

## Where's the Action?



*...One half of all e-mail messages worldwide pass through Virginia on their route from sender to receiver.*

This issue's cover story contains a remarkable fact: one half of all e-mail messages worldwide pass through Virginia on their route from sender to receiver. That's surprising at first glance, given that the fraction of the world's messages that have one or both of their endpoints in the state is probably pretty small. A closer look shows that the bulk of the pass-through occurs in northern Virginia and reflects the growing concentration of Internet-related businesses in that area. Such geographic concentrations of related businesses are, in fact, quite common. These concentrations occur in industries as disparate as film production and the manufacture of rubber tires. Most recently, the public eye has focused on a number of locations in which various parts of the computer and high-tech industries have concentrated. The most famous of these, of course, is California's Silicon Valley. When we see such hotbeds of "new economy" activity, and the benefits they bring to their local economies, a natural question arises: "Why here?"

While the geographic concentration of related businesses, or "agglomeration" as economists refer to it, is neither new nor unique to the so-called "high-tech" sectors, it tends to be more prominent in the early stages of an industry's development. In a young industry, there is much experimentation with new techniques, and "best practices" change rapidly. Hence, skilled workers who have gained knowledge and experience are especially well positioned to join new or start-up enterprises. Frequent movement of workers from more mature firms to start-ups has been noted, for instance in Silicon Valley. A new business in a growing and changing industry can benefit from technological spillovers by locating where the action is.

There are, of course, more mundane reasons for like businesses to locate close to one another. Especially in manufacturing, proximity to input suppliers and other resources offers significant advantages. Such considerations, however, are

probably less important now than they were a century ago, since transportation costs have fallen. Moreover, in many newer industries, shipment of supplies is a less weighty concern (no pun intended!) than in traditional manufacturing. In new industries, the key resource is the knowledge carried in the heads of the people in the business. This knowledge tends to be shared with nearby enterprises, often through casual interaction at a local coffeehouse or pub.

Many regional and local planning officials understandably have sought ways to foster agglomerations of high-tech activity in their own backyards. The results of such efforts have been mixed. Most of the notable industrial agglomerations were not created initially as the result of explicit planning, but rather emerged from some inherent advantage of their respective locations. In knowledge-based industries, the presence of the right kind of human capital has been important. In northern Virginia, for example, the predecessors of today's Internet companies developed crucial expertise while serving the military. In other instances — from California to New England to North Carolina's Research Triangle — the stage was set by the presence of a concentration of universities. And other factors may explain other agglomerations. So efforts to plan and foster concentration of companies in new and rapidly changing industries using the traditional approaches to development, such as diversified industrial parks, may disappoint. Perhaps the best approach is to support the development of a well-educated skilled work force. And that's a good thing to do in any case.



**Al Broaddus**  
President,  
Federal Reserve Bank of Richmond