



Rural Virginia Prosperity Commission

# Briefing Paper

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## It Takes a Critical Mass to Prosper

“Do rural areas have to cease being rural to prosper?” This question raises issues about what fundamental, underlying economic forces generate economic growth. If only the symptoms of the rural areas being left behind are treated, long-term meaningful improvement is not likely to be achieved. The purpose of this briefing paper is to describe the role of economies of scale in economic development.

### Economies of Scale

Economies of scale are hugely important to regional economic development. Simply stated economies of scale mean that if you can spread production costs over a larger number of units you can reduce your per unit costs. For example, if it takes the same priced tractor to plow a 2,000 acre field as it does to plow a 200 acre field, the farmer with the 2,000 acre field has a cost advantage because of economies of scale.

There are two kinds of economies of scale. The first is **internal** to a firm as in the farm example above. Rural areas, to some degree, benefited from this type of economy of scale in the branch-plant era of rural industrialization. To build the bigger plants, you needed space. Rural areas had lots of space at much lower costs than urban centers. Firms were able to get bigger using branch plants.

The second economies of scale are **external** to firms. External economies of scale are commonly divided into two types: agglomeration economies and urban economies.

**Agglomeration economies** arise as additional firms of a particular type concentrate or cluster in a given

region. Good examples are the catfish industry in the Mississippi Delta, the furniture industry in North Carolina, and the computer industry in the San Francisco Bay area. When you get a lot of catfish farms in one place, you attract veterinarians who specialize in the diseases of pond-raised catfish. Thus, if a problem occurs, you do not need to pay the air fare for a specialist to come in, and you get help quickly. By attracting feed suppliers and other specialists with inputs for the industry, per unit costs are reduced. Because of the concentration of similar businesses, services like accountants and bankers have a better understanding of the needs of those firms and can serve them better and at a lower cost.

**Urban economies** are associated with shared infrastructure like water and sewer systems, transportation facilities like airports, and telecommunications. They also include a diverse pool of services that allows localities to contract with specialists rather than maintain them on staff. Examples include copy machine repair services, specialized accountants, and consulting engineers of various sorts. Because of the concentration of people, information exchanges take place through daily, informal contacts.

Rural areas cannot compete on the basis of these urban economies. By definition, rural areas are places remote from urban economies. And the urban economies have become increasingly powerful in affecting costs of operations. Urban economies are not critically important in all industries, but they are in many. In a world of increasing competition where margins above costs are often very small, firms have to take advantage of all the economies of scale available or they go under.

The implications of economies of scale are twofold:

1. Either the rural area offsets the urban economies with cost savings of other types or, other things constant (quality of life, education of the work force, access to raw materials), it gets left behind.
2. Rural areas need to develop economies around industries where urban economies do not much matter, and they need to achieve some agglomeration economies by clustering firms in a particular sector—as with cat fish farming, furniture manufacturing, or bed and breakfasts.

### **Clustering Industries**

We have reports that the bed and breakfast operators in Highland County welcome new bed and breakfast operations. The larger the cluster of that industry in Highland County, the more people they will attract, and the better off they all will be. They do not see new entrants as just new competition. These business people appear to understand economies of scale, even if they might not be able to articulate the idea in economic terms.

Clustering bed and breakfasts or catfish farms or furniture industries or any other industry as a strategy has a downside, however. Without diversity, a region is vulnerable to an economic downturn in that industry. Evidence shows that about the only rural areas that have prospered in the 1990s are those with

clusters of firms. Having a diversity of industries is wonderful, but one cluster, without diversity, is better than becoming stagnant.

Achieving some sort of critical mass of business and economic activity is essential. Without a critical mass, most rural areas will be left behind. Rural areas with special amenities may possibly attract electronic commuters or tourists. But even then, economies of scale will matter.

### **Increasing economic activity**

Unless the role of economies of scale is taken into account, we might possibly have policy recommendations that do very little good. We will have wasted our time. For example, we can improve education in rural Virginia, but the young people will continue to leave unless some of the places achieve a scale of economic activity that results in more attractive local career opportunities. Moreover, unless rural areas can achieve sufficient critical mass in a given industry, they will have a difficult time attracting specialized high technology workers. These workers will be reluctant to relocate in places where no alternative employers can use their skills.

Whatever approach is used to increase regional economic activity, probably the most successful results will come from encouraging new businesses that are similar to successful, existing businesses. The result could lead to agglomeration economies of scale. And they could make the difference between success and failure for the community.

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