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Human Capital, Local Economic Development, and the Importance of Colleges and Universities

Jaison R. Abel

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Human Capital, Local Economic Development, and the Importance of Colleges and Universities

Abstract
In August 2017, The Worker Institute convened high level leaders over the course of two days, around a discussion of Buffalo, NY since the Great Recession. With presentations, panels, and a visit to the UAW Local 774, participants gained a deeper understanding of the economic restructuring that followed the Great Recession and where this large metropolitan area stands today. Here, you will find links to the resources that were presented during this two day convening.

Keywords
Buffalo, Economic Development, High Road Economic Development, Presentation, Other, PDF
Buffalo, NY Since the Great Recession
A Workshop on Economic Restructuring in the Rust Belt since the Great Recession

By: Dincer and Wheaton
August 14-15 2017
Cornell in Buffalo and UAW Local 774
PROGRAM

DAY 1, AUGUST 14, Cornell in Buffalo

Welcome, Arthur Wheaton, The Worker Institute, Cornell University
09AM-09.10AM

Introduction: The Contours of Economic Development in the Rust Belt since the Great Recession
Evren Dincer, Uludağ University
09.10AM-09.30AM

Session I
Main Trends and Issues of Economic Development in Buffalo
09.30AM-12PM

The Performance of the Buffalo Economy Since the Great Recession
Jaison Abel, Federal Reserve Bank of New York

Healing Buffalo’s Economy: The Buffalo Billion and Priorities for Economic Development
John Slenker, New York State Department of Labor

General Trends in the Labor Market
Cesar Cabrera, New York State Department of Labor

Labor Market and Challenges for Workforce Development
Heather Gresham, Executive Director, Buffalo and Erie County Workforce Investment Board

Labor’s Role in Economic Development and Organizing
Richard Lipsitz Jr., Western New York Area Labor Federation

Economic Development from a Social Justice Perspective
Franchelle C. Hart, Open Buffalo

Lunch Break: 12PM-1PM

Session II
Placing Buffalo in its Geographical and Economic Context:
Buffalo as part of New York State and the Rust Belt
1PM-2.45PM

The Role of New York City in the Economy of New York State
James Parrott, Center for New York City Affairs at The New School

Buffalo’s Economic Relations with Albany
Bruce Fisher, SUNY Buffalo State

The Role of Community Organizations in Buffalo’s Economic Revitalization in a Comparative Perspective
Ronald Applegate, Cornell University

Buffalo’s Economic Development Compared: Buffalo as Part of the Rust Belt
Evren Dincer, Uludağ University

Coffee Break, 2.45PM-3.00PM
Session III
Sectors in Perspective I
3PM-5PM

Buffalo’s Housing Market since the Great Recession
Sam Magavern, Partnership for the Public Good

Buffalo’s Agricultural Economy since the Great Recession
Diane Held, Cornell University Cooperative Extension

The Finance Sector in Buffalo since the Great Recession
Gary Keith, M&T Bank

Buffalo-Niagara Medical Corridor Experiment: Perspectives on a Project for Economic Revitalization
David Scott, Buffalo Niagara Medical Campus (TBC)

The Energy Sector, Community Development and Sustainability in Buffalo since the Great Recession
Rahwa Ghirmatzion, PUSH Buffalo

Concluding Remarks and Reflections on Day One
Rosemary Batt, Cornell University

DAY 2, AUGUST 15, UAW Local 774
Session IV, 09AM-12PM
Sectors in Perspective II
Manufacturing and the Auto Industry

A Historical Review of the Auto Industry in the U.S. and Western New York
Art Wheaton, The Worker Institute at Cornell University

Recent Trends in Auto Manufacturing in Western New York
Ian Greer, Cornell University

Canadian Auto Industry since the Great Recession: A Look at Buffalo from the other side of the Border
Mathieu Dupuis, School of Industrial Relations, University of Montreal

The Reindustrialization of the U.S.: Tonawanda Powertrain since the Great Recession
Evren Dincer, Uludağ University

Auto Manufacturing in Buffalo since the Great Recession: A Managerial Perspective
Steve Finch, Plant Manager, GM Tonawanda Powertrain

Labor Management Relations and Restructuring in Manufacturing since the Great Recession: A Union Perspective
Wenceslao Valentin III, President, UAW Local 774

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Human Capital, Local Economic Development, and the Importance of Colleges and Universities

Jaison R. Abel

Cornell ILR School High Road Program
Buffalo, NY – July 15, 2016

The views expressed here are those of the presenter and do not necessarily represent those of the Federal Reserve Bank of New York or the Federal Reserve System.
Questions

• What is human capital?

• Why is human capital important to regional economies?

• How can regions increase their human capital?
What is Human Capital?
Human Capital

• The knowledge and skills people use in their jobs to produce goods and services

• Closely tied to educational attainment
Why is Human Capital Important to Regional Economies?
Human Capital and Economic Activity

Correlation Between Education and GDP Per Capita

One percentage point increase in college attainment associated with 2 percent increase in economic activity

Source: U.S. Bureau of Economic Analysis, U.S. Bureau of the Census and Moody's Economy.com
Why Does this Relationship Hold?

1. Highly skilled individuals earn higher wages:
   - High human capital regions have a larger collection of such workers

2. Spillover effect:
   - Everyone receives a productivity benefit from being around workers with higher skills, leading to higher wages for all

The whole is greater than the sum of its parts!
Other Benefits

• Regions with higher levels of human capital also tend to have:
  • More innovation
  • Faster population and employment growth
  • More rapid “reinvention”
How Can Regions Increase Their Human Capital?
Two Ways Colleges and Universities Can Help to Raise Local Human Capital Levels

1. **Degree Production**: increasing the *supply* of human capital
   - Educate the local population and draw students into the region, some of whom stay after graduation
   → Limited ability to keep local graduates not tied to region

2. **Academic Research**: raising the *demand* for human capital
   - Local businesses can utilize the skills, knowledge, and technology developed at academic institutions, which attracts start ups and expands high human capital economic activities
   → Importance of physical proximity provides anchor to the region
The Supply Side

Correlation Between Degree Production and Human Capital

Doubling of degree production associated with 3 to 7 percent increase in human capital

Source: IPEDS, U.S. Bureau of the Census
The Demand Side

Correlation Between Research Intensity and Human Capital

Doubling of research intensity associated with 4 to 9 percent increase in human capital

Source: IPEDS, NSF, U.S. Bureau of the Census
## Type of Human Capital

How Do Colleges and Universities Affect a Region’s Mix of Economic Activities?

### Occupational Structure of the Labor Force

<table>
<thead>
<tr>
<th>Type of Human Capital</th>
<th>Occupation</th>
<th>% with BA</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Human Capital</td>
<td>Life, Physical, and Social Science</td>
<td>76.3</td>
</tr>
<tr>
<td></td>
<td>Legal</td>
<td>76.1</td>
</tr>
<tr>
<td></td>
<td>Education, Training and Library</td>
<td>73.5</td>
</tr>
<tr>
<td></td>
<td>Community and Social Services</td>
<td>66.9</td>
</tr>
<tr>
<td></td>
<td>Computer and Mathematical</td>
<td>63.2</td>
</tr>
<tr>
<td></td>
<td>Architecture and Engineering</td>
<td>60.2</td>
</tr>
<tr>
<td></td>
<td>Business and Financial Operations</td>
<td>58.8</td>
</tr>
<tr>
<td></td>
<td>Healthcare Practitioners and Technicians</td>
<td>54.4</td>
</tr>
<tr>
<td></td>
<td>Arts, Design, Entertainment, Sports, &amp; Media</td>
<td>51.3</td>
</tr>
<tr>
<td></td>
<td>Management</td>
<td>48.8</td>
</tr>
<tr>
<td>Low Human Capital</td>
<td>Sales and Related</td>
<td>23.6</td>
</tr>
<tr>
<td></td>
<td>Protective Service</td>
<td>19.4</td>
</tr>
<tr>
<td></td>
<td>Office and Administrative Support</td>
<td>15.5</td>
</tr>
<tr>
<td></td>
<td>Personal Care and Service</td>
<td>12.3</td>
</tr>
<tr>
<td></td>
<td>Healthcare Support</td>
<td>8.8</td>
</tr>
<tr>
<td></td>
<td>Installation, Maintenance, and Repair</td>
<td>6.8</td>
</tr>
<tr>
<td></td>
<td>Production</td>
<td>6.2</td>
</tr>
<tr>
<td></td>
<td>Transportation and Material Moving</td>
<td>6.1</td>
</tr>
<tr>
<td></td>
<td>Food Preparation and Serving Related</td>
<td>5.9</td>
</tr>
<tr>
<td></td>
<td>Construction and Extraction</td>
<td>5.4</td>
</tr>
<tr>
<td></td>
<td>Building &amp; Grounds Cleaning, Maintenance</td>
<td>5.1</td>
</tr>
</tbody>
</table>

**TOTAL AMONG ALL OCCUPATIONS**: 26.4

Source: U.S. Bureau of the Census
High vs. Low Human Capital Occupations

Change in Composition of Local Labor Market

- Low Human Capital: 72.9%
- High Human Capital: 27.1%

Average Metro Area
High vs. Low Human Capital Occupations

Change in Composition of Local Labor Market

- Low Human Capital: 72.2%
- High Human Capital: 27.8%

2.4% Increase in High Human Capital Occupations due to one standard deviation increase in degree production.
High vs. Low Human Capital Occupations

Change in Composition of Local Labor Market

Low Human Capital 71.5

High Human Capital 28.5

5.3% Increase In High Human Capital Occupations

One Standard Deviation Increase in Research Intensity
High vs. Low Human Capital Occupations

Change in Composition of Local Labor Market

Low Human Capital: 70.8%
High Human Capital: 29.2%

7.7% Increase In High Human Capital Occupations

One Standard Deviation Increase in Degree Production and Research Intensity
Summary

• The amount of human capital in a region is a key ingredient to its economic success

• Colleges and universities can help build local human capital stocks by increasing both the supply of and demand for skill

• The importance of human capital to regional economies is only likely to increase as the U.S. economy continues to shift away from manufacturing and the distribution of goods to the production of ideas
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