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Spatial Labor Markets, New Economic Geography, and Urban-Rural Linkages: Implications for the Rural South

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ABSTRACT To reach the levels of prosperity in the urban South, rural leaders have a three-fold challenge: to improve human capital, to improve local amenities and to identify the niche of rural communities in the new economic regions of the South, in other words, spatial labor markets will play a key role. The article first reviews key problems facing rural communities in the South that are likely to cause rural earnings-per-worker and employment opportunities to lag behind those in urban centers. Next, examples are given of the types of empirical and conceptual work needed to examine the role that space plays in shaping the performance of rural labor markets in the South. The concluding section provides a summary and a research agenda for understanding spatial dimensions of rural labor markets in the South.

To reach the levels of prosperity in the urban South, rural leaders have a three-fold challenge: to improve human capital, to improve local amenities and to identify the niche of rural communities in the new economic regions of the South, in other words, spatial labor markets will play a key role. The article first reviews key problems facing rural communities in the South that are likely to cause rural earnings-per-worker and employment opportunities to lag behind those in urban centers. Next, examples are given of the types of empirical and conceptual work needed to examine the role that space plays in shaping the performance of rural labor markets in the South. The concluding section provides a summary and a research agenda for understanding spatial dimensions of rural labor markets in the South.

Human Capital -- The Principal Problem Facing Rural Labor Markets of the South

The mainstream view of the most important southern labor market problem is the familiar mantra of education or human capital deficiencies. Sociologists, regional scientists, historians and economists have documented the economic consequences of inadequate investments by southerners in education and training (e.g., Lyson and Falk 1992; Malecki 1995; Cobb 1993; and Wright 1986). Yet the urban South continues to do very well in the regional competition for new manufacturing plants and is fully participating in the evolving service economy. In many urban areas of the South -- places like Austin, Raleigh-Durham, Charlotte, Atlanta, and Northern Virginia -- the South is a world-class competitor for the most advanced service and manufacturing jobs. (See for example, MDC Research Committee 2000, a description of new economy cities in the South).

Extending the human capital thesis, Mathur 1998 argues that investments both in human capital *and in local amenities* are key to sustained regional economic development. Human capital affects growth because it "generates innovation and technical change which in turn defies diminishing returns to labor and (physical) capital, hence driving the regions' growth and development in the long run" (Mathur 1998:48). Amenities enhance the accumulation of human capital at the regional level. Thus, to succeed in sustaining regional economic development policy should be designed to do two things: provide high quality education and training for human resources and provide the kind of local amenities that will attract human capital and prevent a "brain drain" to competing regions.

Often rural amenities can be affected by investments in infrastructure and the role of rural infrastructure continues to be a central concern in the regional development process (Nijkamp 1998). The hard elements, like transportation and communications networks, have received most of the attention in the past, often in the framework of an aggregate production function where they are another input (Aschauer 1989 and Button 1998). But the soft elements (that are the hardest to measure) like the socioeconomic milieu (Hansen 1993), or the

"social capital" of Coleman (1988) and Putnam (1993) are topics that are at the forefront of current regional development thinking (Funck 1998).

However, a third dimension is also important – where will these investments occur? The spatial labor market that reflects impacts of added human capital and amenity investments in rural areas of the South needs to be defined. From the demand side of the labor market, firms will be attracted to spatial labor markets that have highly productive labor. On the supply side, households providing labor will be attracted to places with high amenities (or will require compensation through higher wages). To prosper within these spatial labor markets, rural communities in the South need to recognize where they fit into the dynamics of the spatial labor market of which they are part.

Economic Regions and Rural Niches

Two issues that immediately confront research efforts in identifying how rural economies in the South can prosper in spatial labor markets are: how to define economic development and how to define the spatial labor market that affects a rural area. A practical definition of economic development is a "process of change in employment in a region" (Mathur 1998:4). Employment change is critical for two reasons. First, labor and human capital account for about two-thirds of the share of income in the US, with the other third attributable to physical capital.¹ Second, as a region "develops" it changes its mix of employment as a result of external stimuli (like export demand) and internal investments (like human capital accumulation). So a focus on labor markets fits well with the analysis of economic

¹ This kind of accounting for the sources of economic growth follows the neoclassical Solow 1956 aggregate production function model. As augmented in Mankiw, Romer and Weil (1992), for human capital, labor, physical capital and human capital each contribute about one-third to real output over time (see Mankiw et al. 1992:432). Of course, financial "capital" in this real model only serves as a conduit of savings into investment in physical or human capital and thus is not counted as an independent contributor to economic growth.

development and provides the key question for policy makers -- what makes employment grow in the labor markets of the region? (Mathur 1998:4-5).

However, analysis of labor markets with a goal of understanding why rural areas lag urban areas requires a spatial perspective that encompasses both rural communities and proximate urban centers. A practical solution is to use functional economic regions (FERs) defined using employment commuter sheds. FERs as defined by the U.S. Department of Commerce (Johnson 1995) capture rural-urban tensions within the regional labor market. Most FERs are comprised of an urban center and nearby rural counties -- often with a low skill labor force that has progressed little since World War II (Malecki 1995). It is important to recognize that leading scholars of spatial labor markets give the urban center in these FERs the leading role in promoting regional development:

Economic growth takes place in a matrix of urban regions through which the space economy is organized. The crux of the link between regional growth and modern growth center concepts is that it is cities within the urban system, linked by filtering mechanisms -- not the heartland-hinterland lever in the regional system, linked by export base multipliers, that today organize the economy spatially. The cities are centers of activity and of innovation, focal points of the transport and communication networks, locations of superior accessibility at which firms can most easily reap scale economies of localization and urbanization. They encourage labor specialization, areas specializing in productive activities and efficiency in the provision of services. Agricultural enterprise is more efficient in the vicinity of cities. The more prosperous commercialized agriculture encircle the major cities, whereas the peripheries of the great urban regions are characterized by backward lower-income economic systems. (Berry and Kasarda 1977: 279)

From this perspective, spatial labor markets are simply networks of urban centers -- the rural role in spatial labor markets seems to be only agricultural. But surely this is an outdated view of the key economic forces of change in the rural economy.

How Do Rural Areas Fit Into the Urban System?

Rural areas matter to spatial labor markets or functional economic regions in several ways beyond the traditional role assigned to rural counties as a source of farm goods. First, it has been recognized for over a decade that it is manufacturing that provides the economic backbone of the rural economy (Drabenstott and Gibson 1988) and rural America continues to increase its share of manufacturing activity in the United States (Henry and Drabenstott 1996). Cities shed jobs far along in the product cycle to rural areas with lower land and labor costs. Moreover, innovations in transportation and industrial organization over the past three decades have moved urban jobs in "materials oriented" industries like meat packing to rural areas as transport costs for finished products (frozen beef patties) fell relative to transport costs for raw materials (cattle) as shown in Drabenstott, Henry and Mitchell (1999). Second, some rural areas with high amenities have prospered as retirement destinations and many of these areas are in the South (Rogers 2000).

Third and perhaps most important to the development of lagging rural areas is a strengthening of linkages between urban core growth and change in nearby rural places. The importance of these linkages are suggested in Aldrich, Beale and Kassel (1996) who find that out-commuting exceeds 35 percent of the labor force in 75 percent of the rural counties.

The growing importance of rural-urban linkages is also suggested by the emergence of edges cities in the United States (Anas, Arnott and Small 1998:1430). Is the new urban spatial structure likely to favor residents of the urban core or its rural fringe? Employment and population impacts on rural communities from urban growth have received little attention. This may reflect a focus by urban analysts on city core and suburb with a view of rural places near urban complexes as

simply the next ring out from the central business district (CBD) to be developed. And it likely reflects the belief in the myth that only agriculture matters to rural areas. Ergo, urban growth impacts on rural places often are framed in the context of land use issues like preservation of farmland, greenbelts and conflicts over siting of food processing activities.

However, many rural places have a more fundamental stake in the processes that are forming urban spatial structure. Models of the new economic geography that emphasize the role of agglomeration economies in location decisions of firms suggest that rural places may suffer from urban growth -- especially in regions with emerging edge cities (see, for example, Kilkenny 1998a and 1998b). Moreover, most rural residents depend on service and manufacturing jobs -- just like in urban complexes. Accordingly, rural and urban businesses often compete for the same customers and draw from labor pools that overlap. If urban areas are sprawling into the countryside, do they draw people and jobs away from rural areas or do they spread growth to rural places?

One view is that rural labor is increasingly likely to commute to jobs in "edge cities" of urban complexes. This commuting may maintain the viability of commercial and residential activities in rural towns even as new jobs are lured to urban growth centers of the South. And as rural households become more closely linked to urban jobs, opportunities are enhanced for human capital development in formal educational settings and in job training. In the Mathur model, this means that rural places might focus on providing high amenity residential villages while allowing the urban complexes to provide enhanced opportunities for education and training in the economic region.

Of course, the overriding question is what happens to the rural hinterlands of economic regions as firms build new plants and businesses in the urban core counties of economic regions within the South? The rural concern is that agglomeration economies in urban areas may make problems of high unemployment and low earnings per capita in rural areas more intractable. They may lead to self-reinforcing processes of urban locations by new firms, out-migration of skilled labor from rural counties, and continuing poor levels of investment in education in rural areas. However, there are also likely to be rural places

within these functional economic regions that benefit from urban spread effects to the periphery.

How will improvements in transportation and communications affect rural places? How will rural places within these spatial economic regions fit into the spatial network of urban growth centers of the South? Will urban growth be a substitute or complement to growth in rural labor markets? These questions largely go unanswered suggesting a need to improve the understanding of what constitutes a spatial labor market and how rural areas function within them.

What Are Spatial Labor Markets?

As Barnes and Ledebur (1998) illustrate, there are many geographical levels that qualify as a spatial market. In terms of size they range from multi-country regions like the European Union to city centers and suburbs within metropolitan areas. The importance of intra-regional linkages and the resulting interdependencies of central places (and their proximate rural areas) have long been recognized (Losch 1954; Christaller 1966). These relationships have encouraged regional scientists to view regions as economic systems as opposed to loose associations of economic entities. An appreciation of regionality also has generated interest in determining the appropriate criteria for delineating these economic regions and the means to identify the boundaries of self-contained regional economic activity. The results of such efforts include Fox's (1974) work on defining Functional Economic Areas (FEAs), the Bureau of Economic Analysis' (BEA) Economic Areas (Johnson 1995), and the U.S. Department of Agriculture (USDA) Local Labor Market Areas (Killian and Tolbert, 1992).

Barnes and Ledebur (1998:87) give a contemporary view to the Loschian hexagon. The central business district (CBD) is surrounded by residential villages followed by rings of industrial villages and economic villages. Next, comes the ring of "edge cities" with further rings of residential, industrial and economic villages. Importantly,

The economic region is also the regional labor market.

The productivity of this local economy will be directly
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affected by efficiency of the linkages between workers and jobs . . . Although physical infrastructure is the linkage that is most easily visualized and that perhaps serves best to communicate the image of functional relationships among nodes, other nonphysical linkages are no less important. Among these are service delivery systems such as health, education, and safety; regional financial systems; intergovernmental linkages; and human resource systems. (Barnes and Ledebur 1998:88)

The economist's view. There are many perspectives on spatial labor markets from economics. At the broadest level, the number of regions (cities) and the geographical distribution of economic activity across economic regions (regional labor markets) are modeled. Tendencies for concentration of economic activity between these regions result from interactions of internal scale economies at the plant level, transport costs and mobility of labor and capital. As Krugman, father of the New Economic Geography (NEG), puts it:

Loosely speaking, firms want to *concentrate production* (because of scale economies) *near* markets and suppliers (because of transport costs); but access to markets and suppliers is best where *other firms locate* (because of market size effects). This circular logic can produce agglomerations -- although it is opposed by the "centrifugal" force of agriculture, which provides an offsetting incentive to locate in the region with fewer local competitors (Krugman 1998:166).

At this juncture, think of the NEG as the 'macro' version of spatial economics. However, these models usually consider only two regions -- an aggregate or representative urban region and corresponding rural or agricultural region. The key issue is to determine where economic activity will locate -- in the urban or rural region -- under alternative models of market structure (e.g., monopolistic competition) and an array of assumptions about factor endowments, transport costs and factor mobility. Implications for rural development in the macro spatial economics of the NEG have been examined by Kilkenney (1998a

and 1998b). The NEG may indeed have much to say about how rural labor markets in the South will be affected by the economics of industrial organization, transportation costs and the current spatial distribution of markets and suppliers. However, empirical tests of the hypotheses from the NEG with respect to rural development are rare.

Alternatively, a micro-economic perspective is that a spatial labor market is a search that matches the profit-maximizing objective of the firm with the utility-maximizing calculus of the worker. Space enters the labor market area as a variable that influences the commuting costs of workers. These costs influence both the choice of job and residential location. Firms, on the other hand, trade-off higher wage costs and the transactions costs of prolonging the vacancy period for needed employees. (See Rouwendal 1998, for example.) This, in turn, influences where within a region that a firm decides to locate a plant or business. In rural locations, wage costs may be lower but the labor supply is "thin" making it more difficult (and costly) to find replacement workers.

A related micro view of how spatial labor markets work that incorporates some "messy" cultural realities is the spatial mismatch thesis (see Kain 1968) which examines spatial labor markets from the perspective of constraints on the worker's search choices of where to work and live. Given the increased mobility of the rural worker and the development of edge cities, it is a natural extension to look at spatial labor markets with urban and rural components using similar tools. In southern rural labor markets, there is some evidence that decentralization of jobs from the urban center to the suburbs opens new opportunities for commuting to the suburbs from rural communities (see Barkley, Henry and Bao 1996). This may put urban center residents at more of a disadvantage as jobs at the urban fringe are absorbed by rural residents near the fringe -- making the "inner" city problem more acute. Inner city residents of the South also have a stake in rural development.

The linkages between urban center and suburb is the concern of Voith (1994) who offers a neoclassical view of suburb and central city interdependencies in wages (income), rental rates (housing values) and employment (population). He finds that cities and suburbs are complements. Higher central city income

results in higher suburban income. The suburbs have a stake in how well their central cities do. He concludes that:

both cities and suburbs could improve their welfare through cooperative action to arrest urban decline. These actions might include regional financing of social service programs, regional efforts to improve educational opportunities for children in poor quality districts, and the elimination of large differences in local tax rates, especially taxes on mobile factors like labor. (Voith 1994:21)

Again, it is reasonable to extend this analysis to the urban fringe and proximate rural communities. Although it is difficult to overcome political efforts to expand the tax base of a community by landing the "big one" at the expense of nearby communities, economic region efforts along the lines suggested by Voith might exploit complementary relationships between urban core, fringe and rural income growth.

Summary

Spatial labor markets can be visualized from a micro perspective as an economic region along traditional Loschian dimensions. There are urban and rural components of this labor market that exhibit strong interdependencies and complementarities in the process of regional economic development. Human capital accumulation and amenities are critical to the sustained economic development of places in these regions. Cultural biases, housing policy, rural transit, local tax and government spending programs on education and other public services play important roles in determining community winners and losers as the regional labor market develops.

These statements can be viewed as hypotheses drawn from some current "micro-perspectives" on what makes employment grow in a region. Each hypothesis applies to rural southern communities and the spatial labor markets to which they belong. Each hypothesis can be subjected to empirical tests and understanding of the importance of these forces of change vis-à-vis the more traditional views that what matters for regional

growth are export demand (North 1970), labor supply shifts (Borts and Stein 1964), or the product life-cycle (Vernon 1966).

Alternatively, the New Economic Geography (NEG) suggests that what matters to regional growth are synergies between scale economies at the plant level, changes in transport costs and market size effects -- yielding a tendency for economic activity to cluster in densely populated cities at the expense of rural places. In the next section, spatial dimensions of southern rural labor markets are examined from this macro or NEG perspective. What can the New Economic Geography tell us about how spatial labor markets work -- particularly in defining the long-term prospects for rural labor markets in the South?

Spatial Labor Markets and the New Economic Geography

On the broadest or macro scale, the New Economic Geography explains both the location choices of firms, labor and the number of places (cities). Can the NEG offer insight to problems of rural development? Consider first the recent work by Kilkenny (1998a; 1998b). In part, the Kilkenny papers are a rebuttal to the consensus view of most other NEG modelers that the mutually reinforcing forces of lower transport costs, scale economies and market size effects will always promote the concentration of economic activity in cities at the expense of rural areas.² Kilkenny shows that once land rents are introduced into the models, rising urban land rents play a dispersive force. As urban land rents increase with proximity to the urban center and increased competition for fixed urban land resources, these added costs may offset the other *production cost* reducing benefits from localization and urbanization economies (together these comprise agglomeration economies). Examples of agglomeration economies that lower average production costs in urban areas compared to rural areas are: "deeper labor markets" or labor pooling that provides lower transactions and labor costs

²Before challenging some of the conventional wisdom of the NEG models, Kilkenny makes the important, but often overlooked, point that unfettered market forces will likely generate a spatial distribution of economic activity that is sub-optimal in terms of national welfare levels. Ergo, the need for rural development policy.

in urban areas³; lower input costs from supplying industries as these industries achieve scale economies; and spillovers of knowledge that are more likely in urban areas (Killkenny 1998b:265).

While some transport cost reductions favor rural areas in these NEG models, Killkenny (1998b:276) concludes that when confronted with agglomeration economies that are urban oriented, one option for rural areas is to achieve positive externalities that will have the effect of raising the real wage of rural workers. Importantly, this means that of the four ways of raising real wages -- increased nominal wages, lower rural prices, subsidies and higher positive rural externalities -- only improvement in the "quality of rural life" does not repel firms (via lower prices) or raise land rents or provide windfalls to owners of fixed capital (subsidies). Interestingly, this call for enhanced local rural amenities dovetails very closely with the dual strategy that Mathur (1998) views as key to regional labor market growth. Killkenny's model simulations offer the commonsense (and empirically testable) hypothesis that "Rural locations can be attractive to firms when the combined costs of supporting a rural workforce and transporting output is lower than the cost of supporting an urban workforce." (Killkenny 1998a:310).

Finally, consider the role of large cities in spatial economic processes -- as an alternative to rural, low-density places. Glaeser's (1998) view is that:

All of the benefits of cities come ultimately from reduced transportation costs for goods, people, and ideas. The positive impact of agglomeration that comes from reducing the costs of moving goods lost most of its importance over the 20th century as transportation costs fell and large scale manufacturing declined. The costs of moving people and ideas, however, appear to be as

³From the labor supply perspective, labor pooling reduces the risk of long periods of unemployment since if fired from one firm, a person is more likely to find employment in an alternative firm in the same industry. So urban clusters of plants/firms reduce risks of unemployment to individuals. From the firm perspective, search costs for new employees are reduced in urban labor markets that provide larger pools of labor with given skills than are available in rural places.

important as ever. The future of the city's productivity depends on whether available substitutes for face-to-face interactions (e-mail, the internet, and so on) will make the need for personal contact obsolete, or whether the new technologies harbor the dawn of a more interactive era where the ability to contact in person easily is particularly prized. (Glaeser 1998:140)

If the need for personal contact is made obsolete through the new technologies, and the need for high-density cities declines, does this imply a rural boom? Will people and firms increasingly seek places in the rural landscape -- a nation of lone eagles? This seems unlikely but does suggest that high-amenity rural (low-density) places may be well positioned to prosper. As Kilkenny suggests, if rural places, that are now the low-density clones of the towns down the interstate, can become distinctive and offer a variety that is appealing to firms and labor, they have a good chance of establishing a desirable niche in the economic regions of the future. Mathur (1998) agrees. An amenity strategy can promote human capital accumulation over the long run and together sustain development of the regional labor market performance -- high per capita incomes and low unemployment rates.

What are high-amenity rural places? How have they fared compared to the dull clones? If high amenities are reflected in lower local wages and higher rents as in Roback (1982), do these price effects make the dull town clones equal to the high-amenity places in the eyes of firms and labor? Valid research questions for rural development analysts as they build empirical models of spatial labor markets.

Empirical models of regional development often reflect the interdependencies between household residential choices and firm location decisions. This view is well established as a result of work on identification of the direction of causality in the "jobs follow people" or "people follow jobs" literature (Steinnes and Fischer 1974). To account for this interdependency, Carlino and Mills (1987) construct a two-equation simultaneous system. Underlying wage and land price structural equations are not specified since variation in amenities across space are assumed to be capitalized into local wages and rents (see Roback 1982). Use

of amenity variables in the two-equation system reflects these wage and rent effects across space. However, the use by Carlino and Mills of county-level data for both population and employment equations raises another specification issue -- the mismatch between where people reside and where they work. Boarnet (1994) corrects for the spatial mismatch between residential and employment zones in the Carlino/Mills model. Henry, Barkley and Bao (1997) modify Boarnet's model to include urban growth influences on nearby rural places. Labor market variables should represent the locus of employment opportunities within a commuting range of each rural community that a household is considering as a place of residence - not just the employment opportunities in that same community. From a firm's perspective, the size of the residential zone (potential pool of labor) around each rural community that the firm is considering for a new plant or business is the proper geographical unit -- not simply the population of the rural community it is considering. The Boarnet model corrects for this specification problem in Carlino/Mills. However, Boarnet ignores the possible urban spread and backwash effects on rural areas from cities of differing size and growth rates. Thus, the Boarnet model can be modified to capture these possible urban size and growth effects on rural communities as shown in Schmitt and Henry (2000), Henry et al. (1997), and Henry, Schmitt and Piguet (Forthcoming).

Concluding Comments

What We Think We Know About Rural Places in Spatial Labor Markets of the South

Rural communities are not isolated colonies left behind in the economic regions of the new South. They are affected by international competition for low-skill jobs in mature industries like apparel and textiles and are often losing. They are in competition with urban centers of the South for jobs in other manufacturing industries from automobiles to pharmaceuticals and in some cases are holding their own. Rural communities that are proximate to (within commuting distance) to the urban fringe seem to be benefiting from urban spread. Rural communities that

are endowed with natural resource amenities (mountains or beaches) can survive as service centers for tourists and retirees.

We also know that mean earnings per capita and employment rates in rural communities tend to be low compared to nearby urban places -- the rural component of the spatial labor market continues to lag behind its urban counterpart. We know that earnings and employment levels in the long run reflect investments in human capital and that the payments to labor and human capital represent about two-thirds of the total factor income earned in the United States. Longstanding under-investment in southern human capital means that per capita incomes are now low in rural areas. Even if rural residents have invested in human capital, the demand for high-skilled employees is thin in rural areas implying a rural to urban "brain drain." Racial tensions in the past have limited the extent of 'civic engagement' that social capitalists like Putnam argue are key to development of a local milieu that is needed to foster a climate that values human capital and local amenities. Without local amenities, human capital is difficult to attract and sustain. Without the accumulation of new skills and ideas, rural communities will be stuck in a low-level equilibrium of low rates of earnings and employment compared to urban centers in the economic regions of the South.

What We Need To Know About the Rural Niche in the Spatial Labor Markets of the South

External economies and rural growth. Research is needed to identify the type of externalities that attract firms to clusters of economic activity. Are the external economies based on narrow industry groups or are they broad-based spillovers between a wide range of local industries? See Zhang, Henry, and Barkley (1997), for evidence in the rural South. Gibbs and Bernat (1997) find that rural wages are higher in industry clusters. However, Gale (1997:17-18) finds that wages for production workers in the rural parts of the South Central region are 11 to 12 percent below national averages and urban wages are about 5 percent above the U.S. average, controlling for industry mix at the three-digit Standard Industrial Commission (SIC) level. These findings together suggest that rural areas in the South can compete

effectively with urban areas on a labor cost basis for expansions in manufacturing jobs. Research is needed on which industries in the South are well positioned vis-à-vis urban areas and low-cost foreign areas to compete on the basis of cluster externalities and labor productivity and which industries will likely continue to seek low-wage labor.

Rural opportunities to expand based on external economies in a network of urban and rural firms within economic regions are largely unknown and potentially important if agglomeration effects are strong -- either within a narrow industry or across broad groups. Anecdotes exist about firms in Charlotte expanding into the South Carolina hinterland (Lancaster County). We need to know where and with what kinds of industries rural areas benefit from urban spread in economic regions. Industrial and geographic specificity in backwash effects from urban to rural are also unknown.

Finally, the relative importance of plant scale economies, transport costs and external economies to location in rural areas is largely unknown except from very stylized models that assume alternative parameter values. Indeed, in which industries do external economies (like labor pooling and knowledge spillovers) outweigh transport and scale economies in favoring urban locations? In which industries should rural areas have the advantage?

Does size matter? Because rural places often have limited local labor pools, it is important to understand the size distribution of firms or establishments that are most likely to fit with available labor supplies within commuting ranges around rural places. It is also important to know the kinds and establishment size ranges that might prefer a rural location as a supplier to plants in urban core or fringe areas of their economic region.

Human capital and knowledge spillovers from urban to rural. Does human capital accumulation really matter to rural labor market performance? Simon (1998:240) found a strong positive relationship between "employment growth and the average level of human capital across U.S. MSAs [Metropolitan Statistical Areas] over the 1940-86 period." Interestingly, he also found spillovers from MSA human capital and employment growth in cities within the MSA. Surely, answers to these

questions are important for understanding how human capital has affected rural communities within economic regions. Rural niches in labor pools, linked industries and knowledge spillovers within economic regions are largely unexamined.

Edge cities and rural villages. Is urban sprawl good for the rural communities in the economic region? As urban jobs move from the core to the urban edge, will job opportunities expand in nearby rural villages? Can this spread of development substitute for smokestack-chasing by rural development practitioners?

Can social capital be developed between urban and rural communities of the South? One view of social capital is that it represents "the stocks of social trust, norms, and networks that people can draw upon in order to solve common problems" (Lang and Hornburg 1998). Leadership training for rural leaders seems to be an attempt to foster social capital within rural communities. A difficult task; but even if successful a narrow rural community perspective is unlikely to tap the networks of nearby urban places that may be critical for rural development. Paraphrasing Voith (1994), both cities and *rural communities* could improve their welfare through cooperative action to arrest *rural decline*. These actions might include *regional* financing of social service programs, *regional* efforts to improve educational opportunities for children in poor quality districts, and the elimination of large differences in local tax rates, especially taxes on mobile factors like labor (see Voith 1994:21). Can institutions and social forces play a critical role in the adaptability of rural labor markets to changes in external forces?

In conclusion, the long run performance of rural places within southern spatial labor markets are likely to reflect connections between community social capital, quality of life (amenities), and human capital accumulation. Echoing the conclusions of several authors, rural labor markets are likely to prosper if they promote high quality public services, human capital investments and local leaders can identify and exploit their niche - their local "variety" or comparative advantage in the spatial labor market.

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