city of 20 thousand population or more, which is much too large for sparsely-populated areas. What is unique in Kraenzel's proposal is the idea of several small communities sharing in the maintenance of service complex, including the total specialist and generalist services sought by the people residing in the large service area. In other

words, the largest place would not hog the whole thing, but would share the service complex with smaller communities, thus providing these communities with an additional source of income and support for their economic base.

I find the Kraenzel proposal very appealing -- one that has validity in spreading around social wealth so as to reduce the social costs of distance. In fact, I see real merit in the proposal on both efficiency and equity grounds -- efficiency in terms of using existing infrastructure, equity in terms of bringing residents of outlying counties closer to at least one or even two or three specialized services that otherwise would be located in the growth center. I question the concept on two grounds, however: first, a social services complex may represent part of the economic base of individual communities, but it would not substitute for needed vitality in the economic base of the functional economic area, assuming that the same services otherwise would be located in the area growth center; second, it is highly unlikely that the specialized service facilities in the smaller communities can be staffed by even a minimal professional staff.

Only to the extent that we can replace the need for face-to-face interaction by closed circuit TV and other communication technologies and to the extent that we can substitute para-professional help for increasingly scarce specialists, is there any real hope of reducing the poverty of social services that exist today in much of the Mid-Continent Region. Alternatively, we might take our cue from Berry's map of functional economic areas, noting the exclusion of sparsely populated areas

from the national system of urban-centered regions and asking the really tough questions, for example, how much would the Nation really lose, and what would be the incidence of the social costs, if all sparsely-populated areas outside the national settlement system were to revert into open space? What responsibility do the people of this Nation and the states have in reverting sparsely populated counties into open space rather than assuming the additional costs of providing social services in these counties?

Alternative Regional Futures

I would like to see where we are now and the alternative directions in which we might be going with regard to the organization of rural-urban settlement systems in which small communities would work out their future roles. I will refer specifically to several multi-county economic areas in Minnesota where concepts of community-university involvement are being tested by working closely with local groups and people on present needs and the future potentials of rural-urban communities and the regions of which they are a part. First, however, we will lay out some alternatives facing the small community under two headings -- metropolitan concentration and focused decentralization.

Metropolitan Concentration

By metropolitan concentration, I mean a continuation of historic patterns of rural-to-urban migration, but including the recent trend toward lower rates of rural-to-urban migration outside the Mid-Continent Region. For the seven-county Twin Cities Metropolitan Area, for example,

total population would increase by one-million people by 1985, thus resulting in an increase in the state's population residing in this area from one-half to two-thirds of the total. While the Twin Cities metropolitan area would increase by one million, outstate areas would experience a population decrease of 400 thousand. Much of the projected decrease in the outstate population would occur in small communities. Since the western edge of the American Manufacturing Belt touches southeastern Minnesota, the remaining outstate areas must experience even more severe population decline than suggested by the core area-outside totals.

To illustrate the spatial pattern of rural-urban settlement in the Mid-Continent Region, I refer to the percentage distribution of small communities in Minnesota according to their distances from their growth center and the Twin Cities.^{8/} Exactly one half of the 623 small communities having a 1960 population of 200 to 10,000, were located more than 30 miles from a growth center -- an urban place of more than 10,000 population, while slightly less than 50 percent were located more than 100 miles from the Twin Cities. The one-third of all small communities located more than 30 miles from their growth centers and more than 100 miles from the Twin Cities are the ones likely to experience the most severe adjustments to a rapidly declining local economic base. Altogether, more than 200 Minnesota communities are either too far from a growth center to be a place of residence for commuters, and too far from a major metropolitan center to experience the spillover of manufacturing plants seeking low-rent sites and convenient access to major metropolitan markets.

The projected increases in metropolitan area population are entirely feasible, given the capabilities for expanding the capacity of public and social facilities. For example, a metropolitan sewerage district is being proposed as a means of systematically replacing private septic systems that heretofore have been major impediment to suburban expansion. Internal transportation networks are being improved by the opening of new segments of the interstate highway and intrametropolitan expressway systems. Other public facilities are being expanded rapidly in the suburbs of the metropolitan area, while areawide taxing and financing arrangements are being explored as means of supporting future improvements in the innercity itself and in the central business districts of the Twin Cities. Thus, the supply of public services is likely to keep pace with any projected increases in the demand for these services -- admittedly with built-in lags because of the passive nature of public sector responses to new service demands and with rising per capita costs associated with the new service supplies.

What emerges from the assumption of metropolitan concentration, finally, is a projection of a closely knit settlement system made up of a central city of less than a million people and a surrounding area of more than 100 incorporated municipalities and nearly two million people by 1985. The projected poly-nucleated core-area settlement system corresponds closely with present urban patterns in the American Manufacturing Belt. Small communities within the commuting area of the central ways will share much of the expansionary effects of metropolitan growth. While outstate communities will share in the supply of migrants to the core area.

Focused Decentralization

Focused decentralization of metropolitan population and industry to the ring of satellite cities approximately 100 miles from the metropolitan core area is a second future alternative facing small communities in Minnesota. If a tilted square with 100-mile diagonals were centered on the Twin Cities, the principal satellite cities of the core area would be located roughly on the outer boundary. Given a road system following section lines, any point on the boundary would be exactly 100 miles from the center of the square. With the construction of diagonal roads to the satellite cities, of course, the theoretical 100 miles has been reduced by as much as 30 miles in one case. Nonetheless, the tilted square, not only the one centered on the Twin Cities, but also the ones centered on the three outlying focal areas -- Duluth-Superior, Fargo-Moorhead, and Sioux Falls -- helps to identify potential future satellite cities in Minnesota and the Upper Midwest.

Because the three outlying metropolitan focal areas are well below their optimal levels of population and economic activity (i.e., least-cost levels for providing an overall service package), further metropolitan concentration is not being viewed as an appropriate alternative for these areas. For the Twin Cities area, however, dispersion of industry and population to the satellite cities offers one means of coping with the increasing private and social costs associated with rapid metropolitan growth. To illustrate: Suppose that the projected one million population growth for the core area were reduced by one-half, leaving the remaining 500,000 people as potential residents of the

satellite cities and their commuting areas. To achieve the alternative pattern of population and industrial distribution requires that the location advantages of the satellite cities and commuting areas equal or exceed the location advantages of the Twin Cities for both industry and households.

Emergence of multiple urban centers as new focal areas for metropolitan growth is one form of focused decentralization of industry and population. However, two variations of the multiple urban center approach may occur -- the strip city and the new city. Each satellite city, for example, might serve as the terminus of a strip city that originates from the Twin Cities. In the strip city, residential and business development would occur adjacent to the major thoroughfares connecting the satellite cities to the core area. Given the superior access to markets and services, it is estimated that total transportation costs per capita would be reduced by five to ten percent over the levels associated with metropolitan concentration.

Another variation of the focused decentralization alternative is the development of much-expanded service centers or entirely new cities in places that occupy a critical potential link between the major production-distribution centers. For example, Marshall, in southwest Minnesota, site of Southwest State College, lies on the periphery of a 100-mile tilted square centered on Sioux Falls, South Dakota. Presently, Marshall is a small college town serving a 19-county area. Because of its location on an information divide between two metropolitan core areas, it has a potential of becoming a subregional

communication center, serving residents who would find presently divided loyalties converging on a common core area, namely, the future Marshall. Wadena, in west central Minnesota, occupies a comparable spatial position by facing the Fargo-Moorhead and the Twin Cities. To the extent that the spatial position of the two communities makes possible the forging of new linkages in an emerging communications network, the social cost of distance as it affects face-to-face interaction, also is reduced. Again, the economic base for the metropolitan core area is strengthened insofar as the core area will specialize more in the high-order services sought by households and businesses located in the outstate areas rather than in the activities that are equally well located in the satellite cities and their commuting areas.

Settlement Policy Alternatives

Metropolitan concentration, multiple urban centers, strip cities and new towns are settlement alternatives that might emerge as a consequence of the public investment decisions we make today that condition the economic and physical environment for private enterprise. Important, also, is the quest for a settlement system that facilitates social involvement and individual participation in the creation of man's community environment. This is not a plug for environmental determinism but only a reference to the potentials and possibilities of achieving social change for the benefit of man as measured by some key indices of human welfare. I would like to turn, now, to three policy areas for influencing settlement patterns, namely, industrial location, public

services and regional structure. I also would like to view the policy alternatives in the context of a regional environmental system which is amenable to some degree of control and prediction.

Industrial location

A national policy on industrial location is implied in the growth pole concept and the delineation of multi-county functional economic areas on a national scale. In the growth pole concept we are saying in effect that we need to relocate or expand industry outside the metropolitan core areas, but in pre-determined growth centers that are focal areas of multi-county planning and development activities.

In Appalachia, a policy on industrial location is being hammered out in an environmental systems context by a series of steps starting with national economic projections and the role of the region and its subregions in contributing to the projected levels of national economic activity, then going on to an examination of specific location requirements of industries and services that might seek sites in the region, followed, finally, by an appraisal of the location advantages and disadvantages of each area in the region and a matching of industry location requirements and area location advantages.

Appalachia's industrial location policy is advanced, finally, in the context of a public investment strategy that involves a channeling of public funds for infrastructure development as a means of facilitating industrial location in designated growth centers.

To implement the growth pole concept, the Advisory Commission on Intergovernmental Relations (ACIR) offers a series of proposals for

helping communities attract industry.^{9/} Included among the Commission's recommendations are, first, federal incentives for business or industrial location, specifically preferential tax treatment in the form of an income tax credit, preferential financing arrangements in the form of the low market-rate loans granted by the Secretary of Commerce, and location cost offsets in the form of direct payments by the Secretary of Commerce based on capital outlay or operating cost differentials (i.e., costs that would be incurred by a firm locating at the pre-determined site and at a more economically advantageous site elsewhere). In addition, public contracts might be awarded to labor surplus areas, and federal buildings and facilities might be located in furtherance of national policy on urbanization. Paralleled state policies are recommended, also. The recommendations of the National Advisory Commission on Rural Poverty (NACRP) in its report, The People Left Behind, include the use of tax incentives along with a portion of the federal governments procurement expenses and investment expenditures as a stimulant for private investment.^{10/}

Research plans for testing the regional economic consequences of alternative policy approaches affecting industrial location are being supported by the new Center for Urban and Regional Affairs and the Institute of Agriculture at the University of Minnesota. The Center, for example, is supporting a coordinated university-community effort to assess the economic and social development potentials in West Central Minnesota, including the trade offs between farming, outdoor recreation and industrial expansion. Hopefully, the coordinated research effort

will provide the informational bases for assessing alternative courses of action. Eventually, of course, choices must be made that are implemented by appropriate legislation and community support.

Public Services

Another set of policy alternatives affecting the small community concern the provision of social services. Dispersion of economic activity from metropolitan to surrounding growth centers, and consolidation of the public services now located in small communities in a fewer number of places, would result in the potential availability of a wider range in services at lower costs for residents immediately outside the metropolitan focal area and within convenient commuting distance of the growth center where the services are concentrated. Residents in peripheral counties, however, are likely to be worse off over time with the migration of more and more of their local services to the area growth center.

Realizing the importance of proximity and convenience in making use of essential public services, the National Advisory Commission on Rural Poverty recommends the creation of neighborhood service centers located conveniently throughout the commuting area of a growth center. The Commission further recommends that these local service centers be linked with the specialized facilities in the growth center by publicly supported transportation systems. At this point in the policy recommendations of the two advisory commissions, the small community becomes the focus of attention. Because only a fraction of the total number

of small communities will qualify as a neighborhood or local service center, criteria must be developed for selecting the most appropriate communities as local service centers, either as specialized centers in the Kraenzel context or as general purpose local service centers. Remember, increasingly high service performance standards are being demanded of the small community by the emerging state and federal programs for improving the quality of life in all areas.

The Advisory Commission on Intergovernmental Relations views the provision of public services as a means of influencing population movement. For specific examples, I refer to the ACIR recommendations on the establishment of federal-state matching program of resettlement allowances for low-income persons migrating from labor surplus area; provision of additional federal funds for on-the-job training allowances for employers in labor-surplus areas; expansion of the federal-state employment service program; establishment of nationwide computerized job information system providing data on job vacancies, skills, and availabilities; enactment of federal legislation to eliminate or reduce migrational influence of interstate variations in public assistance standards and benefits; and expansion and adequate funding of voluntary programs of family planning for low-income persons. Each of the Intergovernmental Relations Advisory Commissions recommendations would expand public services in specified areas as a means of re-directing population movement to growth centers and local service centers, either from low-income rural areas or low-income urban areas.

Regional Structure

The National Advisory Commission on Rural Poverty went so far as to recommend that the federal government, with the cooperation of the states, should establish regions made up of area development districts encompassing the entire nation. Each area development district would have a present or potential growth center established by an appropriate agency of government. Thus, a national system of development districts is being advanced, with each district having a present or potential growth center and an additional set of local service centers to achieve a further decentralization of low-order services in which proximity and convenience are important considerations in the location of the service facilities. The Advisory Commission further recommends that the area development districts be eligible for comprehensive planning grants from the federal government and that supplementary grants, in addition to the usual federal grants, be awarded to any federally-aided project which is consistent with the comprehensive plans of area development districts. Furthermore, the Public Works and Economic Development Act of 1965 should be amended to provide grants for developing adequate public services and facilities in area development districts afflicted with severe poverty.

In West Central Minnesota, we are concerned particularly with the possibilities of conceptualizing two different resource development approaches -- one organized around growth centers, the other focusing on a common set of resource problems. While the first approach is identical to the one used in Appalachia, the second is a holdover --

and I use the word advisedly -- from the soil conservation days. While public services usually are organized around a focal area that minimizes total travel time for a complete service package, the resource-oriented focal area emphasizes a similarity of economic base strategies for total resource development.

What the new policy proposals point to is a restructuring of the countryside of America through the forging of new inter-community and inter-regional linkages. Within the emerging social-environmental system, the small community has a prescribed role to play. Of fundamental importance is the regional economic base, for declining regions are likely to be full of declining communities, while growing regions will have some communities that also are growing.

Spatial proximity to metropolitan core areas becomes a critical factor in establishing a community's role in regional resource development. Important, also, are community attitudes and the supply-expanding capabilities of community resource managers. Finally, performance standards for social services, which are being pushed upward through medicare and other programs, impose additional constraints for the small community.

Altogether, the economic environment for small community survival is not promising, although it is more promising in the American Manufacturing Belt than in the Mid-Continent Region. The social and political environment, however, may be less restrictive than the economic environment. Much depends upon the specific weights assigned to the social goals of efficiency, diversity and participation -- each of which is a partial measure of human welfare.

FOOTNOTES

1/ Prepared for "Forum on Social and Biological Developments Affecting Human Welfare," College of Agriculture, Pennsylvania State University, February 3, 1969.

2/ As a footnote, we might refer to Boswash as a year 2000 megapolis of 80,000,000 people located in the area between Boston and Washington; Chipitts would extend from Chicago to Pittsburgh and include 40,000,000 people, while Sansan would extend from San Francisco to San Diego and include 20,000,000 people.

3/ Allan P. Pred, The Spatial Dynamics of U.S. Urban Industrial Growth, 1800-1914, M.I.T. Press, Cambridge, Mass., 1966.

4/ Wilbur R. Thompson, A Preface to Urban Economics, Johns Hopkins Press, Baltimore, 1965.

5/ U.S. Bureau of the Census, Metropolitan Area Definition: A Re-Evaluation of Concept and Statistical Practice, Bureau of the Census Working Paper No. 28, Washington, D.C., 1968.

6/ Calvin L. Beale, "Demographic and Social Considerations for U.S. Rural Economic Policy," American Journal of Agricultural Economics, 51:410-427, May 1969.

7/ Carl F. Kraenzel, "Area Development as Exemplified by Sixteen County Cooperation in Sparsely Populated Montana," Prepared for the Seminar on Area Planning in the Great Plains held at Denver, Colorado, September 30 and October 1, 1968.

8/ Wilbur R. Maki and John S. Hoyt, Jr., "Small Communities in Minnesota," Minnesota Agricultural Economist, Institute of Agriculture, University of Minnesota, January, 1969.

9/ Advisory Commission on Intergovernmental Relations, Urban and Rural America: Policies for Future Growth, Washington, D.C., 1968.

10/ President's National Advisory Commission on Rural Poverty, The People Left Behind, U.S. Government Printing Office, Washington, D. C., 1967.