

The 2nd Industrial Revolution

Balancing Innovation in Technology and Social Inclusion

Union Co-op Symposium

Cincinnati 2015



In Crisis:
Environmental
Degradation



In Crisis:
Growing
Inequality



In Crisis:
Social Injustice
and Polarization



Today's Topics

- **Manufacturing Matters**
- Define 2nd Industrial Revolution
- **Our Learning Curve:** International Influences & Manufacturing in Chicago
- **MR's Work:** Chicago Manufacturing Renaissance Council and the Manufacturing Connect program
- **Strategic Implications** for the Cooperative Movement

Manufacturing in the U.S.

- Decline was not inevitable
- Failure of 1st Industrial Revolution was inevitable
- Early stages of 2nd Industrial Revolution

Why Manufacturing Matters

- Shift to high **value-added** production
- High wages: Average **\$75,000** annually
- High job multiplier: Each manufacturing job creates **5 jobs**
- Dramatically **reduces poverty**

Why Manufacturing Matters

- Builds social capital
- Only sector that addresses environmental crisis



Why Manufacturing Matters

- Large scale shift in products and processes
- Research, development and investment in renewables
- Environmental sustainability



1st Industrial Revolution

Characteristics:

- Private sector drives wealth creation
- Public sector focuses on redistribution of wealth
- Environment suffers
- Crisis sets the stage for the 2nd Industrial Revolution

1st Industrial Revolution

- **Main Objective: Create Wealth**
- Innovation and technology
- Finance capital no longer patient
- Production moved offshore
- Wall Street – higher returns
- Social contract abandoned



1st Industrial Revolution

Private Sector

- Viewed as source of innovation, entrepreneurship
- Abandoned health of the industry to focus on wealth

Public Sector

- Labor, Gov't, Community focused on improving working conditions and equitable distribution of wealth



Call for a
"Real" Industrial
Revolution:

The 2nd
Industrial
Revolution

Public/private partnerships

- Labor, government and community groups create high-road partnerships with private sector.

International
Influences:

Mondragon

Model: Civil/religious leader builds productive capacity and prosperity is shared.

- Anchored by modern manufacturing
- Education + Social Values
- Result: 100 companies, 80,000 jobs

International
Influences:

Emilia -
Romagna

Model: Private sector plays a leading role in developing productive capacity.

- Committed to manufacturing
- Services, information, networking
- Teaming agreements build capacity

International
Influences:

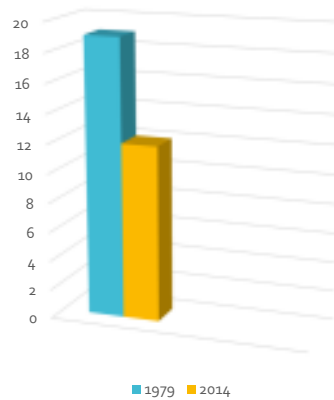
Dortmund,
Germany

Model: public/private partnership

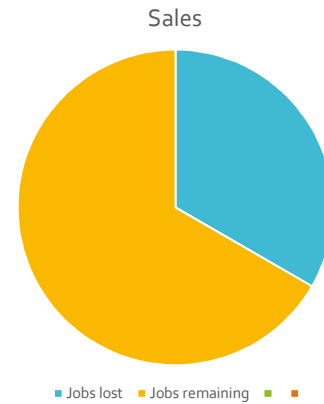
- Production, mining and brewing industries devastated
- Invests in advanced manufacturing technologies
- Result: Created more than 200 companies and 8,000 jobs

De-Industrialization of America

U.S. Manufacturing Jobs



2000-2010: A third of jobs lost



De-Industrialization Impact on Chicago

The Rise of Urban Poverty

- 4K OF 7K factories close
- Loss of tax base
- Racial, economic and political polarization
- Public perception: Manufacturing is dead

MR Learning Curve: Taylor Forge

Decline of Industrial Capacity: Large public companies

- New technologies drive desire for quicker returns
- Milked the cash cow

MR Learning Curve: Succession Planning

- **Small companies:** 90% have less than 99 employees
- **Study:** Out of 800 companies 40% at risk of failing over succession of ownership
- **99 %** owned by white males, most near retirement age
- **80%** of job losses in manufacturing could've been prevented

MR Learning Curve: Worker Ownership as Organizing Strategy

- **Bankers Print:** race and class dynamics in succession planning
- **Stewart Warner:** Use of eminent domain to support worker-buyout
- **Brach Candy:** Union and CBO coalition to save jobs and buy-out company

New Challenge & New Opportunity: The Skills Gap

- Low-skilled work moved offshore
- Companies shift to more complex, advanced manufacturing methods to stay competitive
- Education system abandoned manufacturing
 - Companies unable to find talent
 - Limits access to well-paying careers.

New Challenge & New Opportunity: The Skills Gap

Skills Gap: A new opening for labor leadership and all aspects of manufacturing

Key: New requirements for labor leadership

- The report had to tell the truth;
- confront issue of race;
- and confront issue of working with non-union companies

Making the Case for 2nd Industrial Revolution

- In 2000, study with CFL found:
 - Chicago's education system was failing to meet the needs of its manufacturing base
 - Studied educational practices in Germany, Denmark and the Netherlands to identify best practices
 - Advance a 20-year for education reform
 - New relationships give birth to the **Chicago Manufacturing Renaissance Council**

Making the Case for 2nd Industrial Revolution

Chicago Manufacturing Renaissance Council was formed in 2005. The **4 principles**:

1. Chicago should be the global leader in advanced manufacturing
2. Our competitive advantage is a true public-private partnership that includes labor, manufacturers, government and community
3. Requires profound reform of educational system at all levels
4. A commitment to build communities and a broad-based middle class by reducing poverty

Making the Case for 2nd Industrial Revolution: Two Chicagos

- 57% of industrial base lost; Austin lost 90%
- Unemployment rate in Chicago (6.4%) vs. Austin (30%)
- 99% of manufacturing companies white-owned

Austin
Polytechnical
Academy
&
Manufacturing
Connect

**First Project: Build the Educational
Infrastructure**

- Located in predominately African-American community with high rates of poverty and crime



Austin
Polytechnical
Academy
&
Manufacturing
Connect



Austin Polytechnical Academy & Manufacturing Connect

- A public high school
- 85 manufacturing companies partnered with program
- Exposure and Work Experiences in manufacturing
- 3 years of pre-engineering & machining courses
- Earn nationally-recognized industry certifications in metalworking & college credit

Objective: to educate the next generation of leaders in advanced manufacturing with careers into production, management and ownership



Austin Polytechnical Academy & Manufacturing Connect

Vehicle for Community Development

- Adult training in the evenings
- Education program for ex-offenders –
- Citywide coalition of African-American and Latino community leaders committed to advanced manufacturing
- Transform manufacturing curricula at the community college level



National Manufacturing Renaissance Council

- Building towards a national scope:
 - The Manufacturing Institute of the National Association of Manufacturers
 - The Society for Manufacturing Engineers
 - The National Institute for Metalworking Skills
 - The National Urban League
 - The Brookings Institution
 - Carnegie Mellon University
 - AFL-CIO
 - Councils in California and Detroit

Objective: To create councils in regions across the country

Global Connections

- Growing international interests in MRC principles and projects
- The exploration of a Global Manufacturing Renaissance Alliance
- Exploration of Australian project

Strategic Lessons Learned

- Manufacturing is key to addressing the persistence of poverty, inequality and polarization
- We cannot rely only on the private sector to increase manufacturing capacity and be the steward over innovation
- The crisis in manufacturing is not inevitable

Strategic Lessons Learned

- Manufacturing is recognized by the public as the essential means to address social problems
- Object of manufacturing must be development that is economically, socially and environmentally sustainable and restorative
- The public sector must become stewards of production and redistribution of wealth

2nd Industrial Revolution

It's led by a high-road, public/private partnership with the following underlying principles:

- Strong financial return on investment for entrepreneurs
- Long-term, patient investment
- Commitment to inclusion and democracy
- Entrepreneurial approach that supports investment in research, education and policies that block the low road and advances and rewards the high road

2nd Industrial Revolution

... continued

- Labor and social movement that contributes to innovation and creation of wealth
- A commitment to a growth agenda of renewable energy and products that have social benefit
- A global perspective and commitment

Conclusion

- The potential for fundamental change is greater than any time in the last hundred years.
- The fundamentals of our economic and social structure beg for a dramatic shift in the social contract.
- Who will lead?

The Next Generation...



Thank You!

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