RURAL-URBAN INTERDEPENDENCE: WHY METROPOLITAN AND RURAL AMERICA NEED EACH OTHER

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I. Introduction

The Metropolitan Policy Program at Brookings has launched a three-year initiative to promote national prosperity by building on the assets of America's metropolitan areas. The *Blueprint for American Prosperity* will present an integrated policy agenda, coupled with specific recommendations for federal policy reform, aiming to help metropolitan areas leverage their economic strengths, create opportunities for a strong and diverse middle class, and grow in environmentally sensitive ways (Brookings 2007).

Often lost in debates about the future of cities and metropolitan areas, however, is any substantive discussion as to where rural regions and people fit into the picture. One in six Americans lives outside of metropolitan America, including those in micropolitan areas. Another one in six lives in small and mid-sized metropolitan areas, outside the 100 largest metro areas that form the primary focus of Brookings' Blueprint initiative.

As this paper argues, there is a high degree of connectedness and interdependence between metropolitan and rural America. No bright lines separate the two types of areas, either geographically or economically. If metropolitan America is to drive national prosperity, metropolitan areas will need a healthy and sustainable rural economy and culture. Likewise, if rural America is to flourish, it will surely depend upon vibrant, well-functioning cities and suburbs. To that end, this paper briefly makes four basic points:

- Despite official definitions that distinguish urban from rural, and metropolitan from nonmetropolitan, the realities of settlement, commuting, and migration patterns suggest a far more complicated interface in which much mixing occurs among urban and rural populations, and rural areas themselves exhibit a great deal of diversity

- International research, especially in the developing world, has recognized the complicated human, market, environmental, and functional interactions that link urban to rural areas, especially at the so-called "peri-urban" interface where urban meets rural

- Leading thinkers on strategies to achieve greater rural prosperity emphasize the value of strengthening productive ties between rural and urban places, implying the need for efforts to preserve rural natural resources; improve labor market connections (including through technological infrastructure); upgrade education in rural areas; and ensure that America's rural economy keeps pace with changing metropolitan demand at home and abroad

- America's rural and urban areas share many degrees of interdependence; rural areas provide critical consumption goods for metropolitan consumers, such as food, energy, lower-cost land and labor, and unique experiences; metro areas constitute the end market for rural production; provide specialized services; offer diverse job opportunities; and generate resources for public and private investment in rural America

II. A Question of Definition

To begin exploring the interdependence of "rural" and "urban" or "metropolitan" areas, one must first define these terms for both practical and policy purposes. The U.S. Census Bureau and the White House Office of Management and Budget (OMB) provide the two primary starting points.[1]

According to the Census Bureau, *urban areas* comprise larger places and the more densely settled areas around them, and are of two types: "urbanized areas" and "urban clusters." Urbanized areas are those with an urban nucleus of 50,000 or more people with a core having a population density of 1,000 persons per square mile and adjoining territory with at least 500 persons per square mile. In 2000, there were 452 urbanized areas in which 68 percent of the US population lived. Urban clusters have populations of more than 2,500 and less than 50,000; 11 percent of Americans live in 3,158 urban clusters. The rest of the country that is not urban—open country and settlements of fewer than 2,500 people—the Census Bureau defines as rural, home to 59 million or 20 percent of the US population in 2000.

The Census Bureau's methodology implies a bit of a false dichotomy between these two area types. As Andrew Isserman (2005), a leading regional economist at the University of Illinois, notes: "Under the system of the U.S. Census Bureau, we define urban very carefully and precisely and designate as rural that which is not urban. This separation of territory into town *or* country, urban *or* rural, leads us to define rural simply as homogenous with respect to not being urban" (p. 465).

A separate but overlapping concept concerns *metropolitan* America. OMB defines Metropolitan Statistical Areas (MSAs) as central or "core" counties with one or more urbanized areas, and outlying counties that are economically tied to the core counties as measured by work commuting. These outlying counties are included if 25 percent of workers living in the county commute to the core counties, or if 25 percent of the employment in the county comprises workers coming from the central counties. The definition of metropolitan areas thus blends information about settlement patterns with information about commuting patterns.

Counties not classified as existing within metropolitan areas are often referred to as *nonmetropolitan* or *nonmetro* counties; these in turn are further divided into *micropolitan areas* centered on urban clusters of 10,000 or more persons, and all remaining *noncore* counties. Over 232 million people live in metro counties, 29.5 million in micropolitan counties, and 19 million in noncore counties. Under this system, Isserman (2005) observes, "We define metropolitan very carefully and precisely, beginning with an urban area at the core, but then we use the word rural indiscriminately as a widely adopted synonym for places both urban and rural, that are not within metropolitan areas. In short," Isserman continues, "rural is used in two different overlapping and often contradictory ways, always defined by what it is not—not urban, not metropolitan" (p. 466).

In fact, for many purposes the nonmetro classification is used as the principal means of defining rural America. However, an analysis of Census 2000 population by Kathleen Miller (2006) shows, among other things, that more than half (51 percent) of all rural residents, amounting to over 30 million people, live in metro counties, and that 41 percent of the nonmetroplitan population (over 20 million residents) is urban.

Official definitions of what is urban and what is rural thus conceal a much more complex picture of population distribution. In order to obtain a glimpse of this picture, some have attempted to create more nuanced classifications. Isserman (2005) proposes a new urban-rural density typology based on elements of the Census and OMB systems which divides counties into four types: rural, urban, mixed rural, and mixed urban. Under this typology, 10 percent of the US population live in rural counties, 31 percent in mixed rural, 15 percent in mixed urban, and 45 percent in urban.

The Economic Research Service (ERS) of the U.S. Department of Agriculture has devised a number of additional methods to measure degrees of rurality.[2] These include "rural-urban continuum" codes that distinguish metro counties by their population size and nonmetro counties by their degree of urbanization and adjacency to metro areas. Another method defines "rural-urban commuting areas" (RUCAs) that use Census Bureau urbanized area and urban cluster definitions combined with work commuting information to create 33 categories of rural and urban census tracts.[3] ERS' "county typology codes" attempt to recognize the heterogeneity of rural and urban counties according to their primary economic and social characteristics.[4]

Other commentators have taken up this notion of complexity and diversity across the urban-rural spectrum by devising settlement typologies of their own. For instance, Karl Stauber (2001) divides rural America into four categories:

- **Urban periphery**—rural areas within a 90-minute commute of urban employment, services, and social opportunities

- **Sparsely populated**—areas where population density is low and often declining, and isolation limits the demand for traditional services, employment, and social opportunities

- **High amenity**—rural areas of significant scenic beauty, cultural opportunities, and attractiveness to wealthy and retired people

- **High poverty**—rural areas characterized by persistent poverty or rapid declines in income

In a recent report to the National Rural Assembly, the Carsey Institute (2007) paints a somewhat gloomy but not inconsistent portrait of “three rural Americas:”

- **Amenity-rich areas**, which are growing as baby boomers retire, as more people buy second homes, and as “footloose professionals” choose to settle in small towns with rich natural amenities or proximity to large cities

- **Declining resource-dependent areas**, which can no longer rely on agriculture, timber, mining, or related manufacturing industries to support a solid blue-collar middle class

- **Chronically poor communities**, where decades of resource extraction and underinvestment have left a legacy of poverty, low education, and broken civic institutions

Finally, it is useful to stress the importance of definitions in the policymaking process. A simple split between metropolitan and nonmetropolitan, urban and rural, shows a rural population of about 60 million; a more nuanced approach that recognizes the complexity of rural-urban relationships, as presented by Miller (2006), pushes the number closer to 90 million. This has obvious implications for the political power of rural versus urban regions, and on the related distribution of public resources.

III. The International Perspective

As new Brookings research relates, many of the United States’ global competitor nations think about, and leverage through policy, the heavily metropolitan arrangement of their economies (Berube 2007). Heightening this focus is the recent U.N. finding that for the first time, more than half the world’s population lives in urban (metropolitan) areas (United Nations Population Division 2005).

Even in the international context, however, urban-rural connections remain understudied. A wide-ranging literature review by Simon Snoxell (2005) concludes that there is no body of research specifically focused on linkages between communities, nor is there a prevailing analytical framework for understanding these linkages. He does suggest, however, that research on urban-rural linkages in the *developing country* context is relatively advanced and may be a useful source for scholars. He notes that this research integrates economic, environmental, social, and cultural linkages; challenges traditional dichotomies between urban and rural milieu; and confirms the view that such dichotomies are unhelpful in understanding linkages between communities.

Certainly in the view of the United Nations Human Settlements Programme (UN-HABITAT) the debate about the policy distinctiveness of rural and urban areas is over.

> The old orthodoxy of a discrete and dichotomous approach to urban development as distinct from rural development no longer accords with reality, considering the complementary functions and flows of people, capital, goods and services, employment, information and technology between the two areas. Rural and urban areas are economically, socially and environmentally interdependent (Okpala, 2005)

Cecilia Tacoli's review of the international literature on rural-urban interactions (Tacoli, 1998) provides some insights into the dimensions of this debate. She observes that although a distinction between "rural" and "urban" is probably inescapable for descriptive purposes, the reality is much more complex. The varied ways in which different countries define what is urban and rural, the impacts that cities have on surrounding rural areas through their ecological "footprints," and the nature of economic and social exchanges are factors at the heart of understanding the important of rural-urban interactions. Tacoli describes four main types of interactions: flows of people, flows of goods, flows of wastes, and sectoral interactions.

- Flows of people and their impacts on destination countries and communities raise many politically contentious issues. The neo-classical perspective suggests that migration decisions are made by individuals seeing the comparative advantages of other places, in particular the possibility of improved economic opportunity. Structuralists, on the other hand, see migrants as victims forced by circumstance to move from unacceptable or hopeless situations. Both cases assume that migration patterns are primarily from rural to urban, and particularly to large metropolitan areas, although there is some evidence of return migration to smaller cities and towns.

- Market interactions form a critical aspect of rural-urban linkages. Government policies that invest in production-related infrastructure such as energy, water, and transportation that better link rural and urban areas are seen as essential to rural development. The boosting of agricultural productivity and non-farm jobs in rural areas can be achieved through opening up market access to urban economies.

- Flows of wastes from urban to rural areas are a worldwide phenomenon. Water pollution, loss and degradation of farmland through urban expansion, soil erosion, threats to forests, coastlines, and marine ecosystems from disposal of toxic wastes, air pollution and acid rain from urban industries, power generation, and motor vehicles, are among the long list of flows that position many rural areas as dumping grounds for urban wastes.

- Sectoral interactions refer to urban functions that are carried out in rural areas, such as non-farm manufacturing and services, and rural functions carried out within urban areas such as urban farms. They also include so-called peri-urban areas, where urban and rural functions occupy the same geographic spaces on the edges of metropolitan areas, and where the intensity of rural-urban interactions—both positive and negative—is greatest. It is in these places where there is greatest pressure on land and rural livelihoods and where public policy is generally ill-equipped to deal with the consequences.

Allen and Dávila (2005) define this peri-urban interface as:

> …where urban and rural activities meet. Peri-urban areas are a mosaic of agricultural and urban ecosystems, affected by the material and energy flows demanded by urban and rural areas. They are socially and economically heterogeneous and subject to rapid change. Small farmers, informal settlers, industrial entrepreneurs, and urban middle class commuters may all coexist in the same territory but with different and often competing interests, practices and perceptions.

Garrett (2005) suggests the need for new language and new typologies to distinguish differences in livelihood strategies and conditions *within* urban and rural areas as well as between them. He argues that there needs to be more focus on “systems” and less on “sectors,” paying more attention to economic activity and urban-rural integration within regional economies. Such a regional approach would provide the context for thinking more holistically about the roles that areas along the rural-urban spectrum can play. He concludes:

> Holding up a rural-urban lens to development is useful for illuminating new ways of thinking about development strategies and about urban and rural transformations, particularly as urbanization and migration continue, as rural livelihoods diversify, and as the agriculture and food system becomes more complex. Both rural and urban livelihoods can benefit from this perspective, but only if it leads to improved and closer interactions, not continued separations in mindsets, policies, and institutions.

Thus, international work provides motivation for domestic researchers and policy makers to further probe the nature of urban-rural relationships in the United States, and offers useful frameworks for understanding how and where these relationships are forged.

IV. PERSPECTIVES ON AMERICAN RURAL POLICY

In 2005, the Aspen Institute convened a small, diverse group of people from the academic, policy, philanthropic, and practitioner worlds to define a framework that could bridge the rural-urban divide in the face of profound changes brought on by demographic, environmental, economic, political, and cultural trends. In her report on that gathering, Anne Kubisch (2007) asserts that public policy is based on a set of outdated and inaccurate assumptions that:

> represent a homogenized view of both rural and urban communities, when in fact, both are changing rapidly and are increasingly differentiated. Most insidious of all, the old assumptions imply there are no similarities between rural and urban communities around which common cause can be built. They imply that there are no interdependencies when, in fact, the fate of each place depends largely on what is happening outside its boundaries (p. 3).

Kubisch proposes a framework to define and better understand the links between rural and urban America. She groups these links according to whether they relate primarily to people, place, or prosperity. In each case, she finds common challenges and opportunities that might best be tackled through rural-urban alliances, using examples in public education (people), countryside stewardship (place), and responses to globalization (prosperity).

Notably, thought leaders on issues affecting rural America have recently argued that strategies to promote rural prosperity should not be based on zero-sum reallocation of resources from urban to rural areas, but should instead reinforce and strengthen linkages between urban and rural places and populations that would redound to the benefit of both.

Karl Stauber (2001) poses what he believes to be a critical public policy question for the new century, “Why invest in Rural America – and how?” He argues that rural policy in America is unfocused, outdated, and ineffective, and that the “one-size fits all,” sector-specific, urban-based, top-down, and uninformed approaches to the challenges that face rural America do more harm than good. According to Stauber, successful rural policy, which would serve the best interests of all America, should produce three societal benefits:

- **the survival of the rural middle class**, which is rapidly shrinking as they leave for better economic opportunities elsewhere or are being priced out in higher amenity areas by wealthy incomers

- **reduction of concentrated rural poverty**, with its increasingly racial dimensions in the deep South, the south-western borderlands, and on Indian reservations

- **sustained and improved quality of the natural environment**, the destruction of which undermines the core of “ruralness”

Stauber refers to the history of social contracts between metropolitan and rural America that have over time shaped rural public policy. The “Frontier” social contract held sway from the end of the American Revolution to the end of the 19th century. In return for government sponsorship of exploration and displacement of existing cultures and people, military protection, and other federal support, rural America provided food and feed to support the nation’s growing urban population, and raw materials for export, as well as a number of intangible benefits to the American culture such as rugged individualism and optimism.

The “Storehouse” contract replaced this approach in the 1890s as the Industrial Revolution took hold and rural America became home to a rapidly declining proportion of America’s population. Under this contract, rural America provided the commodities demanded by growing metropolitan areas, and the public sector made large-scale investments to increase the flow of materials and the efficiency of production. “Storehouse” policies relevant to rural America included funding for transportation; opening of public lands to mining and logging; irrigation; electricity and telephone systems; subsidies to farmers; and research and extension programs.

Stauber argues, however, that since the late 1970s there has been no effective contract, and no compelling reasons have been articulated and accepted for metropolitan America to continue to invest in rural America. He concludes by offering five such reasons:

- **To protect and restore the environment**—essentially paying rural people to be the stewards of America’s natural resources
- **To produce high quality de-commodified food and fiber**—providing specialty branded goods to meet an increasing demand for safer and better products
- **To be the laboratory of social innovation**—acting as a test bed for innovative solutions to societal problems building upon the advantages of small community size and strong social bonds
- **To produce healthy, well-educated future citizens**—turning out people who will be assets to the country wherever they settle
- **To maintain population distribution and prevent urban overcrowding**—enabling smaller population centers to expand and relieve pressure in gridlocked metropolitan areas

Atkinson (2004) seeks to answer the question, “Why should we care about rural America?” He offers two main reasons: 20 percent of Americans live there, and helping rural economies grow will reduce congestion and costs to businesses and residents in large metropolitan areas, and increase the standard of living everywhere. He observes that this approach applies to small and mid-sized metro areas as well as rural places: “Metro areas like Boston, MA; San Jose, CA; and Washington, DC don’t need more residents and jobs.

Places like Springfield, MA; Fresno, CA; and Hagerstown, MD do and could easily add more people with positive impacts" (pp. 2–3).

While recognizing that structural changes associated with the New Economy have largely disadvantaged rural America, Atkinson sees three emerging opportunities to bridge the large vs. small, urban vs. rural divide:

- The digital economy is creating an ever more spatially dispersed and footloose economy, which allows an increasing share of economic activity now located in high-cost metro areas to relocate to lower-cost areas. Small cities with populations in the range of 50,000 to 250,000, that have lower costs but critical masses of skilled workers, infrastructure, and transportation access, can compete with large metropolitan areas. Even for remote rural communities, isolation has been reduced by the Internet and attendant increased access to goods, services, and markets

- As more people retire and gain income less dependent upon employment—especially the coming wave of Baby Boomers—they can choose places to live based on personal preference, not economic necessity. Thus retirees have already become a powerful force for rural revitalization, and more will join them in search of a higher quality of life and environment

- Congestion, high costs, and security risks may tip the balance for many employers and workers from the largest metropolitan economies to smaller and more rural locations that are less crowded, less expensive, and perceived to be safer places to raise families

Michael Porter's (2004) assessment of competitiveness in rural regions points to a failure of rural policies that have led rural economic performance to lag urban economies, and to an increasing gap between the two over time. This policy failure, according to Porter, has four main costs:

- It draws on limited government resources at a time of budget deficits and cuts in spending; policies that do not produce results are increasingly hard to defend

- Weak performance in rural regions retards national productivity and prosperity—making all parts of the U.S. economy productive should be a policy priority

- Inability of rural areas to achieve their potential leads to an inefficient spatial distribution of economic activity—activities that could be performed more efficiently in rural areas either migrate offshore or add to urban congestion

- Weak rural performance creates demands for interventions that threaten to erode incentives for productive economic activity—agricultural commodity subsidies hurt U.S. position in international trade and do not address the challenges that rural economies face

Porter observes that: “Rural regions are in many cases *tightly linked to nearby metropolitan regions*; approaching rural regions as self-contained economies will obscure policy choices” (p. 62). He identifies a number of economic opportunities available to many rural areas, most of which involve rural-urban interconnections:

- Hospitality and tourism, including second homes and retirement homes
- Outsourcing of services from labor constrained urban areas
- Specialty agriculture focused on serving urban markets – niche products, fresh produce, farmers’ markets
- Growing congestion and scarcity of land in urban areas
- Demographic trends that will produce workforce shortages as the economy grows, making the rural workforce more valuable

Leading thinkers thus seem to agree that future efforts to secure a more productive and prosperous rural America should recognize that our nation’s economy is, and will remain, predominantly metropolitan—but that rural areas have an under-recognized, crucial role as contributors to metropolitan health. If policy reinforced that role, rural America could also derive greater gains from metropolitan America’s strength.

V. COMPONENTS OF RURAL-URBAN INTERDEPENDENCE

As noted earlier, the division between metropolitan and non-metropolitan America is a statistically convenient method for distinguishing urban from rural. However, this distinction masks the incredible diversity of both types of places, and precludes proper acknowledgement of the continuum from the densest metropolitan cores to the most remote rural settlements, and the interdependence of communities located at different points along that continuum.

There are many ways in which this interdependence can be formulated, such as Kubisch’s (2007) “people-place-prosperity” framework and Tacoli’s (1998) “flows” typology. This section posits 11 interactions between urban and rural America, seven focusing on how rural America enables metropolitan America to contribute to national prosperity, and four illustrating how metropolitan America’s contribution to national prosperity redounds to the benefit of rural America. These interactions overlap to some degree, and should be regarded as elements of a complex economic and social system. Some imply mutually positive benefits, others more negative consequences; some are symbiotic, while others raise potential conflict.

Rural contributions to metropolitan prosperity

Food—Farming and farming-related industries are the activities most associated with rural regions, and although their contribution to employment is now quite small, farming is still vitally important to the national economy and to certain regions. The production of commodities such as corn, soybeans, and wheat dominates the landscape, and provides cheap, abundant food for America's growing population. Amid these larger currents, interest in organic foods, sustainable agriculture, and so-called "low-mileage" and "slow" foods is growing rapidly, especially from higher-income urban populations. That interest is helping to forge productive and more direct linkages between growers and customers through farmers' markets, customer-supported agriculture, and niche outlets and restaurants.

Energy—Continued increases in energy demand and the growing public understanding of the need for greater U.S. energy independence is driving two rural-relevant trends. The first involves increased exploitation of non-renewable resources such as coal, oil, and natural gas, bringing high-paying jobs and relative prosperity to many rural regions but with considerable environmental consequences. The second concerns growing adoption of renewable energy options, especially ethanol, biodiesel, and wind power. Ethanol demand in particular has given a major boost to rural economies in the Midwest, and has led to investments in biotechnologies to broaden the feedstock beyond corn to all manner of cellulosic materials, thus spreading the potential benefits to other rural regions. Both trends illustrate the strong dependence of metropolitan households and businesses—which consume the bulk of energy generated in the United States—on the ability of rural regions to respond to changing global energy imperatives.

Workforce—One of rural America's principal exports over the years has been its people, particularly well-educated young adults in search of economic opportunities in cities and larger metro areas. The relative lack of such opportunities in rural areas has led to net out-migration from the Heartland states and an effective 'brain drain' in most others. This does not always involve rural residents moving away; some 30 million people live in rural communities where more than a quarter of workers commute into nearby metropolitan cores for employment. At the same time, the availability of lower-cost labor and office space in rural areas has led to the introduction of "back-office" business process operations to serve large-city finance clusters, albeit in the face of intense overseas competition.

Stewardship—There are many services provided by nature, primarily in rural regions, that are essential to human survival and well-being, and for which rural people are best positioned to provide ongoing stewardship. Gretchen Daily (1997) of Stanford University provides a long list of these "ecosystem services;" they include clean air and water, flood and drought mitigation, soils and soil fertility, pollution mitigation, pest control, seed dispersal, biodiversity, and climate stabilization. A key challenge for policy is that these services are not necessarily appropriately valued, and without monetization, rural stewards are neither adequately rewarded nor provided appropriate incentives to care for them. Yet there is no question that these services remain critical to America's growing metropolitan population.

Waste management—On the flip side of the stewardship function, rural areas play a role in accommodating and managing waste and "undesirable" activities. Many urban functions cannot readily be located within metropolitan areas because of space limitations, high rents, land-use incompatibility, or environmental conflicts. Rural communities accommodate contentious developments that are often at odds with natural stewardship, but are accepted as offering some measure of immediate economic benefit. Power generation, sewage treatment, landfills, prisons, and military bases are examples of activities that tend to be over-represented in rural areas.

Congestion relief—Many commentators refer to the potential for smaller towns and cities to expand to act as "escape valves" for congestion pressuring major urban centers. Suburban and exurban expansion across the country has shown there to be a ready market for communities that offer affordability, space, and safety. However, the process often effectively eradicates the rural-ness of these communities, changing them into appendages of the metropolitan core with all the attendant pressure on land and infrastructure. The absence of adequate planning and zoning in most rural counties limits their ability to create sustainable new developments beyond the urban core.

Experiences—Urban dwellers are attracted to mountains, wide-open spaces, pristine rivers, wildlife, and quiet special places in rural America that offer opportunities for reflection, recreation, spirituality, and reconnection with nature. Others seek out the music, literature, art, and architecture that form part of the nation's rural cultural heritage. Yet others are hungry for active, or even extreme, experiences associated with hiking, climbing, canoeing, spelunking, hunting, skiing, and off-roading. All of these provide the basis for expanded rural tourism and hospitality sectors, and drive the growth of second-home and retirement communities, particularly in high-amenity areas.

Metropolitan contributions to rural prosperity

Markets—While rural areas provide many of the consumption goods for metropolitan America, this relationship implies a dependence in the opposite direction as well. The ability of urban/metropolitan populations and businesses to buy food, feed, and fiber; their increasing energy demand; and their willingness to pay for tourism and recreational opportunities in rural areas are essential for rural prosperity. In addition, metropolitan markets, both large-volume and niche, are increasingly accessible to a large range of rural entrepreneurial ventures (from traditional manufacturing to technology products to arts and crafts) thanks to improved telecommunications. The industrial districts of Northern Italy (Amin 2000) have shown how rural businesses can be successfully integrated into supply chains, reinforcing interconnectedness between metropolitan and rural economies.

Jobs—Metropolitan America will continue to act as a magnet of economic opportunity for young people from rural areas. Those who eventually return to their home communities to raise families have acquired specialized skills, gained valuable experiences, and earned higher incomes; as such, they are able to contribute as citizens with broader horizons and thereby enhance rural leadership capacity. Conversely, urban populations provide essential seasonal labor, particularly in high-amenity and tourism areas, that help to generate income and wealth for rural businesses and communities.

Specialized services—Economies of scale dictate that many services can only be provided in areas of sufficient population concentration. Rural people and businesses benefit access to specialized medical facilities, high-end retail, entertainment and cultural activities, legal and finance, and other services in large regional cities and metro areas that are not available locally.

Resources—The wealth-generating capacities of metropolitan economies—derived from their highly skilled workers and internationally competitive firms—provide the basis for both public and private investments across the country, including in rural America. Recent investment, however, has not fully tapped the assets and opportunities found in rural areas. Innovations in biotechnology in support of food, feed, and fiber production, and of alternative energy generation; investments in ecosystem services and stewardship to obviate the need for massive infrastructure expenditures; and venture capital for small-scale businesses across rural America all offer considerable potential for effective and profitable uses of urban-generated capital. In addition, basic investments in public infrastructure (highways, water supply, electricity, telecommunications), education, health care, and affordable housing will enable rural populations to provide the range of functions noted above.

VI. Conclusion

Examining the rich and complicated interactions between metropolitan and rural America, it is possible to see the basis for a new social contract that recognizes the unique assets and contributions that rural America makes to metropolitan America, which in turn provides the markets, resources, jobs, and services necessary for rural sustainability and competitiveness. Such a “natural assets” contract would recognize both the distinctiveness and the interconnectedness of metropolitan and rural America. It would acknowledge both people and place, and the complexity of spatial, cultural, and economic relationships.

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[1] For more detailed descriptions, see USDA Economic Research Service at **www.ers.usda.gov/Briefing/Rurality/**; Rural Policy Research Institute Health Panel Issue Brief #2, *Choosing Rural Definitions: Implications for Health Policy.* March 2007; Rural Assistance Center, *What is Rural? Frequently Asked Questions.*

[2] See USDA Economic Research Service at **www.ers.usda.gov/Briefing/Rurality/**

[3] See Berube and others (2006) for an application of these RUCA codes to defining "exurban" areas.

[4] Under this system, counties are classified according to their economic type and their dependency on farming, mining, manufacturing, federal/state government, and services, and to their policy type –

housing stress, low education, low employment, persistent poverty, population loss, nonmetro recreation, and retirement destination.