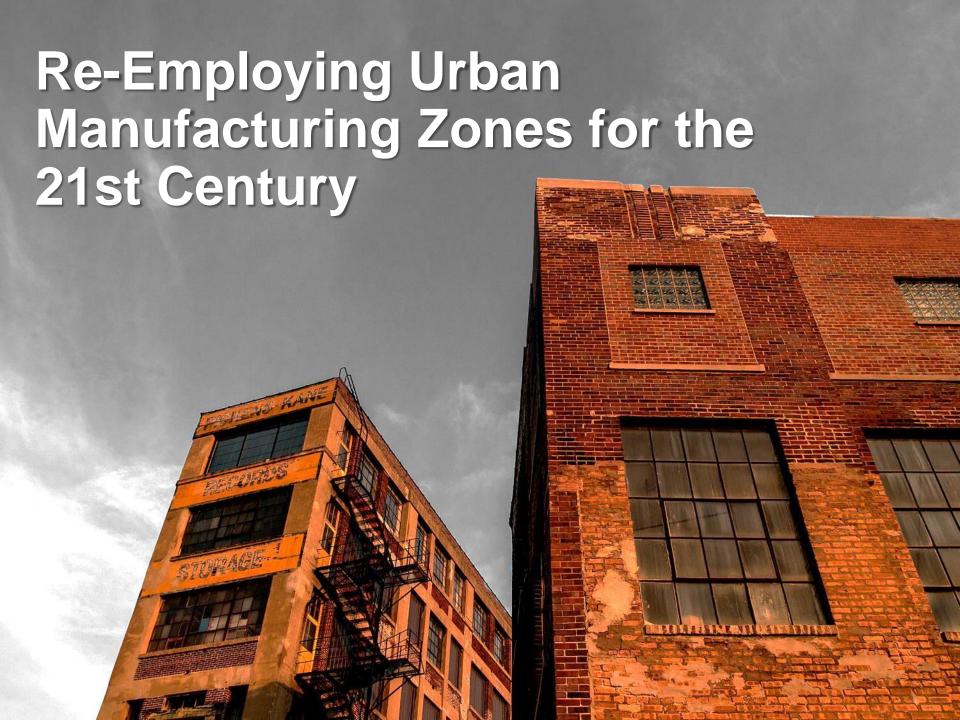
Re-Employing Urban Manufacturing Zones for the 21st Century

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Provocative Issues

- US Manufacturing recovery is both real, and in its infancy
- "ADVANCED MANUFACTURING" is different
- Manufacturing, logistics, and freight movement are inexorably connected. (follow the trucks)
- Urban industrial districts are under pressure





"Tool & Die Capital of the World"



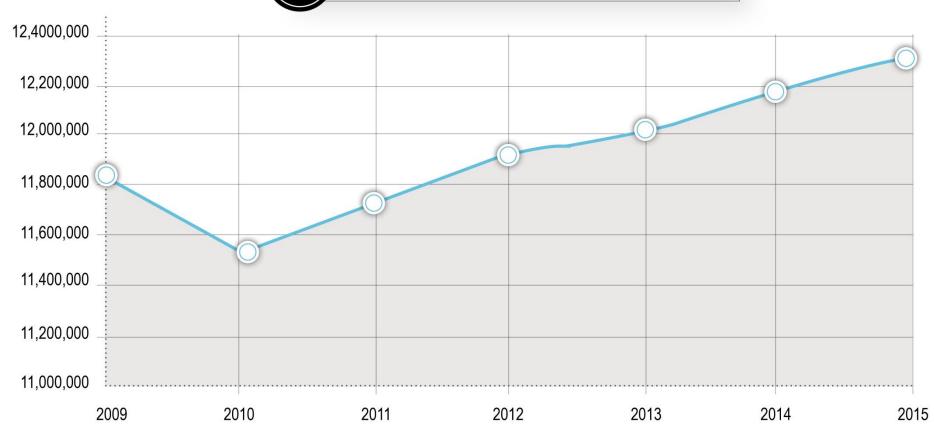
Warning... economic data follows





Its easy to talk recovery.....

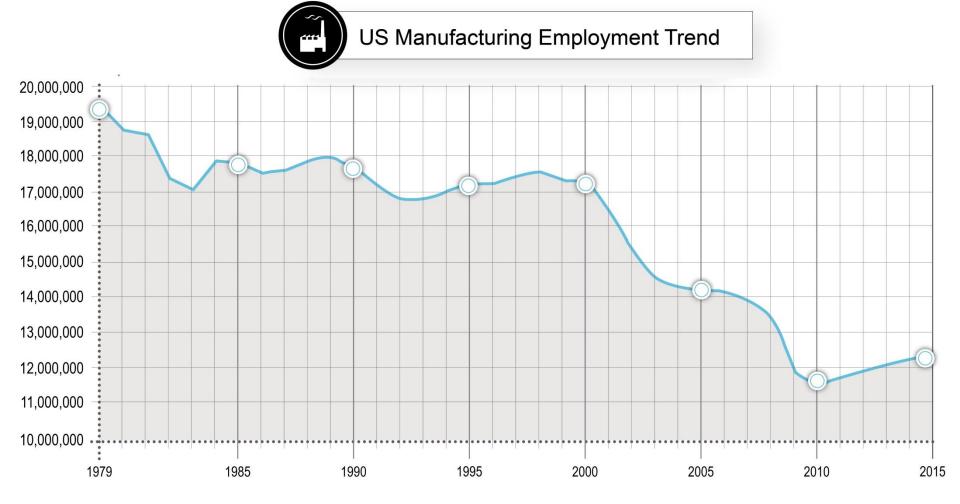








.....but some deliberate serendipity may be in order



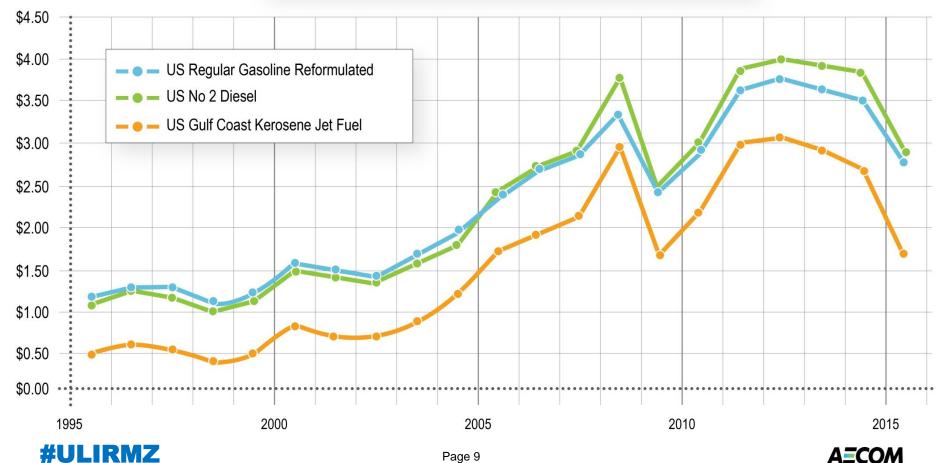


Fuel Costs

Gasoline and Diesel fuel are no longer aligned....



US Fuel Prices, Average Annual, 1996 to 2016



Implications





Advanced Manufacturing is a family of activities that:

- Depend on the use and coordination of information, automation, computation, software, sensing, and networking.
- Utilize cutting-edge materials, advanced processes, and emerging capabilities in the physical and biological sciences (nanotechnology, chemistry, and biology).
- Are additive; products move through several assembly stages over large distances using third party logistics providers, linked by nimble supply chains.



- Recovery in Automotive
- Reshoring and the Pivot from China to Mexico
- Abundant Natural Gas
- (Until Recently) Growth in Exports
- Local Food Production
- Makerspaces



Implications

Industrial Real Estate Considerations

- Distribution buildings want to get bigger
- Manufacturing buildings want to get smaller
- Need for secure truck courts

Economic Development Considerations

- 75% of economic development is growing existing companies
- Are incentives aligned with capital investments or job creation?
- Understand local connectivity to global chains
- Manufacturing, Distribution and Services are different
- Workforce training is a serious concern
- Zoning: Light assembly is not heavy manufacturing
- Social justice implications





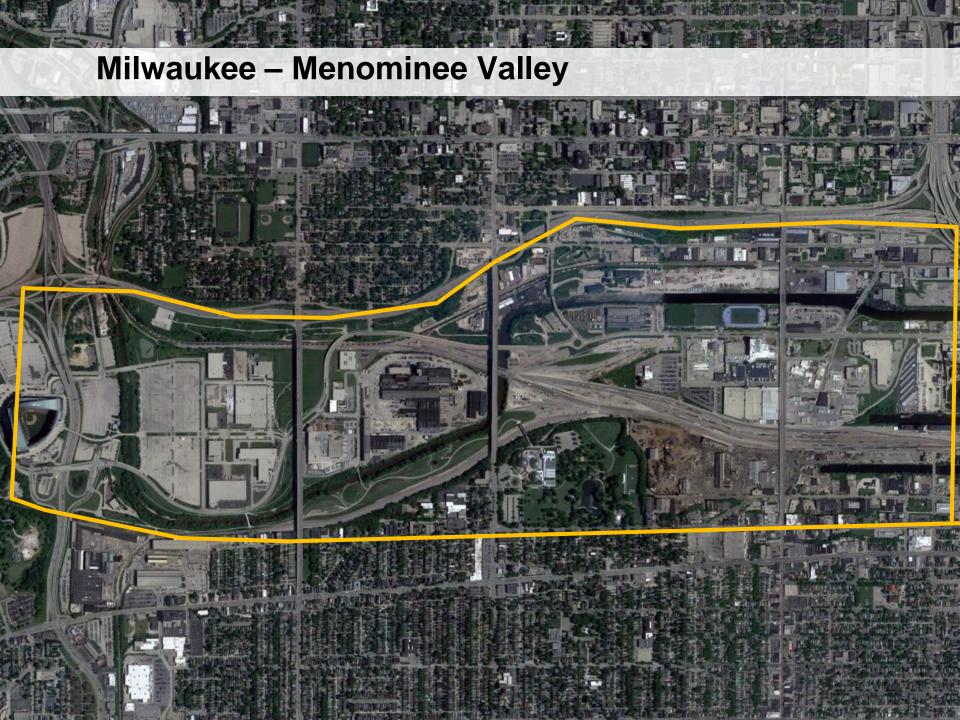
Implications

- Dramatic changes in utility markets (microgrids)
- Third Party Logistics Providers
- Two wider canals (Panama & Suez)
- Transportation infrastructure funding
- Zoning and Land Use: protect industrial areas



What do Urban manufacturing Zones Look like?







Keys to Revitalization

Keys to revitalization

- Opportunity to pivot toward higher value uses
- Access to Federal and State grants: Brownfields
- Allocation of local and state transportation dollars
- Tax Increment Financing
- Special Districts (BID) to fund operations and capital
 What to Watch
- Chicago Planned Manufacturing District Zoning

