

LEMONS INTO WINE

Supporting Manufacturing in Chicagoland

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At the turn of the 2010s, many of the Chicago region's major government and civic institutions began to voice support for manufacturing development in northeastern Illinois and industrial policy cooperation between the Illinois, Wisconsin, and Indiana portions of the Chicago region¹. This is a welcome change from earlier decades, where local governments handwaved deindustrialization in the region as a non-issue, irrelevant to a Chicagoland that was transforming into a globalized city and region. Ironically, the lessons of globalization have taught American cities that this was an incorrect attitude towards manufacturing: Where things are made, how they are made, and what a city-region can export are crucial elements of a metro's success in the global economy.

However, there is not enough attention paid to what the Chicago metro's position is vis-à-vis the rest of the Midwest, and in turn, what kind of manufacturing support it should pursue. While Chicagoland is still host to robust legacy industries that deserve policy support from the state and local levels, it has suffered from deindustrialization in a distinct way that the region's manufacturing boosters tend to miss. Compared to other metropolitan regions in the Great Lakes Midwest, Chicagoland has lost a greater share of its industrial base and has restructured towards services and finance to a greater degree than its regional peers. This can be seen in the relative loss of manufacturing activity in Illinois compared to Indiana, Wisconsin, Ohio, and Michigan during the recovery from the 2007-8 Great Recession (Doussard and Schrock, 2015). It also has become a logistics hub (freight, distribution, and warehousing) that serves the greater Midwest, "exporting" logistics activity across middle America (Cidell, 2012). Manufacturing support in Chicagoland, if it is going to be effective, needs to operate differently than the traditional industrial support playbook in the Midwest.

However, Chicagoland's position as the global city of the Midwest presents opportunities for industrial policy that should not be ignored. As a global metro, Chicagoland is a thick network of production and consumption that can be put to work on behalf of economic innovation in the region. It is one of the U.S.'s hotspots for the Maker Movement, entrepreneurs who take advantage of new 3-D printing, additive, and other manufacturing technologies to found new startups. Its university and community college systems are excellent and underutilized as economic development tools. In fact, one of the biggest "problems" for economic development in Chicagoland is not that it lacks important assets, but that it fails to connect them within the region itself. Lastly, the region has made significant progress towards developing 21st-century industrial policies that can be built upon with greater cooperation between local governments, counties, and the state. This study explores perspectives on how and why manufacturing industries should be supported in the region in response to the specific character of Chicagoland's industrial ecosystem.

¹ World Business Chicago, Cook County, the Chicagoland Chamber of Commerce, and the Chicago Metropolitan Agency for Planning (CMAP) have all argued for innovation support and initiated new industrial policy programs.

FIRST: WHY MANUFACTURING?

While there is more appreciation for the importance of productive industries in U.S. urban policy discussions than there was prior to the recession, support for boosting the Chicagoland's productive potential is still met with skepticism. After all, don't manufacturing industries tend to shed employees over time? Aren't "tech jobs" better for economic development?

It is true that legacy production industries tend to shed jobs over time. So do all mature industries, including service and finance. Increasing efficiency and the intensification of intra-industry competition incentivizes companies to cut labor costs. When a region is stuck in a "secular" tendency towards losing jobs over time, it represents a lack of innovation: new industries, new products, new kinds of jobs that allow a region to make up for jobs lost in mature industries. In sparking new industries and new jobs, a diverse set of human skills and capacities are put to work, including service, production, and financial talent. Many of the "coastal" industries that middle American looks to with jealousy are perfect examples of this. Silicon Valley is a sophisticated network of industrial, logistics, service, and financial capacity (Gray, Golob, Markusen, and Ock Park, 1998). Out of these interrelated functions, Silicon Valley has successfully sparked new industries since the 1970s. When you shift from thinking about economic development in terms of a "magic ingredient" towards a network that enables certain kinds of innovation, it opens up new possibilities. As innovation economists familiar with the West Coast's industrial ecosystem recognize, economic networks that bring together scientific research, product development, and interaction with consumer markets have a strong advantage over economic networks that operate by geographically splitting up the production process. In fact, the loss of this kind of economic integration was one of the major reasons why the U.S. suffered a second wave of deindustrialization in the 2000s, losing industrial capacity to competing advanced economies in Europe and Asia (Tasse, 2010).

Ironically, the U.S. South is also a good illustration of this point. While Midwesterners may look on in envy at the automobile Foreign Direct Investment (FDI) that the American South has received from European and Asian auto manufacturers since the 1980s, the South, decades on, has remarkably little to show for it (Kalafsky and Graves, 2016). The real meat of domestic automobile production in the U.S. still occurs in the Great Lakes states, especially Michigan and Indiana. The activity of European and Asian auto manufacturers in the U.S. South is primarily meant to facilitate the last stretch of their global logistics chain. The work in these plants is kept simple and low-paid, and rarely "spins off" additional economic activity.

The point being, economic development is about the right parts being in place as much as it is anything else. Strong production assets in a metropolitan region can be used for economic development, even considering the loss of production occupations over time. In fact, they are probably *necessary* for the creation of many types of new industries, the most effective kind of economic development for metropolitan regions.

SECOND: WHAT MANUFACTURING?

But where does Chicagoland stand, given all this? There's the good and the bad.

THE BAD

Chicagoland has *disintegrated* as an economic unit, in a unique (and problematic) way. It is no secret that Chicagoland suffers from a great deal of economic inequality. Chicagoland’s blue-collar manufacturing workers have seen their wages fail to increase throughout the recovery from the Great Recession, and the region’s R&D dollars have stagnated (CMAP, 2013). But, if one looks to the Loop or many of Chicagoland’s suburbs, there is also a great deal of prosperity, and Illinois performs well in attracting young professionals (United States Congress Joint Economic Committee, 2019). How can parts of the region be doing so well while others have it so rough?

One of the reasons why is that different sectors of Chicagoland’s economy work at different spatial scales, which has led them in different directions. In the 1970s, Chicago invented modern derivatives markets, whole cloth. Throughout its history, Chicago has been a rich network of production and consumption, growing up as the center of the agricultural and industrial Midwest. As a great commercial city, Chicago’s professionals and financiers developed deep, specialized skillsets. Banking for mid-sized firms, commodities exchange, and industrial venture capital developed in the Midwest, particularly Illinois. With the invention of derivative markets in the 1970s, this set of skills and networks in Chicago began to be redeployed at the scale of the global economy (Muellerleile, 2015). Once commodity markets became intermeshed with foreign currency markets, and in tandem with new communications technologies, “commodity” finance was no longer so tied to its home. The fate of Chicagoland’s industries was less relevant to financiers, who became managers of a broad Midwestern production network and financial consultants to the world’s industry and agriculture.

From the point of view of the 1970s-1990s, it was easy to think that this new financial nexus would resolve Chicagoland’s employment and developmental needs. It drove downtown building booms, attracted corporate headquarters that sought the city’s financial expertise, and filled up suburban and urban office space. Meanwhile, the region exploded as a critical node in the global logistics network. According to businessmen and politicians interviewed by the author, the dual financial and logistical expansion in Chicagoland was truly impressive. Unfortunately, it also covered up deep weaknesses in the region’s economy that would only worsen over time (Doussard, Peck and Theodore, 2009).

TABLE 1

CONCENTRATION OF MANUFACTURING EMPLOYMENT IN THE GREAT LAKES STATES

Great Lakes state	Manufacturing LQ	Manufacturing employment	US rank (manufacturing concentration)
Indiana	2.05	541,773	1st
Wisconsin	1.91	465,533	2nd
Michigan	1.67	627,799	3rd
Ohio	1.49	698,974	8th
Minnesota	1.29	321,932	13th
Illinois	1.13	585,917	19th

Data: Bureau of Labor Statistics

While Chicago’s ascension to global city status and the 1990s boom were happening, the region’s ability to generate new industries and products collapsed. West Coast companies aggressively peeled away startups located in middle America², and the Midwest’s corporate giants became increasingly controlling towards their workforce, chasing away many young entrepreneurs towards freer pastures in the West (Russell, 2017). While Chicagoland retained important clusters in metals, chemicals, food processing, transportation/freight manufacturing, and electronics, its industrial comparative advantage shifted towards its logistics infrastructure and cheap, precariously-employed labor pools rather than the upwards development of its human talent. This led to a “downward harmonization” dynamic, where low-investment, low-value added, and low-wage tendencies among firms reinforced each other (Peck, 1996).

THE GOOD

It is easy to forget what really made the metropolises of the Midwest. While waterways and railroads are often cited as major reasons why Chicago got started as a major city, its consumer markets were probably equally important. The first wave of Chicago settlers moved into the region on accident, creating its early consumer market. In the early 1800s, there were rumors that a canal (such as what would eventually be the Erie Canal) would soon be constructed by the U.S. government. It turned out to be false, but not before attracting tens of thousands of migrants at an

TABLE 2
EXAMPLES OF INDUSTRIAL CONCENTRATIONS AROUND CHICAGOLAND, USING 2018 ANNUAL AVERAGE EMPLOYMENT DATA

Chicagoland County	4-Digit NAICS manufacturing industry	LQ	employment
Cook County	NAICS 3113 Sugar and confectionery product manufacturing	3.14	4,251
	NAICS 3312 Steel product mfg. from purchased steel	3.0	3,057
	NAICS 3343 Audio and video equipment	2.95	1,047
Lake County (IL)	NAICS 3254 Pharmaceutical and medicine manufacturing	20.89	14,212
	NAICS 3326 Spring and wire product manufacturing	12.13	1,219
	NAICS 3391 Medical equipment and supplies manufacturing	7.47	5,481
Will County	NAICS 3256 Soap, cleaning compound, and toiletry mfg	7.31	1,336
	NAICS 3342 Communications equipment manufacturing	5.64	807
	NAICS 3118 Bakeries and tortilla manufacturing	3.25	1,697
DuPage County	NAICS 3327 Machine shops and threaded product mfg.	3.2	4,873
	NAICS 3231 Printing and related support activities	2.47	4,486
	NAICS 3344 Semiconductor and electronic component mfg	1.81	2,829
Kane County	NAICS 3335 Metalworking machinery manufacturing	4.7	1,241
	NAICS 3273 Cement and concrete product manufacturing	3.77	1,069
	NAICS 3353 Electrical equipment manufacturing	4.32	887
McHenry County	NAICS 3339 Other general purpose machinery manufacturing	6.88	1,242
	NAICS 3321 Forging and stamping	10.33	695

² Contrary to the myth of “everything can go everywhere these days,” West Coast companies have never hesitated to coerce their talent to relocate westwards.

	NAICS 3391 Medical equipment and supplies manufacturing	5.33	1,129
Lake County (IN)	NAICS 3271 Clay product and refractory manufacturing	9.05	452
	NAICS 3312 Steel product mfg. from purchased steel	5.36	396
	NAICS 3279 Other nonmetallic mineral products	2.93	301
Kenosha County (WI)	NAICS 3222 Converted paper product manufacturing	2.88	354
	NAICS 3328 Coating, engraving, and heat treating metals	2.82	180
	NAICS 3323 Architectural and structural metals mfg	1.51	268

Data: Bureau of Labor Statistics Quarterly Census of Employment and Wages

Notes: This information is meant to be illustrative, not a formal analysis, and is not a comprehensive list of all industrial specializations or employment clusters in Chicagoland. The author cherry-picked interesting industrial specializations from each county. Location quotients are a measure of industrial concentration in a geographical unit. For example, Cook County's LQ of 3.14 in sugar and confectionary product manufacturing means that Cook County has 314% more people per capita employed in this industry than the national average.

early point in the Midwest's development (Cronon, 1992). The city's original industrial entrepreneurs that followed these settlers hailed from small towns in the U.S. Northeast. They succeeded in transferring their folk commercial skills into industrial production, initially tested and anchored in the Midwest's biggest commercial market.

The region's modern day industrial proficiencies still bear this stamp. Chicagoland's food, consumer electronics, chemicals, and metals were all born out of an interplay between firms and the people who immediately consumed their products. Eventually, these industries looked beyond the region itself for their consumer markets and financial linkages. But the commercial metropolis that bred them is still there. The challenge is to recreate this comparative advantage for the region.

Because of this historical experience, the region's institutions and leadership have already made some important policy inroads. Cook County's Bureau of Economic Development has developed a slew of land use, startup grants, and infrastructure support programs throughout the 2010s. Regional economies consist of "productive" (making things or services), "consumptive" (people/firms capable of buying things or services) and "distributive" (getting things and services to the consumer) functions. These functions form a three-way relationship which requires dedicated attention by policymakers, an attitude that has also been promoted by regional think-tanks such as the Chicago Metropolitan Agency for Planning, World Business Chicago, and the Alliance for Regional Development. The insight—absent from American economic development policy for decades—that there is both a "production base" and "consumer base" within metropolitan regions, and that their delinking since the 1970s has been bad for Midwestern city-regions, seems to have finally been grasped by important actors in Chicagoland. The question, then, is what policies can help link Chicagoland's consumer and producer bases.

Chicagoland is a major cluster for the "Maker Movement"

There is an entire new class of entrepreneur in the 21st-century, of which there is a major cluster in Chicagoland. This class is dedicated to reinventing the producer base and consumer base connection:

makers, or entrepreneurial manufacturers who used new digital production technologies to produce goods. Makers have emerged as new economic actors in a variety of products, including durables and non-durables. Studies of the Maker Movement by economic geographers suggest that it has serious developmental potential, but that this potential is bottlenecked (Doussard, Schrock, Wolf-Powers, Eisenburger, and Marotta, 2018).

Makers are usually consigned to raising capital via their immediate social networks. While this not necessarily *bad* as the first step towards procuring funding, they often find it difficult to attract the attention of domestic industrial venture capital networks, which tend to view innovation exclusively from the perspective of well-established large firms. Competitive grants offered by states, non-profits, counties, or local governments can make a substantial difference in enabling Makers to succeed, but these grants are still rare. Makers have begun to increasingly scale up their production, and usually do so via contract manufacturing. However, most of the contract manufacturing must occur outside of the United States, due to the erosion of America's industrial capacity over time. Given that industrial entrepreneurs tend to be engineering wonks, they especially struggle with cracking domestic networks which they could use to deploy their contracts in-region (or at least in-nation). Their products (whether sold to individual consumers or as inputs for other firms) do tend to be niche, but the tendency towards nicheness is greatly exacerbated by the blindspots of U.S. metros' industrial-financial ecosystems (Doussard, Schrock, Wolf-Powers, Eisenburger, and Marotta, 2018). The tendency to start with local markets, but with the eventual goal to scale up to exporting outside their resident metro as well, makes Makers a natural match for economic development programs. This is also relevant for the "consumer" base aspect of economic development. When consumers buy distinct products from within their metro, they displace consumption that would "leave" the metro's economy (i.e., the profits would have flowed to a different region). Also, if there is more competition for labor among industries in the region, it will create upward pressure on wages, further nurturing Chicagoland's consumer base (Schrock, Doussard, Wolf-Powers, Marotta, and Eisenburger, 2019).

Legacy industries still have much to offer

Because Chicagoland's industrial firms are well-represented by major professional organizations such as the Chicagoland Chamber of Commerce, Technology & Manufacturing, and the Federal Reserve Bank of Chicago, their voice is well-established in local and state governments through lobbying and political connections. However, it should be recognized that they will be a necessary ingredient for economic development in the region. Despite waves of deindustrialization, manufacturers still represent a major bloc of employment in the Chicago-Naperville-Elgin Metropolitan Statistical Area, which held approximately 423,000 jobs in the broad category of "manufacturing"³. This likely undercounts the real tally of manufacturing jobs in the region, as rising shares of employment in manufacturing industries are classed as service work due to the region's large temp employment sector. While the quantity of manufacturing workers in Chicagoland stands shoulder-to-shoulder with other sectors of the region's economy, manufacturing represents the lion's share of Chicagoland research & development spending (CMAP, 2013) as well as an irreplaceable source of expertise regarding exporting and process innovation.

³ From the Bureau of Labor Statistics. See references.

While the generation of new industries is key to regional development, the line between the old and the new is not always so clear. Major innovations in industrial processes or the novel combination of old and new technologies can help birth “phoenix industries,” industries whose potential has been substantially revived through innovative activity (Christopherson, 2009).

TABLE 3

PRODUCTION OCCUPATIONS IN THE CHICAGO-NAPERVILLE-ELGIN, IL-IN-WI MSA, MAY 2018

Occupation code	Occupation Quotient	Employment
51-0000 Production Occupations	1.07	312,900
51-3021 Butchers and Meat Cutters	1.42	6,080
51-4034 Lathe and Turning Machine Tool workers, Metal and Plastic*	2.41	2,280
51-4041 Machinists	1.96	24,180
51-4081 Multiple Machine Tool workers, Metal and Plastic	2.19	9,390
51-4111 Tool and Die Makers	1.48	3,460
51-4193 Plating and Coating Machine workers, Metal and Plastic	1.63	2,090
51-5112 Printing Press Operators	1.37	7,640
51-9199 Production Workers, All Other	3.27	24,190

Data: Bureau of Labor Statistics Occupational Employment and Wage Estimates, May 2018

Notes: An “occupation quotient” is a version of a location quotient that measures concentration of occupation types in a geographical unit, rather than using the number of people employed within an industry. These occupation quotients were selected for illustrative purposes, and do not represent a comprehensive analysis of Chicagoland’s production occupation specialties.

The history of community organizing and community development in Chicagoland also offers an organizational form that has already begun to take advantage of new industrial support programs across the region. Organizations such as the [Jane Addams Resource Corporation](#), [Bethel New Life](#), [Manufacturing Renaissance](#), [the Plant](#), [the Byron Brazier Foundation](#), [Chicagoland’s Worker’s Center movement](#) (Theodore, 2015) and others have established a community development network that experiments with new technologies, both in spinning off neighborhood businesses and quality forms of entry-level employment.

Strong universities, education, and a well-trained workforce

Chicago and Chicagoland are not wanting when it comes to world-class universities. The University of Illinois system, even through rounds of austerity and belt-tightening, would be the envy of most states. As the OECD has found in its research on Chicagoland, while its universities draw in students from around the world, research and development from Chicagoland and Illinois universities are not so well plugged in to the local economy as university systems are in more economically robust East and West Coast metros (OECD, 2012). It is difficult to say why exactly this is the case, but the rocky history of university-community relations in Chicagoland provides a clue. Three of Chicago’s biggest universities (University of Chicago, University of Illinois at Chicago, and the Illinois Institute of Technology) have a history of deep mutual distrust between themselves and their surrounding communities, many of which are majority-minority. The broader history of racial segregation in the region produces disintegration effects

between universities and localities that has been recognized as an economic drag by urban analysts for a long time now, (Abu Lughod, 1999), a finding shared by the OECD (2012).

Chicagoland’s universities hold notable programs dedicated to community relations, but their development is a more recent phenomenon. They have some catching up to do, simply from the weight of history. However, in the triangle of innovation, production, and consumption, universities can play a major role as anchor institutions for many sectors of the economy. This can potentially take many forms, such as prioritizing input purchases from regionally-situated firms. The University of Illinois Labs network in Chicago is a major step in integrating startup activity with R&D drawn from the region’s universities but is still a relatively new phenomenon. However, there is a great deal of creative possibility for the integration of local labor and firms into university systems, and the possibilities for experimentation will vary from institution to institution. The point here is less a specific policy recommendation than highlighting the fact that the Chicagoland possesses a strong set of assets that have not been deployed to their full potential.

THERE ARE NO EASY SOLUTIONS, BUT THERE IS A LOT WE CAN DO

Policies cost time and money. It is easy to recommend them, but policy coordination across a region is a difficult project. This section will attempt to clarify which industrial support policies are well-tested, and which are best avoided.

When it comes to legacy industries, stick to infrastructure and services

As a hub for distribution, Chicagoland’s infrastructure is particularly important. While the proliferation of low-wage logistics work poses problems for Chicagoland, its logistics infrastructure is a comparative advantage that should not be passed up. Illinois’ failure to properly commit to infrastructure maintenance is well-publicized. Aside from its freight infrastructure, public infrastructure undergirds Chicagoland’s potential as a place where a major consumer base is connected to a major production base. Fixing and improving infrastructure is sensible and is one of the best bets for improving the competitiveness of the region’s firms, including its legacy industries.

TABLE 4

2006-2017 SHIFT SHARE (REGION SHIFT) IN THE MANUFACTURING SECTOR OF THE CHICAGOLAND MSA AND COUNTIES

Geographic unit	Region shift, % of employment	Region shift, raw employment numbers
Chicago-Naperville-Elgin MSA	-4.18%	-20,891
Cook County	-12.85%	-32,186
DuPage County	4.99%	3,018
Lake County	10.31%	5,437
Will County	27.69%	5,646
Kane County	3.14%	1,106
McHenry County	-14.81%	-3,002
Kenosha County	-10.26%	-1,039

Lake County (IN)	-0.38%	-103
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Data: Bureau of Economic Analysis

Shift Share calculation: REAProject.org

Notes: Shift Share calculations represent employment change in an industry within a geographical unit over time. It estimates the amount of economic decline or success in the geographic unit's industry that can be attributed to national economic trends, trends within the industry itself, and lastly, the "region shift," or, the estimated contribution of the geographic unit to the resilience of the industry within its borders. Here, the shift share measures "manufacturing" as a broad sectoral category. As a whole, the Chicagoland MSA suffered from loss in its industrial base between 2006-2017. However, DuPage, Lake (IL), Will, and Kane counties improved their "region shift" during this time period. They improved their relative position as sites of industrial investment and employment. This indicates the importance of infrastructure and logistical access for the resilience of regional industry in Chicagoland. Cook County, the region's most urbanized county and the furthest-out ring of suburban counties in Chicagoland suffered from surprisingly similar negative regional shift trends. For the furthest-out suburban counties, they may be too far from logistics hubs and useful infrastructure, and for Cook County, overburdened and under-invested urban infrastructure may be the culprit.

However, legacy industry firms also push for policies that are far more questionable. These firms often cite a lack of talent holding back their growth potential, or a supposedly oppressive tax structure in Illinois. Aside from Illinois' services and infrastructure being threatened by a lack of revenue, there is little reason to think that these are worthwhile areas of policy intervention. While there may be merit in reviewing tax policies between, for example, Wisconsin and Illinois, differences in their tax structures (at least regarding manufacturing firms' tax burden) explain little in the differences between industrial activity between Illinois and its neighbors. Illinois already has a favorable treatment towards industrial firms in its tax code (Herrigel, 2007), and massive tax breaks for industrial firms (which have mounted in the hundreds of millions at some points in Illinois' recent history) have completely failed to produce job growth or increases in capital investment (Cafcas and LeRoy, 2012).

In political arenas, manufacturers usually claim that they are held back by a lack of talent, but behind closed doors, they usually admit that they do not struggle to find workers. This is because CEOs and other corporate executives often abuse turnover numbers ("we have 10,000 positions available!") to exaggerate their available employment in hope of attracting subsidization via state or local tax codes. If a firm makes a claim about available positions (whether industrial or otherwise), ask them about the increased wages, conditions, or benefits they are offering to attract talent (Cappelli, 2015). If they are not offering anything, they have nobody to blame but themselves. ManpowerGroup, one of the leaders of Chicagoland's temp employment network, has gone so far as to publicly criticize the region's industrial employers for failing to think beyond the short-term when it comes to talent procurement (ARD, 2018: 159). Alternatively, calls for increased community college integration with employers, while sometimes a worthwhile idea, can also be questionable. At the end of the day, an employer is supposed to conduct a significant amount of training for its employees. Putting the onus on public education systems to deliver "shovel-ready" workers is often just a way of transferring costs to somebody else's balance sheet, rather than a sign of opportunity growth in an industrial sector.

When it comes to support for Chicagoland's employers, overall commitments to public education, community colleges, and public universities would be far more effective than trying to build highly

specific employment pipelines, an economic development tactic that is widely recognized as questionable (Schrock, 2013). On the other hand, assets that enable already-existing employers to reach new markets, move goods, and procure important inputs are a safe bet. Stick to infrastructure and services.

Put more money into Chicagoland's good ideas

Some of Chicagoland's deindustrialization woes would be well-served by throwing material support behind good ideas that have already gotten started. There is no need to reinvent the wheel if you already have assets to build on. One of the simplest ways to foster Chicagoland's Maker economy, for example, would be to procure large monetary commitments for the grant programs (or similar grant programs) as those initiated by the Cook County Bureau of Economic Development, which provides modest, competitive grants for Chicagoland startups. Practical research programs, such as

TABLE 5

KEY ORGANIZATIONS IN THE PUSH FOR CHICAGOLAND INDUSTRIAL/INNOVATION POLICY IN THE 2010S

Organization	Founded	Institutional type	Industrial support activities
Cook County Bureau of Economic Development	2010	County agency	Startup grants, job training grants, tax incentives, industrial land use, export support
Alliance for Regional Development	2012	Public-Private think tank	Pro-manufacturing messaging, workshops, cross-state cooperation
World Business Chicago	1999*	Public-Private, Chicago	Branding Chicago as an "advanced manufacturing" center
Chicago Metropolitan Agency for Planning	2005	Regional planning (MPO)	Industrial cluster research, technical assistance for economic and land use planning
Chicago Regional Growth Corporation	2013	Public-private economic development	Branding, networking among regional industries, policy articulation

* World Business Chicago's full commitment to industrial policy was cemented in 2012 with its publication of *Plan for Jobs and Growth*

The importance of equity and the high road

comprehensive land use and brownfield remediation programs, would also serve as a major asset that would be a boon to both new *and* established firms. Similar community development programs run by foundations, religious institutions, or organized labor could be actively brought into the picture. Encouraging and aiding the integration of manufacturing labs and university programs with local circuits of production and consumption, as a general principle, would be synergetic with these initiatives.

While many of the developmental issues that beset Chicagoland are tough, it should be recognized that the Midwest, since the Great Recession, was host to a live experiment in economic development that tells

us some important things about the positive potential for economic development in Illinois and Chicagoland. During the recovery from the Great Recession, Minnesota's and Wisconsin's political leadership took on divergent paths. Minnesota's leadership retained their commitments to robust labor standards, public education, infrastructure, and social services, and even expanded some commitments. Wisconsin slashed these types of commitments across the board. Despite being as similar as two states can be in their social and industrial structure, Minnesota's formula performed substantially better than Wisconsin's (Cooper, 2017). While Illinois suffers from budget mismanagement, it should be remembered that one of the best ways to pay off debts is to make money. You can't make money if you don't invest.

While this may sound like a more general observation, it is directly relevant to the types of industrial policies discussed in this paper. An understanding of the sort of economy that industrial policies should work towards is just as important as the specific definition of a given policy. Minnesota and its Twin Cities have more successfully shored up its "commercial metropolis" heritage than Illinois and Chicagoland have, despite our region's enviable assets. Actively working to decrease costs for the region's firms is a good idea, and there is still much to do in this area, particularly in infrastructure and land use. However, many forms of cost-cutting impose externalities on workforces and residents' quality of life. The commercial metropolis that Chicagoland could become requires an upwards harmonization of labor, investment, and quality of life, and industrial policy should be targeted accordingly.

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