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Modern industrial policy and zoning: Chicago, 1910–1930

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ABSTRACT: Industrial policy has long been considered a federal responsibility. Indeed, most scholars date modern local economic development programmes as starting in the 1960s. Before that, in this view, industrial policy was *ad hoc*, unco-ordinated and fragmented. In this article, I argue that the origins of modern industrial policy initiated by the local state slowly emerged at the beginning of the twentieth century in Chicago. Using an assortment of sources, I show that a new type of industrial policy was forged in the conflict over the 1923 zoning ordinance. The city's real-estate, financial and political elites were able to mobilize information, science, funding, individuals and arguments to convince industrialists that zoning was to their advantage. In the process, the city's industrial interests were able to frame the new zoning ordinance to their ends.

Introduction

In December 1919, the Chicago mayor, William Hale Thompson, told the audience at the Citizens' Zone Plan Conference why his government supported the creation of a comprehensive zoning ordinance. Along with the need to preserve property values, Thompson argued that zoning was critical for the city's industrial growth. After mentioning the 'protection of individual homes', he turned to the role that zoning would have for the 'stimulation and encouragement of wholesale and retail merchants and industrial plants'. Zoning, to his mind, would create greater economies and efficiencies that would in turn produce 'unrivaled facilities for expanding our business interests'.[1] Thompson was not alone in making a connection between zoning, industry and economic expansion. In an address before the Chicago Association of Commerce in October 1919, the planner Harland Bartholomew argued that zoning was in part responsible for important changes to how St Louis was perceived by outside investors. He told Chicago's business and political elite that the city was 'experiencing industrial activity … greater than we ever had'. Zoning had allowed St

* Several people have helped make this a better article: the audience at several conferences, the journal reviewers, Ted Muller, Phil Ethington and my research assistant, Jason Cooke. I thank them all.

[1] W.H. Thompson, 'message from Honorable William Hale Thompson, mayor of Chicago', in *Citizens' Zone Plan Conference, Chicago. Report of Proceedings* (Chicago, 1919), 10, 11.

Louis to create an efficient and ordered world for industry.[2] In other words, zoning was more than a policy aimed at protecting residential property values; it was also a policy that promoted industrial development. Zoning was local industrial policy.

Industrial policy, however, has long been considered a federal responsibility. From Alexander Hamilton's report of 1791 to Barack Obama's recent Buy American initiative, the construction and implementation of industrial policy – from tariffs on manufactured goods to prime contracts with large military corporations – has been seen as a prerogative of the national government. Indicative of this view was the statement by US Steel's chairman, Elbert Gary, at the annual meeting of the American Iron and Steel Institute in May 1919: 'industry and enterprise in the United States should be encouraged and protected' by the federal government. For Gary, only then would America be able to maintain its place as the world's leading industrial and commercial power.[3] In the opinion of Gary and other corporate leaders, international industrial prominence was tied to state support for industry. In this view, industrial policy was not local policy. Industrial policy according to Richard Bingham, for example, is 'a nation's official total effort to influence sectoral development and thus, the national industrial portfolio'.[4]

Taking this definition as their cue, political scientists, sociologists and business historians have pointed to the absence of local industrial policy before the late 1960s.[5] Research on national industrial policy has generated, among other things, incisive understandings of the rise of American industrial leadership, the creation of industrial codes during the Great Depression, the formation of the industrial military complex and the national security state, the development of new high-tech industries and the importance of federally funded research in technology and science.[6] These stories follow the interactions the United States had with other

[2] H. Bartholomew, 'Benefits of zoning', in Cook County Real Estate Board Zoning Committee, *Zoning in Chicago* (Chicago, 1919), 7.

[3] 'Gary predicts record year in steel industry', *Chicago Daily Tribune*, 24 May 1919, 20.

[4] R. Bingham, *Industrial Policy American Style: From Hamilton to HDTV* (Armonk, NY, 1998), 6. Also see L. Galambos and J. Pratt, *The Rise of the Corporate Commonwealth: U.S. Business and Public Policy in the Twentieth Century* (New York, 1988).

[5] A. DiGaetano and P. Lawless, 'Urban governance and industrial decline: governing structures and policy agendas in Birmingham and Sheffield, England, and Detroit, Michigan, 1980–1997', *Urban Affairs Review*, 34 (1999), 548; Galambos and Pratt, *Corporate Commonwealth*; P. Kantor, H. Savitch and S. Haddock, 'The political economy of urban regimes: a comparative perspective', *Urban Affairs Review*, 32 (1997), 348–77.

[6] M. Bernstein, *The Great Depression: Delayed Recovery and Economic Change in America 1929–1939* (New York, 1987); G. Hooks, *Forging the Military-Industrial Complex: World War II's Battle of the Potomac* (Urbana and Chicago, 1991); P. Koistinen, *The Military-Industrial Complex. A Historical Perspective* (New York, 1980); G. Weir, *Forged in War: The Naval-Industrial Complex and American Submarine Construction, 1940–1961* (Washington, 1993); D. Yergin, *Shattered Peace: The Origins of the Cold War and the National Security State* (Boston, MA, 1977); D. Hart, *Forged Consensus: Science, Technology, and Economic Policy in the United States, 1921–1953* (Princeton, 1998).

countries and sketch out how the federal state intervenes in the market to build up the national economy.

The focus on the national scale has led to the academic neglect of the creation of an active industrial policy by urban local alliances. Instead, scholars have emphasized urban leaders' concern with social reproduction before World War II, focusing on race and housing issues, and the implementation of New Deal policies. Interest in the urban economy has emphasized the provision of subsidies as a part of a strategy of inter-urban competition, and the impact of federal subsidies, tariffs, research and regulations (such as licensing and production limits) on local industry. In very few cases have writers looked at how local elites actively created and implemented locally based industrial policy before the 1960s. Direct and coherent action purposely to shape industrial development by the local state is considered to be, at best, negligible.[7]

In this received story, local government was effectively inactive in the creation of industrial development policies before the 1960s. Urban industrial policy was seen as *ad hoc*, unco-ordinated and fragmented. Primarily concerned with the provision of urban infrastructures and an ideological environment for the promotion of private industry, what policy there was emerged out of the local elite's desire to create the appropriate business conditions for enhancing urban growth and prosperity without impinging on their control over private property. While historians had little to say about industrial policy before World War II, the story changed after the war. As Joel Rast puts it, an increasingly number of social scientists noted that 'city officials formed close partnerships with business leaders' that created a new urban political economy centred on corporate-city redevelopment policies.[8] As Rast and others have noted, municipal and corporate leaders in several cities slowly began to implement new regimes of economic growth in response to the 'changing structure of postwar urban economies' and the 'ruined urban landscapes' left behind by deindustrialization.[9] These new regimes with their assorted redevelopment policies were different in kind from the relatively unco-ordinated, unsystematic and unrelated decision-making that characterized the pre-war period.

[7] R. Caro, *The Power Broker: Robert Moses and the Fall of New York* (New York, 1984); J. Light, *From Warfare to Welfare: Defense Intellectuals and Urban Problems in Cold War America* (Baltimore, 2003); M. O'Mara, *Cities of Knowledge: Cold War Science and the Search for the Next Silicon Valley* (Princeton, 2005); P. Scranton, *Endless Novelty: Specialty Production and American: Industrialization, 1865–1925* (Princeton, 1997). One important exception to this line of thinking is Eric Monkkonen's study of local financing in nineteenth-century Illinois cities and towns. *The Local State. Public Money and American Cities* (Stanford, 1995).

[8] J. Rast, *Remaking Chicago: the Political Origins of the Urban Industrial Change* (DeKalb, 1999), 5.

[9] Quotes from Rast, *Remaking Chicago*, 4, and J. Cowie and J. Heathcott, 'Introduction', in *Beyond the Ruins: The Meanings of Deindustrialization* (Ithaca, 2003), 4. Also see S. High, *Industrial Sunset: The Making of North America's Rust Belt, 1969–1984* (Toronto, 2003).

The standard story stresses that the primary concern of managers of industrial cities such as Chicago was to ensure stable conditions for investment. As Roger Biles notes, mayors such as Edward Kelly 'provided what the businessmen most coveted, a stable and unchanging environment in which investment might prosper'.[10] The role of the local state before World War II was to provide infrastructures and the appropriate business conditions for capitalist investment. The state was not to intervene in the prerogatives of industry. Only with the obvious indicators of the ruined landscapes being created by deindustrialization did local government became actively involved in establishing co-ordinated economic development plans. In this view, place promotion strategies and economic policies geared to local expansion since the 1960s have produced, among other things, urban tourism and gentrification. Local business and political alliances implemented the first attempts to devise co-ordinated policies only in response to the problems faced by the deindustrialized city.[11]

But was this the case? In this article, I show that urban leaders in Chicago were not always reluctant to intervene directly in industrial matters before the full blast of deindustrialization. Local alliances were active outside of the well-known cases of twentieth-century public housing, central-city redevelopment and race relations. Chicago social reformers such as Mary McDowell, Jane Addam, Florence Kelley and Graham Taylor actively fought to regulate industrial prerogatives, to reduce environmental degradation and to redistribute urban wealth before World War I. Even though they focused on local matters, these reformers were tied into national networks that mobilized forces fighting entrenched groups over interests such as child labour, compulsory education, working conditions and smoke pollution. Florence Kelley, for example, was part of a national movement of trade unionists and reformers who, by linking social conditions, housing, health and sweatshops, sought to regulate labour legislation. In some cases, such as the removal of city dumps from the Stockyards district or the establishment of neighbourhood parks, they were successful. In most areas, however, changes were more limited and less forthcoming. Despite this, social reformers were actively engaged in attempting to regulate the city's industrial interests.[12]

[10] The quote is from R. Biles, *Big City Boss in Depression and War: Mayor Edward J. Kelly of Chicago* (DeKalb, 1984), 46. Also see L. Cohen, *Making a New Deal: Industrial Workers in Chicago, 1919–1939* (New York, 1990); A. Hirsch, *Making the Second Ghetto: Race and Housing in Chicago, 1940–1960* (Chicago, 1983); G. Squires, L. Bennett, K. McCourt and P. Nyden, *Chicago. Race, Class and the Response to Urban Decline* (Philadelphia, 1987).

[11] L. Bennett, K. McCourt, P. Nyden and G. Squires, 'Chicago North Loop redevelopment project: a growth machine on hold', in S. Cummings (ed.), *Business Elites and Urban Redevelopment* (Albany, 1988), 183–202; R. Biles, *Richard J. Daley: Politics, Race and the Governing of Chicago* (DeKalb, 1995); Rast, *Remaking Chicago*; Squires *et al.*, *Chicago*.

[12] Margaret Garb, *City of American Dreams. A History of Home Ownership and Housing Reform in Chicago, 1871–1919* (Chicago, 2005); Robin Einhorn, *Property Rules: Political Economy in Chicago, 1883–1872* (Chicago, 1991); L. Knight, *Citizen. Jane Addams and the Struggle*

Building on these attempts to deal with social and economic urban problems, city leaders after 1900 actively pursued new forms of industrial regulation. Surprisingly, little is known about this before World War II. Scattered evidence for Pittsburgh, Philadelphia and Los Angeles suggests that American local alliances created a modern industrial policy before the advent of contemporary local economic development programmes of the 1960s. Greg Hise shows that fights over the definition of industrial location in late nineteenth-century Los Angeles created the foundation of the city's modern industrial policy. In inter-war Pittsburgh, according to John Bauman and Edward Muller, 'city business and civic elites embraced planning as an essential element of the modern urban economy'. Guian McKee demonstrates that Philadelphia's political and economic leaders forged employment and industrial policies after 1945.[13]

In Chicago, the origins of modern local industrial policy lie in the 1923 zoning ordinance. Industrial policy, which I define as a set of coherent regulations and practices instituted and carried out by local institutions geared to the expansion of the urban economy through municipal intervention in the prerogatives of private ownership, emerged out of the contested debates over how to impose control and order over urban land use. More than simply a means to protect property values, zoning as it developed in Chicago was also a serious attempt to use an instrument of municipal power to promote industrial expansion.[14] This type of industrial policy differed from that created by the social reformers. While reformers looked to restricting capitalist freedom and to promote industrial regulation, the zoning activists were concerned with industrial expansion. Framed as a policy to further urban development, the city's 1923 zoning ordinance was considered an expansionary tool, and it emerged out of the conflicts between local alliances which sought to bring

for Democracy (Chicago, 2005); H. Platt, *Shock Cities: The Environmental Transformation and Reform of Manchester and Chicago* (Chicago, 2005); K. Sklar, *Florence Kelley and the Nation's Work* (New Haven, 1995); L.C. Wade, *Graham Taylor, Pioneer for Social Justice, 1851–1938* (Chicago, 1964).

[13] For the quote, see J. Bauman and E. Muller, *Before Renaissance: Planning in Pittsburgh, 1889–1943* (Pittsburgh, 2006), 102. Also see G. McKee, 'Urban decentralization and local public policy: industrial renewal in Philadelphia, 1953–1976', *Journal of Policy History*, 16 (2004), 66–98, and *The Problems of Jobs: Liberalism, Race, and Decentralization in Philadelphia* (Chicago, 2009); G. Hise, 'Industry, political alliances and the regulation of urban space in Los Angeles', *Urban History*, 36 (2009), 473–97.

[14] For a discussion of the importance of non-residential business interests in the formulation of the 1916 New York ordinance, see M. Weiss, 'Density and intervention: New York's planning traditions', in D. Ward and O. Zunz (eds.), *The Landscape of Modernity* (New York, 1992), 46–75. This article does not examine the reasons for the creation of the city's zoning ordinance itself or the importance of residential property in the making of the 1923 zoning ordinance. Rather, it focuses on the ways in which zoning and industrial policy were interlinked during this period. For discussion that emphasizes the protection of Chicago's residential property, see B. Flint, 'Zoning and residential segregation: a social and physical history, 1910–1940', unpublished University of Chicago Ph.D. thesis, 1977, and A. King, 'Law and land use in Chicago: a prehistory of modern zoning', unpublished University of Wisconsin–Madison thesis, 1976.

'order' to the city. The overarching concern here was the fear of economic decline and competition from other cities. Although the objectives were frequently unclear and implementation was hesitant, a modern industrial policy emerged out of the incorporation of industrial interests into the creation of the zoning ordinance.

Local industrial policy

The immediate origins of the incorporation of industrial policy into zoning lay in the late nineteenth century with the rethinking of the ideological divide between the state and civil society. The typical practice for dealing with land-use issues was for local governments and private interests to impose *ad hoc* restrictions in the form of restrictive covenants and nuisance laws. From the 1870s, however, a growing number of Chicagoans began to question the efficacy of these solutions to land-use conflict. The conjunction of several key issues such as environmental conflict, housing conditions, public health, street congestion and labour strife forced city elites to reframe the way in which they approached the relationship between urban governance, industrial expansion and the prerogatives of private capital. One issue that became a growing problem for industrialists was their control over private property. This conflict between development, with its emphasis on the market and an expanding economy, and regulation, with its aim of maintaining stable urban relations, became ever more fraught as the control of land became more problematic.[15]

Chicago manufacturers received little relief from the courts. In some cases, industrialists won out in the courts. This was the case when social reformers took on some large industries. Municipal and civil interests had little power in the face of the growing strength of the large packing corporations, for example. In this case, nuisance ordinances to regulate pollution were often ineffective.[16] Judicial decisions on nuisance law, however, usually went against business, while protecting residential uses. Indeed, most law suits were brought by residential plaintiffs against business defendants. Local judges had a common set of ideas about urban development. While both economic growth and private property were considered to be good, the externalities of industrial development were not. Even though manufacturing drove urban growth, for many, industrial land uses were a financial burden and an unacceptable nuisance. The separation of residence from industry became the prevailing political and judicial method of dealing with land-use conflict. The issue did not simply revolve around the issue of court decisions. For industry in general, the accumulation of small actions brought against them coupled with the

[15] King, 'Law and land use', 3–6; Einhorn, *Property Rules*.

[16] For nuisances see Einhorn, *Property Rules*, 206–12. Garb also talks about the city's inability to regulate the processing and pollution of the meat packers. See *City of American Dreams*, 60–85.

ongoing anxiety about defending their rights to industrial property was oppressive. By the turn of the century, industrialists experienced a degree of uncertainly and a sense that they did not have the same rights over property afforded to residential owners. There was no question that most people considered industrial plants to be serious nuisances. Not only were the costs of moving onerous if a judgment went against them, but industrialists were never sure when their control over property would be questioned.[17]

The solution to these concerns was not straightforward. By definition, most industrial firms were 'nuisances', while few firms had control over the conditions of their neighbourhood. Searching for a new site was costly, while moving the plant itself and the economic cost of being uprooted from a viable location with a range of economic assets were onerous. By the early twentieth century, the fights over, among other things, railroad track elevation, smoke abatement and plant siting signalled to manufacturers that they were fighting a losing battle over their control of private industrial space. Take the case of rendering and meat slaughtering. Manufacturers were subject to the harshest interpretation of nuisance law and to adverse city council decisions regardless of the cost to themselves. Decisions would go in favour of residences in districts where residence intermingled with rendering plants. As the city council stated in 1903, 'the fact that the owners have large financial interests involved in such plants, while it may add to their hardship of their removal does not restrict the right of the City Council to exercise the power of the re-locating districts as they see fit'. As the opinion continued, the owner forgets this 'at his peril'.[18]

Outside of the courts, manufacturers received little support from local planning and political institutions. The political space for the creation of institutions capable of creating effective industrial policy at the local level was severely restricted. A key institution central to the development of the local economy was the Chicago Plan Commission. Established in November 1909, it had no legal power to administer city planning nor did it show much interest in advocating for the needs of industry. Nevertheless, the control of the commission by a small number of political and property elites ensured that it was the most influential agency shaping Chicago's built environment and planning policy, especially through the implementation of the 1909 Chicago Plan.[19] By the beginning of World War II, however, the commission was moribund. This was made clear in 1940 by Albert Lepawsky, Professor of Political Science at the University of Chicago. He argued that the ideas of the City Beautiful movement, which had been the foundation of the commission's mission, were 'outmoded' as city planning was 'not merely a matter of parks and street layouts'.

[17] King, 'Law and land use', 96–7.
[18] Quote from King, 'Law and land use', 213; also see 194–215.
[19] C. Smith, *The Plan of Chicago* (Chicago, 2006); J. Stamper, *Chicago's North Michigan Avenue: Planning and Development, 1900–1930* (Chicago, 1991).

An effective local planning agency had to be streamlined, more firmly integrated into city council and other policy agencies, and composed of informed, experienced staff. The commission was none of these things. Despite the carrying out of several important projects, it did not function as a modern and effective planning agency.[20]

The ineffectiveness of the Chicago Plan Commission was paralleled by other local planning agencies and key government institutions, all of which were run by political appointees rather than policy experts. It was not until after World War II that policy makers and planners who came from outside the local machine and were professionally trained in economic development and industrial planning became fixtures in Chicago's policy circles. Moreover, these appointees, linked as they were to neighbourhood organizations, acted separately from economic managers. This separation between local politicians and private industry actors ensured that the former were mostly unwilling and unable to link with the latter to create effective new forms of organization. When local alliances did bring local government and the private world together it was through social issues, especially housing and race.[21]

Adding to manufacturers' anxiety about control over land was that they largely operated outside of municipal affairs. The centrality of land, financial and service policy questions to Chicago's local alliances further ensured that manufacturing interests were distant from participation in local affairs. Chicago's industrial elite were not involved in the everyday activities of urban growth as the world of industrial corporate managers was wider than Chicago. Large, multi-unit corporations with interests in production, inputs and markets spanning the United States and in some cases the world had little interest in municipal issues. With little to no direct interest in Chicago, the industrial corporation spent little time forging property-centred networks and creating locally based political alliances. The real-estate, financial and service sectors, on the other hand, were locally dependent. The very character of these industries, either because of the product (land) or their investment in local products and companies, ensured that they were more committed to the city than were industries. Accordingly, to protect and nurture their investments, they established long-term alliances with each other and political elites. They became the city's main political players, and, as such, controlled local policy and the built environment.[22]

The result was that the ability to devise and implement new forms of local industrial policy was not immediately obvious. For many, the classic form of regulation embodied in private prerogatives continued to

[20] A. Lepawsky, 'The new Chicago Plan Commission', *Journal of Land and Public Utility Economics*, 16 (1940), 100.
[21] Biles, *Big City Boss*, 43–6; Biles, *Richard J. Daley*, 47–8.
[22] Biles, *Richard J. Daley*, 47–8; Bennett *et al*., 'Chicago North Loop', 186–9; Hirsch, *Making the Second Ghetto*, 100–34; Rast, *Remaking Chicago*, 22–46.

be satisfactory. Private, *ad hoc* measures were preferable to comprehensive, publicly controlled ones. Despite the mounting evidence of industrial problems, local manufacturers were unable to envisage a world in which they could work with an effective set of independent institutions and policies. In part, this was because they knew that industrial problems were beyond the ability of any one manufacturer or local government to solve. Chicago's manufacturing was tightly bound to larger processes of regional and national change, and thus was largely outside the ambit of local control. Chicago actors, like most others in industrial centres across the country, were unwilling to implement effective, stand-alone industrial policy. Bound by the internal logic of their own system of private property and abhorrence at state interference in industrial matters, industrial and political elites kept manufacturing largely outside the world of growing state intervention in the urban economy.

But the opinions of some Chicago business people did change. While some continued to support the older forms of promoting economic development, a growing number after 1916 came to realize that a new relationship between private industry and the local state was necessary. While state intervention in the workplace was still considered unacceptable, the persistent and vexing problems associated with industrial land use and industrial expansion compelled industrialists and other elites to rethink the viability of constructing a modern local industrial policy. Adding to these concerns was the issue of Chicago's ability to compete with other cities. Both practical experience and expert opinion made it clear that on some fronts Chicago was losing the industrial war. By World War I, Chicago's massive industrial boom was on the wane, several industries were beginning to close shop, and cities such as Los Angeles were competing for national industrial investment. Local business people sought solutions to these problems. The main innovation was the shift from a private-based, reactive, *ad hoc* land-use system operating under unfavourable nuisance law to a public-controlled, prescriptive, systematic zoning plan that became the basis for modern local industrial policy. Zoning was framed not only as a means to protect property values but also as a way to support industrial interests, to stimulate economic development and to make local industry more competitive.

The linking of zoning to the development of modern industrial policy did not emerge out of a planned, well-conceived process. Despite the apparent coherence of Chicago's local alliance, zoning as a policy developed slowly out of the forging of a new set of networks connecting the city's landed, financial and manufacturing interests. While unsophisticated by the standards of post-1960s economic development programmes, the linking of zoning to manufacturing interests was the first step in the creation of modern urban industrial policy. Between 1900 and 1930, there was a rethinking of industrial policy as city politicians and business people constructed a rickety framework that established the basis

for more sophisticated forms of local policy in the post-war period. While not ushering in a new set of state–industry relations, these new practices did reframe how political and economic elites understood these relations. It was now realized that the local state could do more than provide stable conditions for industry. Local leaders were now able to work upon the built environment and the relations between urban functions in ways that they had not been able to do before.

The 1923 zoning ordinance and industrial policy

Chicago's zoning ordinance was forged out of a hotly contested set of relations between 1910 and 1923. Even though the ordinance emerged independently of the problems faced by manufacturers, zoning's rationale was incorporated by industrial interests as a way to help them solve their problems. Most writers when assessing the rise and implementation of zoning have focused on conflict between residential property owners and industrial and commercial land users. That is, the attention is on the use of a local ordinance to solve an ongoing issue between individuals and the protection of long-term values of individual parcels of land. There is good reason for this, as many contemporaries considered residential property to be paramount. As one writer noted in a 1919 discussion of the Chicago zoning bill, 'the bill is primarily designed for the protection of residence communities'.[23] The idea that zoning was primarily a concern of homeowners was not unique to Chicago. As Marc Weiss notes, the general consensus is that 'the primary motivation for zoning on a national basis was the segregation of residential uses from commerce and industry, and especially the creation of exclusive districts for the single family homes'.[24]

To make zoning successful, however, the city's political, real-estate and financial leaders had to incorporate industry into the project. This was not an easy or straightforward task. Industrialists were loath to give up control over their property, and zoning ultimately involved the transfer of some degree of control by private interests over land and its appurtenances to the local state. The creation of Chicago's 1923 zoning ordinance was made possible by convincing manufacturing interests that zoning would provide them with tools that would protect their property and promote industrial development. The ordinance, it was argued, ensured that zoning would aid and not hinder the growth of industry. In order to frame the ordinance as an expansionary tool, zoning advocates such as University of Chicago professor, Charles Merriam, local politicians, Joseph Kostner and Charles Bostrom, and the Chicago Real Estate Board had to link control over land use to the interests of industry. They were successful. By the end of 1919,

[23] 'The zoning bill', *Chicago Tribune*, 8 Mar. 1919, 6.
[24] Weiss, 'Density and intervention', 47.

manufacturers were on board, and in the process, the city also produced the tentative beginnings of modern industrial policy at the local level.

The campaign to promote zoning in Chicago dates back to 1910. In that year, in response to growing concern about the manufacturing diseconomies in residential districts, the city council asked the health department to find ways to eliminate nuisances and to control industrial invasion of residential areas. Over the next six years, the city council and developers worked to bring zoning to the centre of municipal affairs. Among other things, this budding zoning alliance hosted a conference on planning and zoning in conjunction with the City Club, and discussed ways to better co-ordinate the 1909 plan and suburban subdividing by the Chicago Plan Commission. Most importantly, in 1913, they were able to get city council to pass a zoning bill. With support from insurance companies, the Chicago Association of Commerce, the Chicago Real Estate Board and other civic organizations, the bill was passed by the Illinois legislature. The governor, however, vetoed the bill as it was deemed unconstitutional by state lawyers, who argued that it granted the municipality inordinate power over property and allowed too much interference in industrial matters. Another attempt to get control of urban land use was defeated in the House in March 1917. The failure, however, galvanized zoning advocates in Chicago to get industrialists on board.[25]

Between these early attempts at getting a zoning law and the passing of the zoning ordinance on 5 April 1923, the champions of zoning mounted a relentless campaign to convince manufacturers that zoning would be in their interests. Smarting from their inability to push a residential districting bill through the Illinois legislature, the Real Estate Board supported the city's creation of a Zoning Committee. The committee's purpose, according to Mayor Thompson, was 'to study and work out concrete suggestions in this matter for the scientific upbuilding of the city and the protection of the individual home and the stimulation and encouragement of wholesale and retail merchants and industrial plants'.[26] Zoning was more than about protecting residences; it was also about defending and encouraging industry.

The committee and its allies quickly went to work. Charles Merriam, an avid zoning promoter, wrote 'Building districts of Chicago'. The report's principal concerns were twofold. The first was to frame the city as a place of social disorganization, the solution to which relied on the need to obtain orderly development without restricting residential and industrial

[25] Flint, 'Zoning and residential segregation', 53–71; King, 'Law and land use', 350–414; J. Schwieterman and D. Caspall, *The Politics of Place: A History of Zoning in Chicago* (Chicago, 2006), 17–25; E. Phillips, 'Illinois "dry" bills defeated in legislature', *Chicago Tribune*, 29 Mar. 1917.

[26] Thompson from C*itizens' Zone Plan Conference*, 7, quoted in Flint, 'Zoning and residential segregation', 60.

growth. The second was to trumpet the benefits to industry resulting from the co-ordination of zoned industrial districts and transportation facilities.[27] The following year, the Plan Commission published a post-war reconstruction plan that called for zoning. In December 1919, the Chicago Real Estate Board and other civic groups, including the Building Managers' Association and the Chicago Association of Commerce, sponsored a two-day conference on zoning. Others were involved in presenting various bulletins and lectures that laid out the reasons why Chicago needed to have control over land use. The result was the writing of a new and successful bill (the Glackin bill), named after the Illinois state senator, Edward Glackin, which instructed the makers of the Chicago ordinance to take industrial development into account.[28]

Despite the campaign for zoning by much of the city's political and business elite, agreement from members of the city's industrial class was not readily forthcoming. This was clear from a 1919 report from city lawyers to Kostner, who was the chair of the Committee on Buildings and City Hall, which noted that 'our manufacturers look upon zoning law with a great deal of distrust'.[29] This is not unexpected given zoning's history in other American cities, especially New York where the fight over what became the 1916 ordinance pitted Fifth Avenue retailers against garment manufacturers.[30] This was backed up by the long history of nuisance law decisions going against industrial interests. Chicago manufacturers took it for granted that the fight between different groups over how the city would be organized and shaped by government control of land use would be lost by manufacturers. This had been the case in New York and there was no reason to believe that it would be any different in Chicago.

As part of the campaign to change manufacturers' minds, fact-finding delegations visited several cities. Fifty-two aldermen, city officials and business people left for a 10-day tour of American and Canadian cities on 23 October to study the 'progress made in the creation of industrial and residential zones'. In Ottawa, the delegation was told by Thomas Adams, advisor to Canada's Commission of Conservation, that the factory was being pushed to Chicago's suburbs and satellite cities such as Gary 'because no facilities were available. There was no place for it.' In Newark, the delegates were shown zoned areas where industry could cluster, protected from nuisance laws. Another delegation, this time of the city's industrial committee, left Chicago on 30 October for a 10-day tour of midwestern and southern cities. Its central purpose was 'to learn how Chicago's industrial future may best be safeguarded'. In St Louis, they

[27] C. Merriam, *Building Districts and Restrictions* (Chicago, 1917).
[28] Flint, 'Zoning and residential segregation', 53–71; King, 'Law and land use', 350–414; Schwieterman and Caspall, *The Politics of Place*, 17–25.
[29] L. Hornstein and E. Dupes, 'Letter dated Sep. 18, 1919', in Cook County Real Estate Board, *Zoning in Chicago*, 4.
[30] See Weiss, 'Density and intervention'.

heard how zoning had helped that city out-muscle Chicago for firms and increased the value of industrial property. As one editor wrote, Chicago's future would be very bleak unless it introduced comprehensive and uniform zoning. The Missouri city could teach Chicago a lesson in economic development. In St Louis, zoning had allowed them to 'grasp some very desirable industrial plums' from competing cities. What was clear to the Chicago visitors was that 'if St Louis keeps on and Chicago keeps back we shall soon worry in a very material way'. From Toronto and Newark to St Louis and Memphis, the message was the same: zoning was key to Chicago's continued industrial success.[31]

It was clear to zoning advocates that they had to incorporate voices other than planners, developers and financiers if public regulation of urban land was to become a reality. In the fall of 1919, city lawyers recommended that manufacturers be appointed to the zoning board, which was quickly taken up.[32] The primary focus of the Citizens' Zone Plan Conference of December 1919 was to create an environment that brought industrial interests into a discussion with the city's real-estate and financial interests. The out-of-town delegation not only fuelled fears about inter-city competition but also brought back all manner of information about the success of zoning elsewhere. By the end of 1919, the concerted campaign had been successful. The city's real-estate industry and other interested parties had reframed the purpose and outcome of zoning in such away that most industrial concerns finally agreed to support what was to become the 1923 ordinance.[33] In the process of incorporating manufacturing interests into the zoning debate, the city's growth machine had taken the first hesitant steps towards creating modern industrial policy.

The success of the campaign to bring manufacturing into the ambit of public land-use regulation was related to the authority invested in outside experts brought in to convince reluctant and hostile interests that zoning was an effective policy. These experts from New York, St Louis, Cleveland and elsewhere made several key points to their Chicago audiences. In October 1919, a weekly series of addresses were given by planners from several cities on a variety of subjects pertaining to zoning. After making general comments about the need to introduce comprehensive plans, to bring order to the city and to protect residential properties, experts such as Harland Bartholomew, Robert Whitten and Herbert Swan turned to

[31] The quotes are from 'New York system held up as model here', *Chicago Daily Tribune*, 24 Oct. 1929, 7; 'What's matter with Chicago? Aldermen hear', *Chicago Daily Tribune*, 26 Oct. 1919, 12; 'City Local Industries Committee to make tour', *Chicago Daily Tribune*, 30 Oct. 1919, 16; 'The dividends of zoning', *Chicago Daily Tribune*, 18 Nov. 1919, 8. Also see 'Aldermen told how zones make New York happy', *Chicago Daily Tribune*, 28 Oct. 1919, 10; Fred Pasley, 'St. Louis lures rich firms by zoning system, *Chicago Daily Tribune*, 8 Nov. 1919, 7.

[32] Schwieterman and Caspall, *The Politics of Place*, 17–25; Hornstein and Dupes, 'Letter dated Sep. 18, 1919', 15.

[33] Schwieterman and Caspall, *The Politics of Place*, 17–25.

the relationship between business and zoning. In Whitten's opinion, 'the location of industries is one of the most important problems in connection with zoning'. Turning to specifics, Bartholomew pointed to how St Louis' zoning has 'secured many millions of dollars in new industries' in the city.[34] A couple of months later, participants at a two-day conference held at the city's Morrison Hotel listened to some of America's leading planners discuss a range of zoning-related issues. Almost two years later, another conference, this time organized by the American Civic Association and the Chicago Zoning Association, continued the discussion about the importance of zoning.[35] The central point of all of these assemblies was, as Mayor Thompson put it in December 1919, the 'stability of property' and the 'scientific upbuilding of the city'.[36]

The out-of-town experts and the local real-estate developers, financiers, civic officials and, increasingly, industrialists all promoted the importance of zoning to the development of a modern industrial world ruled by science and organization. They were not unusual in doing this. By the inter-war period, the belief in economic and social efficiency had became a hallmark of city planning and industrial development. Corporate principles of scientific management in the workplace merged with ideas about the need for orderly urban spaces promulgated by the burgeoning planning industry to forge the development of zoning as the primary tool in the search for control over the city.[37]

Chicago's elites promoted science as a means to create more functional and specialized districts. After discussing how science had transformed manufacturing processes, Adams linked science, industry and the city. In his opinion, civic leaders had 'to consider the application of science in the same way to the biggest industry of all, which is the city'. He pointed to how Toronto planners were using aerial photographs as part of the 'scientific work' of better understanding the city.[38] In their report to Kostner, the city lawyers made the same point when they discussed 15 large skeletal maps of Newark.[39] The result in the two cities was that the photos and maps formed a systematic index and survey of all the city's different parts. By doing this, planners were able to form a better scientific and functional arrangement. Another expert noted that zoning

[34] The October talks were assembled by Charles Nichols of the Cook County Real Estate Board into *Zoning in Chicago*. For the quotes see R. Whitten, 'An address', 9, and H. Bartholomew, 'An address', 7.

[35] The proceedings of the December conference were published as the *Citizens' Zone Plan Conference* with money from the Union League Club.

[36] Thompson, 'Message', 9, 10.

[37] J. Fairfield, 'The scientific management of urban space: professional city planning and the legacy of progressive reform', *Journal of Urban History*, 20 (1994), 179–204; S. Jacoby, *Employing Bureaucracy: Managers, Unions, and the Transformation of American Industry, 1900–1945* (New York, 1985); D. Noble, *America by Design: Science, Technology, and the Rise of Corporate Capitalism* (New York, 1977).

[38] T. Adams, 'Cook County Real Estate Board lunch', in *Citizens' Zone Plan Conference*, 49.

[39] Hornstein and Dupes, 'Letter dated Sep. 18, 1919', 8.

'enables a city to plan a functional street system in which each street, or part of a street, may be designed to serve some specialized purpose'.[40] The consistent refrain was that zoning through science would do away with haphazard building, establish the best production conditions and protect manufacturers from one another.

The implementation of scientific ideas and methods was necessary because zoning was impossible unless the details of every inch of the city was known. Accordingly, beginning in October 1921, a team of eight workers undertook a survey and mapping of the city. It found that the city had 20,000 'industrials', 135,840 one-family houses, 96,500 two-flat buildings and 37,638 apartments. The residential and commercial buildings had more than 1,800 miles of frontage, while there were 26 square miles of land devoted to manufacturing.[41] This information was then transferred on to 650 feet to an inch maps showing building heights, character, area and deprecation. As one observer noted, 'the map gives a complete record of existing conditions'.[42] Bostrom, the city's builder commissioner and chair of the Chicago Zoning Commission, told an audience of the Chicago Real Estate Board in January 1922 that the survey and the maps laid the basis for the committee to make 'a tentative report on what they believed should be embodied in the ordinance'.[43]

The factual and seemingly irreproachable authority of the survey and the maps were deployed to impress stubborn interests who saw little value to zoning. Bostrom saw the surveys as providing 'a calming message to certain hysterical manufacturing interests which have fought zoning blindly and without reason'.[44] The city's surveys were paralleled by those done by other agencies. The Chicago Association of Commerce, the city's manufacturing association, made industrial and commercial surveys, while the Real Estate Board's zoning committee undertook several investigations. In effect, local zoning advocates mobilized international, national and local experts in order to portray the industrial pieces of the city in a comprehensive and scientific manner. They used this knowledge as part of their campaign to convince recalcitrant manufacturers of the advantages of using zoning as industrial policy.

The most influential expert was Herbert Swan, secretary of the New York City Zoning Committee. He came to Chicago several times to give talks and was commissioned in 1919 to write a series of articles on zoning by the *Chicago Daily Tribune*.[45] The five essays covered a variety of topics, all

[40] H. Swan, 'Residential and industrial zoning', in *Citizens' Zone Plan Conference*, 13.
[41] 'Council votes zoning law at final session', *Chicago Daily Tribune*, 6 Apr. 1923, 1; Flint, 'Zoning and residential segregation', 108–16.
[42] 'Zoning map is ready for use of commission', *Chicago Daily Tribune*. 29 Apr. 1922, 2.
[43] A. Chase, 'Bostrom tells progress made in zoning city', *Chicago Daily Tribune*, 29 Jan. 1922, I21.
[44] *Ibid*.
[45] The five Swan articles are 'New York expert to tell what zoning really means', 19 Oct. 1919, E31; 'Urges comprehensive zoning for Chicago's industries', 26 Oct. 1929, G32; 'Zoning

of which pushed zoning's importance for industrial growth and orderly development. Equally important, his expert knowledge and experience were used to bring authority to the mobilization of industrial interests. In one article, he argued that 'zoning can be made of as great help to industry as to residence.' Using the case of Alameda, California, he pointed to the greater efficiencies that zoning would bring industry. While he trotted out the typical ways in which industry would benefit, such as the provision of necessary and costly infrastructures and transportation facilities, he also pointed to two other significant reasons. First, zoning would make Chicago more competitive because domestic and foreign competition were 'conditioned to quite as great an extent by the arrangements of the industries within the city'. Second, zoning would facilitate the synergies of 'mutually interdependent industries' by clustering them in the same parts of the city. To Swan's mind, 'that a program of industrial zoning and development is essential in every city cannot be questioned'. Zoning would make Chicago more competitive. The city would suffer great losses if it did not initiate such a programme.[46]

Experts argued that orderly land-use separation would promote a better relationship between industry, residence and the journey-to-work. Once again, Swan led the way, telling his Chicago audience that there was 'no antagonism between' the 'factory, the shop and the home'.[47] From their trip to Newark to find out more about how to create and implement zoning, city lawyers saw that zoning could be an effective solution to the problems of the journey-to-work and the stability of worker housing areas. The development of stable working-class residential districts were necessary if the long distances travelled by workers were to be reduced.[48] Zoning was also pitched as providing Chicago workers with easier access to better housing. The Chicago business man, Joseph Brittain, pointed to the necessity of protecting the home and stabilizing the value of workers' property. This was only possible if the city had a comprehensive zoning system.[49] A similar point was made by Robert Whitten, a Cleveland planner who had worked on New York City's City Planning Commission when it devised the 1916 zoning ordinance. In his opinion, more specialized factory districts would allow for the building of a better class of worker housing close to the 'best factory districts'.[50]

stabilizes realty values in Gotham', 2 Nov. 1919, F32; 'Piecemeal zoning called harmful by Gotham expert', 9 Nov. 1919; 'Tells how building lines are regulated in Newark, NJ', 30 Nov. 1919, A10.

[46] All the quotes are from 'Urges comprehensive zoning'.

[47] Swan, 'Residential and industrial zoning', 12; Adams, 'Cook County Real Estate Board lunch', 46–51; E. Bennett, 'The general aspects of zoning', in *Citizens' Zone Plan Conference*, 44.

[48] Hornstein and Dupes, 'Letter dated Sep. 18, 1919', 9.

[49] J. Brittain, 'Response', in *Citizens' Zone Plan Conference*, 28–9.

[50] R. Whitten, 'Problems involved in zoning a large city like Chicago', in Cook County Real Estate Board, *Zoning in Chicago*, 8.

Less elegantly, Swan argued that people 'must live to work. The more productive they are in their work, the better they can live; and the better they live, the more productive they can be in their work.'[51]

Several key figures peddled zoning as a means to eradicate slums. A chief proponent of this idea was Charles Wacker, the chairman of the Chicago Plan Commission. To his mind, increasing industrial growth inevitably led to congestion which only led to deteriorating social and economic conditions. Growth creates a cycle in which 'congestion breeds vice, crime, and disease', ultimately resulting in slums and an unhealthy workforce. The solution to his mind was zoning as it 'will enable the authorities to make improvements intelligently based upon the requirements of the different districts established'.[52]

Zoning would also contribute to greater profits. Swan concluded his appraisal of residential and industrial zoning by stating that for industry, 'zoning means as nearly as possible one hundred per cent capitalization of all the economic advantages enjoyed by a city'. Whitten agreed, proclaiming, with no evidence and little justification, that he was 'convinced that Chicago has suffered to the extent of hundred of millions of dollars in the past years' because of the absence of zoning. He prophesied future losses if civic elites did not pass a zoning ordinance. Echoing Whitten's point, Bostrom argued that regulations were 'not going to harm anyone'. Zoning would 'prove that it is principally an economical question'.[53] For all of these experts, the desire of civic elites to bring order and progress to the city had important implications for industry. For Bostrom, Whitten and Swan, city officials and manufacturers were throwing money away if they did not implement land-use controls and regulation. Scientific study of the city would bring better organization, greater harmony and larger profits.

Experts and planners argued that zoning was critical to stabilizing the relationship between industry and urban space. Edward Bennett, who worked on the 1909 Chicago Plan, argued that land-use regulation was 'an advantage to industries'. He stressed the importance that land-use separation would have on improving manufacturing and infrastructural relations. The scientific analysis of rail, water and motor systems would facilitate more productive use of industrial space. He went on to argue that zoning would also allow the city and manufacturers to work together to ensure that 'transition areas should be conserved for future industrial use'. This would reduce the tendency of central-city areas to turn to slums while providing industry with the opportunity to plan ahead. Finally, he

[51] Swan, 'Residential and industrial zoning', 25.
[52] C.H. Wacker, 'Shows how all business is intimately related to the Chicago Plan', *Chicago Commerce*, 19 Nov. 1921, 28.
[53] Swan, 'Residential and industrial zoning', 11; Whitten, 'Problems involved in zoning', 8; Chase, 'Bostrem tells progress made', I21.

argued that zoning would bring order to manufacturing by strengthening the home–work relationship and allowing firms to locate in the districts best suited to their needs. Light manufacturing, for example, would be able to find its own separate district. Order would be imposed and productive industrial development would take place accordingly.[54]

Chicago was not alone in linking zoning with industrial growth. Indeed, in some respects, zoning plans in Chicago's suburbs were in advance of the city's. The suburbs were concerned with protecting residential interests from the intrusion of commercial and industrial land use. Some residential suburbs, including Rockford, Downers Grove, Highland Park, Glen Ellyn and Wheaton, hired Jacob Crane, the city planner and engineer, to protect 'good residence districts'.[55] In others, however, it was more complicated. Attacked by Evanston's wealthy citizens who wished to protect the city's fashionable east end, Hiram McCullough, alderman and chair of the suburb's Zoning Commission, argued that 'Evanston has been a hick town long enough and it is now time that it cease to be a bedroom for Chicago.' In the committee's view, the city had to 'enjoy its rightful commercial and industrial advantages. We must be fair with business and give it a chance.' In the committee's view, zoning would not only protect residence and promote order among the city's different parts, it would also support industrial growth.[56]

The case of Hammond, one of the city's largest industrial suburbs, shows how the idea of linking of zoning and industrial policy was diffused to other parts of the metropolis. In 1928, a City Plan Commission drew up a comprehensive plan which connected zoning to large-scale population growth and the maintenance of Hammond's place as a leading Midwest industrial centre. The ubiquitous Jacob Crane drew up the city's zoning ordinance. Understanding that industry was crucial to the city's fortunes, the city commissioners made the protection of the city's industrial belt a key feature of the ordinance. A much larger area of the city than was at the time used by industry was zoned for industry. According to the *Tribune*, the city sought 'to care for the needs of this large workshop' by creating 50 miles of business frontage and linking it with the 'necessary residential sections'. As Roscoe Woods, a local realtor noted, Hammond, like Chicago, was initiating an industrial policy centred on zoning, which linked municipal control over land use, the protection of industrial districts and industrial growth. In his opinion, the old methods of using transportation to entice growth were outmoded. Cities had to encourage residential development by offering jobs, and the best way to make this

[54] Bennett, 'The general aspects of zoning', 44.
[55] 'Glen Ellyn shivers over narrow escape and hurries zoning', *Chicago Daily Tribune,* 25 Feb. 1923, A11.
[56] 'Rich of Evanston protest stories in home section', *Chicago Daily Tribune*, 29 Dec. 1921, 3.

possible was by protecting manufacturing through zoning.[57] Industry and zoning mattered to the suburbs as well as to the central city.

The combined effect of the 10-year campaign, the authority of experts and the spelling out of zoning's advantages worked to make Chicago's business class receptive to the arguments linking industry and zoning. By 1921, the onslaught of arguments of an array of planning and city experts at several Chicago-based conferences had clearly achieved its ends, the incorporation of manufacturing interests into the alliance responsible for the creation of the 1923 zoning ordinance. This can best be illustrated by the discussion at yet another conference, this time organized by the American Civic Association and the Chicago Zoning Association. Held on 16 November 1921, the organizers brought in several speakers including the Kansas City developer, J.C. Nichols, to establish the rationale for zoning in Chicago. In his talk, Bostrom reported that many Chicago manufacturers now realize that it is more profitable to locate their plants at a distance from residence and retail sections.

> We have industries, such as the stock yards and the many great manufacturing plants located in what is known as the Central Manufacturing District, said industries employing in the neighborhood of 160,000 people. This district is given up entirely to industrial pursuits, and the centralization of these great industries proves that it is not a wild dream to segregate residence, business and manufacturing.[58]

The result was that zoning became a tool of industrial policy. The key element here was that manufacturers came to believe in zoning as an expansionary instrument, not a restricting one. The ordering of urban space by specialized land uses that the ordinance put into place was to further industrial growth not limit it. While social reformers worked to regulate industrial growth so as to protect its victims, business and political groups promoted zoning to stimulate the urban economy so that individual manufacturers could prosper and the city become industrially stronger. Economic growth was the best cure for a city struggling to expand in in a highly competitive system of cities.

To make this possible, zoning boosters highlighted key aspects of the new ordinance that would allow industrial expansion to take place. The 1923 ordinance zoned almost half of the city's land (48 per cent) for industry. A share of this was existing industrial areas along the canal, river

[57] 'Hammond busy on zoning plant to aid growth', *Chicago Daily Tribune*, 11 Mar. 1928, B4; 'Huge factories proposed for Hammond Area', *Chicago Daily Tribune*, 9 Dec. 192), B6; L. Sheridan, *Tentative Report on Land Use and Zoning Including Revision of the Zoning Ordinance, Hammond, Indiana* (Indianapolis, 1950), Calumet Regional Archives, Hammond, Indiana Collection, box 1, file 2.

[58] 'Experts tell why zoning is necessary', *Chicago Commerce*, 19 Nov. 1921, 11. 58. R. Lewis, 'Planned industrial districts in Chicago: firms, networks, and boundaries', *Journal of Planning History*, 3 (2004), 29–49.

and the railroads. A substantial share of the zoned land was located in the outer sections of the city away from the built-up residential and industrial areas. This provided industrial land for exclusive use by manufacturers, both in the present and the future. Strategically placing this land would be attractive to new companies looking for large lots away from the congested industrial districts closer to the city core. The division of land into heavy and light industry uses allowed for certain types of industry to locate in different parts of the city, and in the process reinforced the formation of the necessary inter-firm linkages vital to the operations of most firms. Finally, these advantages were part of a bigger programme of industrial development involving the building of planned industrial districts and the formation of public–private control over industrial space.[59] Zoning then was the forerunner of post-war local economic development. While a relatively unsophisticated tool, zoning predates the place promotion strategies and economic policies implemented by local regimes with the co-operation of state and federal funding after 1960.

Conclusion

The implementation of zoning in hundreds of cities in the inter-war period has been considered a tool to defend residential property from the invasion of industry and the depreciation of property values. There can be no doubt that these were critical, but this explanation is not sufficient to account for the way in which zoning was framed. While this article has not questioned the centrality of residential property for zoning, it has argued that zoning was implicated in the development of industrial policy. The focus on residential values minimizes the role that industry played in the creation of zoning. While a substantial share of the Chicago business world did not tolerate state intervention in the property market, a significant, and growing, number came to support zoning as the primary means by which manufacturers could protect their industrial property.[60] Subject to competition from other cities and the unpredictability of nuisance laws, the decisions of which typically went against business interests, a growing number of executives, managers, lawyers and accountants associated with the expanding corporate sector sought out new ways of ensuring that their access to and control over property was protected. A more general but nevertheless compelling desire was the need to bring order to urban growth. Anxious about increasing traffic congestion, the spread of slums, rapid neighbourhood change and unprecedented environmental degradation, social reformers and industrial entrepreneurs alike looked to stabilize land-use change while promoting economic growth. Zoning, for many, was a key element to this end.

[59] Lewis, 'Planned industrial districts in Chicago', 29–49.
[60] M. Moskowitz, 'Zoning the industrial city: planners, commissioners, and boosters in the 1920s', *Business and Economic History*, 27 (1998), 307–17.

The success of Chicago's landed and financial elites to win over a reluctant industrial class lay in their ability to mobilize information, science, funding, individuals and arguments. A wide-reaching and relentless campaign consisting of, among other things, reports, lectures, conferences, surveys, editorials, newspaper articles and out-of-town delegations were deployed by zoning advocates to make an argument for land-use regulation. A focused campaign started by the city's real-estate and financial interests worked to make manufacturers and corporate managers understand that zoning would work to their advantage. Zoning would provide better residential conditions for workers and reduce the journey-to-work problem. Zoning would protect industry from nuisance laws and stabilize land value. Zoning would make Chicago more competitive with other cities. Zoning would bring greater profits.

This mobilization of events, ideas and people for the creation of zoning was not one-way, uncontested or given. Zoning as industrial policy slowly emerged as an unintended consequence out of the discussions on zoning in Chicago between 1910 and 1923. While not forced upon local manufacturers, its advantages did have to be forcibly imprinted upon their prevailing ideological position. Their inclination for public intervention was seriously limited by their penchant for private solutions to workplace issues. The belief in the rights of private property and individual economic autonomy co-existed with an understanding that Chicago's continued industrial growth was bound to a rethinking of this classic belief. In particular, this involved linking the individual workplace to the common weal and the commitment to a more practical and scientific understanding of economic growth. Zoning became indelibly connected to industrial policy in Chicago because manufacturers were able to mobilize their own reading of the situation and, as a result, to impose their own meaning on to the ordinance. Their initial opposition resulted in the defeat of the first zoning bill in 1913. Industrial interests were able to ensure that several elements important to them were introduced into the zoning ordinance. The most notable were having a significant share of the city's land zoned for industry, the creation of a very flexible appeal system and the grandfathering of non-conforming uses. These gave industry a great deal of control over land use and minimized the problems that came with earlier judicial rulings on nuisance law.

The linking of zoning and industrial policy involved a hesitant but nevertheless discernible shift from the rights of autonomous private interests to the acceptance that the local state had the right to determine policy in specific cases. The idea that the local state could use its police powers to control industrial land use in a comprehensive manner was unthinkable in 1900. By the early 1920s, however, a significant proportion of the city's industrial class were in favour of using zoning controls as industrial policy. Manufacturers were convinced of the supposed advantages zoning would bring industry. By joining forces with the city's

real-estate, financial and political elites to create and implement the 1923 zoning ordinance, manufacturers also helped create a new way of dealing with industrial issues. Manufacturers lost a modicum of control over their property rights in exchange for regulations that would protect them from unwarranted intrusion from residential property interests and provide a basis for ordered future economic growth. Zoning was the origins of modern local industrial policy.