

JOB CREATION IN NONMETROPOLITAN COMMUNITIES -
ISSUES FOR STATE POLICY

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This paper identifies state policy issues that are crucial to nonmetropolitan business development and job creation. What are the issues and choices facing state decision makers in developing the capacity of communities in rural regions to retain and generate employment? The paper will identify the five foundations upon which development is based and the primary issues of state policy in relation to each. Particular attention is paid to the human capital dimension, because many see it as critical to success, and states have considerable influence over it. Finally the focus is on nonmetropolitan communities, the multitude of cities and towns below 50,000 populations scattered throughout rural America, and on the way state policy can influence their development.

Though thoroughly documented (for example, Henry Drabenstott and Gibson, 1986, 1987; Krider and Houston, 1986), the paper will first establish the basic dimensions of the serious rural employment problem and identify the global and technological forces that are buffeting rural economies. Second the paper will assert that scope for nonmetropolitan economic development does exist and will identify broad strategic issues facing states and communities in this regard. Third, it will be argued that five key foundations for economic growth must be present for development and job creation to occur at the community level, and finally that success will depend in part on how well states address significant issues in human resource development.

THE NATURE OF THE PROBLEM

Significant changes have been occurring in the structure of the U.S. economy in recent decades. This is illustrated in Table 1, which shows the

TABLE 1
 U.S. PERSONAL INCOME AND EMPLOYMENT
 BY INDUSTRY TYPE
 % of TOTAL

	1960		1970		1980		1984	
	Per.Inc	Employ	Per.Inc	Employ	Per.Inc	Employ	Per.Inc	Employ
Farm	3.56%	8.30%	2.26%	4.40%	1.45%	3.39%	1.31%	3.16%
Manufacturing	24.51%	25.54%	21.75%	24.62%	19.09%	20.43%	17.02%	18.49%
Service	10.83%	11.22%	12.28%	14.68%	13.04%	19.13%	14.51%	19.77%
Government	11.64%	12.66%	13.88%	15.95%	12.17%	16.36%	11.72%	15.22%
Trade	14.61%	17.32%	13.38%	19.13%	12.14%	20.45%	11.65%	21.08%
Construction	4.96%	4.45%	4.99%	4.56%	4.38%	4.38%	3.88%	4.14%
Mining	1.15%	1.08%	0.83%	0.79%	1.32%	1.03%	1.15%	0.94%
Other	28.75%	19.43%	30.63%	15.87%	36.41%	14.83%	38.76%	17.20%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Source: U.S. Statistical Abstract, U.S. Bureau of the Census; State Personal Income (1929-82), Local Area Personal Income (1979-84), U.S. Bureau of Economic Analysis.

share of each industry sector in the economy for the period 1960 to 1984 as measured by income and employment respectively. Employment in the farm sector has declined consistently from 8.3 percent of total employment in 1960 to 3.2 percent in 1984, in manufacturing from 25.5 to 18.5 percent and in mining from 1.1 to 0.9 percent. Over the same period, services increased its employment share from 11.2 to 19.8 percent.

The impact of this significant structural change has continued unabated (Drabenstott, Henry and Gibson, 1986, 1987):

- 1) nonmetropolitan population growth remains lower, 1 percent compared to 0.8 percent for the period 1980-84, and in the 1980s rural outmigration quickened with nearly half the rural U.S. counties losing population between 1983 and 1985;
- 2) the ratio of nonmetropolitan to metropolitan county per capita income has fallen from 78 percent in 1973 to 75 percent in 1984;
- 3) the education gap between metropolitan and non metropolitan counties has also widened, particularly in relation to postsecondary schooling, as reflected in Table 2:

Table 2
Education Levels
(persons 25 years and over)

Years of School Completed	METRO % Completing	NONMETRO	% Difference
1980:			
12 years or more	68.9%	58.6%	10.3%
16 years or more	17.9%	10.9%	7.0%
1970:			
12 years or more	55.0%	44.8%	10.2%
16 years or more	11.8%	7.3%	4.5%
1960:			
12 years or more	43.5%	34.4%	9.1%
16 years or more	8.6%	5.3%	3.3%

Source: State & Metropolitan Area Data Book 1979, 1986. U.S. Department of Commerce, Bureau of Census.

- 4) unemployment is becoming a persistent problem for many rural regions. In the 1980s, rural unemployment has climbed well above the levels of the 1970s to surpass urban unemployment levels.

The declining manufacturing and agriculture sectors constitute the backbone of the nonmetropolitan economy, with manufacturing being the dominant component of the economic base.

Table 3
U.S. Nonmetropolitan Counties, 1984
Personal Income and Employment Data

	% of Total	
	Personal Income	Employment
Manufacturing	36.37%	39.47%
Trade	16.73%	16.54%
Government	12.73%	13.00%
Farm	11.72%	9.13%
Retirement	11.63%	10.84%
Mixed	5.74%	2.72%
Mining	2.68%	5.71%
Other	2.40%	2.52%
	100.00	100.00

Source: "A Changing Rural America," Economic Review July/August 1986.
Federal Reserve Bank of Kansas City.

At the same time, service jobs were about 15 percent of total rural employment in 1984, compared with 22 percent of total urban employment, and from 1979 to 1984 had increased 24.1 percent in metropolitan and 18.0 percent in nonmetropolitan counties.

In summary, the nonmetropolitan economic structure is overdependent on declining sectors, and significantly underrepresented in the growth service sector. Future job creation will depend on doing better within the existing configuration and at the same time achieving a greater share of the newly emerging economic structure of the future. This will only occur if there is a clear recognition of and adaptation to powerful forces underlying this structural change.

The United States economy is now buffeted by powerful global forces that are beyond domestic control. Both agriculture and manufacturing are

subject to international supply and demand conditions, with long run survival and profitability becoming strongly dependent on efficiency and productivity growth.

Similarly this is the era of the most rapid science and technology change in history, driving an economic transition from the industrial age to the information age. Competitiveness will depend on innovation and entrepreneurship. The most important point however is that these global and technological forces are not temporary in nature, from which relief might ultimately be expected, but rather will if anything become more pervasive and dominant.

The implications for the rural economic base are clear. Agriculture will continue to decline in significance unless it can enhance efficiency through improved production methods based on new science and technology applications, and it can develop new products and new uses for the changing markets of the future. This process of change has been going on in the past, as illustrated in Table 4, and will need to accelerate in the future:

Table 4
Indexes of Farm Input Subgroups, Northern Plains Region, 1950-85
(1977=100)

Year	Farm Labor	Mechanical Power and Machine	Agricultural Chemicals
1957	191	88	9
1967	127	84	51
1977	100	100	100
1985	81	81	127

Source: U.S. Department of Agriculture. Economic Indicators of the Farms Sector Productivity & Efficiency Statistics. 1985.

U.S. manufacturing mix today is changing dramatically from the 'old style', traditional mass production type to a 'new style' innovative, human capital intensive form of production.

"We have, in essence, gone to our strength: innovation. We are making more and more of the kinds of things that require high levels of innovation - such as instrumentation and fabricated metal products - and have relinquished to others the production of items that have not changed a great deal in the past 20 years: automobiles, television sets, shoes, clothing, and paper...The whole point of the process is to substitute brains for brawn...We will produce different products in different ways with an increasingly skilled labor force" (Birch, 1987).

Rural manufacturing is overrepresented in the 'old style' form of production. It tends to be low wage, low skill, repetitive in process for a standardized product. Plant closings and displaced workers have resulted directly from loss of competitiveness and inability to transition to new products and processes. Job creation in nonmetropolitan communities will depend on the suitability of those localities to education intensive, smaller scale, custom product manufacturing based on entrepreneurship and innovation and requiring an adaptive work force and flexible work processes.

Key emerging elements of the service sector that are part of the wealth creating economic base include export services and business services, and these have tended to prosper in the metropolitan areas where greater opportunity is clustered (Howe, 1986). Yet some increased scope for development of these subsectors in particular rural regions might occur if competitive manufacturing development is successfully generated.

ROLE OF THE STATE

What then is the scope for nonmetropolitan economic development to occur? Basically, it is only being realistic to recognize that the potential is limited. Certainly it will vary across communities. It will only be

successful if based upon the economic principle of comparative advantage, that is building upon existing and potential strengths and advantages. For nonmetropolitan communities heavily dependent on the traditional sectors of agriculture and "old style" manufacturing, survival and growth will depend on the development of new processes and the evolution of new products based on the applications of new science and technology to those sectors. This will be complemented by the emergence of new industries, some related to the traditional sectors and serving it, and some that will benefit competitively from a rural location. The service sector will have the greatest scope for additional job creation, while in agriculture and manufacturing new jobs will at best replace old jobs.

The basic question is not whether the focus should be on the retention of existing industry in its present form, or on the abandonment of the existing economic structure for an artificial new one. Rather the thrust is to foster the evolution of the new from the fundamental strengths of the old. While the outcome of economic development is the growth of jobs, output and income, the dynamics of development is the constant adaptation that must be made in the face of a changing economic environment. The harsh reality of the world economic order is that those industries which develop and apply new knowledge and techniques the most rapidly and the most efficiently will be the ones with the competitive edge. It is these industries that will create jobs.

The role of the state is limited, but nevertheless it is also vital. It does not have the capacity or power to conduct a comprehensive industrial policy that makes broad, strategic allocation decisions affecting all aspects of economic development. Nor does the state have control over

commodity markets, tariffs, capital markets, or the money supply. And the state has limited scope to be an active partner in business activity in light of the prevailing philosophy of free enterprise and the traditional perception of the function of state government in our society.

However, the state does have the capacity to establish the preconditions and environment for economic development to occur. This involves:

- establishing an optimum foundation for development (e.g., physical infrastructure, public education);
- fostering productive linkages and interrelationships (e.g., private sector-state cooperation, university-business joint research);
- cultivating a favorable business climate and environment (e.g., tax structure);
- removing barriers and obstacles to entrepreneurship and innovation (e.g., regulatory impact on small business); and
- leveraging resource development through strategic investment (e.g., seed capital, customized training).

This focus on enhancing the multiple underpinnings of development stems of course from the basic premise that rural economies are undergoing structural change and are being buffeted by powerful international forces and technological change. These forces are beyond state and community control, and are not amenable to a 'quick fix' strategy, as exemplified by the tax 'breaks' approach that some states have pursued. Rather the task is to adapt to and build upon these changes and imperatives to forge new economic opportunity out of the old. The approach is pragmatic and it is long term.

THE FOUNDATIONS FOR ECONOMIC DEVELOPMENT AND JOB CREATION

Developing this capacity to underpin economic growth is akin to an investment in capital stock in the sense that both are designed to achieve long term pay-offs. State role and expenditure therefore can be couched in terms of investment in the following foundations of economic growth at both the state and community levels:

1. Infrastructure capital
2. Innovation capital
3. Commitment capital
4. Financial capital
5. Human capital

All five foundations must be present for development to occur, and the degree of success will depend largely on how well they are combined:

"One of the keys to successful economic development is the fostering of synergy among factors: for example, entrepreneurs, venture capital, good universities, high tech businesses, skilled workers, effective training programs, and physical infrastructure. These factors do not operate in isolation of one another; they need to work together in combination with each other, "on the ground" in some specific location. One of the tasks of state strategy is to assure not only that such factors are present in the state, but that they are present in the same location and are working together"(Fosler, 1987).

A primary focus of this paper is on human capital development and job creation. However, this foundation will not in itself foster economic growth. Hence it is necessary to understand the basic dimensions of the other capacities and to identify briefly some important policy issues associated with them before dealing with human capital in more depth.

Infrastructure Capital

Infrastructure capital refers obviously to the physical infrastructure that supports economic activity, including local roads and linkage highways, airports, waste disposal, and sewage. Major issues for nonmetropolitan areas

of a state include the urban-rural distribution of highway maintenance and construction funding, the extent to which the state highway network relates to economic potential, availability of highway pool funds to create or respond to economic opportunity at the community level, and special state support for industrial parks, incubator, and other community development initiatives.

Infrastructure capital has other important dimensions. For example, the social and cultural infrastructure underpins the quality of life in a community and region and an important question could be the extent of state support for the arts and recreation to complement community initiatives. Similarly the public education and post secondary systems are key elements of state and local infrastructure and also underpin human capital development. Finally, for further illustration, the governmental structure in a state at all levels can have a profound influence on the availability and effectiveness of public services and the environment within which business development occurs.

Innovation Capital

Innovation based on science and technology underpins competitiveness and new business development through entrepreneurship. Innovation capital relates to state investment in basic and applied research and development, technology transfer and higher education-business linkages, research parks and incubators, technological climate, entrepreneurial and risktaking environment, and mechanisms to foster state-of-the-art business practices. Major issues here include state aspirations for quality in higher education, level of state support for pockets of research excellence and for

university-business research cooperation, and establishment of mechanisms for industry liaison and technology transfer within the state. Special problems to be addressed include the dispersion of economic activity throughout a state relative to the proximity of the limited number of post secondary institutions with the capacity to support innovation and business competitiveness; and the difficulties inherent in small business entrepreneurship, the backbone of rural development. How do small businesses i) gain access to needed resources, ii) develop the technical capacity required, and iii) be motivated to take risk, so that they can build upon new technological developments and new ideas?

Commitment Capital

Commitment capital refers to the resources, leadership, time and effort that must be devoted to the establishment of productive linkages, interrelations and partnerships at the state and community levels, and to the development of a climate for growth. In the ultimate, economic development in a state will depend largely, though by no means exclusively, on local community efforts, and the key question for the state is how to nourish, but not direct, these activities. Important questions for state officials include whether to force community planning and regional cooperation, to encourage it through rewards, or only to support it if and when it evolves. What mechanisms are needed to foster productive interaction between the private sector and the universities and colleges, business and government, and intergovernmental cooperation, and to foster broader input into economic development policy formation from those sectors? How and to what extent can the state effectively involve itself in local

development efforts? And finally, how can economic development be structured as an ongoing dynamic process rather than as an end in and of itself.

Financial Capital

A fundamental barrier to nonmetropolitan economic development is the lack of financial capital at an appropriate risk-return relationship. There is the problem of availability, and that of accessibility, and the intensity of the problem varies with type of capital and geography. The forms of capital needed at the different stages of a business enterprise include basic and applied research, seed, venture, near equity, working and long term capital. Under normal circumstances, only working capital is pervasive in nonmetropolitan areas although some venture capital may also be accessible through informal local networks. Economic development and job creation will not occur and flourish in rural regions unless all six forms of finance are available to support innovation, entrepreneurship, startup and maturity.

A myriad of questions arise with respect to potential state involvement in financial markets for development purposes. Basically, should the state be involved, and if so where can the impact be greatest? What form should it take--direct, such as the provision of seed capital to support the development of specific new products, or indirect, say through tax credits for research and development expenditure or for seed and venture capital fund development? Should existing financial structures be modified (e.g., state banking systems) to better serve development needs? And given the general sparsity of financial capital in rural relative to urban areas, are additional measures needed to mitigate this imbalance?

HUMAN CAPITAL

Human capital is important to economic development in its own right, it is integral to a comprehensive strategy based on a synergism of the above foundations, and it is central to success.

"The major source of growth in all states is the rate of improvement in the education and skills of the workforce... What states do about education and training must be a central part of their economic development strategy. ...At a time when the importance of human capital is growing, for many, opportunities to acquire it are diminishing" (Roger Vaughn, 1985).

Future jobs in rural America will stem from new style manufacturing and small business entrepreneurship in both manufacturing and services. This has important implications for rural labor demand. First, a better educated work force will be necessary to handle the level of technology and to adapt to its rate of change. Second, global and domestic competitive pressures will require an innovative and entrepreneurial business development and work environment to ensure survival. Third, the change in work processes from repetitive, single product, assembly line to job batch, custom order type production will demand an adaptive, flexible and multiskilled labor force. And finally smaller scale production modes arising from and in conjunction with these forces will necessitate more flexible and team-oriented work place arrangements and new forms of employer-employee relationships.

This changing nature of labor demand has profound implications for labor supply. The rural work force is less educated than its urban counterpart and significantly so in many states. Existing manufacturing in rural America has tended to be predominantly low wage, low skill in nature and hence subject to less employer provided training than more sophisticated urban plants. Further it is often less technological and more labor intensive in its production method. Lastly it is an older workforce, that

is, it is likely to be inherently less adaptable, innovative and flexible in characteristic.

In an era of the rapid technological and competitive change then, the rural labor force is less educated, less trained, less technological, and less adaptable. Some offset to these negatives is provided by its strong work ethic and resulting productivity. However in the long run this qualitative mismatch between the needs of industry and the human capital foundation of the rural work force will widen significantly, further exacerbating current rural job creation trends, unless remedied.

State policymakers have virtually no influence over the nature of labor demand. The level of demand for workers however will depend largely on how effectively a state invests in the foundations for growth, including human capital and in particular how well this human investment can bring the nature of labor supply into match with labor demand. This challenge is difficult enough from an overall state perspective; it will be particularly acute with respect to the rural regions.

There are significant problems with labor supply that will make desired change most difficult to achieve. The human capital dimension is spread across the fields of education, employment, welfare and training, with multiple and independent institutions, mechanisms and philosophies. It is fragmented across federal, state and local jurisdictions, and the public and private sectors. Traditional institutions like Job Service and the colleges can be resistant to change and can tend to be preoccupied and focussed narrowly in their particular domain.

Second the quality of formal education in many rural areas has been influenced by diminishing resources as county tax bases erode and state

budgets in many instances are unable to offset the decline because of struggling state economies. Further, vocational education remains a stepchild in the world of learning in terms of resources and has tended to remain uni-occupational in orientation rather than underpinning the multiskilled nature of today's and tomorrow's jobs.

Furthermore, both vocational education and formal training programs tend to be limited in scale and opportunity in rural areas, due to the lack of a critical mass of potential students and the failure to take advantage of modern telecommunications. Program offerings are also often restricted by the local funding base and the nature of job openings in the local community and immediate region.

Publicly funded programs like JTPA and CETA have been oriented to the unemployed and disadvantaged. While justified on equity rather than efficiency grounds, the scale of these public programs has been too limited to have any significant impact on facilitating the transition of the overall work force through this period of structural change. As well, the focus has been on short duration, single skill training rather than longer, meaningful skill enhancement, and in general these programs have tended to keep people where jobs no longer exist rather than facilitate movement to where new jobs are evolving.

Finally, particular work force groups have been overlooked. Considerable underemployment and hidden unemployment exists among rural women. In a reactive sense, programs have not facilitated the return of women to work after childbearing, and in a proactive sense this important and capable resource has not been built upon in devising development strategy. Further the federal/state effort with respect to dislocated

workers is modest in scale and reactive in nature. There is no concept of the inevitability of dislocation, the trauma of the experience to communities and people, and the notion of anticipation in dealing with it.

The fundamental question facing all states then is how to convert a piecemeal, fragmented and reactive system into a comprehensive, purposeful and effective strategy embracing elements of reeducation, retraining, reemployment, redeployment, and reinstitutionalized delivery?

Within this broad framework, serious policy dilemmas face state policy-makers in establishing the optimum human capital basis for nonmetropolitan job creation:

1. State-wide approaches to economic development tend to be biased to urban areas. General factors causing this include the greater array of opportunities for business development, market inefficiencies due for example to imperfect knowledge, and social bias towards urban facilities. Factors particular to human resources investment include a declining local tax base, strained rural infrastructure, and a dispersed population area for institutions to serve. To what extent should the market-driven equimarginal cost benefit principle, namely the allocation of funding resources to get an equally high return for each expenditure purpose, be modified in favor of rural areas?
2. The state has a responsibility to minimize the distress of structural transition. It is also driven by the imperative to invest resources in the human capital underpinning of future development. Where does the optimum balance lie between transition and development, and can the two be bridged?

3. States universally commit a significant portion of their budgets to education and training, but the share has tended to decline this past decade. What is the optimum allocation of state resources between human capital investment and other key foundations for growth?
4. States fund higher education, post-secondary vocational education, community college education, public education, and training programs related to employment opportunity. What is the optimum mix of these for maximum development?
5. Education and training institutions have the same general characteristics that they had 50 years ago, they are oriented to the youth and disadvantaged segments of the population, and they often exhibit fierce resistance to change. Further, they are generally located where the population resided in that era, rather than where it is today. Yet the next decade will be one of great technological and dynamic change. What mechanisms can be created to ensure institutional responses to these developments and to cultivate the capacity to support innovation and entrepreneurship?

"The human capital dimension of economic development will not be maximized until the powerful education and employment sectors become less protective of their narrow traditionally-defined domains. They must move toward more innovative cooperative efforts aimed at producing a well-educated, well-trained employable workforce" (MacManus, 1986).

6. Related to the above, "By the end of the century, the one occupation career may be history. The rapid pace of technological advance...threatens almost every skill and occupation with obsolescence" (Vaughn, 1985). What fundamental changes does this

mandate for current programs of study and curricula? What special measures are necessary to generate changes in rural, community oriented institutions (community colleges, technical institutes, regional universities)?

7. Nonmetropolitan community development will not evolve through human capital investment alone, but rather through the linking of key foundation elements into a cohesive package. Yet most human resource programs are state funded (or state controlled), and other programs (tax abatement, local physical infrastructure) are local funded. Given that the ultimate focus of development must necessarily be at the local level, how can state funded programs be decentralized for maximum effectiveness?

CONCLUSION

The small to medium size communities in nonmetropolitan America face long term economic decline because of the powerful global and technological forces that are affecting their traditional economies. Survival and growth will depend on the ability of these rural urban centers to establish the favorable conditions and capacity for development to occur. The dynamic of development will be constant adaptation of the old into the new in the face of never-ending change in the economic environment. This capacity for change will depend partly on community action and partly on state policy decisions. The synergism of it all must be at the local level.

The scope for nonmetropolitan economic development does exist. It will depend on how well the communities and the states invest in the appropriate underpinnings or foundations for growth, namely infrastructure, commitment,

innovation, finance, and human capital. All are important, all are necessary, all present major policy dilemmas, with possibly human resource development constituting the greatest challenge.

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