



## Sustainable Economic Development through Advanced Manufacturing

Policy Note prepared by Chris Schildt

### ISSUE

Sustainable economic development is economic growth that encompasses social equity. Advanced manufacturing, the production of high value-added goods such as electronics, medical equipment, and solar and wind technology components, is a proven way to achieve this goal. Since January 2010, more than 400,000 jobs have been added to the manufacturing sector. This occurred while most sectors were losing jobs.

### PANEL FINDINGS

- A significant hurdle to establishing an advanced manufacturing capability is that it is capital-intensive.
- Advanced manufacturing requires workforce training in new skills and workplace practices. Because of a shortage of such training, jobs are going unfilled—more than 1,200 in the Chicago area alone, according to the Center for Labor and Community Research.
- The rise in real estate values in the urban core in many parts of the country has created pressure to rezone industrial land to higher-value uses, fostering legitimate concerns about its long-term prospects.
- In addition to challenges at the local level, there are federal barriers to developing advanced manufacturing in urban locations. For example, the single most powerful federal instrument, low-interest, long-term industrial development bonds, cannot be used for rental properties. This excludes two-thirds of industrial land, severely limiting the bonds' reach.

### RECOMMENDATIONS

To attract more capital, public procurement contracts could be designed to strengthen demand and open up access to investment capital. Additionally, making public procurement procedures transparent will strengthen smaller, local companies' competitive posture.

For example, the Los Angeles County Metropolitan Transportation Authority's Request for Proposals for 78 new light-rail cars, which could create 200-300 new jobs, satisfies the numerous and complex procurement requirements for transit purchasing while making it possible for local companies to compete.

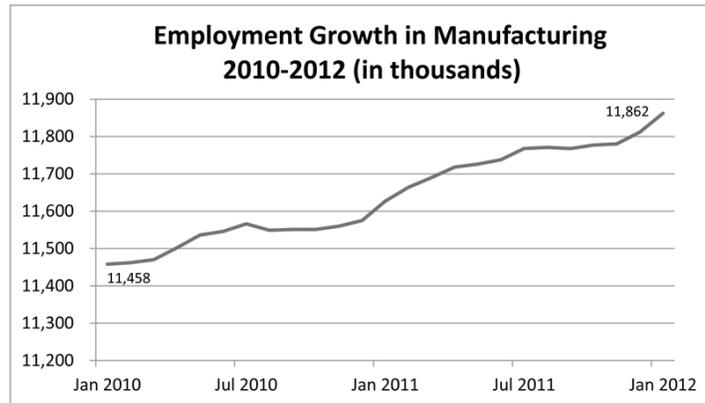


Figure 1. Employment Growth in Manufacturing 2010-2012.  
Data from US Bureau of Labor Statistics, accessed February 21, 2012



Figure 2. Austin Polytechnical Academy student.  
Photo Credit: Manufacturing Renaissance Council

An example of an effort to address the disconnect between training and skills needed for advanced manufacturing is the Austin Polytechnical Academy in Chicago. Started in 2007 by the Manufacturing Renaissance Council as a new public school, in partnership with local manufacturers and the local community, its first class graduated in 2011.

The school is located in a low-income African-American neighborhood and concentrates on science, technology, engineering, and math, as well as experiential learning through internships and certification programs. The Manufacturing Renaissance Council is bringing this model to the San Francisco Bay Area.



Figure 3. Brooklyn Navy Yard approved development for industrial space and a full-service grocery. Source: Brooklyn Navy Yard Industrial Park.

To counteract the up-zoning pressures on urban industrial land, jurisdictions can create long-term plans incorporating industrial zoning and permitting the mix of uses that foster advanced manufacturing. Additionally, they can adopt policies that attract organizations committed to preserving industrial uses.

An example of the success of these approaches is the Brooklyn Navy Yard, a decommissioned military facility that was acquired by the City of New York, which turned over management to a non-profit organization dedicated to strengthening the manufacturing sector. The commitment to preserve space for manufacturing, to invest in green infrastructure such as solar-powered streetlights, bikeways, and recycling, and to provide technical assistance has led to the Yard's rebirth as a center for urban manufacturing including many firms with sustainable business plans.

Finally, changing federal policy that restricts the use of long-term industrial development bonds for urban manufacturing sites could foster the revitalization of urban advanced manufacturing.

## PARTICIPANTS

### Presenters

Madeline Janis, Executive Director of Los Angeles Alliance for a New Economy  
 Dan Swinney, Executive Director of Chicago Manufacturing Renaissance Council and Bay Area Manufacturing Renaissance Council

Adam Freidman, Director of Pratt Center for Community Development

### Moderator

Cecilia V. Estolano, Theodore B. and Doris Shoong Lee Chair in Real Estate Law and Urban Planning at UC Berkeley

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