

## The Shaffer Star: Space

When using a systems approach to reflect on community economic development it is useful to have a paradigm to organize one's thinking. Ron Shaffer offered a six point paradigm which we call the "Shaffer Star": decision-making, resources, markets, society, rules, and **space**. Shaffer maintained that nearly every issue a community may face falls into one of these components or elements of the community.

Space is included in the Shaffer Star because distance is an important element in defining and analyzing any community. Communities are defined in relation to other communities, by location such as the north side of town, or by school attendance districts. Furthermore, every community must move product, share resources, and communicate over some physical distance. Proximity to neighbors and resources matter and communities do not operate in a spatial vacuum.

Historically people worked, lived, shopped and went to religious services in the same community which often coincided with municipal boundaries. Citizens read the same community newspaper and routed for a common high school teams. Today commuting sheds can extend up to 100 miles, people make trips to retail hubs for shopping, gather their news from a wide range of sources mostly from outside the community, and consolidated school districts can redefine the boundaries of communities. Not only does this directly affect our sense of community but also how the local economy functions. Space enters the thinking about community economic development in terms of location theory: why do some firms decide to locate, start operations, or expand in this particular location over any other? In addition, why do people elect to migrate from one place to another whether this be in the form of "boomerang" or retirement migration or the simple choice of purchasing a house in one neighborhood over another. There are numerous theoretical approaches including neoclassical location theory, growth pole or center theory, central place theory, and increasingly cluster theory based on notions of agglomeration economies.

A central theme of more traditional location theories is transportation costs: how expensive is it to ship inputs from suppliers to the firm and ship goods and services to the customer? Firms pick a location that minimizes those costs while maximizing demand for their good or service. A classic example is the location of steel mills within the U.S. In the calculus of trying to minimize transportation costs steel mills found it was cheaper to ship the steel than iron ores and coal. Modes of transportation were also extremely important and at the birth of the U.S. steel industry water transport dominated so the mills needed to be on navigable waterways.

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ut as we move from a goods (e.g., steel) to a services producing economy the role of transportation costs has changed. Today, greater focus is placed on where customers are located. While modern telecommunication technologies have had some academics claim the “death of distance” people still prefer face-to-face interactions on a range of services. Consider business services, such as accounting. A small business could contract with an accounting firm on the other side of the country and conduct business via e-mail and skype-like technologies. But there are times when face-to-face meetings are required and distance matters. For large firms business air travel has become a fact of life, but for many smaller and medium sized firms it is more cost effective to contract with a local accounting firm.

We could make the same observation with retailing; while internet shopping is becoming increasingly popular many consumers prefer to see and “touch” the product before purchasing. In addition, many retailers are now price competitive with internet retailers particularly when shipping costs are considered. The growth in internet shopping is driven mostly by convenience and that convenience is embodied in the transportation costs of traveling to the store.

The most interesting work today in location theory centers on the notion of clusters or agglomeration economies within a particular industry. This line of work is really addressing two overlapping but unique questions: (1) why do cities form and grow (agglomerations) and (2) why do certain industries tend to group or cluster together in a particular geographic region? Central place theory was originally proposed to help describe and explain the system of cities or places that we see. While we can gain some insights from central place theory, the theory does not go nearly far enough. Agglomeration economies speak to the power of economies of scale that are both internal and external to the firm. Internal economies of scale speak to the shape of the production function or technology. External economies is far more complex and to be honest interesting. Things like access to “thick” labor markets or specialized input suppliers or business services. For example, if one wanted to enter NASCAR racing, one would “naturally” go to the Charlotte, North Carolina region or if one wanted to enter television production one would “naturally” go to Los Angeles.

Paul Krugman, noted however, that while agglomeration economies is a nice descriptive theory, it fails as a predictive theory. He quotes a sarcastic physicist who stated “so what you are saying is that firms agglomerate because of agglomeration affects?” Krugman tackled this problem by appealing to the “new endogenous growth theory” where firms have a short-term profit motivation to invest in research and development of innovation (patent laws play a big role). He developed a rigorous theory that firms can maximize these profits from innovation by co-locating in larger cities. This theory won Krugman the Nobel Prize in Economics (2008).

It is clear that “space” plays a vital role in understanding the economic forces that are at play in community economic development. One does not need to be able to “read Krugman” to understand the underlying forces. Rather, one can gain strong insights in exploring basic location theory.