

Increasing Employment and Productivity through Innovation Clusters

Michael Greenstone

Director, The Hamilton Project 3M Professor of Economics, MIT

April 20, 2010

Innovation clusters are geographic concentrations of firms

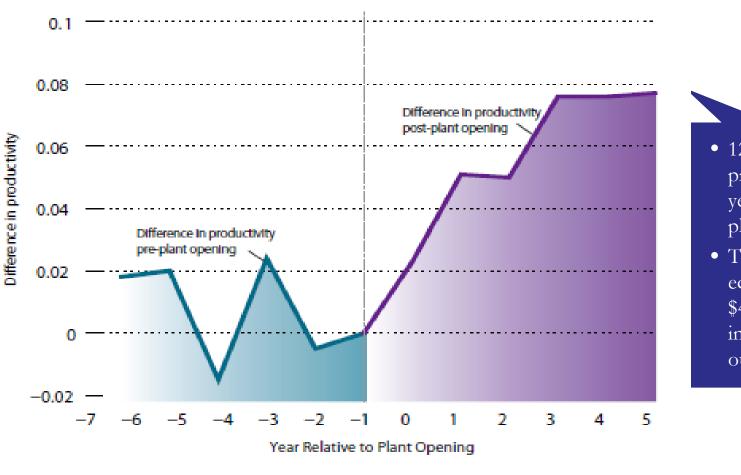
- **Definition:** Innovation clusters are created when firms in the same industry locate near each other.
- Examples: Information technology in Silicon Valley, Manufacturing in the Pacific Northwest, Life sciences in Massachusetts.
- **Incentives:** In the U.S., local governments provide incentives to attract large firms.
- Global expansion: Innovation clusters are being built in over 52 countries all over the world from China to Brazil.

What do we know about the impact of innovation clusters?

How does attracting a large plant impact local productivity and employment?

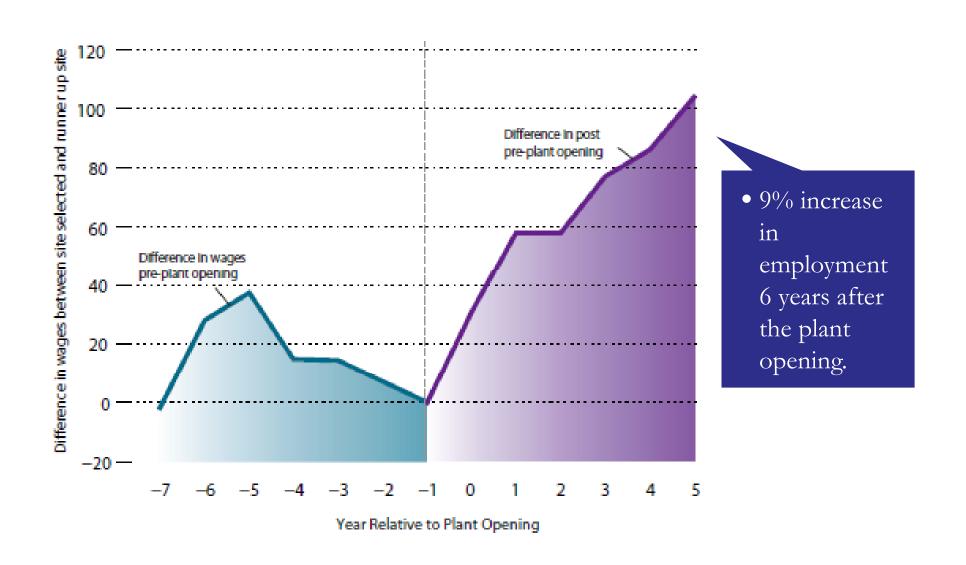
- **Co-authors**: Enrico Moretti (UC Berkeley) and Richard Hornbeck (Harvard).
- **Method**: Identify 82 openings of very large plants where counties provided incentives to attract plants. Compare the sites they ultimately selected and the runner-up sites (second choice).
- Question: What are the local productivity and employment impacts of attracting a large plant?

Attracting a large plant increases productivity



- 12% increase in productivity 6 years after the plant opening.
- This is equivalent to \$430 million increase in output

Attracting a large plant increases employment



Policy proposal to improve employment and productivity

Federal Innovation Cluster Fund

- Provide federal funding to support innovation clusters through a cost sharing program (e.g., 20% federal funding).
- Build on local government knowledge about which sites are suited to particular industries.