

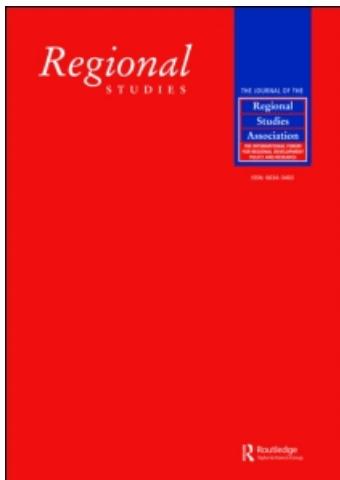
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### Marginalization of Sunset Firms in Regime Coalitions: A Social Network Analysis

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# Marginalization of Sunset Firms in Regime Coalitions: A Social Network Analysis

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DE SOCIO M. Marginalization of sunset firms in regime coalitions: a social network analysis, *Regional Studies*. Business leaders and organizations are central to the formation and maintenance of urban regimes. Business communities are not monolithic, however, and they vary in their composition of economic activities and industry sectors, and in the resources they command. Differentiation in business community resources has implications for regime networks, particularly in cities where large percentages of their economic base are comprised of industries in decline. Utilizing social network analysis, this paper finds that business leaders associated with traditional manufacturing are marginalized within the prevailing regime networks of two United States ‘rustbelt’ cities in favour of leaders associated with newer, more stable, industries.

Urban regime theory Social network analysis Interlocking directorates Urban governance

DE SOCIO M. 夕阳产业的边缘化：社会网络分析，区域研究。商业领袖与机构组织是形成以及维系城市政治制度的核心。然而商业界内部并非是完整无差别的，其经济活动、产业部门以及需求资源都是由多个部分构成。商业内部存在的差异对于政治制度网络，尤其是那些经济基础很大部分依赖于夕阳产业的城市的政治网络产生一定影响。利用社会网络分析，本文发现，在两大美国‘传统锈带’城市普遍存在的美国政治网络中，与传统制造业有关的商业领袖正在逐渐被边缘化，而那些从事新兴的、较为稳定的产业领域的商业领袖则得到垂青。

城市政体理论 社会网络分析 联合董事会 城市管治

DE SOCIO M. La marginalisation des entreprises en perte de vitesse sous des coalitions politiques, *Regional Studies*. Les chefs d'entreprise et les organisations sont au cœur de l'établissement et de la maintien des régimes régionaux. Cependant, les milieux d'affaires ne sont pas monolithiques, dont une variation de la structure de leurs activités économiques et de leurs secteurs industriels, et des ressources disponibles. La variation des ressources des milieux d'affaires a des implications pour les réseaux de régimes, surtout dans les grandes villes où une proportion importante de la base économique comprend des industries en perte de vitesse. Employant une analyse des réseaux de relations sociales, cet article laisse voir que les chefs d'entreprise associés à l'industrie traditionnelle s'avèrent marginalisés au sein des réseaux de régimes actuels de deux grandes villes aux Etats-Unis situées dans une ‘ceinture d'industrie en déclin’, en faveur des chefs associés aux industries à la fois nouvelles et plus stables.

Théorie des régimes urbains Analyse des réseaux de relations sociales Conseils d'administration emboités Gouvernance urbaine

DE SOCIO M. Marginalisierung absteigender Firmen in Regime-Koalitionen: eine soziale Netzwerkanalyse, *Regional Studies*. Bei der Bildung und Erhaltung urbaner Regime spielen Geschäftsführer und Organisationen eine zentrale Rolle. Allerdings handelt es sich bei Geschäftsgemeinschaften nicht um monolithische Gebilde; vielmehr schwankt die Zusammensetzung ihrer wirtschaftlichen Aktivitäten und Industriesektoren sowie der von ihnen kontrollierten Ressourcen. Eine Differenzierung der Ressourcen der Geschäftsgemeinschaft wirkt sich auf die Regime-Netzwerke aus, insbesondere in Städten, in denen ein großer Anteil der Wirtschaftsbasis aus im Niedergang befindlichen Branchen besteht. In diesem Beitrag wird mit Hilfe einer sozialen Netzwerkanalyse festgestellt, dass in den vorherrschenden Regime-Netzwerken von zwei Städten im ‘Rust Belt’ der USA die mit der traditionellen Produktion verknüpften Geschäftsführer zugunsten von Geschäftsführern in neueren und stabileren Branchen marginalisiert werden.

Urbane Regimetheorie Soziale Netzwerkanalyse Verknüpfte Direktorate Urbane Regierungsführung

DE SOCIO M. Marginalización de empresas en declive en coaliciones de regímenes: análisis de las redes sociales, *Regional Studies*. Los líderes y organizaciones comerciales son indispensables para la formación y el mantenimiento de regímenes urbanos. Sin embargo, las comunidades empresariales no son monolíticas y varían en su composición de actividades económicas y sectores industriales, y en los recursos de los que disponen. Las diferencias entre los recursos de comunidades empresariales tienen repercusiones para las redes de regímenes, en particular en ciudades donde grandes porcentajes de su base económica están formados por

industrias en declive. Con ayuda de análisis de las redes sociales, en este artículo observamos que los líderes comerciales relacionados con la manufactura tradicional están marginados dentro de las redes predominantes de regímenes de dos ciudades desindustrializadas estadounidenses a favor de los líderes asociados a industrias más nuevas y más estables.

Teoría de régimen urbano    Análisis de redes sociales    Juntas directivas entrelazadas    Gobernanza urbana

JEL classifications: O18, R1, R5

## INTRODUCTION

In capitalist societies, business leaders and organizations are regarded as central to the formation and maintenance of urban political coalitions, or urban ‘regimes’, due to the division of labour between market and state. Business leaders, through no action of their own, are said to possess ‘systemic power’ by virtue of their private ownership over the productive assets of society (STONE, 1980, p. 982). Particularly in the United States, municipalities are reliant upon business communities for fiscal solvency because of the vital resources they command, namely jobs and capital (STONE, 1989, p. 3). United States municipal governments, therefore, have traditionally been more responsive to the long-term needs of business community leaders over the needs of other constituents and have actively engaged with business leaders through informal networks to forward various political platforms. Even where political projects do not centre on the interests of the business community per se, networks of business leaders are often at the centre of mobilization efforts in order to bring to bear the resources they command to aid in the furtherance of wider social causes – causes, to be sure, that do not stray too far ideologically from the interests of the business community as a social class (MARTIN, 2004; GALASKIEWICZ and BIELEFELD, 1998, p. 18; DiMAGGIO and ANHEIER 1990, p. 141; SALZMAN and DOMHOFF, 1980, pp. 232–238; 1983, p. 141).

Business communities are not monolithic, however, and vary in their composition of economic activities and industry sectors from city to city. The resources, therefore, that business community leaders command also vary across cities. Some industry sectors (for example, biotechnology) are more economically vibrant than others (for example, manufacturing). This differentiation in business community resources has implications for regime networks, particularly in cities where large percentages of their economic base are comprised of industry sectors in decline. ‘Sunset’ firms – firms whose industry sector(s) are regarded as being in decline – are arguably constrained in the quantity and quality of resources that they can bring to bear in regime networks. Indeed, if regime networks are built on the promise of resources at the command of business and other community leaders, then it is reasonable to expect that business leaders associated with sunset firms would be absent from or otherwise marginalized within prevailing regime networks, particularly

those concerned with economic development or restructuring of urban land uses. The purpose of this paper is therefore to explore the composition of regime networks in two cities in Northeast Ohio – Akron and Cleveland – to ascertain the degree of activity (or non-activity) of business leaders associated with sunset firms in their respective regime networks.<sup>1</sup> Further, the methodology employed here – social network analysis – offers three significant advantages. First, it offers a way to situate precisely specific interests that are most significant and influential in particular regime coalitions. Second, it offers a comparative methodology that is notably missing from regime analyses (KANTOR and SAVITCH, 2005; GISSENDANNER, 2003; MOSSBERGER and STOKER, 2001). Finally, it provides a method for validating impressions from case studies (GISSENDANNER, 2003; KANTOR and SAVITCH, 2005; KILBURN, 2004).

Northeast Ohio is located in the heart of the United States manufacturing belt (commonly referred to as the ‘Rust Belt’) stretching from the Mid-Atlantic coast of the United States and West across the Great Lakes and Upper Midwest to the Western shore of Lake Michigan (Fig. 1). Manufacturing in the United States overall has been in decline for some time, and both Akron and Cleveland have each borne a significant share of losses in manufacturing employment in recent years (Fig. 2). Nevertheless, manufacturing remains relatively high in both Akron and Cleveland in terms of percentages of their labour forces engaged in manufacturing compared with the United States national average. Many of the top employers in both cities, measured by revenue and number of employees, are manufacturing firms (Table 1).

That manufacturing remains a significant part of the economic base of Akron and Cleveland may have ramifications for urban politics. HARVEY (1989) noted that before the 1970s, manufacturing remained a strong sector for the provision of jobs and as an engine for economic and population growth. United States cities, meanwhile, generally demonstrated a ‘managerialist’ form of politics where urban governments primarily focused on the provision of municipal services and/or resources such as housing or other infrastructural needs. Major urban expenditures for public housing and the clearance of blighted buildings were largely subsidized by the federal government. Cities as actors generally played little or no role in economic development apart from municipal service provision or managing population growth.

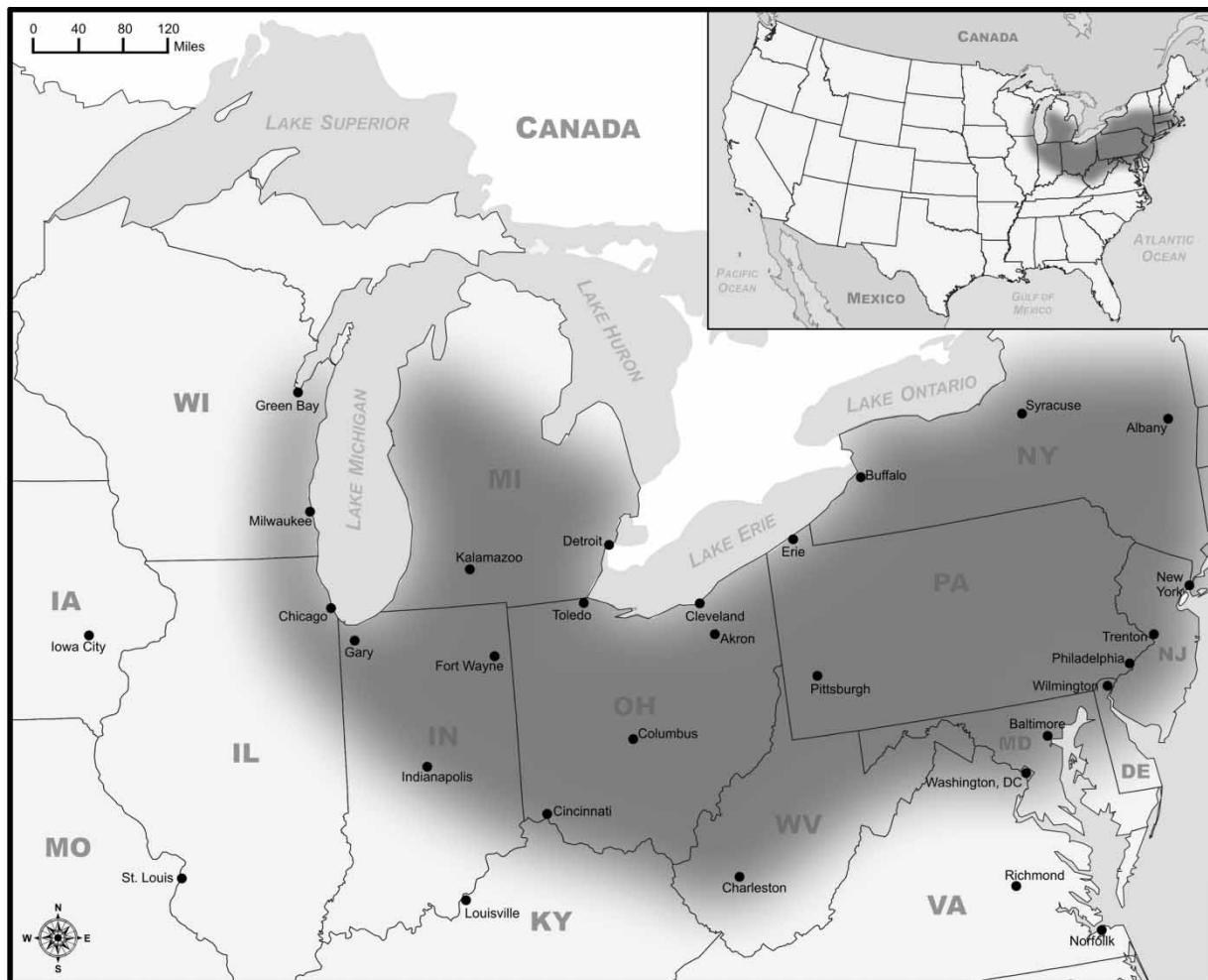


Fig. 1. US manufacturing belt, commonly referred to as the 'Rust Belt'

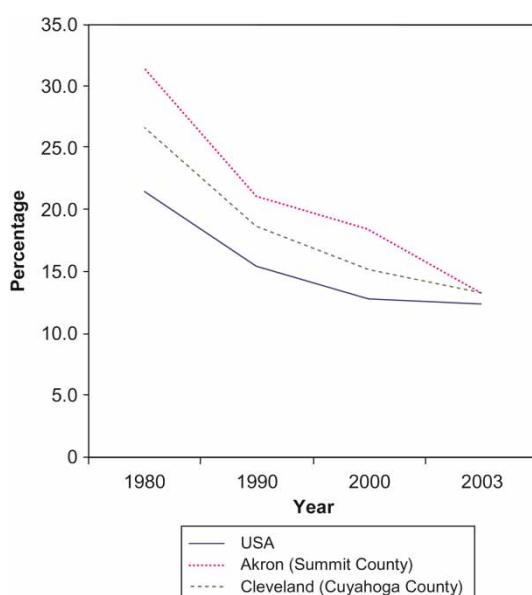


Fig. 2. Percentage of the workforce in manufacturing for the United States and Akron and Cleveland, Ohio, 1980–2003

Source: US Census Bureau

In urban regime theory, the 'caretaker' or 'maintenance' typology of regimes most closely resembles managerialist politics in the sense that caretaker/maintenance regimes focus primarily on the provision of traditional services while promoting a political status quo rather than advocating for any significant change in urban land use or local political structure (STONE, 1989, p. 188, 1993, p. 18). Consequently, urban coalitions in cities with a heavy manufacturing presence might be expected to exhibit qualities associated with a caretaker or maintenance regime typology. However, in a study comparing the composition of business elites by economic sectors for several United States cities against profile prototypes of three regime typologies ('caretaker', 'developmental', and 'progressive'), Cleveland's mix of business elites – heavily represented by manufacturing – correlated most strongly with the caretaker prototype as might be expected, yet also showed a strong correlation with the middle-class progressive 'arts and culture' prototype (DE SOCIO, 2007). Case studies of Cleveland, meanwhile, demonstrate that the city's politics have focused largely on downtown revitalization in recent decades rather

Table 1. Top thirty employers in Akron and Cleveland, Ohio, 2007

Organization	Industry	Number of employees
<i>Akron</i>		
Summa Health System	Medical	4881
County of Summit	Government	4446
Akron General Health System	Medical	4071
Akron Public Schools	Education	3179
The Goodyear Tire & Rubber Company	Manufacturing	3000
University Hospitals	Medical	2652
Akron Children's Hospital	Medical	2384
FirstEnergy Corporation	Utility	2355
University of Akron	Higher education	2342
City of Akron	Government	2207
Sterling Jewelers, Inc.	Retail	2055
Diebold, Inc.	Manufacturing	1900
DaimlerChrysler	Manufacturing	1800
The Babcock & Wilcox Company	Manufacturing	1700
Allstate Insurance Company	Insurance	1525
State of Ohio	Government	1507
Giant Eagle, Inc.	Retail	1477
Fred W. Albrecht Grocery Company	Retail	1442
United States Postal Service	Government	1284
Jo-Ann Stores, Inc.	Retail	1232
Barberton Citizens Hospital	Medical	967
Bridgestone Americas Holding, Inc.	Manufacturing	942
InfoCision Management Corporation	Marketing	908
Roadway Express	Transportation	889
Summit County Board of Mental Retardation	Government	697
Aircraft Braking Systems Corporation	Manufacturing	684
Stow-Munroe Falls City School District	Education	673
The Akron Beacon Journal	Publishing	640
Hudson City School District	Education	625
FedEx Custom Critical, Inc.	Transportation	610
<i>Cleveland</i>		
Cleveland Clinic	Medical	28 461
University Hospitals	Medical	15 904
Cuyahoga County	Government	9295
US Office of Personnel Management	Government	9172
Progressive Corporation	Insurance	8796
City of Cleveland	Government	8327
Cleveland Municipal School District	Education	7442
KeyCorporation	Banking	6615
National City Private Client Group	Banking	6563
MetroHealth System	Medical	5627
Case Western Reserve University	Higher education	4955
United States Postal Service	Government	4208
Giant Eagle, Inc.	Retail	3709
State of Ohio	Government	3023
Group Management Services, Inc.	Business services	2888
Sherwin-Williams Company	Manufacturing	2881
Greater Cleveland Regional Transit Authority	Government	2677
Lincoln Electric Holdings, Inc.	Manufacturing	2394
American Greetings Corporation	Manufacturing	2175
UPS	Transportation	2113
Continental Airlines	Transportation	2089
General Motors Corporation	Manufacturing	1980
Cuyahoga Community College	Higher education	1895

(Continued)

Table 1. Continued

Organization	Industry	Number of employees
AmTrust Bank	Banking	1881
Medical Mutual of Ohio	Insurance	1815
UHHS/CSAHS-Cuyahoga, Inc.	Insurance	1744
Cleveland State University	Higher education	1726
Parma City School District	Education	1703
Parma Community General Hospital	Medical	1703
Kaiser Permanente of Ohio	Insurance	1698

Source: CRAIN'S CLEVELAND BUSINESS (2007).

than a *laissez-faire* politics that is disengaged from property redevelopment efforts (AUSTRIAN and ROSENTRAUB, 2002; SWANSTROM, 1985). Likewise, Akron's politics have embarked on downtown revitalization efforts for more than a decade (LOVE and GIFFELS, 1999; GREATER AKRON CHAMBER OF COMMERCE, 2005). For both cities, downtown redevelopment has focused on enhancing cultural activities and institutions, including new arts museums, new professional sports facilities, revitalized restaurant and bar districts, and rehabilitated downtown lofts. The arts facilities and lofts specifically target the so-called 'creative class' of highly educated, highly paid professionals affiliated with the emerging healthcare industry in both Akron and Cleveland, and also with the polymer industry centred on Akron (GREATER AKRON CHAMBER OF COMMERCE, 2005; FLORIDA, 2002).

Traditional manufacturing interests might have refrained from a politics of urban growth and land-use restructuring in order, for example, to prevent diversification of the local economy. A diverse economy might have forced firms to compete for labour, thereby exerting upward pressure on wages, and encouraged efforts at unionization. Since the Second World War, however, the nature of manufacturing in industrialized countries has fundamentally changed. Routine production has largely moved overseas to developing countries, and what remains in advanced industrialized countries is product design and prototyping, information-based production, and the production of information and communication technologies (FLORIDA, 2002; CHIANG, 2008). These more 'creative' manufacturing activities require highly skilled and educated labour forces, on the one hand, and clustering of economic activities for cross-fertilization of knowledge, information, and innovation that accompanies agglomeration economies, on the other hand (STORPER and VENABLES, 2004; CHIANG, 2008; FLORIDA, 2002). The type of politics, then, associated with such high-technology manufacturing and services might be geared towards the politics of urban development in ways that facilitate networking and stoke the creativity of the highly skilled and educated labour force of this 'new economy'. This would include restructuring the city to promote cultural amenities such as arts and sports facilities, restaurant and

bar districts, coffee houses, the music scene, and the like – the kinds of restructuring seen in Akron and Cleveland (FLORIDA, 2002; AUSTRIAN and ROSENTRAUB, 2002; CHATTERTON and HOLLANDS, 2002; MARKUSEN, 2006; SCOTT, 2006).

It is hypothesized here that while Akron's and Cleveland's economic bases remain largely comprised of manufacturing firms, the strategic actors within each city's regime networks are corporate leaders affiliated with newer, more stable industry sectors – including 'new economy' high-technology manufacturing – and/or civic leaders filling the void left by the diminishing quality and quantity of resources at the command of business leaders affiliated with traditional manufacturing. These strategic actors arguably bring more dependable and longer-term resources to each city's regime coalition, enabling them to pursue alternative economic strategies to the traditional managerialist or caretaker form of urban politics.

The remainder of this paper is structured into four remaining sections. The following section briefly reviews urban regime theory with a view toward integrating network analysis into regime theory's conceptual framework. A review of social network analysis and its applications then follows. In this section, the case is made for urban regimes to be conceptualized as networks of interconnected corporations, civic institutions, and business policy organizations linked by interlocking directorates. Third, results of the application of social network analysis to the inter-organizational networks of Akron and Cleveland are presented. The paper concludes with a broader discussion of urban regimes as inter-organizational networks connected through interlocking directorates and the possible normative ramifications of a regimes-as-networks schema for urban politics.

### **URBAN REGIMES AS SOCIAL NETWORKS: INTERLOCKING DIRECTORATES**

Urban regimes are 'shaped by three factors (STONE, 1993, p. 2):

- The composition of a community's governing coalition.
- The nature of the members of the governing coalition.
- The resources the members bring to the governing coalition.

The kinds of resources needed for sustained political commitments of any kind are bound-up with corporations and other large organizations (MILLS, 1956; USEEM, 1984; STONE, 2001, p. 22). Such resources include, for example, campaign funds, the donation of staff time to civic activities, business expertise and contacts, management skills, and philanthropy, to name just a few (STONE, 1989, pp. 168–169). Leaders of

the largest corporations and institutions generally command the widest range of resources relative to other business and community leaders and are therefore able to ensure for themselves a central place in a city's governing coalition (STONE, 1989, p. 168). Hence, business community leaders are participants in most if not all regime coalitions (IMBROSCIO, 1998, p. 264).

Relationships among members of regime coalitions are generally informal because they exist primarily outside of the formal structure and authority of government (STONE, 1989, pp. 179–180). Informal relationships are based instead on reciprocity, shared values, and the ability to contribute to a coalition's 'combined capacity to govern' by virtue of the resources individual members contribute to the regime or governing coalition (STONE, 1989, p. 180). Informal relationships, though outside of the formal structure and authority of government, nevertheless arise within the structures of regulated capitalism. Publicly traded corporations and non-profit organizations are regulated by federal tax and commerce laws, and are mandated to establish boards of directors to protect the interests of stockholders (MEYER, 2000; ZACHARIAS, 2000), direct corporate strategies (OLIVER, 2000), and appoint, evaluate, and determine compensation for corporate executives (YOUNG *et al.*, 2000). Such boards are independent of the corporation or organization and their members are typically drawn from a relatively small group of people: those with established credentials of successfully managing large institutions. This means that business and organization leaders are invited to sit on one or more corporate or other institutional boards, forming networks of companies and organizations linked through shared, or 'interlocking', directorates (USEEM, 1984, pp. 38–40).

Not all 'successful' business leaders attract invitations to serve on boards of directors, however. Rather, students of community power structure and inter-organizational networks emphasize social cohesion as an explanation for corporate leaders taking up wider community leadership roles as directors in other corporations and civic organizations. Corporate leaders are seen as constituting an economic elite and as representing a business class. Top corporate officers and directors tend to share similar backgrounds such as attending any one of a handful of prestigious preparatory schools and universities, sharing memberships in exclusive social clubs, and having accrued some substantial measure of wealth (MIZRUCHI, 1996, p. 279; BURRIS, 1991; MILLS, 1956; DOMHOFF, 1970, 1980, 2005; USEEM, 1979, 1980, 1984). DOMHOFF (2005, pp. 51–60) argues that preparatory schools, universities, and social clubs act as an apparatus for 'socializing' elites to prepare them for leadership positions in business and other sectors, and to pursue and police class interests. Interlocking directorates are considered an effective vehicle through which to safeguard social class interests

(O'HAGAN and GREEN, 2004, p. 129; DOMHOFF, 2005; USEEM, 1984, pp. 38–45; MIZRUCHI, 1996). USEEM (1984, p. 146) argues that the dual nature of interlocking directorates as both a network of firms and a social network of members of the business class means that firms are driven by two separate but interrelated logics: an internal market-based logic of the firm and a broader social class logic. Class considerations may affect various corporate decisions ranging from which political candidates are selected for financial backing and what topics are to be covered by editorials, to which organizations are chosen for company philanthropy or other eleemosynary activities (cf. BURRIS, 1991; MINTZ and SCHWARTZ, 1985, p. 141; STONE, 1989, p. 173; MILLS, 1956).

In order to be invited to serve as a director on external corporate or other boards, one must not only prove successful in managing a large corporation or institution, but also demonstrate a capacity to recognize, articulate, and promote the general interests of the business class as a whole rather than solely one's own company or industry. This small group of people represents an 'inner circle' of elites who have been further socialized to represent and pursue the interests of the business or corporate class in national and local policy-making (USEEM, 1984; RATCLIFF, 1980; MINTZ and SCHWARTZ, 1985; MIZRUCHI, 1992; HARVEY, 2005, p. 33). STONE (1989), for example, writes that:

Within the business community, there are deliberate efforts to inculcate a *group* perspective and surmount the tendency to think parochially about one's own business firm. To rise to a position of general leadership, a businessperson is expected to pass through 'rites' of service; that is, to play a number of specific business leadership roles – president of the Chamber of Commerce, board membership in [a pro-business policy organization], head of the fund drive for United Way, head of [an arts organization], and perhaps serve on the boards of various eleemosynary institutions.

(p. 170; original emphasis)

For urban regimes, this translates into a network of firms, policy organizations, and civic institutions tied together by interlocking directorates. Despite the clear articulation of network principles inherent in regime theory, however, urban scholars have yet to conduct regime analyses from an explicitly network-based approach. Indeed, recent critics of regime theory point to the planar, *de jure* spatial scale within which much of it is framed and which limits urban regimes and governing coalitions to being solely within fixed boundaries or within nested hierarchical conceptions of bounded territory (WOOD, 2005; FELDMAN, 1997). United States literature concerning urban politics, for example:

focuses very heavily on interests that are seen to be bounded by the urban scale and largely fails to examine

the way in which these interests articulate with those of 'wider geographical extent'.

(WOOD, 2005, p. 211)

By conceptualizing regimes as fluid networks of interchanging components, with individuals commanding particular sets of resources brought into the fold as needed and as a consequence of wider social class or interpersonal networks, 'local' interaction with a 'wider' geographical phenomenon comes into clearer focus. Recent literature in economic geography, for example, demonstrates how structural changes in the global financial industry manifests in local economic structure as a result of wider inter-organizational and interfirm networks across space (PIKE, 2006). Other studies demonstrate how interfirm networks steer investments into particular settings, sectors, and firms (QIU, 2005; YEUNG, 1997), and how firms' market operations and locational strategies are governed through social networks and relations (YEUNG, 2005; O'NEIL, 2001; DICKEN *et al.*, 2001; TAYLOR and ASHEIM, 2001; O'NEIL and GIBSON-GRAHAM, 1999).

Research directed at interlocking directorates in organizational network theory and community power studies demonstrate the utility of social network analysis in uncovering centrality and power relations among groups of interconnected individuals, firms, and economic sectors. It has been found, for example, that banking and financial firms tend to enjoy a high degree of connectivity, or 'centrality', within networks of corporations, particularly among those in financial distress (MINTZ and SCHWARTZ, 1983, 1985; MIZRUCHI and STEARNS, 1988; LANG and LOCKHART, 1990). Others have found interlocking directorates to be an effective conduit for knowledge and information dissemination among interlocked firms. In a study of mergers and acquisitions, HAUNSCCHILD (1993), for example, found that firms tend to imitate more closely other firms with which they are interlocked. Firms appeared more likely to engage in merger and acquisition activities when one or more of its directors or executives also served as a director in another firm that had engaged in such activities. GELETKANYCZ and HAMBRICK (1997), meanwhile, found that firms tend to conform to broader sectoral trends relative to the degree with which they are interlocked with other firms in their industry. KEISER (2002) found that interrelated industry sectors (airlines, restaurants, and hotels) tend to be very heavily interlocked with each other relative to other industry sectors.<sup>2</sup>

These cases are not an exhaustive review of the literature regarding interlocking directorates.<sup>3</sup> Rather, they are intended to illustrate how social network analyses of interlocking directorates have proved to be instructional and productive in multiple applications. The following section introduces social network analysis as a tool for investigating regime networks and outlines its application to the question of network centrality in

regime coalitions by applying the technique to the interlocked networks of directorates across corporations, civic institutions, and public–private partnerships in Akron and Cleveland.

### SOCIAL NETWORK ANALYSIS

Interest in social network analysis and its methodologies – and the theoretical principles behind them – has grown rapidly and across multiple disciplines (BORGATTI and FOSTER, 2003; CARRINGTON *et al.*, 2005). Indeed, social network analysis has recently found applications in epidemiology and physics (CARRINGTON *et al.*, 2005), organizational studies, hospitality and tourism (KEISER, 2002), education (Hawe and Ghali, 2007), and management (M'CHIRGUI, 2007). Breakthroughs in mathematics, where much of social network analysis is derived, and computing technologies (namely, computer software written exclusively for social network analyses) have made social network analysis a very powerful methodological tool for scholars across disciplines (SCOTT, 1988; HUISMAN and VAN DUIJIN, 2005; LIEBOWITZ, 2005).

Within network analysis, several levels of analyses are embedded. Networks can be analysed at the level of nodes (comprised of entities such as individual people or firms), groups (for example, industry or other sectors), or at the level of an entire network system. Two important concepts in network analysis are centrality and density. Centrality is measured as degree, closeness, and betweenness. Degree of centrality indicates the measure of a node's positionality in an overall network of interconnected entities. Degree centrality is measured as the total number of ties (or scores) a node has with other entities in the network. Entities with a low number of ties, or a low score, are considered to be marginal within the network in which it belongs. The higher the score, the more important an entity is by virtue of its connectedness with other entities in the network. By being more central in the network, an entity is more influential because information can easily pass from it to many other entities in the network.

Another measure of centrality, betweenness, measures the extent to which a particular node lies ‘in between’ all other nodes in the network. That is, an entity with a relatively few number of ties (or a relatively low degree centrality score) may be strategically positioned within the network so that information between other nodes must pass through it, making entities with high betweenness scores essentially ‘gatekeepers’ of information flow between nodes or entities within the network. Betweenness centrality measures the number of geodesics (or shortest pathways) between any pair of nodes in the network, and consequently, the extent to which a particular entity lands on the shortest path between two other nodes.

Whereas betweenness centrality considers only the number of direct ties that a node has with other entities, closeness centrality considers both direct and indirect ties between a particular node and all other entities in the network. Simply put, closeness centrality sums the geodesic distances from a particular node to all other nodes in the network (FREEMAN, 1979). If an entity has a high closeness centrality score, then it is close to most other entities in the network and can generally bypass ‘gatekeepers’ by virtue of its more direct connections to other entities (HANNEMAN and RIDDLE, 2005). Finally, density is a ratio of the number of actual ties within a network and the sum of all possible ties. Density takes on a value between zero and 1; the closer to 1, the more dense the network.

Data on interlocking directorates for Akron and Cleveland came from the 2006 Annual Reports of the largest publicly traded firms, civic institutions, and business policy organizations based in each city, and also from the Standard & Poor Index of Corporations and Directors, 2006.<sup>4</sup> All publicly traded *Fortune Magazine*-ranked firms based in each city, and firms listed in the business journal *Crain's Cleveland Business* as among the top thirty employers for each, were selected. No privately owned companies were considered due to inconsistencies in data availability regarding private firms. Further, as with any social network analysis, among the first problems to overcome is to identify the network and limit its extent for analysis. Interlocking directorates, for example, link not only corporations and organizations at the local and regional levels, but also connect firms and organizations nationally and globally. While interlocks at scales wider than the local or regional level potentially represent additional resources within the network’s reach, the layering of overlapping firms and organizations diminishes rapidly with increasing distance from the metropolitan scale. Additionally, locally and regionally based directors are regarded as stakeholders in their communities with their professional and personal fortunes tied, more or less, to the overall vibrancy of the regional economy of which their firms and organizations are a part through regionally based suppliers, commodity chains, labour forces, agglomeration economies, and so on (COX and MAIR, 1988; SCOTT, 2001; STORPER and VENABLES, 2004). Firms and organizations outside of the Akron and Cleveland metropolitan areas are, therefore, not considered in the analysis, even though such firms and organizations may have a director serving on their board who is based out of Akron or Cleveland.

The selection of policy organizations and civic institutions was selected primarily by identifying agencies and organizations listed in the Annual Reports and Standard & Poor Index as entities where corporate executives and directors also served as directors elsewhere. Literature on relationships between the non-profit sector and the corporate sector find strong linkages between firms and large cultural institutions through interlocking

corporate directors and organizational and university trustees (MARTIN, 2004; GALASKIEWICZ and BIELEFELD, 1998, p. 18; DiMAGGIO and ANHEIER 1990, p. 141; STONE, 1989, pp. 171–172; SALZMAN and DOMHOFF 1980, p. 232, 1983, p. 141). Outside of the firms and organizations identified as external directorships for individuals in the Annual Reports and Standard & Poor Index, other non-corporate organizations and institutions were discovered by reviewing newspaper articles from the *Akron Beacon Journal*, the *Cleveland Plain Dealer*, and the business journal *Crain's Business Cleveland*, and through exploring the websites of the Akron and Cleveland city governments, development organizations, chambers of commerce, and other government and public-private partnership entities. Table 2 lists all twenty-two corporations, civic organizations, and business policy organizations selected for Akron, and the thirty-five counterpart entities selected for Cleveland.

A bipartite matrix was constructed for both Akron and Cleveland, with corporations, civic organizations, and business policy organizations occupying the columns, and director names occupying the rows. For Akron, 253 directors comprised the network of interlocking directors, making a 253 by 22 bipartite matrix. For Cleveland, a city with roughly twice the

population of Akron, 409 directors comprise the network of interlocking directors, making a 409 by 35 bipartite matrix. Using the bipartite matrices, a single matrix matching up names and counts for shared numbers of boards was constructed for each city (253 by 253 for Akron and 409 by 409 for Cleveland). For both matrices, social network analysis was performed using the computer software program UCINET 6.0 (BORGATTI *et al.*, 2002).

## RESULTS

While social network analysis can be conducted at various levels, the immediate task here is to ascertain the degree of centrality of representatives of traditional manufacturing firms vis-à-vis other economic activities in Akron and Cleveland. This level of analysis focuses on nodes within each city's network of firms, civic institutions, and business policy organizations. The nodes represent individual directors who comprise the networks of interlocking directorates.

For networks the size of regime coalitions – in the case of Akron, it is comprised of 253 directors while Cleveland's contains 409 directors – network densities would naturally be small given the total number of possible ties that such large networks entail. The densities

Table 2. Corporations, civic institutions, and business policy organizations in Akron, Ohio

Corporations	Civic organizations and universities	Business policy organizations
<i>Akron</i>		
A. Schulman	Akron Art Museum	Akron Roundtable
Akron General Health System	Akron Community Foundation	Downtown Akron Partnership
Diebold	John S. and James L. Knight Foundation	Greater Akron Chamber of Commerce
FirstEnergy	Kent State University	NorTech
FirstMerit Bank	Summa Hospitals Foundation	Team NEO
OMNOVA Solutions, Inc.	University of Akron	
Summa Health System	United Way of Summit County	
The Goodyear Tire & Rubber Company	University of Akron Foundation	
The Timken Company		
<i>Cleveland</i>		
Aleris International	Case Western Reserve Academy	Cleveland Development Advisors
American Greetings	Case Western Reserve University	Federal Reserve Bank of Cleveland
Applied Industrial Technologies	The Cleveland Clinic Foundation	Greater Cleveland Partnership
Cleveland-Cliffs	Cleveland Museum of Art	Midtown Cleveland, Inc.
Eaton Corporation	Cleveland State University	NorTech
Forest City Enterprises	Greater Cleveland Foundation	Team NEO
Invacare Corporation	Musical Arts Association of Cleveland	
Jo-Ann Stores	Rock and Roll Hall of Fame and Museum	
KeyCorporation	United Way of Greater Cleveland	
Lincoln Electric Holdings		
Medical Mutual of Ohio		
NAACO Industries		
Metro Health System		
National City Corporation		
Parker Hannifin		
PolyOne Corporation		
Progressive Corporation		
RPM International		
The Lubrizol Corporation		
The Sherwin-Williams Company		

of the Akron and Cleveland networks are 0.190 and 0.113, respectively. Centrality in such low-density networks would usually be considered lessened and power more widely dispersed. However, to the extent that centrality would emerge in such large networks, regime theory suggests that key actors – though lacking in ‘power over’ – facilitate information dissemination and exchange, and are therefore strategically positioned to mobilize the regime network on behalf of particular issues or policy agendas (STONE, 1989, 2006).

Of the 253 directors comprising the Akron network, more than half serve on just one outside board that is among the city’s twenty-two corporations, civic institutions, and business policy organizations selected for analysis (Fig. 3). The number of directors drops precipitously as the number of outside boards served on increases; only fourteen directors serve on four or more boards, and only three directors serve on as many as six of the twenty-two studied here. None serves on more than six boards.

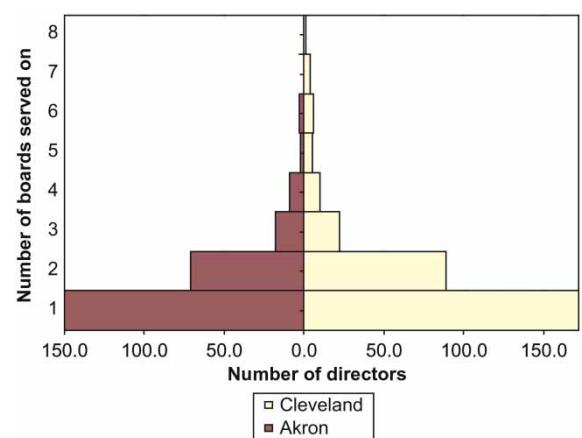
In Cleveland, the distribution is similar. More than half of Cleveland’s 409 directors serve as an outside director on just one of the city’s thirty-five corporations, civic institutions, and business policy organizations selected for analysis. Twenty-six directors serve on four or more boards, four serve on seven boards, and only one director serves on as many as eight boards. None serves on more than eight boards.

STONE (1989) contends that business and community leaders are ‘central’ to regimes relative to the degree of their involvement (if they choose to be involved at all) in civic affairs. Being active in civic affairs often means serving as a director on one or more organizational boards and across sectors. By serving on boards of directors, one is ‘plugged in’ with other business and community leaders who are fellow directors and becomes part of the social network comprised of interlocking directorates. The

more boards on which one serves, the more directors one is directly connected to, and hence more ‘central’ one is to the network. These direct linkages comprise an individual’s degree centrality. Table 3 lists the company and organizational affiliations of directors in Akron and Cleveland who serve on the most boards. Table 4 illustrates the top fifteen company and organizational affiliations for directors in both cities ranked by

*Table 3. Company and organizational affiliations of directors who serve on four or more boards in Akron and Cleveland, Ohio*

Company/organizational affiliation of directors	Industry	Boards
<i>Akron</i>		
Amer Cunningham & Brennan	Law firm	6
University of Akron	Higher education	6
Summa Health System	Medical	6
Ernst & Young LLP	Accounting	5
Brouse & McDowell LLP	Law firm	5
Akron Community Foundation	Civic	4
Akron General Health System	Medical	4
Greater Akron Chamber of Commerce	Business policy organization	4
Akron Children’s Hospital	Medical	4
Akron Beacon Journal	Publishing	4
FirstEnergy	Utility	4
The Goodyear Tire & Rubber Company	Manufacturing	4
Stark & Knoll Co LPA	Law firm	4
RPM International, Inc.	Manufacturing	4
<i>Cleveland</i>		
Cuyahoga Community College	Higher education	8
The Sherman-Williams Company	Manufacturing	7
Eaton Corporation	Manufacturing	7
Keithley Instruments, Inc.	Manufacturing	7
Forest City Enterprises	Real estate development	7
Eaton Corporation	Manufacturing	6
National City Corporation	Banking	6
Cleveland Plain Dealer	Publishing	6
Federal Reserve Bank of Cleveland	Banking	6
Forest City Enterprises	Real estate development	6
RPM International, Inc.	Manufacturing	6
Brittany Corporation	Manufacturing	5
National City Corporation	Banking	5
Ameritrust Corporation	Banking	5
Forest City Enterprises	Real estate development	5
RPM International, Inc.	Manufacturing	5
The Sherwin-Williams Company	Manufacturing	4
Brush Engineered Materials	Manufacturing	4
National City Corporation	Banking	4
Invacare Corporation	Manufacturing	4
NACCO Industries	Manufacturing	4
Forest City Enterprises	Real estate development	4
STERIS Corporation	Manufacturing	4
Primus Venture Partners	Finance	4



*Fig. 3. Number of directors by the number of boards served on in Akron and Cleveland, Ohio*

*Table 4. Top fifteen company and organizational affiliations of directors ranked by degree centrality in Akron and Cleveland, Ohio*

Company/organizational affiliation of directors	Industry	Degree centrality
<i>Akron</i>		
University of Akron	Higher education	187
Ernst & Young LLP	Accounting	177
Summa Health System	Medical	167
Akron Community Foundation	Civic	142
Greater Akron Chamber of Commerce	Business organization	124
City of Akron	Government	114
FirstMerit Bank	Banking	113
Summit County	Government	112
Akron General Health System	Medical	112
Akron General Health System	Medical	110
Brouse & McDowell LLP	Law firm	109
Stark & Knoll Co LPA	Law firm	106
Akron Children's Hospital	Medical	104
The Goodyear Tire & Rubber Company	Manufacturing	98
Amer Cunningham & Brennan	Law firm	96
<i>Cleveland</i>		
Ameritrust Corporation	Banking	199
Cleveland Plain Dealer	Publishing	179
National City Corporation	Banking	155
Cleveland Clinic	Medical	154
National City Corporation	Banking	149
National City Corporation	Banking	143
Keithley Instruments, Inc.	Manufacturing	143
The Sherman Williams Company	Manufacturing	136
Forest City Enterprises	Real Estate	127
National City Corporation	Banking	121
H-Technologies Group, Inc.	Bus services	117
Coleman Spohn Corporation	Construction	117
Eaton Corporation	Manufacturing	116
Eaton Corporation	Manufacturing	116
Swagelok Company	Manufacturing	116

degree centrality.<sup>5</sup> For example, in Akron, the President of the University of Akron serves on six boards (Table 3) and, consequently, is directly linked to 187 other directors (Table 4). In Cleveland, a retired chairman and Chief Executive Officer (CEO) of Ameritrust Corporation serves on five boards (Table 3) and, consequently, is directly linked to 199 other directors (Table 4).

For Akron, it is noteworthy that individuals representing medical firms sit on a total of fourteen boards, whereas directors who represent manufacturing serve on a total of eight boards. The University of Akron, Summa Health System, banking, and city and county governments are represented by the small number of directors with a degree centrality of 100 or more; no directors with a degree centrality of 100 or more represent manufacturing. In this simple count of boards served on and the corresponding degree centrality, manufacturing is clearly marginalized in Akron. While one of its executives serves on four boards, The

Goodyear Tire & Rubber Company – historically the city's largest private-sector employer (and which still ranked third in 2007) – has a degree centrality of less than 100. The University of Akron, in contrast, has a degree centrality score of 187. This is significant given the University of Akron's prominent physical proximity to the downtown; indeed, the university is an active and growing real estate entity in the city, expanding its facilities into the heart of Akron's city centre (JOHNSTON, 2007).

In Cleveland, manufacturing enjoys a much larger presence than Akron in the city's network of interlocked corporations, civic institutions, and business policy organizations. Chemical, industrial, and medical manufacturing firms account for twelve of the twenty-four directors who sit on four or more boards, three of five directors who sit on seven or more boards, and five of the fifteen directors in Cleveland with a degree centrality of greater than 100. These firms do not necessarily represent traditional manufacturing, however. Rather, these manufacturing firms appear to be highly specialized in the production of either chemicals such as lubricants or other materials for specific applications. Eaton Corporation, Swagelok Company, and the Nordson Corporation, for example, design and manufacture lubricants, sealants, industrial fluids, and supporting materials such as hoses and fittings for various industries including automotive, aerospace, and healthcare. H-Technologies Group, Inc. is a high-technology chemicals research and design firm; and Keithley Instruments, Inc. manufactures high-technology and sensitive measuring equipment and instruments for industrial and research and development firms and institutions, and the healthcare industry.

In addition to the prevalence of specialized high-technology manufacturing in Cleveland is the prominent position of banking – particularly National City Corporation – in both the number of boards served on and degree centrality. Five of the fifteen directors with a degree centrality of greater than 100 represent banking, and four of the five represent National City Corporation. Bank control theory suggests that financial institutions tend to enjoy a high degree of centrality among networks of manufacturing firms because they generally require intensive capital input, on the one hand, while commanding substantial corporate assets, on the other hand (MINTZ and SCHWARTZ, 1983, 1985, pp. 155–157; MIZRUCHI and STEARNS, 1988; LANG and LOCKHART, 1990).

Table 5 presents the top fifteen company and organizational affiliations of directors for Akron and Cleveland ranked by degree of closeness centrality. This measures how close one particular director is to all other directors in the full network of interlocking directorates by counting the geodesic distances from a particular node to all other nodes in the network. These fifteen directors for both cities can reach the majority of other members in the network, and vice

*Table 5. Top fifteen company and organizational affiliations of directors ranked by closeness centrality (in closeness) in Akron and Cleveland, Ohio*

Company/organizational affiliation of directors	inFar	outFar	inClose	outClose
<i>Akron</i>				
Ernst & Young LLP	2127	353	11.895	71.671
University of Akron	2128	353	11.889	69.315
Summa Health System	2137	375	11.839	67.467
Akron Community Foundation	2158	394	11.724	64.213
City of Akron	2178	413	11.616	61.259
FirstMerit Bank	2178	413	11.616	61.259
Akron General Health System	2178	413	11.616	61.259
Brouse & McDowell LLP	2179	415	11.611	60.964
The Goodyear Tire & Rubber Company	2183	420	11.590	60.238
Greater Akron Chamber of Commerce	2184	419	11.584	60.382
Stark & Knoll Co LPA	2187	424	11.568	59.670
TeamNeo	2188	424	11.563	59.670
FirstEnergy	2189	433	11.558	58.430
Amer Cunningham & Brennan	2200	445	11.500	56.854
Akron General Health System	2201	436	11.495	58.028
<i>Cleveland</i>				
Ameritrust Corporation	1110	8982	36.937	4.565
Cleveland Plain Dealer	1125	8983	36.444	4.564
The Cleveland Clinic Foundation	1137	8992	36.060	4.560
The Sherman Williams Company	1166	9021	35.163	4.545
National City Corporation	1180	9002	34.746	4.555
National City Corporation	1188	8999	34.512	4.556
Keithley Instruments, Inc.	1196	9004	34.281	4.554
Eaton Corporation	1201	9074	34.138	4.518
Eaton Corporation	1202	9039	34.110	4.536
National City Corporation	1214	9072	33.773	4.519
Nordson Corporation	1216	9043	33.717	4.534
National City Corporation	1217	8996	33.689	4.558
Moxehela Enterprises	1222	9086	33.552	4.512
The Sherwin-Williams Company	1224	9084	33.497	4.513
H-Techologies Group, Inc.	1226	9013	33.442	4.549

versa, through a range of channels. For both cities, this measure largely reinforces the degree centrality, number of boards served on, and betweenness centrality (see below) observations.

Finally, Table 6 presents the top fifteen company and organizational affiliations of directors for Akron and Cleveland ranked by betweenness centrality. These fifteen directors for both cities are strategically connected so that information dissemination within the network must pass through them in order to reach the majority of other members in the network. These are generally the key strategic members of a network whose position enables them to mobilize the majority of the network with the least amount of effort, but also to act as gatekeepers and prevent mobilization of the network by simply not engaging the network on behalf of particular issues or interests.

For Akron, the actors with the highest degree and closeness centrality values also rank among the highest for betweenness centrality. However, Goodyear's network profile increases with this measure of centrality. Two of its corporate executives rank third and seventh, respectively. Nevertheless, the University of Akron, Kent State University, Summa Health System, Akron

General Health System, the Akron Community Foundation, the United Way of Summit County, and A. Schulman (a polymer company), along with banking and law firms, crowd out the tire-manufacturing firm and its resources. While Goodyear remains well positioned in Akron's network of corporations, civic institutions, and business policy organizations, its dominance is significantly diluted by a range of various industries and organizations that also enjoy central positions within the network. For Cleveland, financial firms and specialized manufacturing once again enjoy heavy prominence in the network.

## DISCUSSION

Conceptualizing urban regimes as social and inter-organizational networks places regimes within a wider context of economic and social relations. In urban regime theory, business communities are often depicted as 'undifferentiated monolithic blocs' with unitary interests (AUSTIN and McCAFFREY, 2002, p. 36; KILBURN, 2004, p. 635). This view of business communities portrays corporations as black boxes within which corporate

*Table 6. Top fifteen company and organizational affiliations of directors by betweenness centrality in Akron and Cleveland, Ohio*

Company/organizational affiliation of directors	Betweenness	nBetweenness
<i>Akron</i>		
Ernst & Young LLP	6475.618	10.157
University of Akron	5160.549	8.094
The Goodyear Tire & Rubber Company	4414.210	6.924
Summa Health System	4155.532	6.518
Akron Community Foundation	2511.673	3.940
United Way of Summit County	2342.961	3.675
The Goodyear Tire & Rubber Company	2251.141	3.531
National City Bank	1871.317	2.935
Kent State University	1792.024	2.811
City of Akron	1621.561	2.543
Akron General Health System	1621.561	2.543
FirstMerit Bank	1621.561	2.543
Amer Cunningham & Brennan	1547.568	2.427
Brouse & McDowell LLP	1438.693	2.257
A. Schulman	1379.292	2.163
<i>Cleveland</i>		
Ameritrust Corporation	9364.198	5.584
The Sherman Williams Company	8460.149	5.045
Eaton Corporation	8406.122	5.013
National City Corporation	8107.426	4.835
National City Corporation	7657.991	4.567
Cleveland Plain Dealer	6390.901	3.811
Early Stage Partners LP	5735.030	3.420
Coleman Spohn Corporation	5077.538	3.028
Ohio Board of Regents	4951.869	2.953
National City Corporation	4836.871	2.884
Eaton Corporation	4835.357	2.884
Keithley Instruments, Inc.	4758.863	2.838
KeyBank	4570.113	2.725
Swagelok Company	4435.260	2.645
The Sherwin-Williams Company	3952.190	2.357

operations and market strategies are seen as results of internal rational business decisions in response to economic processes and events regarded largely as external to the corporation. Corporations – already afforded privileged positions in regime coalitions by virtue of their ‘systemic power’ – are ascribed even more power and mystique than warranted in such a schema. Regime theorists should recognize that corporations are in fact sites of power relations and contestation where ‘competing logics and aspirations ... are as much about distribution (in both economic and social senses) as they are about accumulation’ (O’NEIL, 2001, p. 182). Various intra-firm and extra-firm networks of executives and managers jockey to develop corporate strategies; these competing networks may be comprised of:

‘managers, workers, stockholders, suppliers, customers, lawyers, tax collectors, regulatory agencies, etc.’ (Cyert and March, 1963, 27) – every internal and external counterpart a firm can or could have.

(TAYLOR and ASHEIM, 2001, p. 318)

Rather than acting solely as black boxes responding ‘rationally’ to ‘external’ market forces, corporations are instead seen as microcosms of their wider social environments; that is, as networks within networks stretching across space, sectors, positions, and milieus. This view of corporations and organizations opens up space for alternative, perhaps progressive, narratives about the city and what can be accomplished through regime coalition building and economic development initiatives. PIKE (2006), for example, demonstrates that the closing of the Vaux Brewery in Sunderland in North East England was not simply a rational business response to market imperatives, but rather a woolly result of contested narratives among corporate executives, investors, workers, and community leaders about the firm, its market strategies, and its obligations to stockholders, investors, consumers, suppliers, workers, and communities.

A network conceptualization of regimes also opens up space for understanding how cities with a historically strong manufacturing base (like Akron and Cleveland) can pursue economic development strategies apart from what an economic base with deteriorating resources would suggest might be possible. In the case of Akron, this study clearly demonstrates that the city’s historically prominent manufacturing base – still headed by The Goodyear Tire & Rubber Company – is marginalized within the city’s contemporary regime network in favor of emerging economic anchors, namely healthcare (Summa Health System and Akron General Health System) and higher education (University of Akron). Other organizations such as the Akron Community Foundation have also gained prominence within the regime network as the city seeks alternative economic development strategies to the once paternal strategies of former rubber industry giants Goodyear, B. F. Goodrich, and Firestone (for example, see DYER, 2003; LOVE and GIFFELS, 1999; and ALLEN, 1949, pp. 169–170). The emerging high-technology polymer industry in Akron has also found a place in the city’s regime networks in A. Schulman (Table 6), although its place is not as assured as healthcare and higher education. Akron’s regime network is, in essence, (re)positioning the city for a post-Goodyear future.

In Cleveland, it would seem that manufacturing remains a significant part of Cleveland’s urban politics. However, the particular mix of manufacturing firms prominent in Cleveland’s network of interlocked firms and organizations appears to be of a more specialized character and geared toward high-technology and niche manufacturing than traditional manufacturing. It is not clear, however, whether these firms are more embedded with growth industries such as healthcare or aerospace, or more sunset sectors such as automotive and steel production. Yet, the city has embarked on an ambitious urban revitalization effort aimed at reshaping the city’s downtown land uses as evidenced by new sports facilities for its two major professional sports

franchises (Indians and Browns), the Rock 'n Roll Hall of Fame and Museum, and its massive Euclid Corridor Transportation Project linking the University Circle section of the city, home of Case Western Reserve University, to Cleveland's lakefront district.

The heavy presence of financial interests, particularly the Cleveland-based National City Corporation, in Cleveland's regime network hints at major financial stakes in the city's downtown properties. However, Cleveland's large manufacturing base might automatically court interlocks with financial institutions due to the need for intensive capital investments, on the one hand, and the overseeing of investments by financial firms in what is generally a declining industry sector, on the other hand (MINTZ and SCHWARTZ, 1983, 1985, pp. 155–157; MIZRUCHI and STEARNS, 1988; LANG and LOCKHART, 1990). Future studies of Cleveland will have to investigate the banking industry's prominence in the city's regime network the better to understand its role in urban politics.

The prominence of two other organizations in the rankings by degree centrality (Table 6), namely The Cleveland Clinic Foundation and Forest City Enterprises, may offer a clue to the city's ambitious efforts at redevelopment. Cleveland Clinic is an internationally renowned non-profit hospital and one of the largest hospitals in the United States. It is at the centre of the Euclid Corridor Transportation Project, and the city hopes to build on its rapid growth (VANAC, 2007; GOMEZ, 2007). Forest City Enterprises, meanwhile, is a Cleveland-based international commercial and residential real estate development firm and a major backer of both the Euclid Corridor Transportation Project and revitalization efforts surrounding Cleveland Clinic and Case Western Reserve University (STAMATIS, 2005; GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY, 2003). Beyond these two major actors in the city's regime networks, and perhaps including Keithley Instruments, Inc., a high-technology and medical instruments manufacturer, Cleveland does not appear to be able to muster the long-term resources behind its redevelopment efforts unless the major financial firms National City Corporation, Ameritrust Corporation, and KeyBank – all prominently positioned within the city's regime networks – are central to the downtown revitalization effort. This prominence of financial institutions in Cleveland's network of interlocked corporations, civic institutions, and business policy organizations warrants further inquiry.

In the meantime, regime theorists recognize that business leaders tend to occupy privileged positions in

regime coalitions due to the scope of resources and expertise they command – and cities require – for economic development (DOWDING, 2001, p. 8; STONE, 1980). However, cities and their regime networks are not static; rather, each reflects broader economic and cultural changes through time (STONE, 1989, p. 9). Business leaders associated with regime networks often change as a consequence of capitalist competition. Some businesses and industry sectors ultimately decline and new ones emerge. The policy agendas of urban political coalitions subsequently change to reflect the priorities of the new set of actors comprising a regime network. In the case of Akron and Cleveland, this study demonstrates that traditional manufacturing interests that represent an industry sector in decline have been largely marginalized in each city's regime network in favour of interests representing emerging sectors such as healthcare and higher education. Consequently, Akron and Cleveland's urban policies appear to be aimed at reshaping each city's downtown land uses around the same economic sectors that enjoy prominence in their respective regime networks.

## NOTES

1. The analyses of Akron and Cleveland are conducted at the metropolitan level for each city as defined by the US Census Bureau.
2. It should be noted that direct interlocks between competing firms are prohibited by United States law in order to inhibit collusion, but indirect interlocks through third-party boards are not prohibited (FINCH and WHITE, 2005, p. 175; LYSON and RAYMER, 2000, p. 204).
3. For an exhaustive review of interlocks, see MIZRUCHI (1996).
4. A caveat is that this study only represents data for 2006. A longitudinal study exploring regime network compositions and centralities of earlier decades and compared with contemporary networks might better document the changing nature of regime networks as a result of the dynamism of capitalist competition. Data availability from previous decades, however, is spotty at best, particularly regarding civic institutions and business policy organizations. Time constraints and limitations of data from previous decades thus limit this study to 2006. Nevertheless, ample evidence points to the centrality of manufacturing firms in urban political coalitions pre-Second World War (for example, see LOVE and GIFFELS, 1999; ALLEN, 1949; RAST, 1999; FAINSTEIN *et al.*, 1986; and HARVEY, 1989).
5. A social network graph of directors for Akron and Cleveland, organized by degree centrality, is available from the author upon request.

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