Multi-Modal Planning for High-Growth Business Clusters

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High-growth US industries such as bio-technology, social media, gaming, computer hardware and software development and financial services often depend on the knowledge spillover and collaboration which results from co-location of firms. More and more often, firms in these industries locate near institutions of higher learning, medical facilities, and venture capitalists, all of which are often found in urban centers. This co-location can create high-density "clusters" of activity with transportation demands that exceed available capacity.

While clusters, (often loosely referred to as 'business clustres' or 'industry clusters') have different characteristics in different industries, this presentation focuses on high-growth, knowledge based sectors in the US Economy where "clusters" represent rapidly growing sites of high-value economic activity. The presentation shows findings regarding the role of transportation investment for sustaining competitive cluster locations in the US Economy and demonstrates how and why transportation planning for clusters if of particular significance to US Economic development.

In many cases, land use patterns and environmental concerns surrounding high-growth industry clusters prevent the expansion of existing roadways. In addition, young science and technology workers are attracted by the urban lifestyle afforded by living in dense urban centers and many are choosing not to own cars, increasing reliance on public or private transit for access to employment centers. Many of the more urban clusters are served by existing transit services, which could be increased to help alleviate transportation bottlenecks. However, limited public funds often prevent significant service and route expansions.

This research project investigates eight technology centers in the United States to identify transportation challenges to future growth, and solutions to these challenges. The eight clusters include the Emory University/Centers for Disease Control (CDC) area of Atlanta; the Kendall Square area of Cambridge, MA; the Route 128 technology corridor in suburban Boston, the Deerfield, IL pharmaceutical cluster, Seattle's South Lake Union area, the Mission/mid-Market area in San Francisco, the Silicon Valley, and the the Denver Technologic Center corridor.

The presentation shows how private businesses as well as public agencies are involved in developing partnerships to develop multi-modal solutions making high-value clusters sustainable in many of America's cities, as well as in more suburban areas that traditionally attracted high-technology firms. Examples include Google's privately operated transit system serving San Francisco's South of Market neighborhood and Silicon Valley, plans to expand light rail service to through the cluster around Emory University and the CDC in Atlanta, and a business consortium pooling resources to offer shuttle service from Metro stations to businesses in Deerfield, Illinois (an edge city outside of Chicago). The public sector is also revisiting zoning regulations and development incentives to encourage mixed-use and higher density development in high-tech clusters in cities including Cambridge, Seattle and San

Francisco. These strategies aim at developing housing, entertainment, shopping and employment in close proximity to each other, thus reducing reliance on private automobiles.

This presentation explores the importance of good, reliable transportation access to these important business clusters in terms of US productivity and competitiveness, and the consequences of failing to rise to the access challenges posed by these emerging business clusters. The presentation also addresses how the public and private sectors have responded to this challenge to date, and identifies needs and additional strategies for addressing transportation issues in these clusters in the future.

References

Because this abstract is showing original research from actual field interviews and study of business conditions in six US Cities, it is assumed that secondary references are not needed. However, the following references constitute much of the basic foundational knowledge regarding clusters, on which this research is based.

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