MAKING CENTRAL CITIES WORK:

PLANNING & ECONOMIC DEVELOPMENT FOR LIGHT INDUSTRIAL BUSINESSES

LESSONS FROM SAN FRANCISCO AND BOSTON

By:

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EXECUTIVE SUMMARY

Many central cities in the United States and Canada have taken an interest in supporting and preserving industrial land uses. Others have cited the potential benfits to the local economy that can result from preserving economic and employment diversity through industrial retention and business support. Within the complex system of central city economies, governance theory suggests that formal and informal actors have important roles to play in reaching economic goals. This paper presents two program evaluations; one of a grassroots program in San Francisco supporting a subset of businesses that rely on industrial land uses, and another of a municipal program in Boston focussed on similar businesses. The case studies help identify the strengths and weaknesses of the programs based on institutional setting. These qualities are used to develop a recommended model of economic governance in central cities for small- and medium-sized light industrial businesses.

Beaucoup de villes-centres aux États-Unis et au Canada ont pris un intérêt à soutenir et à protéger les usages de sol industriels. D'autres citent les bénéfices économiques locaux qui peuvent découler de la préservation de la diversité économique et en matière d'emploi à travers la rétention de l'industrie et le soutien aux entreprises. Dans le cadre du système complexe des économies des villes-centres, la théorie de la gouvernance suggère que les acteurs formels et informels ont des rôles importants à jouer pour atteindre les buts économiques. Ce travail présente deux analyses de programmes : la première analyse concerne un programme d'initiative locale à San Francisco qui soutient un sous-ensemble d'entreprises qui dépendent d'un usage du sol industriel; l'autre analyse concerne un programme d'initiative municipale à Boston qui se focalise sur des entreprises comparables. Les cas d'étude aident à identifier les forces et les faiblesses des programmes selon le contexte institutionnel. Ces qualités servent de base pour la formulation d'un modèle de gouvernance économique dans les villes-centres pour les petites et moyennes entreprises industrielles.

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CHAPTER 1.0 INTRODUCTION

Chapter 1 — Introduction

The economies of urban areas in North America have seen dramatic changes over the last several decades. Technological advancement, globalization, cultural and social changes, the practice of city planning, and many other factors have driven these transformations, which have generated new opportunities and challenges for municipalities. Consequently, economic development has become an increasingly important subject in the field of urban planning. One of the most critical questions concerning planners and other economic development practitioners since the 1950s has been the steady decline of industrial activity in the urban centres of major metropolitan areas (Fitzgerald and Green-Leigh, 2002).

Many forces have changed the urban landscape since the late industrial era. Globalization and evolving transportation technologies have created a much bigger and more integrated global economic networks. The vision of the city has also changed, not least in our awareness and sensitivities to environmental health (from a human and ecological perspective). These changes have led to a dramatic deindustrialization of major urban centres. While the loss of heavily polluting, land-extensive industrial land uses has been positive in many respects, the wholesale elimination of "industrial activities" from major urban centres is problematic. Nevertheless, it would be difficult to justify, from an economic development perspective especially, that central city areas should return to an industrial city model, where large factories dominate the landscape. At the same time, some forms of industrial activity may be economically desirable in central metropolitan areas. Low-nuisance, smaller-scale "industrial" land uses can play an important role in sustaining a thriving central city economy. Low-intensity forms of industrial activity provide goods and services for "non-industrial" businesses, increase economic and employment diversity, generate opportunities for less-educated populations. Drawing a line between acceptable and unacceptable forms of industrial land use in a central city context is a challenge. One issue is that the "industrial" land use designation has been used to represent a very diverse group of activities with multiple scales of intensity. To reflect the diversity of activities, central city planners have adopted progressively more nuanced definitions for "industrial" activities. Zoning codes often divide industrial land use according to the scale and intensity of activities permitted, using light, medium, or heavy as a descriptor for the type of industrial land use considered. In 2002 the San Francisco Planning Department added a more nuanced land use definition to the lexicon called "production, distribution, and repair" or PDR. The PDR definition is used throughout this report in a modified form that adds recycling (including waste management) activities as a separate group. The PDRR model in not perfect, as will be outlined in chapter two, but it is useful for the purposes of this report because it draws attention to the diversity of activities that occupy "industrial" land use zones.

The potential benefits for a central city context of small-scale PDRR activity have been recognized by municipal governments, professional associations, and community-based groups, leading to a variety of service and support programs to address the challenges that small-scale PDRR businesses face. These efforts are often concentrated in areas, or districts, with concentrations of these businesses (the relatively low-density industrial areas that are mostly clustered around transportation infrastructure and located centrally but outside the financial and principal commercial areas (SFPD, 2002)). If one accepts that less-intensive forms of PDRR land use can enhance, rather than diminish, central city economies and neighbourhoods, then networking formal and informal initiatives to support such businesses is desirable. Governance and local economic development theory suggests that urban planners have an important role to play in coordinating efforts to support urban industrial activity. This paper examines two successful PDRR support programs — one that is community-based and the other, a municipal initiative to identify the strengths and weaknesses of these efforts based on their institutional setting.

Study Rationale

This report summarizes the benefits and challenges that industrial land uses face in central city environments. This is expedient considering the growing economic importance of urban areas (McKinsley Global Institute, 2012). Furthermore, while many positive outcomes have resulted from the displacement of

large-scale industrial operations from urban centers (such as a reduction in pollution and nuisances for nearby residents and businesses, and greater real estate efficiency through the intensification of land use), the loss of small-scale PDRR land uses in central cities may be short-sighted. If we accept that some forms of PDRR activity (small-scale, low-intensity) are desirable in advanced urban economies then it is important to provide supportive services and policies for these businesses in an effort to address the central city conditions that have made it difficult for these activities to stave off displacement.

In many central city contexts, informal or grassroots service providers and advocacy groups, such as community-led organizations representing PDRR businesses or neighbourhood interests, operate alongside municipal industrial retention and support programs. Non-governmental, community-led or grassroots organizations are believed to benefit from rich relationships within the target community and this can translate to improved programming and service provision. Their role is validated by academic research on economic development governance that suggests that the "helicoptering in" of visions, processes, and incentives by "top-down" experts may be a less effective and desirable approach to promoting economic growth (Pastor & Ortiz, 2009, p. 23). On the other hand informal initiatives may be more susceptible to mismanagement and they face important challenges with scaling efforts due to potential resource and organizational limitations (Pastor & Ortiz, 2009, p. 15). In contrast, top-down (formal or governmental) approaches tend to have greater organizational capacity and resources with which to operate. Institutional ties and a recognized authority over economic initiatives within government (and within the wider community) also assist "treetops" efforts to provide services and support for a target group. Top-down programs, however, face greater bureaucratic oversight, which can contribute to program inefficiency. They also tend to be more removed (in terms of physical proximity and relationship) from the target group for whom the services and support is meant to be delivered (Pastor & Ortiz, 2009). Another way to differentiate the two approaches is to say that "community organizations act from the bottom-up, initiating services and programs, while governments view 'community as policy' organizing intervention, and funding programs that shape local activity… this has resulted in an increasingly collaborative relationship between community and government (Fontan, et al., 2009).

While collaboration between formal (governmental) and informal (grassroots) groups is becoming more common, many municipalities continue to operate with limited interaction between these actors or they have encountered difficulties with networking their efforts (Fontan, et al., 2009). This purpose of this report is to identify the strengths and weaknesses of grassroots and treetops approaches to providing support for small-scale PDRR businesses in a central city context. The recommendations provided are intended to assist urban planners because the profession has an important role to play in facilitating collaboration and networking between local stakeholder groups — formal and informal (Krizek, Forysth, & Slotterback, 2009). In order to "vertically integrate" service provision in support of SME PDRR land uses in central cities, urban planners must be clear on the strengths and weaknesses of grassroots and municipal approaches. Using a program evaluation approach and the case study method, this paper compares *SFMade,* a grassroots initiative from San Francisco with the City of Boston's *Back Streets* program to identify what their institutional setting may say about their ability to provide support services for urban industrial businesses.

Formed by local manufacturers in 2010 as a response to municipal interest and budding demand from the business community (SFPD, 2002, 2010), *SFMade* is "focused on building San Francisco's economic base by developing the local manufacturing sector" (*sfmade*.org, 2012). San Francisco has been an important economic centre since the mid-nineteenth century. It underwent a period of rapid industrial expansion until the 1970s ushered in a period of dramatic deindustrialization. With the success of its transition to a global corporate headquarters, PDRR businesses in the city have faced very strong push and pull forces to leave San Francisco. Realizing that PDRR businesses have a role to play in San Francisco, the City has implemented a series of measures to protect them over the years, with mixed succcess. Recently, owing in large part to the rising popularity of manufacturing entrepreneurship, much attention has been given to artisan manufacturing, recycling, and other forms of urban PDRR activity. *SFMade* was formed by local manufacturers and other business owners in San Francisco to represent the interests and provide services to the small-scale manufacturing subset of PDRR firms in the city. The organization has been very

successful to date, dramatically increasing its annual budget through private and public sector support. *SFMade* works closely with municipal planning and economic development officials, making it a relavant example for networking formal and informal efforts to support PDRR land uses in a central city context.

The comparative case study, *Back Streets,* is a municipal program housed with the Boston Redevelopment Authority (BRA), a semi-independent branch of the City of Boston municipal government. Mayor Thomas M. Menino established *Back Streets* in 2001 to spotlight and advance the interests of small and medium-sized enterprises in the "back streets" sector. The "back streets" sector, for the purposes of this study is synonymous with the production, distribution, repair, and recycling land uses described above. The term is used in Boston as a contrast to "Mainstreets" businesses; high-value commercial, residential, and mixed land use areas that have been the focus of much public investment through street improvement and incentives designed to attract business activity. The purpose of the *Back Streets* program is to provide assistance and resources for PDRR businesses through the "strategic use of land, workforce, and financial resources" because PDRR businesses occupying "industrial land use districts have been relatively neglected compared to businesses in other economic sectors, especially finance, higher education, and medicine or pharmaceuticals. *Back Streets* has worked closely with local industry associations representing back streets or PDRR districts such as the Marine Industrial Park and Newmarket Industrial District.

The cities of San Francisco and Boston are useful for comparison as well. Both are heavily developed, historic, and storied cities. Their economies are thriving despite recent economic turmoil and they face similar land use challenges. Boston and San Francisco are the smallest large cities in the United States by land area; they are both coastal cities with limited opportunities for expansion and development. This has amplified adverse real estate and economic forces that are acting on PDRR land uses. Both cities function under strong-mayor styles of municipal government. In both cases, there is strong political support for preserving PDRR land use zones after many years of displacement. Both cities have similar cultural and heritage interests in preserving PDRR or back streets business as they continue to develop and compete in other non-PDRR sectors on the global scale. Amidst the similarities there are important differences in context that provide for an interesting case study comparison. The political and economic cultures of the two cities differ, most notably in the organizational structure of the municipal government with respect to urban planning and economic development. The BRA is a quasi-independent organization whose president is appointed by the mayor of the city. It enjoys a greater amount of autonomy and has historically taken a more technocratic, or top-down approach to managing planning and economic development initiatives. Planning and economic development within the City government of San Francisco, in contrast, is integrated within the government institution, making it less autonomous than the BRA.

Intended Audience

The study is addressed to urban planners and economic development practitioners. It is intended for Canadian and American audiences. The case studies draw exclusively from the United States because industrial development programs are more mature and established south of the 49th parallel. Where possible, unique issues and contexts are highlighted to make the study more portable for a Canadian audience. The research and analysis presented is also expected to be of use to industry groups as well.

Structure of the Report

Chapter two defines what is meant by "industrial" land uses for the purposes of this report, identifies the core benefits that they can provide central city economies, and highlights the challenges that they face. Chapter three introduces the research methodology and clarifies the principle research questions that are addressed through a program evaluation and case studies framework. Chapter four and five present the case studies of community (informal or "grassroots") and municipal (formal or "treetops") efforts to support industrial land uses in central city areas, respectively. Chapter six synthesizes the findings that emerged through the case studies, comments on the research context, and provides recommendations for networking informal and formal efforts to support urban industrial activities.

CHAPTER 2.0

PRODUCTION, DISTRIBUTION, REPAIR, & RECYCING

Chapter 2 — Production, Distribution, Repair, and Recycling

In this chapter a definition for industrial land use is given to clarify the types of economic activities that are considered. The chapter then identifies the economic and community benefits that can be derived through the presence of these activities; they justify the attention and effort on the part of urban planners to provide support for these activities in the central cities of large metropolitan areas. The chapter closes with a summary of the causes of urban deindustrialization and the challenges that "industrial" businesses face in central cities. The grassroots and treetops case studies examined in chapters four and five provide services and other forms of support for "industrial" businesses to address these challenges in the local context; evaluating the strengths and weaknesses of these two approaches to local economic development requires an understanding of the problem they intend to resolve.

Industrial Land Use in Central Cities: A Definition

The first challenge is to define what is meant by "industrial" land use as a wide variety of activities have been incorporated within the designation. In Canada and the U.S. businesses are categorized using a numeric taxonomy known as the North American Industry Classification System (NAICS). Traditionally, industrial zoning allowed for activities falling under NAICS group 23, construction; NAICS 31-33, manufacturing; and NAICS 42, wholesale trade because these types of businesses were believed to share a common need for "relatively flexible building space, cheap rents, and in most cases, a separation from housing" (SFPD, 2002). Recently, in response to the realization that several other economic activities share these land use qualities, municipalities have developed a more comprehensive definition that replaces the term "industrial" with the more nuanced "production, distribution, repair, and recycling," or PDRR*. The updated definition (Table 1) adds NAICS 48-49, transportation and warehousing, and a number of others to the traditional definition of industrial activity (Howland, 2011).

Table 1 — North American Industry Classification System (NAICS) for PDRR industries with percent labour force employment for Canada (2006) and the U.S. (2010). Sources: (Statistics Canada, 2006; U.S. Census Bureau, 2010a)

NAICS	NAICS Class Definition	Canada	USA
221	Utilities	0.78 %	0.57 %
23	Construction	6.24 %	4.81 %
31-33	Manufacturing	11.70 %	9.70 %
42	Wholesale trade	4.31 %	5.00 %
444	Building material and garden equipment and supplies dealers	0.74 %	1.08 %
48-49	Transportation and Warehousing	4.78 %	3.58 %
511	Publishing Industries (except internet)	0.62 %	0.81 %
517	Telecommunications	0.81 %	1.00 %
518	Data Processing, Hosting, and Related Services	0.11 %	0.34 %
519	Other Information Services	0.23 %	0.12 %
562	Waste management and remediation services	0.22 %	0.31 %
811	Repair and maintenance	1.63 %	1.03 %
812	Personal and laundry services	1.36 %	1.17 %
	Percent of total labour force	33.52 %	29.53 %

The PDRR land use designation is more useful for planners working in a central city context. Among the first to adopt the PDRR definition was the San Francisco Planning Department in 2002† because it provided a

** more informal terms such as "back streets" businesses have also been used*

† The SFPD adopted the definition PDR, and did not recognize a separate "recycling" category. Recycling was added to the definition used in the report because this group of businesses has been recognized by other economic development organizations such as the Office of Economic Development for the City of Berkeley, CA through the West Berkeley Association of Industrial Companies (WEBAIC.org).

more comprehensive representation of the activities and profiles of businesses in PDRR zones, which have changed since the late industrial era.

Firms in the "production" subset of PDRR in major urban areas have become increasingly technology-intensive, resulting in a heightened demand for specialized infrastructure (such as high-capacity telecommunications connections), and more focus has also been placed on value-added activities (DCOP, 2006; EPS, 2005; Howland, 2011; SDPD, 2007). Another important set of changes with central-city "production" firms has been a shift toward shorter production and processing runs, specialized services, and just-in-time models (SFPD, 2010). Modern production activities in major urban centres are far less involved in mass production, price-sensitive commodities. Producers in major urban centres today are smaller, oriented toward niche markets, and more directly connected to product end-users. Consequently, modern production firms in metropolitan centers value proximity to the specialized markets that they serve, skilled labour, and sophisticated capital technologies. These features are available at a relatively high spatial density in major urban centres (K. Sofis, personal communication, March 15, 2013). Mass-production factories and other land-extensive production facilities also value these features but the cost savings of relocating to areas with cheaper real estate, lower labour costs, relaxed regulatory environments, and fewer neighbours, tend to outweigh the benefits derived from locating in central-city areas.

Large distribution and warehousing land users, like mass production factories, have largely abandoned central municipalities in large metropolitan areas in North America. Surface transportation networks and the declining price of automotive fuel made it possible for land extensive businesses to locate in less developed rural or suburban locations near interstate highways. The distributors and warehousing businesses that remained in central cities are oriented almost exclusively toward local servicing contracts for a proximal customer base. Distributors in the central cities of dense metropolitan areas tend to have strong relationships throughout the regional economy. The loss of these businesses negatively affects the myriad sectors that rely on timely, flexible distribution and warehousing services (SFPD, 2010).

Land uses engaging in "repair" and "recycling" activities work closely with production, distribution, and warehousing activities, even to the point of being vertically integrated within these companies. Repair and recycling businesses often generate nuisances for surrounding land uses because they may require open storage yards, emit unpleasant odours, or engage in loud or caustic processes (SFPD, 2010). These nuisances are less acute with smaller repair and recycling businesses. Specialized, local repair and recycling services are highly valuable to other businesses in dense metropolitan centres: they maintain output reliability and reduce costly downtimes for producers, distributors, recycling businesses, and other repair operators (Bronstein, 2009; WEBAIC, 2011, October 29).

Modern PDRR: A Small- and Medium-Sized Enterprise

The description of PDRR land uses provided above highlights an important shift that has taken place over the last 150 years. In central cities the size of production, distribution, repair, and recycling firms has decreased significantly; small businesses (those employing fewer than 50 employees) compose a much larger portion of the city' PDRR share of employment. Across the whole of the U.S., looking at only manufacturing, 17% of the PDRR workforce is employed in firms with less than 50 employees, as illustrated in Table 2 (U.S. Census Bureau, 2010b). Employment figures and dynamics will vary according to the municipality, but an undeniable trend in dense urban areas has been a scaling down of PDRR activity (SFPD, 2002). Subsequent sections of chapter two highlight the important forces that have contributed to the scaling back of industrial activity in central cities across North America and elsewhere. These forces include the increased globalization of economic activities and trade, real estate market trends toward higher prices in desirable downtown areas, and several other factors. The PDRR firms that resisted displacement in major urban centres were often more oriented toward a proximal client base (SFPD, 2002) and made more efficient use of space (in some cases occupying "flex" spaces in mixed-use neighbourhoods (EPS, 2005)). A smaller, more specialized business model provided the flexibility that PDRR firms needed to continue operating in a competitive and dense urban environment. Smaller

operations also meant that the nuisances generated by PDRR activities (e.g., noise, pollution, heavy-load traffic) were less intense for neighbouring businesses and residents.

Table 2 — Small businesses as a share of the manufacturing sector in the US. (U.S. Census Bureau, 2010b)

Firm Size	Firms	Employment	Firms/Total	Employment/Total
1 to 4	87,407	194,687	36%	2%
5 to 9	49,585	321,266	21%	3%
10 to 19	39,917	531,384	17%	4%
20 to 49	33,180	983,308	14%	8%
50 to 99	13,723	896,337	6%	7%
100 to 10,000+	16,116	9,110,435	7%	76%
Total	*239,928*	*12,037,417*	*100%*	*100%*

A Definition of PDRR Activity in a Central City Context

This report does not advocate for a revival of the "industrial city". It is more viable, efficient, and in many ways more reasonable, to locate mass-production factories, sprawling distribution hubs, and land-extensive repair or recycling operations in less dense, low-cost areas beyond the metropolitan core. Small- and medium-sized enterprises (employing fewer than 50 people) involved in PDRR activities in PDRR districts, however, can be viable in central city areas where real estate is highly competitive and, as is outlined in the following section, surrounding neighbourhoods can benefit from retaining small-scale PDRR activity. In Boston, the local planning and economic development body, the Boston Redevelopment Authority, employs the term "back streets" to refer to businesses operating in PDRR districts to highlight the lack of economic development attention that these firms have seen relative to other sectors in advanced, central city economies (in Boston, these businesses are called "Main Streets" firms an include industries linked to medicine, higher education, finance, and tourism). This report looks at a grassroots and treetops effort to support SME back streets businesses that depend on threatened PDRR land use zones in a central city context. The recommendations provided in chapter six are meant to support urban planners in networking the efforts of formal and informal groups to service and support these businesses.

PDRR is a more effective definition than "small-scale, light industrial" activity for the purposes of this report because it highlights the variety of activities that have typically occupied "industrial" land use zones in central cities. PDRR also helps avoid the negative connotation (of large, polluting factories in prime real estate abutting residential communities) that is often associated with the term "industrial" (Miara, 2002). The PDRR definition is not perfect though. One of the potential benefits that PDRR may provide is an employment opportunity for less-educated workers, and an important challenge that small-scale PDRR firms face in the central city context is steep competition for real estate from other land uses. The PDRR definition is more representative of activities occupying "industrial" zones, which is supposed to help improve PDRR retention efforts by allowing for more representative zoning and land use policy development (SFPD, 2010). However, businesses in the hi-tech sector complicate matters: many hi-tech firms have similar land use profiles and infrastructure requirements as PDRR businesses. Advanced technology firms also derive value from being located centrally in metropolitan areas (SFPD, 2002). Their land use similarities make it difficult to segregate hi-tech from PDRR activities in zoning policy but hi-tech firms tend to be more competitive in the real estate market.

While the PDRR land use designation is imperfect, it is useful for the purposes of this report. The use of the term PDRR throughout is intended to refer to small- and medium-sized, light-industrial businesses that continue to exist in central city areas. Another more colloquial term, drawn from the treetops program case study reported in chapter five, is used in this report to refer to this economic group. The term "back streets" when used to refer to a type of business should be read as synonymous with "small- and medium-sized enterprises involved in production, distribution, repair, and recycling activities or land uses".

Preserving Small-scale PDRR Land Use: Benefits for Central Cities

Urban planners and economic development practitioners supporting the retention of SME PDRR land uses within central cities cite a variety of potential benefits that can be realized for other businesses and neighbourhoods in the region. These benefits range from providing important back-end products and services for other sectors of the economy, diversifying the regional economy, creating employment opportunities for less educated labourers, and increasing access to family wages that can increase socioeconomic mobility for immigrant and less-educated groups in metropolitan areas. Environmental and quality-of-life goals are also cited as reasons to support PDRR land use retention in central city neighbourhoods.

PDRR: Positive Interactions with Central City Economies

The quality of economic exchange between PDRR, other economic sectors, and communities is important. Small- and medium-sized PDRR businesses, or "back streets" businesses, should provide contribute to local economies and improve the overall quality of life for residents in order to justify supporting their existence in central city neighbourhoods. Advocates of back streets activities in dense urban centres claim that small-scale PDRR businesses provide myriad necessary, yet unseen, services to other segments of the economy, including higher-order service sectors* that are typically associated with the Knowledge Economy (Miara, 2002). Regional Input-Output Modeling System (RIMS) studies have been used to describe the economic interactions that take place between businesses in a given economy. The RIMS can model bi-directional growth between sectors (i.e., the degree to which growth in one group of businesses impacts regional economic growth and vice-versa). In the District of Columbia a RIMS study revealed that businesses in the "production, distribution, repair, and recycling" grouping interacted closely with educational, social assistance, medical, and cultural services industries. The professional, scientific and technical services sector businesses also relied on SME PDRR businesses in their operations (DCOP, 2006). This study suggests that preserving PDRR land uses in dense, metropolitan centres can ensure that other economic activities are able to access services that are important to keeping them competitive and attracted to the area. There are certain PDRR businesses that interact more frequently with other sectors though. In D.C., back streets firms involved with publishing and printing interacted most heavily with other sectors in the regional economy. Nevertheless, the RIMS study demonstrates that preserving land for PDRR activities and addressing the challenges — economic and otherwise — that back streets firms face in central city economies can be beneficial for other economic activities.

Labour Force Development

By supporting the continued presence of SME PDRR businesses in central city areas, municipalities may also generate positive economic outcomes for resident according to some studies. The labour force and social equity benefits cited in relation to PDRR businesses include increased access to family wages for a labour force with diverse skillsets, greater income security, and expanded avenues toward upward socioeconomic mobility. Figures 1 and 2 below illustrate how PDRR businesses compare against other sectors with respect to wages. Occupational categories H and J, those most closely connected with PDRR activities, provide average occupational incomes above the low-income cut-offs for Canada and the United States. Compared with sales and service occupations, PDRR jobs appear to offer a higher average salary range. This is an important comparison to make because, following the deindustrialization of central city areas and loss of PDRR jobs, less-educated workers in central cities have increasingly turned to the sales and service sector. Another factor, noted by the District of Columbia Department of Planning where many less educated residents rely on sales and service employment, is that occupations in that sector tend to exhibit high degrees of income polarization between senior- and lower-level employees. Polarization is less

** Industries in finance, insurance, and real estate (FIRE) are commonly cited, e.g., (Sassen, 2009), but many other activities such as commercial retail also fall within this group of businesses.*

pronounced among PDRR employees (DCOP, 2006). This suggests that by sponsoring PDRR activity in central cities areas, urban planners and other economic development practitioners may increase the number of better-paying job opportunities for less-educated segments of the labour force.

Another important consideration from an employment quality perspective is whether PDRR businesses provide their employees with adequate representation as a defense against exploitation or employee benefits such as medical care. While unionization can be common in large factories, smaller firms rarely provide such representation. However, according to a Workplace and Employment Relations Survey (WERS) conducted in the UK, the intimate and informal business structure commonly found in SMEs provided personal and career development opportunities comparable to those available to unionized workers in larger factories. While employees in smaller firms tended to be less informed about overall business operations and average take-home pay was lower (Forth, Bewley, & Bryson, 2006), SME employees were more informed about aspects of the business of relevance to their individual responsibilities. The WERS study also reported employees in small firms also reported being more satisfied with their compensation despite having lower take-home pay on average (Forth et al., 2006). The authors of the WERS study suggest that this could be a result of less pay dispersion (i.e., less income polarization) in smaller firms. Interviews with employees of small PDRR firms also suggest that workers derive higher levels of satisfaction from their labour than their counterparts in large factories. Employees found value in being closer to the production process and the end users of the goods or services (Dominus, 2013).

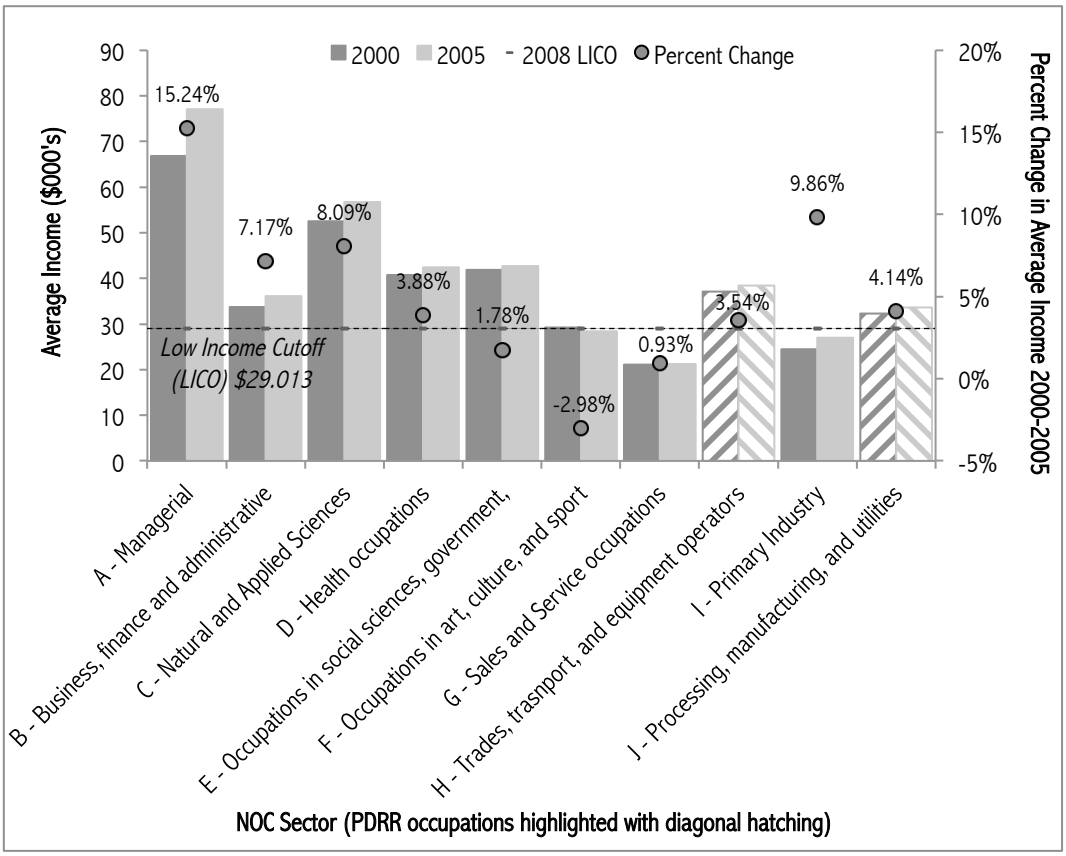


Figure 1 — Income by National Occupational Code (NOC), 2004-2005, Canada. Source: (Statistics Canada, 2006)

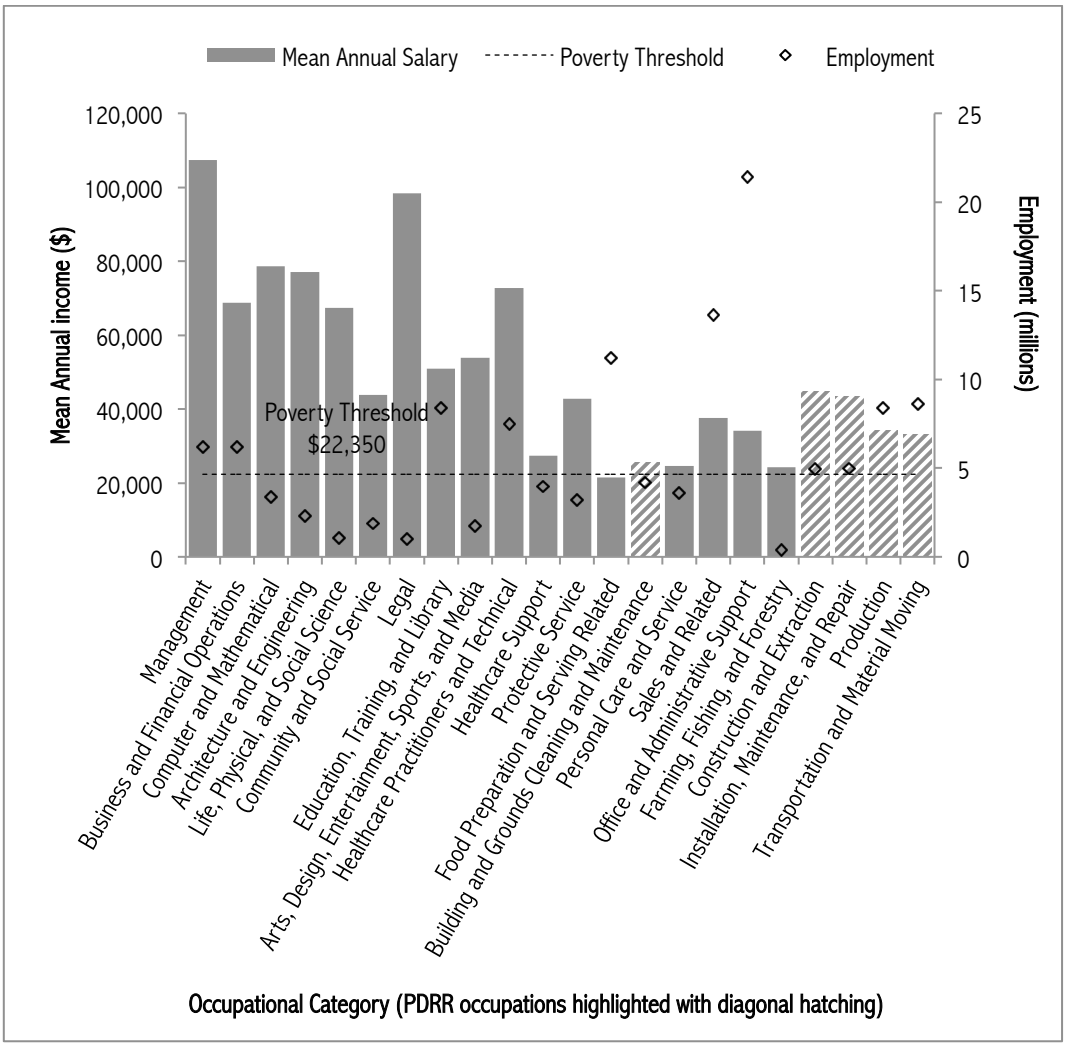


Figure 2 — Mean annual salary by occupation, U.S. Note: Department of Health and Human Services Poverty Threshold, Family of Four, 2011 (48 Contiguous states): $22,350. Source: (DHHS, 2011; USDOL, 2011)

PDRR Activity in Central Cities

Dense urban economic environments found in central city areas increase opportunities for businesses. The conflation of people and businesses within central cities represents a large market of potential customers, what has been called "spatial capital" (Soja, 2011). Leigh and Hoelzel (2012) highlighted several important economic conditions that are valuable to production, distribution, repair, and recycling activities. A larger overall market increases the potential opportunities for identifying niche demand for small-batch, specialized producers. The interconnectivity between businesses within regional economies creates a demand for localized distribution firms that can maintain resource, product, and physical material (letters, documents, etc.) flow between businesses and people. Cities offer proximity to markets, labour, and ideas as well as the infrastructure to deliver goods and services far more rapidly and responsively than offshore, mass-market competitors (Miara, 2002). Repair and recycling firms located in central areas help manage the high volume of business, and human activity occurring in central city areas.

The Importance of a Central Location for PDRR Firms

The ongoing debate with locating PDRR business in central city areas is that the infrastructural and other needs of PDRR firms are more easily serviced outside of downtown areas (where land is cheaper, more space is available, regulations are less complex, there are fewer neighbours to be impacted by nuisances related to PDRR activity, etc.). While this is true, we have seen above that PDRR businesses provide important services to central city businesses and residents. There is also evidence that SME PDRR firms supplement other economic activities through various backward linkages. It would be inconvenient, costly, and disruptive for a central city resident to be forced to leave the city in order to repair their vehicle. It can be very inefficient for a downtown-located law firm to only have access to a suburban-located printing business. One can see the value, for a hi-tech company or medical facility in need of specially manufactured parts, in having access to a nearby metal or plastics fabricator. The loss of quick and ready access to goods and services provided by small-scale PDRR businesses in the central city can increase the cost of business, lower accessibility measures, and create annoyances for central city businesses and residents (Fogelson, 2001).

For SME PDRR firms, being located in central cities provides access to client markets. For smaller firms that cannot vertically integrate all the necessary support processes, having access to nearby PDRR firms that provide these services is highly valuable (Sivitanidou & Sivitanides, 1995; Wheeler, 1981). Downtown areas, particularly in cities with a history of PDRR employment, are also the sites of highly sought-after skilled-labour pools (Abott, 2008; Fallows, 2012). The opportunities and amenities that urban centers generate can be a factor in attracting or retaining employees (Storper & Venables, 2004). A recent survey of 182 PDRR businesses in Washington, D.C. (Figure 3) found that SME PDRR firms "believe that their current location provides significant advantages" (DCOP, 2006). Nearly three-quarters of those surveyed found that their access to customers was advantageous (not surprising, considering that 64% of the clients of these businesses are located in the urban core), and two-thirds placed a high value on their access to transportation and other infrastructure. Furthermore, despite challenges with locating real estate for business expansion, 86% of respondents wanted to remain centrally located (Figure 3). Peripheral areas (cheaper as they may be) and cities that have pushed industrial to the outskirts have begun to realize that it is not just the firms that may suffer. Local communities face a host of problems, including increased commuting times, traffic congestion, and localized air pollution (SPUR, 2012). For many urban PDRR SMEs, their clients and networks are located in central areas (these are the aforementioned inter-sectoral linkages).

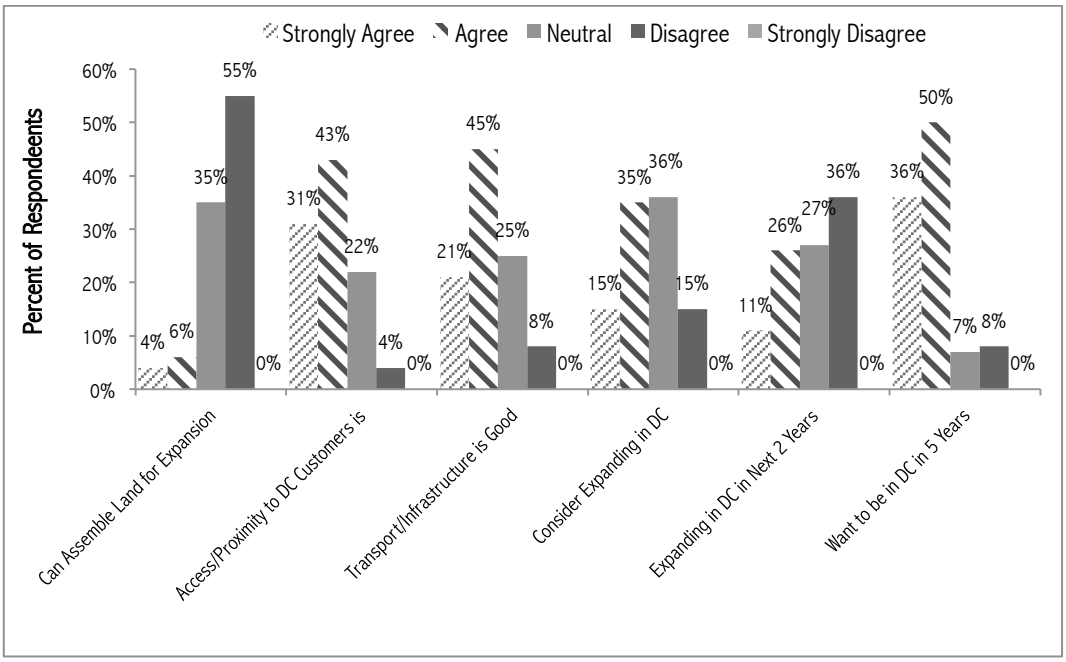


Figure 3 — Importance of current central location for (urban) location: PDRR firms in the District of Columbia, 2006. Source: (DCOP, 2006)

SME Back Streets Businesses: Environmental Concerns

The deindustrialization of central urban areas has dramatically improved many environmental conditions in the urban realm, from reducing chemical release into waterways and other habitats, reducing air pollution linked to heavy-industrial processing, and reducing the incidence of soil contamination from caustic chemical use to name a few examples. However, emerging evidence in the transportation planning field is suggesting that continued deindustrialization of central cities threatens to raise environmental costs in some ways. In a study conducted by the San Francisco Planning and Urban Renewal Association (SPUR) for the Bay Area, job sprawl was found to be an important factor in localized air pollution and other negative environmental impacts. SPUR argued that preserving land use zones for small-scale PDRR businesses in central San Francisco (or as close to it as possible) could help reduce live-work distances, thereby decreasing regional commuting demand (SPUR, 2012). SPUR's findings are supported by an earlier report that found larger transportation-related energy savings can be achieved by reducing worker commuting distances versus increasing retail-housing mix: "jobs-housing balance reduces travel more, by a substantial margin" (Cervero & Duncan, 2006, p. 475). While industrial sprawl in the San Francisco Bay region has been directly linked to increased regional transportation-related energy consumption (Hausrath Economics Group, 2008), many other factors are at play with regards to the reverse commuting and job sprawl problem. Locating small-scale PDRR businesses closer to urban centres will not solve the problem, but the SPUR study illustrates that preserving reasonable (small-scale) PDRR activities in central regions can be desirable from and environmental and human health (Gandel, 2011; Goodwin, 2004; Lépicier, Chiron, & Joumard, 2013).

Challenges Facing the PDRR Sector

There are economic, social, environmental, and health benefits to preserving small-scale PDRR land uses in central cities, however there are a number of challenges that back streets SMEs face in central city environments. The challenges can be grouped according to three broad themes:

[1] Governance and professional factors related to planning and economic development
[2] Economic forces such as globalization that have altered business models
[3] Physical factors impacting logistics and business operations.

Planners and economic development practitioners interested in supporting SME PDRR land uses should be aware of these broad issues but each municipality presents a unique context. Certain factors will be more pronounced than others depending on the central city area in question.

A Modern Vision, Urban Planning and PDRR

Canadian and American municipalities govern land use by exercising various legal powers and incentives. Zoning and built form regulations (e.g., height and density limits) are the most basic and widely used forms of land control (NYDOS, 2009)*. The purpose of these measures is to create better living and operating conditions for residents and businesses as determined by the prevailing values and evaluative frameworks in each context. Many professionals, private sector stakeholders, and municipal governments involved in planning and economic development for central cities have been sceptical of the role that PDRR land uses can play in advanced modern economies. This challenges efforts to provide support and develop policies that serve small-scale PDRR businesses.

Historic Opposition to the Industrial City

In many respects, urban planning is rooted in an opposition to the industrial city. By the mid-1800s the problems associated with industrial activities in the city were becoming a rally cry for many urbanists (Ames, 1972; Engels, 1987; Veiller, 1905). Efforts to mitigate industrial nuisances led to the development of zoning in Germany in the 1880s; New York's zoning bylaw of 1916 brought the practice to North America. Initially, zoning was not concerned with creating "better-run" cities, but to regulate real estate "to protect the use and exchange value of property" (Fischler, 2007, p. 17). This meant insulating residential and commercial real estate from the devaluating effects of nearby industrial activity. By the 1920s, urbanization and the escalating conflict between industrial and non-industrial land uses pressed central cities to adopt stricter zoning regulations (still with an emphasis on property value securitization). In time, the management of cities became increasingly guided by a stark dualism that set the dense, crime-ridden, industrial urban core against newly built suburban development where residents could raise a family, cars were essential, and class and racial homogeneity could be assured (Soja, 2011). Inspired by *City Beautiful* and *Garden City* ideologies, the vision of a desirable city changed so that central city governments came to regard "the replacement of a noisy, smoky, traffic-producing welding shop, for example, with a clean office building or residential complex" as undisputed progress (Miara, 2002, p. 39). Before mid-century, "by definition, most industrial firms were 'nuisances'" (Lewis, 2013). In its landmark 1924 decision in *Village of Euclid, Ohio v. Ambler Realty Co.,* the Supreme Court recognized cities' legal authority to prevent undesirable or "incompatible" land uses from contaminating the city. The legalization of zoning was just one of the major changes that took place during the 1920s that would steer central city planning, the urban planning profession, and real estate markets away from supporting PDRR activities in central real estate, This has had long-term implications for urban PDRR businesses. Zoning has been an important tool that was crucial to managing the numerous health and quality of life threats that industrial cities presented, but in the absence of checks and balances on the anti-industrial complex, the pendulum may have swung too far in the other direction in North America's largest, central cities (Curran & Hanson, 2005).

What began as a defensive protection of property value evolved into an aggressive program of property-led economic development by the 1940s (Fogelson, 2001). In the United States, federally funded New Deal programs such as the Housing Act of 1949, and the amended Act of 1954, provided the capital

** Houston has famously refused to implement zoning regulations, opting instead for a free market approach to property and real estate management reinforced through a series of covenants and deed restrictions made between land developers and the municipal government*

for various levels of government to create "the conditions under which real estate investors are drawn to and can extract value from a place" (Weber, 2002, p. 380; Wolf-Powers, 2005). In the seventies, following fiscal reforms under the Reagan administration, federal funding for municipal initiatives all but disappeared. The private market took up the reins of property-led development following the fiscal decentralization of municipal governance. By mid-century, urban planners worked to facilitate property-led development leading to numerous, often disastrous, Urban Renewal projects. Planners and municipal governments widely embraced the principles of Urban Renewal because private capital filled the void left after fiscal decentralization, planners had the tools to collaborate with and control the excesses of the market (at least in theory), and perhaps most importantly, property-led development bolstered property taxes — the primary source of municipal revenue (Bronstein, 2009; Wolf-Powers, 2005). Canada faced a similar process of fiscal decentralization (FCM, 2012; Slack & Bird, 2008) alongside incremental downloading of social responsibilities from provinces to cities. Except Canadian municipalities have had fewer avenues for revenue generation (Bird & Tassonyi, 2001), which has intensified their dependence on property taxes and reinforced the property-led development model.

Fiscal decentralization in North America coincided with the so-called regional urbanization process — a form spatial decentralization (Soja, 2011), which further augmented property-led development. From the middle of the 20th century, suburbs began to densify and uproot the traditional monocentric metropolitan model (Shearmur, Coffey, Dube, & Barbonne, 2007). A polycentric regional city framework emerged, characterized by "broad networks of agglomerations of various sizes" (Soja, 2011, p. 460) and destabilized core and inner city regions*. In response, metropolitan areas engaged in an aggressive program of city marketing to increase the appeal of core districts, a process that sapped funds away from social initiatives (Brodi, 2002; Fontan, et al., 2009) . Cities adopted a form of "hyper-competitive entrepreneurialism… to attract new private investment and tourist traffic" (Soja, 2011, p. 461) and the property-led development model directed the investment agenda.

International capital became a powerful force in the urban arena by the 1980s; it amplified municipal entrepreneurialism, especially through the real estate market (Fontan, et al., 2009). Many of the world most internationally connected cities exhibited an insatiable appetite for commercial, residential, and retail development (Castells, 1996; Fainstein, 2001). For many cities, a consequence of real estate entrepreneurialism was that the cities began to disinvest themselves further from locally-oriented businesses. SMEs in all sectors felt this squeeze profoundly but the loss of policy and other supports was felt acutely by PDRR businesses (Curran & Hanson, 2005). Industrial sites, repackaged as brownfield redevelopment opportunities, became central to a "spatial fix" whose goal it has been to generate new real estate investment opportunities in strategic locations (Harvey, 1982). The *Creative City* and *Bilbao Effect* are iterations of the process whereby flash replaced function. Office-based activities in finance, insurance and real estate (F.I.R.E.), as well as hi-tech land uses began displacing "blue-collar" activities, edging them out of the city to far less desirable (and accessible) areas at the urban fringe or further abroad. Some (mainly larger) firms flourished outside the city thanks to advances in transportation technologies and declining transportation costs, but urban-oriented companies were fighting at the margins. The District of Columbia provides a useful example. D.C. witnessed an explosion in private sector job growth in the late 1990s that resulted in widespread office development (DCOP, 2006). A residential real estate bubble (that ultimately burst in 2008) was also in full swing (Figure 4). Initially, office space and residential development occupied the most desirable undeveloped gaps in the urban fabric, but as land became scarce commercial and residential developers began eying strategic industrial sites near transit and waterfronts, or where lot could be easily subdivided (BAE, 2004; DCOP, 2006). D.C.'s story is not unique. Similar processes have been documented across Canada and the continental United States: Boston (BRA, 2002a), Baltimore (BAE, 2004), New York (NYCEDC, 2005; NYCIRN, 2009, 2011), Philadelphia (PIDC, 2010), Portland, OR (Abott, 2008; Otak, 1999), San Francisco (SFPD, 2002, 2010), Seattle (SDPD, 2007), and Vancouver (CVDP, 1995).

** Refer to the United Way of Greater Toronto (2004) case of inner city poverty in Toronto, Ontario*

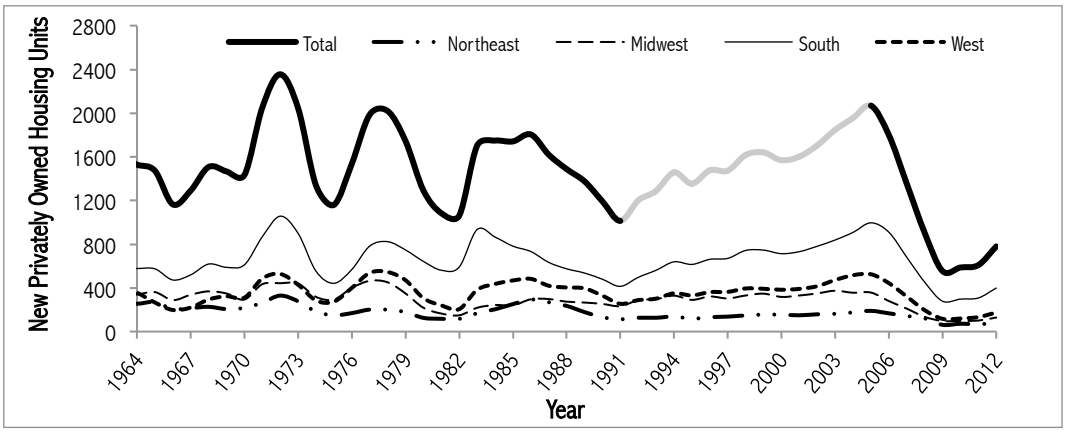


Figure 4 — New Privately Owned Housing Units Started, U.S., 1964-2012. Note: The housing bubble that led to the Great Recession is highlighted in grey. Source: (U.S. Census Bureau, 2010b)

Industrial Land and Zoning

Urban deindustrialization occurred gradually, with increasing pace toward the end of the 20th century. Brownfield redevelopment became common practice during 1990s after the United States declassified many Superfund sites, an act that made redevelopment efforts far less onerous (Lange & McNeil, 2004). Brownfield redevelopment is the repurposing of abandoned industrial lands, often at large scales; it often deals with highly contaminated sites where chemical contamination, the presence of single-purpose heavy infrastructure, and other undesirable conditions may warrant wholesale repurposing. The repackaging of brownfields as commercial-residential inventory is problematic for PDRR businesses because it diminishes the overall stock of industrial property. Another problem for PDRR businesses has been the gradual infiltration of non-industrial activity into PDRR districts.

Non-industrial land uses that are granted conditional approval to occupy and convert properties in PDRR zones convert relatively cheap land to higher-value commercial or residential real estate. Hence the process is often called "up-zoning" industrial lands*(Wolf-Powers, 2005). An issue with site-by-site land use planning is that each parcel is converted to its highest-and-best-use (HABU) while potentially ignoring larger-scale, community-level development objectives. This may result in sub-optimal economic development (Fischler, 2000). In central cities like San Francisco, New York, Boston, Toronto, and Vancouver, upzoning has been an important contributor to displacing even desirable or viable forms of PDRR land use (Wolf-Powers, 2005).

The impact of "upzoning" areas designated for industrial activities is also long-lasting. Once industrial land is converted to non-industrial uses, it is extremely difficult to reverse the change. As residential and commercial properties enter industrial zones, reintroducing PDRR uses presents a nuisance and property value threat that is extremely difficult to justify (DCOP, 2006; Stanford, 2013; Tarr, 2002). Another problem with site-level HABU land use planning is that introducing non-industrial land uses near PDRR zones has a ripple effect on nearby land uses. New residential or commercial properties in PDRR zones increases the likelihood of nuisance complaints and speculative development demand for upzoning industrial properties surrounding the converted property (Tarr, 2002). So reliable is this ripple effect that Mayor Murphy in the City of Pittsburgh used non-industrial conditional-use projects as a means to deliberately remove unwanted industrial properties (Tarr, 2002). In San Francisco and Los Angeles, the ripple effect of upzoning was an important force in pushing PDRR activities out of the city (Abott, 2008). Baltimore lost much of its industrial waterfront through similar forms of incremental non-industrial encroachment (BAE, 2004).

** "Up-zoning", and its counterpart "down-zoning", also refers to the process of increasing value associated with real estate projects that do not involve a change in land use. For example, a developer may ask the city to "up-zone" a residential area to allow for more density or height, without requesting a change in the allowed land use.*

Speculative real estate development is also stimulated by small-scale PDRR land conversion. The prospect of higher rents and greater potential property tax revenue for the municipality has been linked to industrial gentrification in many central cities (Bronstein, 2009). In San Francisco at the height of the Dot Com and housing bubbles of the late 1990s, Mayor Brown endorsed a systematic policy of upzoning industrial areas to suit office development (Brown, 2002). Real estate developers also began exploiting a zoning provision for artist live-work spaces in industrial areas to build luxury condominium units, sold as "artist lofts," in predominantly PDRR districts. The combination of the Mayor's pro-conversion policies and real estate market signals ultimately led to a dramatic drop in industrial property stock (Selna, 2008; Weigert, 2007).

Evaluating land on the basis of individual highest-and-best-use analysis is intended to maximize the use and profitability that can be derived from real estate (for municipalities and property owners). Small- and medium-sized PDRR businesses are disadvantaged in the HABU equation because they have an inherently lower capacity to compete with higher-value commercial, residential, and mixed-use real estate (DCOP, 2006). Industrial property rents can be a factor of five cheaper than residential alternatives, and six to eight times cheaper than commercial office space leases. One reason that PDRR real estate is cheaper than the alternative is that PDRR businesses prefer less dense forms of development. According to the San Francisco Planning Department, PDRR businesses seek out low-rise buildings with outdoor storage space and accessible delivery bays surrounded by a network of wider streets for easier manoeuvrability with larger vehicles. Medium- and high-rise commercial, residential, or mixed-use developments can dramatically increase land use density in central cities. This results in higher property tax revenues and higher rents compared with PDRR property. Finally, central cities have an inherent and justified need for commercial and residential development.

In central areas, it is very difficult for PDRR businesses to compete for real estate, and central cities have many valid reasons to upzone existing PDRR lands. However, if we accept that small-scale PDRR businesses can enhance central city economies, and their presence is desirable even in downtown areas, some form of real estate market regulation is justified. The District of Columbia has promoted diluting the market pressures created through HABU property evaluation by managing land more strategically, treating PDRR properties as an element in a "portfolio of assets" (DCOP, 2006, p. 22). Preserving some real estate for small-scale PDRR uses in central cities may constitute a sacrifice of property tax revenue and land use efficiency (from a profitability) standpoint, but municipalities make such sacrifices for environmental, cultural, and historic purposes often. Making the "sacrifice" to retain less profitable PDRR land use designations in central cities for the sake of the broader economic development goals mentioned above, is challenging because few city and neighbourhood planning movements provide guidance on how to integrate PDRR land uses effectively into a central city context.

A Lack of Guidance from within Mainstream Urban Planning Organizations

Industry organizations can provide leadership and guidance on how to preserve lands for PDRR businesses and integrate them into a healthy, vibrant central city fabric. Unfortunately, mainstream urban planning movements have provided little guidance and support in that regard. None of the ten planning principles adopted by the Smart Growth Network (SGN) mention PDRR land use zoning in a meaningful fashion, and the Congress for the New Urbanism assigns no function to PDRR employment zones within their model for "real neighbourhoods" (CNU, 2001). The LEED-Neighbourhood Development manual also offers no guidance on integrating PDRR districts in dense areas; the word "industrial" appears only 11 times, and never with the goal of promoting these activities in neighbourhoods.

Urban planning professional organizations like the Smart Growth Network, American Planning Association, and Canadian Institute of Planners promote mixed-use development, increasing density, curbing sprawl, providing neighbourhood amenities, and improving resident quality of life. The models systematically favour commercial-residential over industrial land use (Bronstein, 2009). The closest that the SGN comes to promoting industrial activity is indirectly through its endorsement of "economic development that supports small and local businesses," but the Network's guiding principles make no

mention of economic development as a goal indicating that this is not a priority (Smart Growth Network, nd). An advantage listed by the SGN for mixing land uses is that "putting residential, commercial and recreational uses in close proximity to one another" facilitates transportation alternatives to driving (Smart Growth Network, nd). There may be a place for PDRR activities within the SGN's live-work balance goals, but the Network does not provide any support or guidance on how to achieve a harmonious mix of uses between PDRR and other land uses (Leigh & Hoelzel, 2012)*.Looking deeper into its institutional framework, it is not surprising that the Smart Growth and other industry associations overlook PDRR activities. Representatives of these institutions tend to be professionals in design, architecture, environmental, transportation, and social equity (including housing policy, which sees industrial land as an opportunity for housing development). These professionals have not typically seen "industrial" land use as an areas of focus (Leigh & Hoelzel, 2012).

There are many planners, in the field and in academia, who have presented arguments for preserving PDRR-type jobs in urban areas because of the socio-economic benefits that are associated with employment and economic diversity. The nascent *Inclusive City* group (Inclusive City, 2007) and the *Planners Network Association* advocate for PDRR preservation within central city contexts because of these principles and others. *Inclusive City* and the *Planners Network Association* have criticised mainstream planning and development models like Smart Growth, New Urbanism, and LEED for concentrating too heavily on aesthetic dimensions of neighbourhood development while giving relatively less attention to the socio-economic responsibilities of city planning. Proponents of equity planning suggest that mainstream planning models often favour private-sector developer interests in the community (Bunce, 2004; Grant & Perrott, 2011; Osolen & Lister, 2004). Unlike other development models, *Inclusive City* stresses "planning and design based on economic, social, environmental and culturally sensitive policies…" that provide "opportunities for everyone to participate fully in the economy of the city, with access to a variety of quality jobs" (Iacofano & Goltsman, 2007).

In many central cities, industrial lands and PDRR activities have not featured prominently within the vision of local progress, modernization, and growth. In part, this perspective is borne out of the problems associated with the industrial city. The influence of the property-led development paradigm, seen most clearly through real estate market pressures, has also made it difficult to justify PDRR land uses in central city contexts. In many central cities, market signals combined with the modernization vision to foster "passive support of deindustrialization" on the part of urban planners and other professionals involved with economic development (Wolf-Powers, 2005). Central cities in which local planners and economic development practitioners have fought to preserve PDRR zones for small- and medium-sized enterprises have found limited guidance and validation for their efforts from mainstream planning institutions such as the Smart Growth Network, CNU, and LEED.

Economic Factors

Perhaps the most challenging aspect of supporting PDRR land use zones for SMEs in the central city context is that these businesses have had a hard time keeping up with evolving economic realities. Since the late industrial era, North American central cities (and others) have opened up dramatically to international production, labour, and consumption markets. Trade deregulation has facilitated these changes, as has the emergence of new transportation technologies. Economic pressures have made it difficult for small-scale PDRR land users to compete in central cities, and they have affected how much attention these businesses receive from political circles. Considering the supportive role that small- and medium-sized PDRR operations play relative to other central city businesses, there is a need to sustain strong PDRR industry representation and supportive policies. As other important economic sectors grow in a modern central city economy, demand is likely to increase for goods and services provided by SME PDRR firms, necessitating an effective strategy to address the economic challenges that small-scale PDRR firms face.

** The viability of commercial-residential mix in Smart Growth development has also been questioned, for example in Grant and Perrott (2011)*

Political Representation for PDRR Businesses in Central Cities

When Robert Lewis (2013), professor of urban geography at the University of Toronto, analyzed Chicago's industrial activities throughout the 19th and 20th centuries, he found that the "political space for the creation of institutions capable of creating effective industrial policy at the local level was severely restricted" (p. 98)*. An important factor was that powerful PDRR businesses (large producers, distributors, repair and recycling operators) left central city areas in pursuit of more favourable conditions in less developed areas of North America or abroad. In that process, small- and medium-sized PDRR firms lost a lobbying group that could have worked with political and economic development groups to create policies that would serve PDRR interests, such as preserving "industrial" zones from redevelopment, securing investment in infrastructure that facilitated PDRR business activities, or creating tax and business policies that PDRR firms big and small could benefit from (Lewis, 2013). The relative lack of PDRR representation within policy and economic development circles, and its impact on economic conditions for SME PDRR firms was documented in New York City by professor Wolf-Powers (2005) at the Pratt Institute. Wolf-Powers tracked development in Williamsburg and Long Island City, two industrial neighbourhoods, and found that "during the economic boom of the middle- and late-1990s, opportunistic land purchases and property development outside the parameters of the zoning code precipitated and accelerated the shrinkage of industrial enclaves" (p. 380). The municipal government authorized development projects that increased property values and it increased property tax rates in industrial areas to expedite the redevelopment of the area for non-PDRR activities. A survey of PDRR business owners (Figure 5) in the District of Columbia found that property tax policy was the primary factor, even above real estate price pressures, driving PDRR out of the central city (DCOP, 2006).

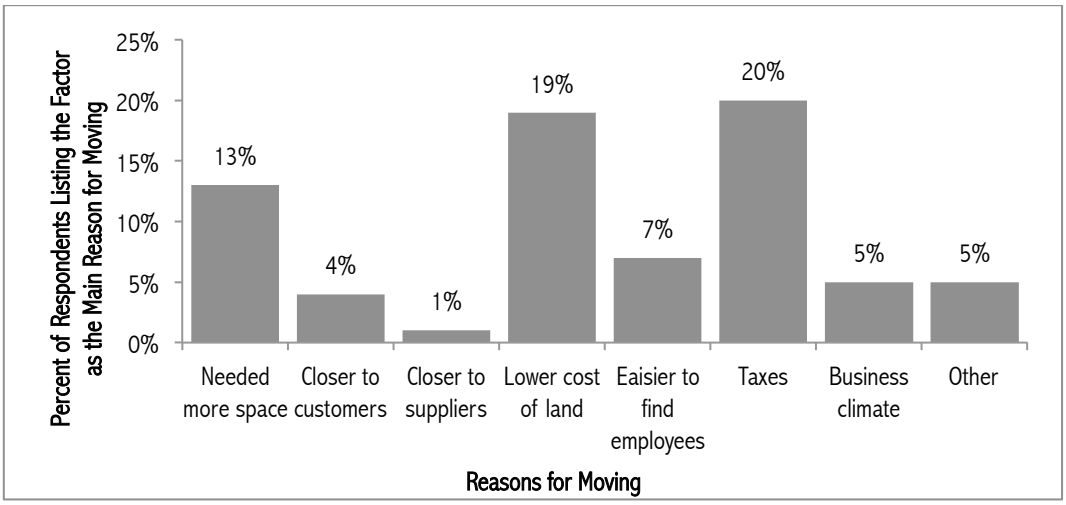


Figure 5 — Survey of PDRR businesses, District of Columbia. Source: (DCOP, 2006)

Relative Decline

The persistence of PDRR firms in central cities signals that the goods and services that they provide other businesses and central city residents are in demand. It is difficult to track the reverse linkages between small-scale PDRR firms and other businesses or residents. The San Francisco Planning Department attempted to model inter-sectoral relationships by surveying non-PDRR businesses that utilized PDRR goods and services (BSBAB, 2007). More quantitative studies involving Regional Input-Output Modeling Systems (RIMS) have provided evidence that demand for PDRR goods and services grows in a positive relationship with economic growth in non-PDRR businesses. In the District of Columbia PDRR growth was tied to the expansion of professional, scientific, and technical services — the region's "core" industries

** Similar results have been documented in other metropolitan areas (Ehrlich, 1987).*

(Table 3). RIMS results indicate that the preservation of PDRR lands and supportive policies for SME PDRR businesses can facilitate growth in other sectors by eliminating bottlenecks in access to goods and services provided by PDRR activities.

Table 3 — Non-PDRR, and PDRR employment impacts from projected growth in the professional, scientific, and technical services (PSTS) industry in the District of Columbia. Source: (DCOP, 2006)

	Jobs	Percent
Total New Jobs because of PSTS growth	61,116	100.0%
New Jobs within the industry	32,087	52.5%
New Jobs Outside the industry	29,029	47.5%
New non-PDR jobs outside the PSTS industry	*26,020*	*42.6%*
New PDR jobs outside the PSTS industry	*3,009*	*4.9%*

Physical Factors

Planning for SME PDRR firms in central cities, and accommodating their growth in stride with a thriving and complex economy, involves important infrastructure and built form questions. A major challenge from an economic development standpoint for those working to support PDRR land uses in central cities is that modern production, distribution, repair, and recycling businesses, even small-scale operations, have spatial demands unlike those required by commercial, residential, and mixed-use land uses (e.g., requiring wider turning radii on street grids and less vertical development). Another problem is that the existing industrial building stock in many central cities is dated and in need of public investment to provide new services (such as high-speed internet), or to parcel out units for smaller-scale businesses.

Changes in Built Form and Infrastructure Requirements

The profile of modern, central city PDRR businesses is quite different compared to 100 years ago. The most significant change has been a transition from vertical, integrated factories to horizontal, one- or two-storey facilities. This is one of the reasons why suburban areas, with ample opportunity for greenfield development, were attractive to many PDRR firms. Declining surface-freight transportation costs and expanding interstate highway networks greatly facilitated PDRR businesses' so-called "*suburbanitis*" (BRA, 2002a; Bronstein, 2009; Howland, 2011; Leigh & Hoelzel, 2012; G. A. McKee, 2010). Containerization was another transportation improvement that pushed PDRR businesses out of central cities like New York (Hills Jr & Schleicher, 2010) and San Francisco (SFPD, 2002) that did not upgrade port facilities to accommodate the new technologies involved. For modern-day, small-scale PDRR businesses, common infrastructural needs include roadway maintenance in industrial zones, sacrificing density to supply functional industrial spaces (or allowing mixed-use industrial facilities where appropriate), increasing transit access to PDRR areas, adequate provision of policing and other municipal services, and sufficient preservation of suitable facilities for PDRR activities (DCOP, 2006; SFPD, 2010). Other physical and organizational issues are listed in Table 4. The infrastructural demands of PDRR businesses will vary depending on the central city context, but a commitment of public investment, ongoing support from political officials, and appropriate urban planning regulations are critical to address these and other infrastructural needs. Achieving such support in the long term is a challenge because direct costs and latent opportunity costs involved in preserving industrial zones versus converting to productive (in real estate terms) commercial, residential, or mixed land uses. One way to overcome the barriers to investment in central city PDRR businesses is to increase advocacy (or lobbying) from the businesses and employees that stand to benefit, but the resource constraints inherent to a SME business have tended to make these firms relatively invisible or inaccessible to policy-makers and the broader community. One of the reasons why the City of Boston refers to PDRR business as *back streets* businesses is because their activity is less visible in a central city context. Limited public awareness of PDRR businesses and the way in which they

support central-city economies can reduce local willingness to engage in public projects — especially costly ones — that may be necessary for these firms to continuing operating within a central city context (Lewis, 2013).

Table 4 — Demand for industrial space from PDRR firms in the District of Columbia, 2006. Source: (DCOP, 2006)

PDRR Subsector	Demand	Barriers
Food and beverage services	Distribution points close to hospitality establishments	Some require large sites (>40,000 ft^2) Cold storage and other facilities are expensive Frequent deliveries increase local traffic
Transportation	Space for vehicle parking needed Firms prefer good transit access	Traffic generates a high degree of nuisance to residential and commercial property neighbours, which may impact property values
Construction and building services	Space for supplies and staging Demand is mainly from small contractors	Security is an issue in dense areas due to the potential for theft and vandalism of equipment
Telecommunications	Space for infrastructure, such as satellite dish farms, TelCo datacenters, and equipment storage	Land use is not attractive — large buffers from residential and commercial land uses necessitates siting in dedicated PDRR zones or districts
Waste management	Proximity to sources of waste to reduce transportation costs	Facilities generate significant nuisances for neighbouring land uses
Light manufacturing	Free or low-cost space	Central city real estate is expensive and municipal revenue goals counter the job-creation that may result from supporting light industrial firms

The benefits that small-scale PDRR firms bring to central cities from an economic development perspective are important reasons to adopt policies, provide supportive services, and implement other measures to sustain these businesses. The challenges that central city environments present to a small-scale production, distribution, repair, or recycling firm identify key issues that should be targeted by said policies, support services and other measures. Many groups have taken proactive steps to capitalize on the potential benefits and address the challenges that PDRR firms continue to experience in central city areas. These groups include grassroots organizations operating outside of municipal government (informal actors) as well as economic development or urban planning departments within City government (formal actors). Networking formal and informal initiatives supporting PDRR activity in central city economic development circles is necessary in order to foster a more effective and efficient municipal economic governance system.

The Evolving Role of Economic Development

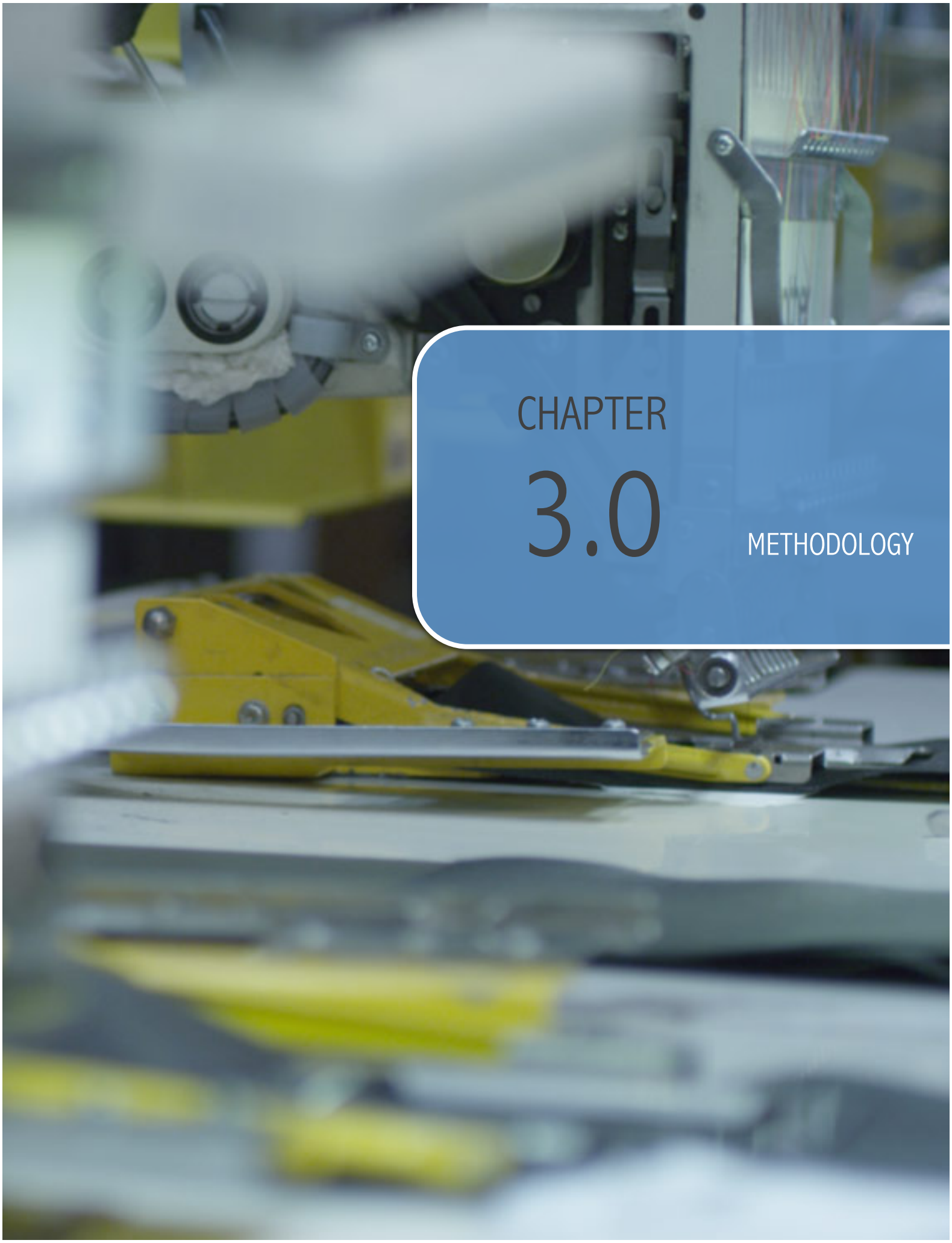
In order to capitalize on the benefits outlined above, the challenges facing PDRR land uses discussed above must be addressed. Central cities have highly developed economic and political systems with many resources and active stakeholder groups. Governance theory argues that in this complex environment, economic development initiatives to support small-scale PDRR businesses through urban planning and service provision, involve multiple groups. The history of economic development reveals how informal actors have become increasingly relevant and valuable in the field of economic development. The following section clarifies the role that non-governmental economic development initiatives can play and why it is important to coordinate the work of formal and informal actors

Fitzgerald & Green-Leigh (2002) provide a thorough outline of the theory and practice of economic development in North America in the post-industrial era. The "traditional" approach, emerging in the 1930s, involves various tax and policy incentives aimed at reducing production costs (in terms of property, operation, transportation, and others factors) for large industrial firms. This "corporate welfare

strategy" argues that by reducing costs for large employers, they will locate in the region resulting in employment and economic prosperity. In the traditional model, government works closely with influential private sector actors to design attractive incentive packages and policies for large firms. Critics of the "traditional" approach emerged in the 1960s calling for an alternative approach to economic development. These theorists and practitioners highlighted the lack of employment and economic growth that had been realized through the traditional model. They characterized traditionalist policies as a form of wealth transfer from the public to the private sector (via tax abatement, property-based incentives, and other various targeted policy-based strategies) with little benefit to local residents and businesses. Two alternative strategies emerged as a response to these critiques, adding nuance to the sometimes-crude incentive-based strategies that had been employed thus far. The first — dubbed municipal entrepreneurialism — moved away from incentives aimed at large industrial firms and began promoting industrial agglomeration districts (especially in hi-tech sectors) through various financial- and policy-based incentives. In this model, fewer handouts are given to large, mobile factories but the underlying strategy remained highly corporatist. The second alternative, emerging in the 1970s, stood apart from traditional and entrepreneurial approaches. It advocated for place-based equity and redistribution strategies. The aptly-named equity planning model stressed that the goals of economic development are to address socioeconomic inequalities and increase public participation in the decision-making process (Krumholz & Clavel, 1994). Consequently, real estate development became secondary to job growth, neighbourhood improvement, business retention, and small business growth. Equity planners worked to increase the voice of community organizations, labour unions, and other interest groups in crafting and implementing economic development policy (Fitzgerald & Green-Leigh, 2002, p. 17).

Fitzgerald and Leigh characterize the current economic development climate in central cities as one of privatization and interdependence. Following a period of fiscal and political decentralization at the federal and state (or provincial) levels, the private sector has become increasingly important in municipal development. For cities, decentralization meant that federal and state governments simultaneously downloaded social and economic development responsibilities to municipal governments (stretching already limited resources), and reduced support (predominantly financial) to meet those responsibilities (Bronstein, 2009). As a result, municipalities have looked to non-governmental partners (i.e., private sector) for support with social and economic development initiatives (Reese, 2006; Stone, 1993). Consequently, a web of actors has emerged competing and collaborating in geopolitical space for access to power, representation, and resources. It has become increasingly valuable to understand the means to coordinate collective action between governmental (formal) and non-governmental (informal or grassroots) actors (Stone, 1993, p. 17). This is especially true in the field of local economic development (Fitzgerald & Green-Leigh, 2002; Gertler, 2003; Leibovitz, 2003; Pastor & Ortiz, 2009; Putnam, Leonardi, & Nanetti, 1994). The eagerness on the part of policy-makers to affect positive change in the economy, considered alongside the recent economic downturn and growing income polarity in central cities in Canada and the United States*, bolsters the need to effectively network formal and informal economic development activity (Pastor & Ortiz, 2009, p. 15). With a better understand of the strengths and weaknesses of economic development programs based on institutional setting, urban planners will be better equipped to coordinate grassroots and treetops efforts.

** Although Canadian economic policy has catered less to private sector interests and socioeconomic polarity has been less pronounced historically, global economic pressures are eroding these differences (Reese, 2006, p. 555).*



CHAPTER 3.0 METHODOLOGY

Chapter 3 — Research Design

Given the benefits of an urban PDRR sector outlined above and the challenges that must be addressed, municipalities have begun implementing initiatives to support SMEs in this sector. Numerous programs have emerged, operating at varied scales, employing a range of strategies, and responding to pressures relevant in the local context. The Maker's Movement, a popular version of these efforts demonstrates that interest in PDRR activities reaches beyond the political and economic realm (Arieff, 2011; Caulfield, 2012). The growing interest in urban manufacturing and other related activities warrants an examination of existing programs. The literature review summarized above shows that the needs of the sector have ben documented, but few researchers have examined how current approaches address these needs. This research is important as new initiatives take form in Canadian and American municipalities.

Governance is a key question for economic development planners in dealing with the PDRR sector. An important component of governance scholarship deals with the question of who controls the planning and decision-making process. Participatory models, often couched in equity and social capital development are becoming increasingly influential in the practice of economic development. Nevertheless, traditional, technocratic models still dominate the field. In light of these two prevailing approaches to economic development efforts for the PDRR sector, the following question underscores this research:

> *» What are the strengths and weaknesses of grassroots versus treetops approaches to local economic development in the urban PDRR sector given their institutional setting?*

The following chapters use a program evaluation approach in order to assess and compare the two approaches to PDRR support, as exemplified in two PDRR-support initiatives. Through qualitative case studies using the semi-structured interview technique the report compares San Francisco's *SFMade*, a grassroots initiative, to Boston's *Back Streets*, a municipal program. Each case study begins with a situational or context analysis that defines the past and present state of industrial employment in the city, how economic development efforts for the sector are coordinated and other important contextual factors. Next, the case studies perform the program evaluation of *SFMade* and *Back Streets*.

Program Evaluation

The program evaluation method provides a framework for assessing program outcomes. The method outlined by Posavac (2011) is used to guide the case study research of *SFMade* and *Back Streets* because it is flexible enough to accommodate the distinct geopolitical contexts while being relevant for an evaluation of economic development policy. There are four aspects to Posavac's model:

Stage One. (*Need*) deals with how well the need for a service is identified.
Stage Two. (*Process*) examines whether the services provided are appropriate in relation to the needs identified in stage one.
Stage Three. (*Impact*) assesses the degree to which services function as planned and whether they ultimately address stage one needs
Stage Four. (*Efficiency*) determines whether desirable impacts are attained at an acceptable cost

According to Posavac, it is not necessary to examine all four stages to complete a program evaluation, but the sequence outlined above must be respected (Posavac, 2011). Premature evaluation questions — e.g., ones that examine *impacts* before understanding *needs* — can generate trivial findings (Wholey, 2004). This paper will look at stages one through three in evaluating the *SFMade* and *Back Streets* programs. Stage four, *efficiency*, will not be dealt with in this study because the quantitative data that would be necessary are not available. *SFMade* has been operational for only three years; thus, it is too early to make substantive conclusions about the program's efficiency in relation to *Back Streets*. In addition, firm-level economic data on the PDRR sector does not exist; given the risks associated with drawing conclusions

about individuals or firms using aggregated data it is not possible to perform a useful efficiency evaluation within the scope of this study. The following secondary research questions guide the program evaluation stages examined in this study:

Stage One. Does the program understand the needs of PDRR SMEs in their local context and how does its structure — grassroots or treetops — affect this understanding?

Stage Two. What services does the program provide and how do they respond to the needs of the local PDRR sector?

Stage Three. How do the services operate and to what degree is the operation and value of the services impacted by the grassroots or treetops structure of the program?

Case studies

The research questions are addressed using a case study methodology. This approach is recommended by Yin (2009) because of its ability to gather valuable qualitative data in complex systems. Qualitative data is useful for case study research of *SFMade* and *Back Streets* because it is naturalistic (derived from real life experiences) and reflexive (Schreier, 2012). These qualities allow the researcher to gather important information that would be difficult if not impossible to model with quantitative data. The naturalistic method is better suited, for example, to uncovering important trust networks that can greatly impact economic activity and integrity in a location (Gertler, 2003; Porter, 2000). Impressions of the local economic climate are important because place-perception factors heavily in SME owners' decisions criteria on where to locate their firms (Dubini, 1989).

Qualitative versus Quantitative Analysis

Qualitative case study research was appropriate because of data and study limitations. While much of the economic history of Boston and San Francisco is similar, the two cities differ in their legal, cultural, economic, and organizational contexts. To control for the factors that may sway results in a quantitative analysis would require fine-grained, longitudinal data on PDRR activities in San Francisco and Boston. Such data records are not available. In contrast, qualitative analyses can provide useful insights on how the programs function, how their services are received and perceived by local stakeholders, where they fit within economic governance, and how much of a positive force they are for urban PDRR activities. Furthermore, this paper presents a preliminary evaluation of grassroots and treetops support programs for PDRR businesses. The ultimate purpose is to identify key areas for further study and the qualitative method is better suited for such "higher level" evaluation (Yin, 2009).

Interviews

Semi-structured interviews were conducted to gather information for the three program evaluation stages, but data from the interviews was also used to inform the situational analysis. The author conducted the research over the course of three months beginning in January 2013. The majority of interviews were completed by telephone with the author taking written notes. Interviewees were given an opportunity to edit and expand on the edited notes after the interview. Each participant was also given the option to participate with full or partial confidentiality in terms of the name, title, and organization with which they were affiliated. On one occasion, two participants were interviewed simultaneously — the individuals represented different professions within the same municipal organization.

Three groups of informants were contacted and asked to participate in the research. Staff members of *SFMade* or *Back Streets* comprised the first group. Potential interviewees were solicited according to seniority in the organization's hierarchy, starting with the most senior representatives. The second informant group included municipal planning and/or economic development officials. Individuals were contacted according to relevance and familiarity with the programs and/or PDRR activity in the city. Preference was given to business development, urban planning, or economic development staff members.

The final group of informants was composed of representatives from the PDRR community. Firms that were active or former recipients of services from *SFMade* or *Back Streets* were contacted randomly from a list of member firms posted on the websites of *SFMade* and the Newmarket Business Association, an industry association that represents many PDRR firms clustered in the Newmarket industrial area in Boston.

Program administrators provided detailed input on how programs functioned, the rationale behind their strategy, and insight into the strengths and weaknesses of their efforts. Municipal officials were consulted to give details on how the programs influence economic development and to provide professional assessments on the programs. The PDRR community was consulted to gather qualitative assessments on their experience with the program. Interviews lasted approximately one hour and were conducted using a semi-structured format. Leading questions were asked to introduce key topics of discussion centered on the research questions outlined in subsequent sections. Appendix A lists the interview questions used; a list of all interviewees is provided in Appendix B. A total of 11 interviews were conducted with representatives from the PDRR community, local municipal officials, and program staff. A summary of interviewees is shown in Table 5. Further detail on the interview process is outlined below.

Table 5 — Summary of case study Interviewees in San Francisco and Boston

Interviewee	Number interviewed		Total
	San Francisco (*SFMade*)	Boston (*Back Streets*)	
Program Staff	2	1	3
Municipal Staff	4	1	5
PDRR Firms	2	1	3
Total	8	3	11

Other Sources of Information

The following material was consulted for this study, with preference being given to primary sources where they were available:

- Local socio-economic statistics databases (demographic and industrial census data, industrial inventories, and other statistical outputs)
- Government documents:
  - Official city plans, codes and land use regulations
  - Official communiqués: press releases, presentations, and other statements
  - "State of the Industry" reports commissioned by municipal agencies
- Program documentation and reports issued by *SFMade* or *Back Streets*
- Data published on official program websites and in other materials
- Local periodicals (e.g., *SF Chronicle*, *Boston Herald*)
- Academic journals and other works
- Newspaper articles
- Online multimedia (e.g., online videos, blogs, etc.)
- Independent third-party reports
- Relevant urban planning and economic development publications

When consulting these resources, attention was paid to the structure of governance relating to local economic development, the role of urban planners within this structure, and relevant ancillary programs working in tandem with *SFMade* or *Back Streets*.

Program Evaluation Framework

Needs Evaluation Preface: Context Analysis

The purpose of the needs comprehension evaluation is to determine whether the program (*SFMade* or *Back Streets*) is aware of the PDRR sector's needs in the local context and whether the program framework, in principle, can address those needs. In Posavac's model, the needs evaluation is preceded by an analysis of context that defines local conditions relevant to the functioning and operation of the program. The context analysis focuses on identifying the population being studied, the forces acting on the community, the services that are already available, and the stakeholders involved. Five questions guide the context analysis stage:

[1] What are the local economic trends for the PDRR sector?
[2] What is the structure of local economic governance and what is its relationship with PDRR?
[3] What relevant economic programs are in place for the PDRR sector?
[4] What do local municipal plans say about economic development and the PDRR sector?
[5] What are the advantages of operating a PDRR business in the city?
[6] What are the disadvantages (i.e., needs) of operating a PDRR business in the city?

Needs Evaluation

The following questions assess if the program, as designed, is providing an appropriate response to the needs identified in the context analysis for the target community:

[1] Who are targeted recipients of the program's services?
[2] What services does the program provide?
[3] Are the services offered relevant given the needs identified?

Semi-structured interviews with program staff, municipal officials, and PDRR representatives were the primary resources consulted to answer these questions, however the primary and secondary references listed above were consulted to further develop, where appropriate, information collected during interviews.

Process Evaluation

The process evaluation describes how the programs' services are managed and delivered. Through interviews with program administrators, the PDRR community, and municipal staff, the following three research questions were addressed:

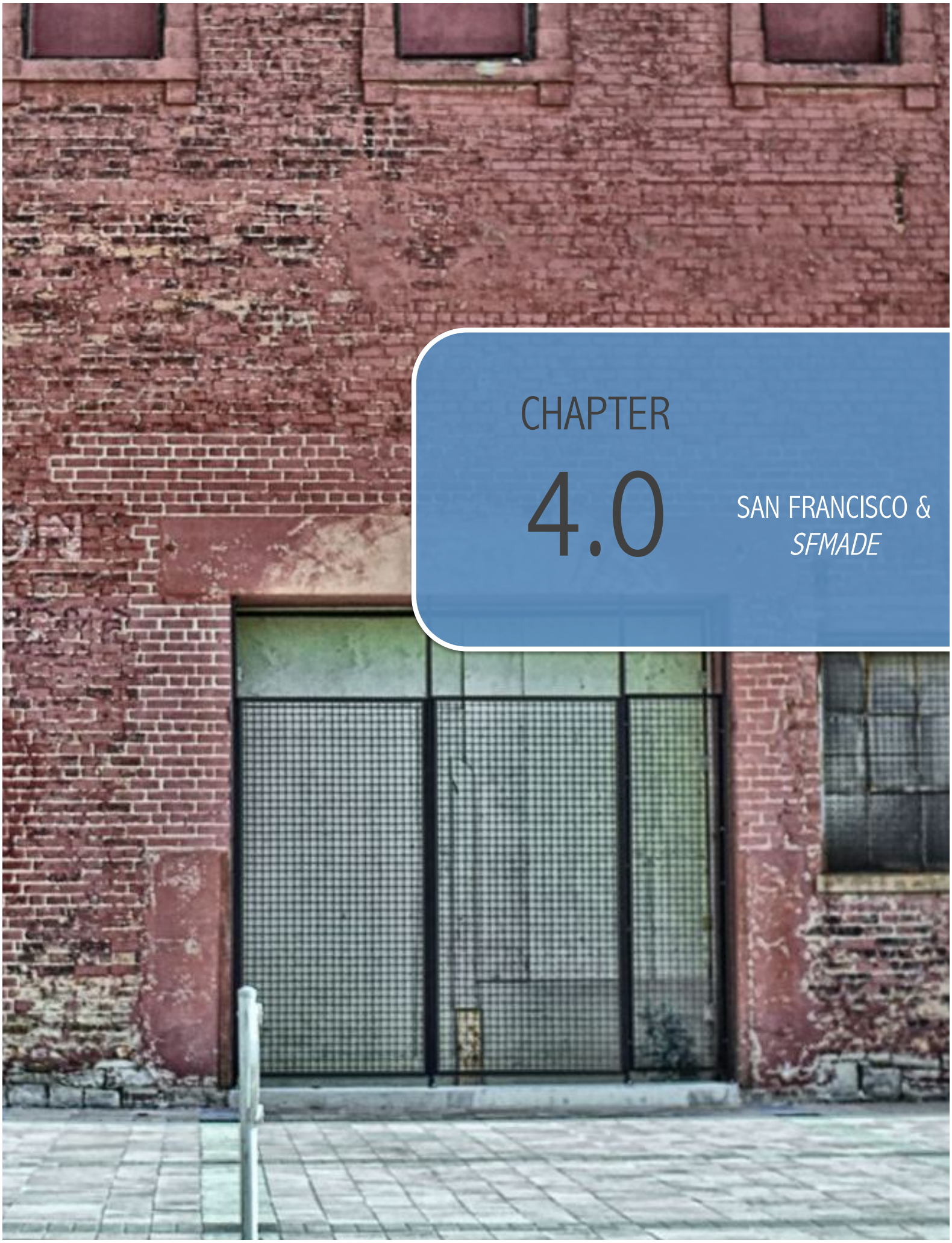
[1] What resources are available to the program to deliver its services?
[2] Who comprises the program's support network?
[3] What constraints or advantages does the program face in achieving its mission?

Impacts Evaluation

The third stage of the program evaluation looks at impacts in the community based on qualitative assessments gathered through semi-structured interviews. The principal question is whether participants are benefitting from the program, and whether participation provides subscribers with advantages over non-subscribers (Posavac, 2011). Program administrators, local urban planning officials, and local PDRR firms subscribing to the program were asked to rank the services offered by the programs according to value, and comment on services that were needed but not offered by the program. Each group of interviewees was asked to define the main strengths and weaknesses of the program and comment on the degree of support the programs enjoy from within the PDRR community. All interviewees were asked to describe how local communities perceive the program to get an insight about contributions made to the

non-PDRR community members (i.e., in the PDRR business community, in communities where PDRR firms are operating).

[1] How is the program perceived within the PDRR and broader community?
[2] What are the program's major successes and/or failures?



CHAPTER 4.0

SAN FRANCISCO & *SFMADE*

Chapter 4 — San Francisco and *SFMade*

San Francisco has been an important centre of trade and transportation since the mid-nineteenth century. It underwent a period of rapid industrial expansion, like other Canadian and American cities, during the war years, after which large-scale factories covered much of the city. That picture changed dramatically after the 1970s when large residential, commercial and high tech development began displacing PDRR activity in the Bay Area. As San Francisco became a global corporate headquarters, large factories disappeared from the central city. PDRR businesses became less visible to the public, leading political and economic development interests for focus on sectors that dealt less with material goods and services. Recognizing the decline of PDRR activities in the central city, San Francisco began implementing a series of measures to retain industrial land uses, increase resources and incentives to PDRR firms, and enhance PDRR business growth. In part, poltiical willingness to support small- and medium-sized enterprsies involved in PDRR activities arose out of a growing awareness of the economic value of these businesses and rising popularity of manufacturing entrepreneurship. *SFMade* is a non-governmental, or grassroots, program providing support for local manufacturers; it has had success influenceing land use policy and providing business support services to local manufacturers as well as small-scale distribution, repair, and recycling businesses. This first half of the chapter traces the history of PDRR activity in San Francisco, identifies important actors within the economic development governance community, and details the opportunities and challenges facing SME PDRR businesses in central city neighbourhoods. A program evaluation of *SFMade* is presented in the second half of the chapter.

Context Analysis: The City and County of San Francisco

PDRR Trends in San Francisco

Despite major industrial decline from the 1970s, PDRR businesses continue to operate in central San Francisco. Nine per cent of new businesses established in the city in 2010 were registered in production, distribution, repair, or recycling sectors. The bulk of new and longstanding PDRR businesses are located in the Bayview, South of Market Area (SOMA), and Mission Commerce and Industry Districts (Figure 6-8). According to the San Francisco Commerce and Industry Inventory (CII), PDRR businesses employed 13.4% of the labour force in 2010, down 4.9% from the year prior (SFPD, 2010). The statistic is indicative of the fact that PDRR industries have been in long-term decline for many years (Figure 9). For example, PDRR-based employment fell by 10.6% (SFPD, 2011) in the four-year period between 2006 and 2010. The decline is not uniform across production, distribution, repair, and recycling businesses: companies engaged in print, publishing, and various forms of specialized manufacturing have increased hiring over the same four-year period (Figure 9). Growth in these sectors may be a result of political commitments in recent years to preserve small-scale industrial land use within the urban fabric, especially with entrepreneurial manufacturing. The cultural, economic, and political renaissance of manufacturing in San Francisco has had many spillover benefits for distribution, repair, and recycling firms that occupy the same land use zones. The support for PDRR activities has had a measurable impact on SME businesses: back streets industries registered consistent employee income growth since 2000* (Figure 10; SFPD, 2011).

** Only the Cultural, Institutional and Educational sector boasted similar consistent income growth since 2000.*

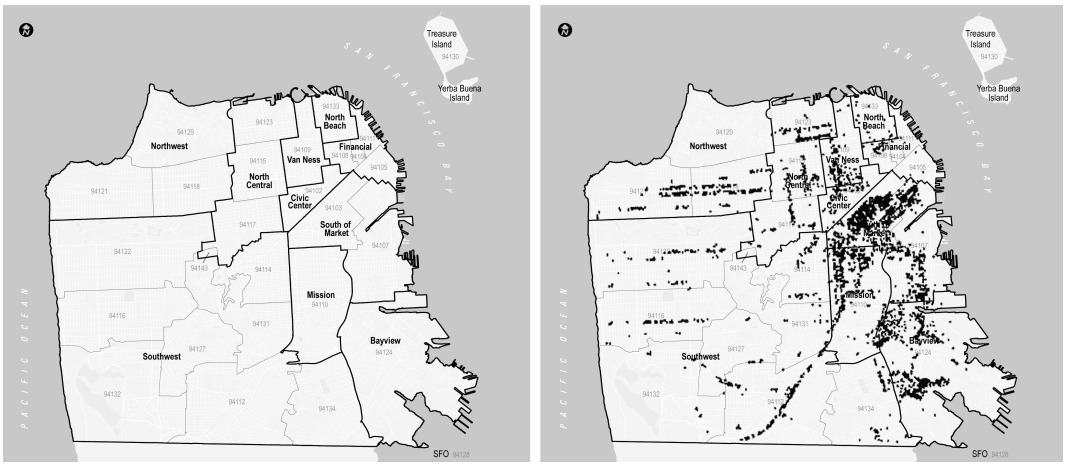


Figure 6 — Map of Commerce and Industry Districts with PDRR firm locations superimposed, San Francisco, 2007. Source: BSBAB, 2007; SFPD, 2011

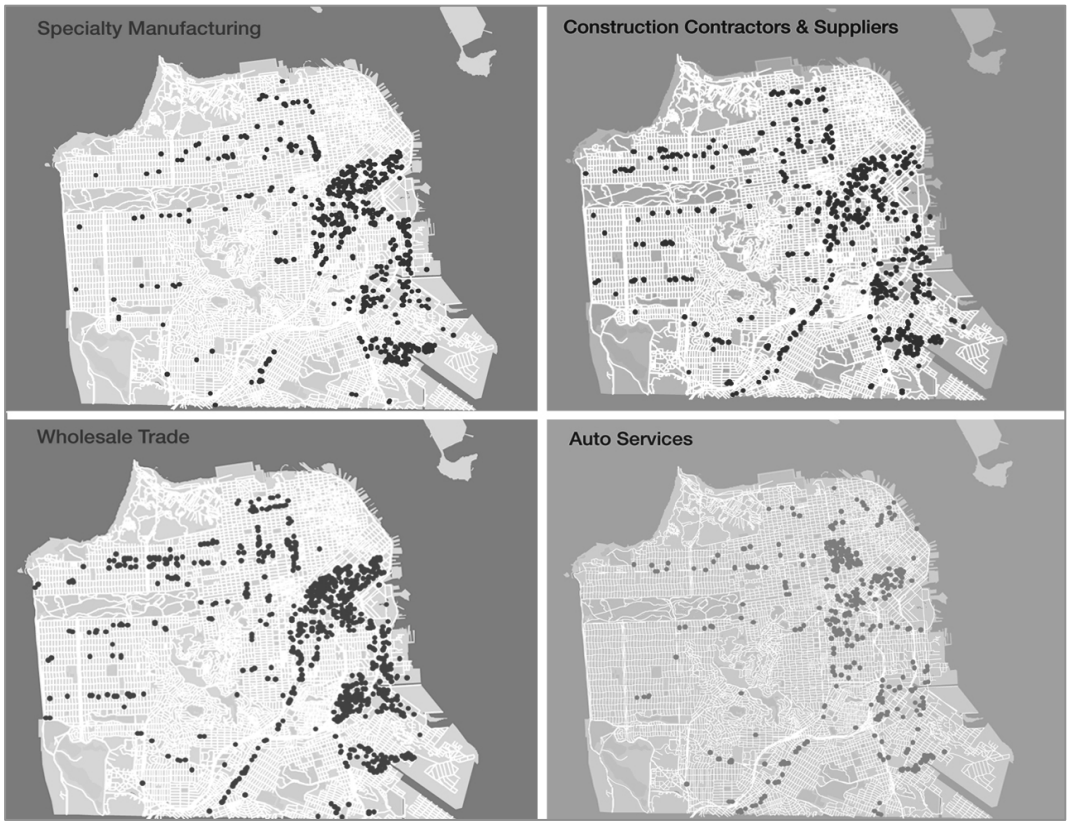


Figure 7 — Location of PDRR firms in San Francisco, 2007. Source: BSBAB, 2007

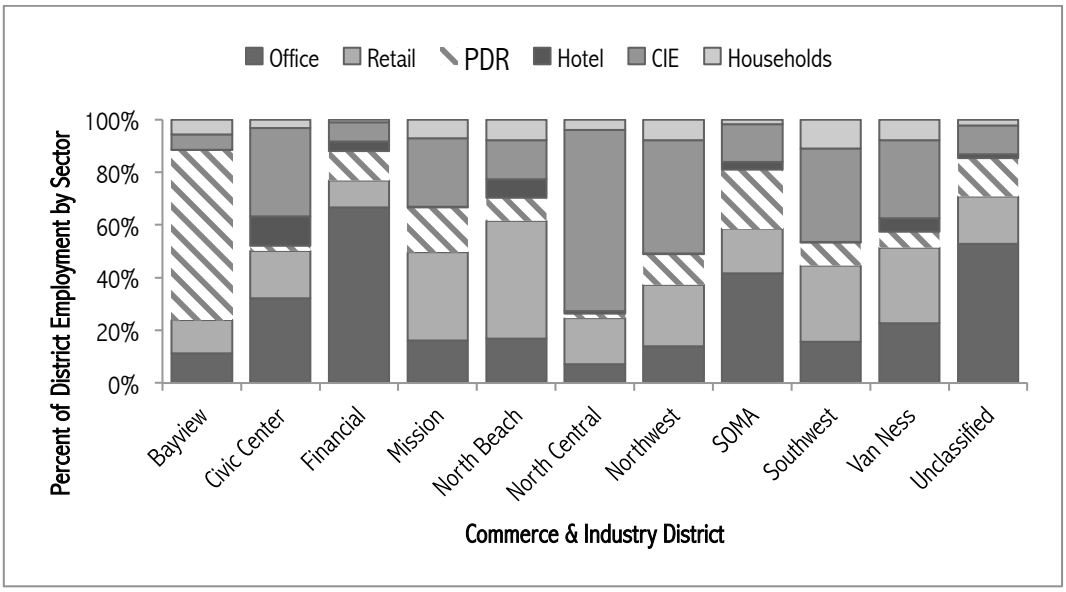


Figure 8 — San Francisco employment by PDRR land use category and geographic location, 2010. CIE: Cultural, Institutional, and Education Sector. Source: SFPC, 2011

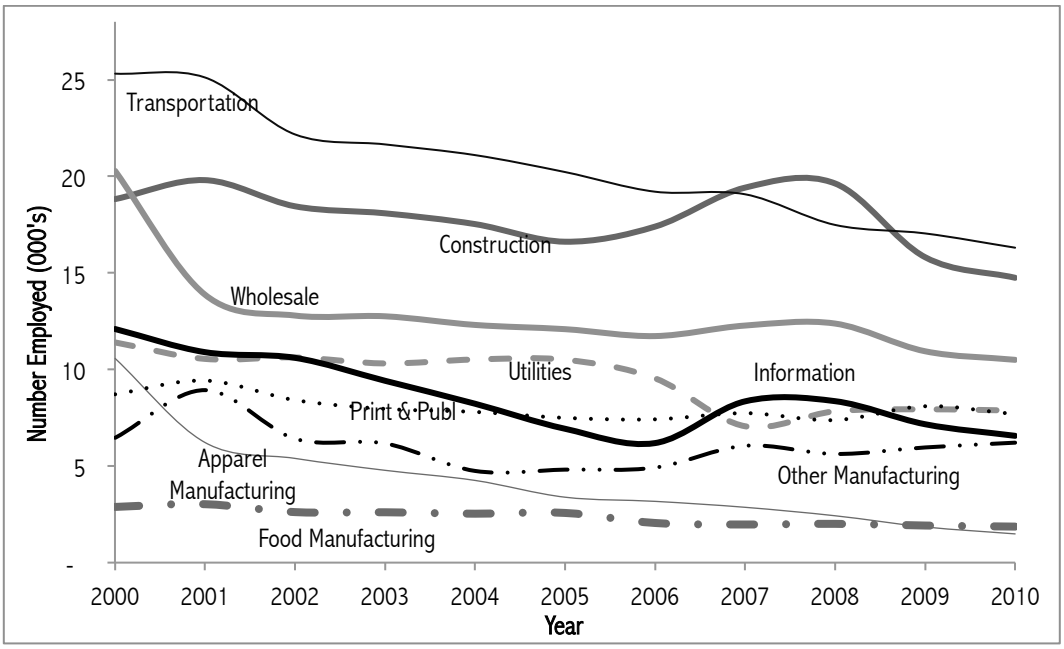


Figure 9 — San Francisco employment in PDRR Industries, 2000-2010. Source: (SFPD, 2011)

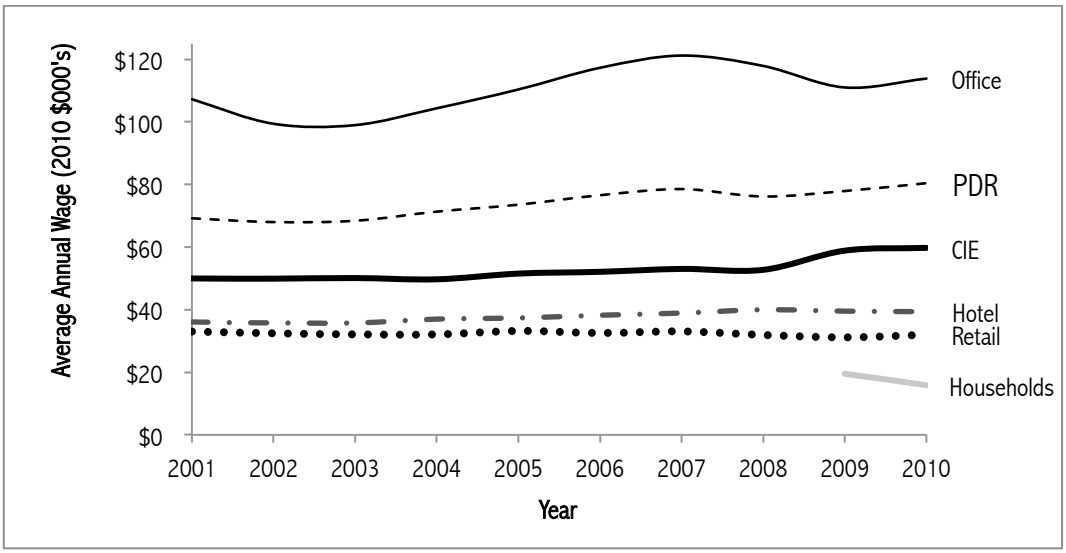


Figure 10 — Annual wages per worker by land use category, San Francisco: 2001-2010. Source: SFPD, 2011

Local Economic Governance and its Relationship with PDRR

Several committees, commissions, and task forces have represented small and medium-sized business interests in San Francisco over the last thirty years. The existing Small Business Commission (SBC) was formed by municipal ordinance in 1999. Its five members, appointed by the Mayor, operated with an annual budget of $400,000 and served as an advisory commission to the Office of Small Business (OSB). SME business owners (particularly those in PDRR sectors) challenged this arrangement. They argued that their needs were not being adequately serviced because the commission held little decision-making power and was disconnected from the business community. Small business owners untied to form the San Francisco Small Business Network, which successfully lobbied to (a) make the Commission an overseeing body to the OSB, and (b) mandate that the majority of commissioners had to be active small business owners.

Coincident with the changes to the SBC, the City became increasingly interested in PDRR activities in San Francisco. The Planning Department published an industrial inventory in 2002 to better understand PDRR businesses and how they operate in the city, identify relevant trends, and provide recommendations to inform support subsequent planning and policy development for PDRR bsuinesses. During this period, the Board of Supervisors* created the Back Streets Businesses Advisory Board (BSBAB) to analyze the needs of back streets businesses (BSBs)†, evaluate programs in San Francisco and other cities that target BSBs, and provide recommendations to assist the City in retaining and expanding SME PDRR businesses. The BSBAB published *Made In San Francisco* in 2007, which influenced the Eastern Neighbourhoods Plan (2008) published by San Francisco's Planning Commission, a subgroup of the Planning Department. The ENP zoned the north-eastern portion of the peninsula for industrial (or PDRR) land uses; it represented a major commitment to support PDRR businesses in San Francisco. In a preliminary report on the Eastern Neighbourhoods, the Planning Department cited the backward linkages between PDRR firms and other sectors of the economy (tourism, high-tech, financial and legal services) as a basis for and validation of the ENP. The report also attributed PDRR firms with providing "stable and well-paying jobs for the 50% of San Francisco residents who do not have a college degree" (SFPD, 2010). For the Back Streets Businesses Advisory Board, the ENP was necessary because San Francisco had neglected the sector (BSBAB, 2007,

** The Board is the legislative branch of the City and County of San Francisco. It consists of 11 elected members*
† According to the report: "Back Streets Businesses are generally defined for purposes of this report as small to medium-size industrial or commercial businesses that create products or provide services in manufacturing, wholesale, commercial, logistics, construction, repairs, and food processing. This definition is generally consistent with the Planning Department's definition of 'Production, Distribution and Repair' (PDR)."

pp. 6). According to the BSBAB, industrial retention in the Eastern Neighbourhoods was necessary because the area accounts for a large portion of PDRR jobs and is particularly suitable to such activities, the existing zoning code permitted almost any form of development in industrial areas including residential and office uses that could displace PDR land uses relatively easily, nuisance complaints resulting from non-PDRR development within the Eastern Neighbourhoods would create land use conflicts that often culminate in permanent PDRR displacement from the area.

Economic Programs for the PDRR Sector

The BSBAB identified several municipal programs and policies that support PDRR land uses in the city. The Commerce and Industry section of the General Plan provides guidance on sustaining and developing the sector (policies 2.1 and 3.1 in particular), while the Transportation section (policy 6.1) and various Area Plans, especially those for the Bayview, SOMA (e.g., policy 4.1), and Mission districts provide more detailed guidance. The Commerce and Industry Inventory provides ongoing monitoring of the sector as the economy evolves. These policies stem from the first "principal policy" listed in the General Plan, which states that

> *a diverse economic base be maintained by protecting our industrial and service sectors from displacement due to commercial office development, and that future opportunities for resident employment and ownership in these sectors be enhanced.*
> *San Francisco General Plan (SFPD, 2012)*

The General Plan ultimately led to a new municipal Economic Strategy (ES) with specific provisions for PDRR businesses and land uses. A resident survey informed the ES. The survey results identified job retention, job growth, infrastructure, quality of life, and economic stability as top priorities for the city (BSBAB, 2007). One of the purposes of the BSBAB's *Made in San Francisco* report was to illustrate how PDRR firms would contribute in these areas and what PDRR businesses would need in order to do so. *Made in San Francisco* claimed that SME PDRR businesses contributed greatly to the municipal budget through the combination of higher-than-average wages in a city with relatively high payroll taxes*. The BSBAB claimed that more than 22 per cent of the City's payroll tax revenues (over $55-million) came from PDRR businesses and their employees in 2003 (Table 6). An additional cited economic benefit was that less-educated residents had greater access to jobs with above-average pay wages through PDRR businesses. Table 7 illustrates the socio-economic differences between an average PDRR employee and workers employed in other sectors. Less-educated workers are more commonly employed in PDRR sectors and when education levels are held constant, those employed by back streets firms in San Francisco earn higher wages than the average (Table 8).

Table 6 — Municipal payroll tax revenues from PDRR businesses, 2003. Source: BSBAB, 2007

PDRR Firms	Payroll Tax Revenue	% Total Tax Revenue
Construction	$11,462,610	4.6%
Manufacturing	$4,983,744	2.0%
Wholesale Trade	$7,226,428	2.9%
Transportation & Warehousing	$3,239,433	1.3%
Information	$22,925,220	9.2%
Professional, Scientific & Technical Services	$1,744,310	0.7%
Admin. Support, Waste Mgt., & Remediation Services	$1,993,497	0.8%
Accommodation & Food Services	$498,374	0.2%
Other Services	$1,245,936	0.5%
	$55,319,554	22.1%

** Canadian cities do not have the authority to charge residents income tax as is done in the United States.*

Table 7 — Characteristics of San Francisco residents employed in the back streets sector compared with those employed in all other sectors. Source: (BSBAB, 2007)

	SF Residents in PDRR Jobs		SF Residents in All Other Jobs	
Mean Annual Wage		$ 36,181		$ 40,349
Education	Number	Percent	Number	Percent
Less Than High School Degree	12,406	17%	22,710	9%
High School Degree or GRE	13,523	19%	22,912	9%
Some College	16,098	23%	64,296	26%
College Degree (BA or BS)	22,740	32%	88,275	36%
Post Graduate Degree	6,798	10%	49,692	20%
	71,565	100%	274,885	100%

Table 8 — Income of less educated workers in San Francisco by employment sector. Source: BSBAB, 2007

Education Level	PDRR	All Other Sectors	PDRR Markup
High School or Less	$19,867	$15,926	+25%
Some College	$29,909	$27,004	+11%

While San Francisco's recent policies with respect to the PDRR sector have been supportive and local planners appear to see industrial activities playing a positive role within the city, PDRR activities still face pressure from the competitive real estate market. Landmark policy decisions like the revamping of zoning regulations to insulate PDRR districts from upzoning (conversion to commercial or residential development) have not come easily according to planning and zoning officials at the Planning Department (J. Lau, planner, Office of Economic and Workforce Development). While many municipal officials have been supportive of PDRR activities, especially under Mayor Lee, private development interests continue to pull policy and economic development in another direction. Balancing the economic rationale for sustaining SME PDRR activity in central San Francisco with the real estate opportunities and developer interests tied to "upzoning" industrial areas remains a challenge.

PDRR viability in San Francisco

Supporting PDRR land uses in San Francisco is justified only if the businesses that occupy these lands are attracted to central areas of the city. San Francisco offers several economic advantages to businesses occupying PDRR land uses. One of the largest benefits is that the culture and history of the city provides a spatial capital to locally-operating businesses (Arieff, 2011). Mark Dwight, an apparel manufacturer and co-founder of *SFMade*, refers to this spatial capital advantage as *geographic ingredient branding* (Arieff, 2011); it has helped differentiate firms, especially manufacturers, making them more competitive versus peers that have migrated out of the central city area.

San Francisco also holds an industrial building stock and valuable infrastructure that has accommodated PDRR activity for decades (PIDC, 2010). Heritage industrial buildings in industrial districts have allowed PDRR firms to agglomerate in central areas (Figure 6), which in turn has promoted information and resource sharing, improved connections between PDRR businesses and shared supply networks, and helped increase firms' access to skilled labour (Caulfield, 2012; UMA, 2012). Access to a skilled workforce and central city (transportation) infrastructure, SME PDRR businesses have been able to maintain rapid goods and service delivery, respond quickly to emerging trends, and remain competitive according to a local apparel manufacturer (M. Dwight, personal communication, March 15, 2013). Many of San Francisco's immigrant labourers rely on public transit; they also comprise an important PDRR workforce component. A central city location is an advantage to PDRR firms compared with suburban industrial parks because of its accessibility via transit. Another important quality that San Francisco offers small- and medium-sized back streets firms is a rich pool of potential business collaborators, experiences professional service providers, and a large venture capital community that can sustain demand for PDRR goods and

services and potentially provide business financing capital (K. Sofis, personal communication, March 15, 2013).

From a PDRR business owners' perspective, locating in San Francisco is advantageous due to the spatial capital, proximity to markets and supply networks, suitable building stock and transportation infrastructure that are available. San Francisco is also home to a large workforce with a variety of skills that are valuable to PDRR businesses and the local administration has taken steps to support PDRR land uses. Nevertheless, as desirable as San Francisco may be for back streets firms occupying PDRR lands, the city presents a number of economic challenges that the grassroots group *SFMade* seeks to address.

Disadvantages of Operating PDRR in San Francisco

The most significant threat to PDRR land uses in San Francisco according to the BSBAB report was the scarcity of available and suitable land presently and in the future. At just 49 square miles, San Francisco's real estate market is highly competitive; the demand for residential and commercial-office development places considerable conversion pressure on industrial properties and very little new, flexible industrial units are being created. Real estate investors are also not attracted to the marginal profits with industrial real estate contracts compared to residential or commercial contracts (BSBAB, 2007). A second problem identified by the BSBAB was a lack of understanding and awareness of the businesses that relied on PDRR property in the city. Residents and tourists seldom interact with these firms; even policy-makers and planners have historically had a poor appreciation of these activities in San Francisco. This has created relatively few, effective policies oriented toward industrial retention or PDRR business preservation in the past. In contrast, large corporate office interests have been more successful at influencing according to local urban planners (K. Rich, personal communication, March 28, 2013). San Franciscan firms using PDRR real estate have felt that relatively less financial support was directed to them by the City and other funding bodies, the negative impacts of which have been most visible through the relative lack of infrastructure investment (road maintenance and transit network expansion in particular) within PDRR districts (BSBAB, 2007).

Changes within the sector have also complicated efforts to develop effective policies for managing PDRR lands for back streets businesses. One issue is in the way that the sector is defined for land use and regulatory purposes. While bioscience, digital media, and green-tech businesses have increasingly sought PDRR real estate, including these activities in zoning regulations would threaten "traditional" PDRR industries that are less competitive in the real estate market but that may be beneficial from a local economic development standpoint as discussed in chapter 2 (BSBAB, 2007, p. 19).

The BSBAB report, as well as a separate industrial inventory issued by the planning department (SFPD, 2002) identified a series of necessary actions to protect PDRR land use designations in San Francisco for back streets businesses. Developing a functional land use policy to address conflicts between residents and PDRR businesses, and properly managing the City's inventory of industrial space were primary. The importance of the latter is made clear through the city's experience during the Dot Com economic bubble, when many industrial buildings were retrofitted for digital media companies. After many internet-based businesses collapsed, the retrofitted units were no longer suitable for traditional PDRR activity*. Limited PDRR real estate supply and the persistent threat of upzoning create an insecure real estate market for "traditional" PDRR businesses, which has slowed investment in the sector.

An effective land use policy for back streets PDRR businesses in San Francisco requires that bureaucratic processes be simplified and the land use codes be updated according to local economic development professionals and zoning officers (J. Lau, personal communication, March 28, 2015; S. Sanchez, personal communication, March 12, 2013). To address these issues, the BSBAB called for a coordinated effort among government agencies and grassroots industry groups, as well as significant public investment. More research based on close interaction with back streets businesses was recommended as a preliminary step to developing any land use policies or committing public funds toward

** Nevertheless, the converted units were reclassified as "industrial stock", thereby artificially inflating the supply of PDRR space in the city.*

PDRR land uses (BSBAB, 2007, p. 56). Mark Dwight, a member of the *Back Streets* Advisory Board who helped produce the *Made in San Francisco* report, subsequently left the Board to found *SFMade* as an advocacy and business support program for back streets firms in San Francisco.

SFMade Case Study

SFMade was established in 2010 as a 501(c)(3) non-profit corporation in the state of California. The mission of the organization and *SFMade* program is to manufacturers producing within the City of San Francisco. Kate Sofis, executive director of *SFMade*, explained that trade organizations like the Chamber of Commerce tended to serve a broad business development function rather than a targeted strategy to address the specific needs of local, SME manufacturers. *SFMade* offers its services to manufacturers without charge. The program provides member firms with business support services and resources. It functions as an advocacy group for local manufacturers to the city and the private sector.

Needs Evaluation Q1: Target Audience of the Program

SFMade believes that manufacturing businesses increase local economic diversity, encourage creativity, and provide support for other industries the City. The organization focuses on supporting manufacturing businesses. The organization represents 446 local manufacturing firms, or 95% of the city's businesses registered as being involved in manufacturing (Figure 11-12; K. Sofis, personal communication, March 15, 2013). Its non-profit status and lack of membership fees have helped the organization remain accessible to all firms but because the organization is a private entity, it can choose how resources (services, staff time, etc.) are allocated among those members, which may mean that firms that are not identified as having a high potential for growth may receive less attention:

> *there is a natural balancing of where you apply your resources: smaller businesses may not get the attention that they need.*
>
> *– C. Dalton, PDRR business owner, San Francisco*

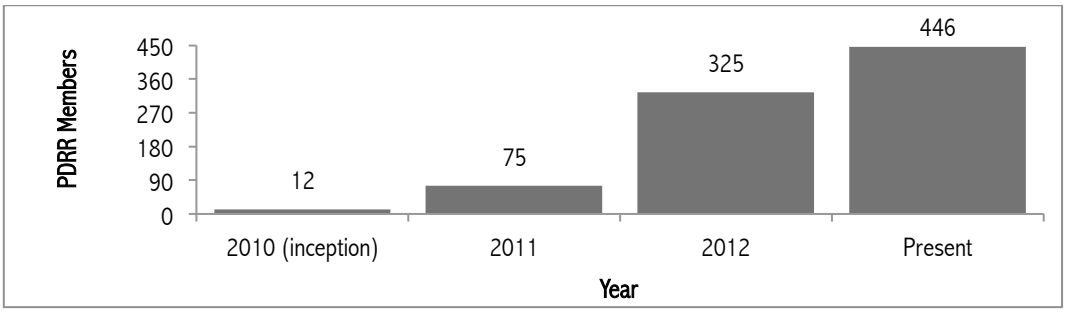


Figure 11 — SFMade PDRR membership growth from 2010 (Inception) to present (2013)

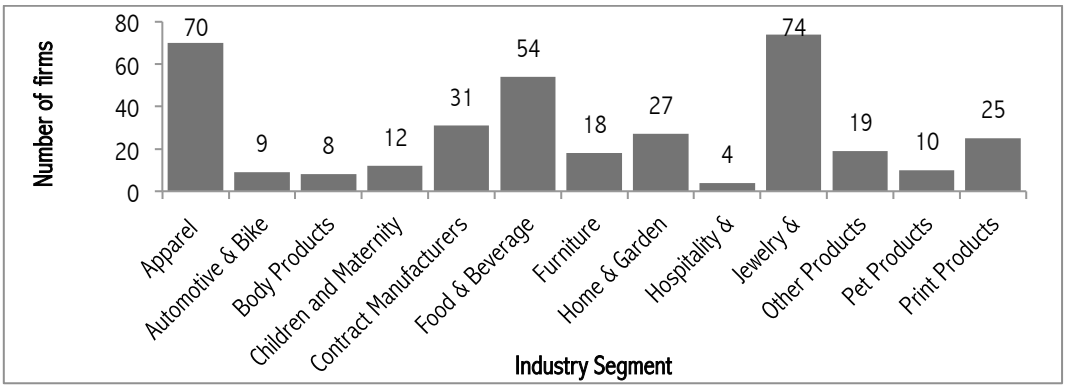


Figure 12 — SFMade membership, 2013 (n = 361). Source: SFMade.org

While its manufacturing orientation limits the organization's scope to a narrow subset of PDRR land users, through its advocacy work, *SFMade* has also benefited distribution, repair, and recycling businesses according to urban planning staff at the City's Office of Economic and Workforce Development (J. Lau, Planner, personal communication, March 28, 2013).

Needs Evaluation Q2: Services Provided

Initially, *SFMade* concentrated on spotlighting manufacturing activity, raising awareness to the brand, and establish their reputation. The program has only recently begun to tackle more complex challenges facing SME PDRR land users in San Francisco. The program currently has five focus areas:

[1] Branding and retail support
[2] Business guidance, networking, and advocacy support
[3] Real estate and infrastructure support, an initiative called "Places to Make"
[4] Sourcing venture and other financing capital, an initiative called "Craft Capital"
[5] Workforce and skills development, an initiative called "Hiring Made Better"

Branding and Retail Platform

The branding and retail support program taps into San Francisco's spatial capital for the benefit of manufacturing businesses. The claim is that the branding and retail platform are about promoting the sector to spur job growth. *SFMade*'s members are allowed to brand products with the proprietary "Made in San Francisco logo," which raises awareness of the sector and translates the "geographic ingredient" into profits for local manufacturers. Shop Local directories and exclusive selling opportunities coordinated through SFMade are intended to help member firms expand their customer base. These services are aimed at BSBAB findings that PDRR land users have limited visibility within the city, making it harder to compete, in the market for manufactured products in this case. As a non-governmental agency, *SFMade* is able to provide marketing or branding support for its membership, but these benefits can only accrue to members with a retail focus in markets, or a "main streets" aspect to their business model.

Business Guidance, Networking and Advocacy

SFMade also offers business guidance and support. They provide educational material on a variety of topics, such as e-commerce techniques for businesses and contract negotiation. The program also disseminates useful information on public and private resources that are available to manufacturers. For small- and medium-sized businesses, a persistent challenge is staying informed of the opportunities that are available:

It didn't even come on my radar that there were tax benefits and incentives available
– C. Dalton, PDRR business owner, San Francisco

Through *SFMade* resources are also made available by pooling other service providers together. For example, while San Francisco has many legal, accounting, finance, and other professional services providers, it is relatively difficult to locate professionals with PDRR experience. SFMade represents manufacturers as a unified group that is more visible and, therefore, better connected to service providers, according to a local manufacturer located in the Eastern Neighbourhoods (C. Dalton, personal communications, January 30, 2013). As a group representative for manufacturing businesses, SFMade has also negotiated with clients to secure new contracts for its members (Arieff, 2011).

The Manufacturer's Accelerator Program (MAP), designed for growth-stage businesses, is a comprehensive business guidance service. Firms are admitted to the MAP following an evaluation of performance and growth potential within their sector. If successful the businesses are paired with specialists for one year to improve their business. The goal is to help companies assess a product's 'manufacturability' and prepare it for the market (Arieff, 2011). In other words, to provide product research and development, which is difficult for small and medium sized enterprises to perform (Lewis, 2013).

SFMade works closely with several government municipal offices, most notably the Department of Planning, the Office of Economic and Workforce Development (OEWD), and the Municipal Transportation Agency (MTA). Through the OEWD, *SFMade* has provided input on new policies aimed at supporting local manufacturers, and other back streets businesses in PDRR land use districts, such as recent amendments to the zoning code that have made regulations less prescriptive, and more inclusive of traditional PDRR activities:

SFMade has made several recommendations to the code.
– S. Sanchez, Zoning Administrator, San Francisco Planning Department

SFMade has been an attractive partner for the OEWD and other government agencies because it maintains strong community support (manufacturers in particular) and has managed to connect its activities to San Francisco's economic goals, particularly those dealing with employment diversity (S. Sanchez, personal, communication, March 12, 2013). According to an business development officer at the OEWD, government agencies value *SFMade* because it is an effective portal for municipal staff to small- and medium-sized businesses that have been difficult to reach in the past (T. Garcia, personal communication, April 23, 2013).

Places to Make — Real Estate and Infrastructure Services

Through their Places to Make platform, SFMade has shifted its focus from branding and retail support to real estate and property services for its membership. Apart from providing members with free access to a registered real estate agent and database of industrial properties for sale and rent, *SFMade's* main contribution to the most pressing issue facing SME back streets businesses in PDRR zones, has been in an advisory capacity. The organization played an important role in informing and supporting the implementation of the City's recent industrial zoning modifications for example. SFMade continues to provide ongoing advice to zoning administrators and economic development staff, but little has been done by the organization in other respects. SFMade does not own industrial units, nor do they manage a public industrial inventory. As local planning and economic development staff have noted, updating zoning regulations is crucial, but property-based problems for PDRR are linked to the real estate market (Chapple, 1999). The only solution is to shelter PDRR zones from the market:

It's not really the land cost, we've stabilized that through zoning; it's more the competition for land… For the first time we have a backlog of PDRR businesses that want space and can't find it.
– K Rich & J. Lau, Planner, Office of Economic and Workforce Development San Francisco

In Philadelphia the municipality formed the non-profit Philadelphia Industrial Development Corporation (PIDC) with the Chamber of Commerce to own and manage industrial lands in the central city, preventing them from residential and commercial conversion at considerable public investment. The Greenpoint Manufacturing and Design Centre in New York is an example of non-profit and non-governmental industrial property management indicating that SFMade can play a role in this regard, but the scale of intervention with non-profits is often significantly smaller than municipal initiatives like the PIDC.

Likewise with transportation issues, SFMade has advised the MTA on the recent transportation master plan, but little has been done with other pressing issues such as transit access. The lack of material real estate and infrastructure support provided is indicative of the primary role the SFMade has been able to play thus far: one of advocacy and operational guidance at the business level. As the reputation of the program has grown, the impact of advocacy efforts has grown, opening up the potential for major future impact on real estate and infrastructure issues. For example, SFMade was recently awarded an $850,000 grant to establish the Urban Manufacturing Alliance, a national policy and industry support group that may have much more substantive impact on central city policies and land use management for PDRR zones and the back streets firms that rely on them. Craft Capital

SFMade does not directly provide capital for business financing but links local manufacturers to public and venture capital financing resources in the city. The *Craft Capital* platform attracts venture capitalists to manufacturing firms by increasing investors' familiarity with the sector and reducing the perception of investment risk. Industry demand for expansion capital has grown in stride with the San Francisco economy; sourcing adequate and suitable capital is a persistent challenge, but with no internal financing capital to leverage, SFMade works with private sector lendors on revamping their lending instruments to meet capital needs. Program director Kate Sofis, argued that public financing was too onerous for firms anticipating rapid growth, but these businesses could not secure private loans due to limited financing credentials (K. Sofis, personal communition, March 15, 2013). The focus of *Craft Capital* appears to meet this niche capital market among manufacturers; members that are not aggressive growth businesses are directed toward traditional public or private business financing providers.

Hiring Made Better

SFMade's workforce solutions link employers with qualified employees to minimize time-to-hire delay and increase the probability of an appropriate hire (measured through worker competence and cultural fit within the company). Here *SFMade* again works through collective action to support back streets firms: as a group representative they give local manufacturers a bigger voice. This has helped firms access immigrant workers with desirable skills — a community that has been notoriously difficult to reach in the past according to a business and workforce development officer at the OEWD (T. Garcia, personal communication, April 23, 2013). *SFMade* networks with community organizations representing immigrant groups, allowing manufacturing firms to advertise vacancies more effectively (K. Sofis, personal communication, March 15, 2013). Because *SFMade's* target group is manufacturing businesses, they serve as an informational resource on workforce development programs, to communicate skills and training demand on the business side. *SFMade* relies on other formal (governmental) and informal (non-governmental) organizations to provide workforce development training and support (T. Garcia, personal communication, April 23, 2013).

Needs Evaluation Q3: Service Relevance

The fact that *SFMade* is only three years old plays a large role in defining its service offerings. In the beginning the program worked to legitimize itself and lay the groundwork for future services (by expanding its network of local manufacturers mostly). Raising awareness of the businesses, and bringing them out of the proverbial "back streets" has been the center point of much of SFMade's activities over the past three years. As a representative of manufacturing businesses, *SFMade* has created a collective voice for the industry in order to communicate their needs to policy-makers, connect with potential investors, and pool

resources to make them more accessible. The BSBAB identified a need to increase awareness to the needs of SME businesses in PDRR districts; *SFMade's* program has been relevant in this regard.

Having established a credibility among back streets firms in San Francisco, *SFMade* has started to expand the scope of their activities to tackle more complex challenges, especially those related to real estate and infrastructure. The program has helped improve land use planning codes for back streets firms in PDRR districts, provided these businesses with access to an industrial real estate inventory, and resolved the difficulties of accessing real estate brokers for small-scale industrial property deals. These services address many problems related to PDRR real estate but, as noted above, *SFMade's* advocacy and contract negotiation services have not dealt meaningfully with market pressure to "upzone" industrial lands; a problem that has only become more acute as *SFMade* has encouraged manufacturing entrepreneurialism, thereby increasing demand for scarce PDRR real estate. In the long term, it is difficult to see *SFMade* as making a relevant contribution to manufacturers and other back streets businesses in San Francisco without controlling industrial property and removing it from the real estate market.

SFMade has had very little impact with improving transportation infrastructure for manufacturers in PDRR districts. In San Francisco, many PDRR workers commute via public transit but PDRR districts are poorly connected to the transit network, and the links that do exist do not accommodate off-hour commuting demand, which is often necessary for small-scale manufacturing firms — as well as other back streets SMEs (T. Garcia, personal communication, April 23, 2013). Beyond articulating transit needs to the local transportation authority, *SFMade* has not engaged with these issues. Other industry associations have shown that it is possible to provide assistance to commuting workers in a variety of ways. For example, the Liberty Village Business Improvement Area association in Toronto, Canada employs collective bargaining powers to provide employees in the business district with reduced-cost transit fare. The LVBIA has also successfully lobbied for road maintenance and other infrastructure improvements (Catungal & Leslie, 2009, pp. 2584).

Another important service relevance gap is that *SFMade* only targets local manufacturers, rather than all back streets firms relying on PDRR districts. This focus has been useful for building strong relationships within the manufacturing sector (by specializing, *SFMade* has been able to devote resources entirely to manufacturers) but, especially with respect to real estate issues in PDRR districts, the singular focus on one subset of PDRR land users may be a weakness. The organization's advocacy for zoning changes to benefit manufacturers has resulted in more favourable land use planning regulations for distribution, repair, and recycling industries as well, but given the economic development goals that are tied to PDRR land preservation (i.e. the benefits noted in chapter 2), a more holistic approach on the part of *SFMade* would be more reasonable, and perhaps more effective in the long run.

Process Evaluation Q1: Resources Available to the Program

SFMade, whose annual budget in 2011 amounted to approximately $380,000 (CBA, 2012), then exceeded $500,000 in the following year, claims it is financially viable. Public funds, primarily in the form of Community Development Grants, accounted for approximately twenty per cent of the 2012 budget (Frojo, 2012). Private financial institutions supply approximately 20-25% of the budget, mostly via the Community Reinvestment Act and the remaining funds are sourced from corporate sponsors and philanthropic donations from the private sector as shown in Figure 13 (Gardner, 2012). Public forms of investment in *SFMade* are also made available in less visible format. The City has created two paid liaison positions at the OEWD to facilitate requests from businesses and *SFMade* (Gaiser, 2012; OEWD, 2012) and municipal planning and economic development staff meet regularly with the organization to facilitate business support services and land use planning amendments (Ross, 2012). While it is difficult to quantify these public contributions, the access that *SFMade* has to municipal staff has been critical to the organization's success (K. Sofis, personal communication, March 15, 2013).

One of the cornerstones of success for a grassroots movement occurs when core operational functions become financial viable through public and private investment (Pastor & Ortiz, 2009). *SFMade* has been relatively successful with securing financial support (especially through the private sector, which

accounts for roughly three quarters of the operating budget). Their budget has grown steadily since inception and it is a financially viable entity. However, their budget is not sufficiently large to permanently address the most important real estate and infrastructure challenges facing back streets firms in PDRR districts. While many of the services that *SFMade* offers are not financed through their budget (they are outsourced to other service providers), permanently resolving property and infrastructure challenges requires substantial capital resources that grassroots organizations rarely have access to. *SFMade* has played a large role in creating the Urban Manufacturing Alliance, which was awarded with an $850,000 grant from the Clinton Global Initiative in 2012, to serve as a higher-level advocacy and coordinating body for small-scale manufacturers in central city areas across the United States. Policy lobbying from groups like UMA and *SFMade* may lead to permanent industrial retention land use policies at the municipal level in PDRR districts like the Eastern Neighbourhoods, but as a grassroots organization, *SFMade* cannot implement such policies independently.

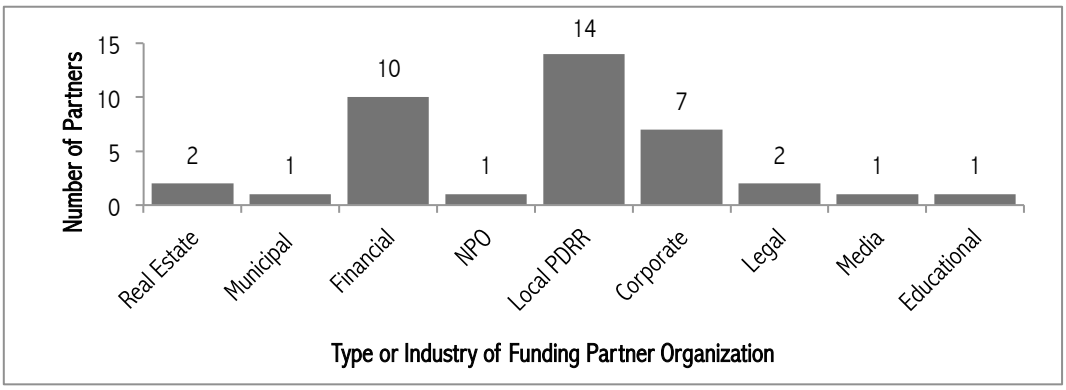


Figure 13 — SFMade funding partners, 2011-2012

Process Evaluation Q2: Program Support Network

The networks that *SFMade* manages and their relationship within them agree with the broader theoretical framework for collaboration between grassroots groups in economic governance. The scale and type of connections that grassroots manage depend mainly on three underlying purposes according to a study done in the Montréal metropolitan region: "to get financial resources, to share concerns and to make claims, and to implement projects based on partnership" (Fontan, et al., 2009, pp. 845)

Private Sector Partners

SFMade is networked with several venture capitalists, financial institutions, and other PDRR business owners; they currently finance the bulk of *SFMade's* operating budget (Frojo, 2012). The grassroots organization also works closely with City government, most frequently with economic development and planning officials housed within the OEWD. Staff at the OEWD have emphasized that *SFMade* and other grassroots groups have contributed significantly to economic development goals. *SFMade* has been particularly helpful with the City's

> *goals oriented to neighbourhood support in the lowest socio-economic status areas*
> *— T. Garcia, Business Development Manager, Office of Economic and Workforce Development San Francisco*

Mayor Lee has been a proponent of *SFMade* because of their contributions to the city's overarching economic goals. In his 2013 *State of the City* report, the Mayor outlined five commitments to local manufacturing, including the creation of manufacturing and fashion liaisons at the OEWD that will serve as *SFMade*'s primary gateway to City Hall (Lee, 2013, January 28; OEWD, 2012). The Mayor also founded

working groups to assist in policy development for back streets industries (*SFMade*'s executive director is co-chair of the Fashion Industries Working Group), and created a Fashion Action Plan (SFGOV, 2011).

Community Partners

Many of the services offered by *SFMade* are predominantly funded through other non-governmental organizations in the city, especially with regards to workforce development and hiring. To some degree the community support network has been inherited: originally, advocacy for greater economic development attention to back streets industries in PDRR districts in San Francisco came from NGOs with social development goals because of the attractive employment options that they believed these industries could provide to less-educated residents (K. Rich, personal communication, March 28, 2013).

Process Evaluation Q3: Advantages and Constraints

This section presents the broad advantages and constraints that are relevant to grassroots economic development approaches for the PDRR sector based on the *SFMade* case. The success of organizations like *SFMade* depends greatly on context and the ability of its staff to capitalize on these advantages and downplay the constraints*.

Advantages

There are three key strengths that *SFMade* enjoys due to its grassroots structure: access to the community, flexibility in the structure and execution of its services, and advocacy flexibility. A recurring theme that emerged during interviews and background research on *SFMade* was how integrated the organization is within the manufacturing community. Kate Sofis, executive director of *SFMade* explains that "staying close to our companies and seeing and responding to what they need" has been instrumental in their work (TributeSF, 2012) and their grassroots structure has been a key factor in building trust from back streets businesses involved with manufacturing in PDRR districts (C. Dalton, personal communication, January 30, 2013). With trust has come increased "access" to the business community, which has allowed *SFMade* to better understand and anticipate business needs. Through more in detailed representation of business trends and demands, *SFMade* has been able to influence policy and increase resources available to its member businesses.

It is very difficult for government officials to develop this kind of community access. A simple but important factor is that municipal staff operate out of government offices that are not always located near businesses; this is especially of PDRR districts that tend to be on the outskirts of central cities. Exposure and proximity to PDRR firms gives *SFMade* an important communications advantage. In San Francisco and elsewhere (Emslie & Bent, 2007), awareness and uptake of government-provided resources by SME firms, especially those in PDRR districts that are removed from policy circles, is a challenge:

> *I have had a hard time making [government] ideas actionable. SFMade helps distil the actions, cutting out the political rhetoric, and translates [policy, programs, and other incentives] into actionable processes.*
>
> *– C. Dalton, PDRR business owner, San Francisco*

Another advantage that *SFMade* enjoys as a grassroots organization is that it has the flexibility to target support and advocacy for a discrete class of businesses. SFMade can headline certain companies for example, or concentrate resources on a niche group, so long as they maintain their credibility among their support network. In contrast, municipal economic development programs have a legal obligation to serve all sectors equitably. Because PDRR businesses require special support (i.e., industrial zoning protections), are difficult to classify objectively for policy-purposes, and are in competition with other desirable economic

** The term "access" is used to refer to both physical (proximity to firms and availability of program staff members) and social (degrees of trust and integration within the PDRR community) dimensions.*

development projects, it can be difficult for a municipality to authorize targeted support services and resources. Furthermore, municipal staff may encounter professional barriers to engage in advocacy work for businesses in PDRR districts:

> *I wouldn't understate the simple point that a staff person… won't go down to the Mayor and make demands of support for these businesses… The staffer has a job to protect and a professional responsibility to be impartial… staff can make permits happen faster…but the political advocacy cannot come from inside.*
>
> *– K Rich, Planner, Office of Economic and Workforce Development San Francisco*

> *Within zoning, we don't have a way of nudging someone in any direction in terms of use and land use activity… We try to keep those things distinct because our professional opinions have to be unbiased.*
>
> *– S. Sanchez, Zoning Administrator, San Francisco Planning Department*

Access to the target community, fewer regulations on how services can be provided, and more flexibility with advocacy initiatives are *SFMade's* principle strengths as a grassroots organization.

Constraints

As a grassroots body, *SFMade* relies on external sources of resources and decision-making power to support back streets businesses in PDRR districts. The organization also faces scalability challenges and may be encumbered by a kind of "path dependency". External support, monetary or otherwise, defines *SFMade*'s ability to provide services to manufacturers. This is typical of grassroots organizations, who, in the realm of local (economic) development, have functioned primarily as an agent that mobilizes resources, and service providers within a territory to benefit their constituents (Fontan, et al., 2009, pp. 835).

Its reliance on external resource and power suppliers (like the venture capital community and policy-making groups within government) highlights the importance of local context for the success of grassroots economic development initiatives. San Francisco's corporations with capital to invest were interested in value-added manufacturing because of the benefits they could receive through their involvement with local business development (venture investment opportunities, branding benefits, tax deductions, etc.). Existing community organizations have been advocating to increase public support for blue-collar industries long before SFMade arrived as a champion for manufacturers' interests. Planning and economic developments staff, likewise, have sought out opportunities to diversify the local economy in accordance with goals and objectives stipulated in the City's Master Plan.

Municipal programs have the power to create and modify zoning regulations, wield public funds to invest in infrastructure projects, streamline administrative processes, and implement other important economic development measures. *SFMade* and other grassroots groups, in contrast, do not have access to the powers and are therefore reliant on external organizations (public and private):

> *Firms want to know that we have access to the City, they need to know that in principle and practice we have an ear within government that allows us to advocate for the sector*
>
> *– K. Sofis, Executive Director, SFMade*

When grassroots organizations form, they do so because a community need and service gap are identified (Fontan, et al., 2009). As grassroots organizations grow, they begin to tackle more complex issues in relation to the original identified need (which has usually expanded considerably by this point). Because they are seen as activists or advocates for underrepresented interests, the organizations can become overly partisan, which may limit their ability to bargain and negotiate with external resource and decision-making partners (Pastor & Ortiz, 2009). One issue is that negotiating for more substantive policy changes, for example, may involve concessions or compromises for the community served by grassroots groups. When grassroots groups make these compromises they risk alienating their membership, leading to, what

may be called, a form of path dependency (Pastor & Ortiz, 2009). Early signs of long term scalability and path dependency challenges have already emerged for *SFMade* over the issue of industrial land provision, according to economic development staff at the OEWD.

Impacts Evaluation Q1: Community Reception/Perception

The first component of the Impacts evaluation examined how *SFMade* is perceived within the community. Based on interviews and other sources, the organization has a strong base of support within the manufacturing and wider business community. Membership has grown from 12 founding members to a network of 446 firms that constitute 95% of the city's active producers:

> *There are about 780 registered manufactures in the City, but only a subset actually produces, and we represent virtually all of these firms*
> *– K. Sofis, Executive Director, SFMade*

Because membership is voluntary and the sole responsibility of business owners, these figures can be taken as a signal of positive community reception. Those interviewed believe that *SFMade* has been a beneficial player in local economic development governance. *SFMade* has been endorsed at various levels as well: Mayor Lee, citing a report by the Bay Area Council Economic Institute in a recent State of the City address, connected efforts on the part of *SFMade* to the four-fold increase in manufacturing employment in 2012 (BACEI, 2012, pp. 27), and the Clinton Global Initiative recently granted the Urban Manufacturing Alliance, a joint project of *SFMade* and the Pratt Institute with an $850,000 to continue their support programs for urban manufacturing firms.

Impacts Evaluation Q2: Major Successes and Areas for Improvement

As explained above, it appears that the services offered by *SFMade* are relevant to the needs of the manufacturing sector. While the program has targeted only the manufacturing subsector of PDRR businesses, its support for these firms has also benefited other back streets businesses in PDRR districts, most notably the zoning improvements in the Eastern Neighbourhoods.

Successes

As an advocacy body, SFMade has contributed to improving municipal policies to the benefit of local manufacturers. The organization supported municipal officials in drafting zoning changes that would protect industrial land use from non-PDRR development, it successfully lobbied the government to create dedicated offices within the OEWD to serve manufacturing businesses, and has used public funds to finance its suite of business support services. SFMade has also worked with the MTA to alter the city's transportation plan in the interest of local manufacturers. The grassroots organization has served as a portal through which policy-makers have been able to better understand business needs when developing economic development policies. New government resources have been or are being designed as a result of SFMade's work:

> *We are building our own program to support businesses on the real estate side… [and] the City has opened up two more opportunities for small businesses to access loans because we were finding that there is more demand for capital… a lot of it came from SFMade.*
> *– T. Garcia, Business Development Manager, Office of Economic and Workforce Development San Francisco*

The organization has also helped improve uptake among manufacturers of existing business development programs, like San Francisco's Enterprise Zone tax credit program.

Areas for Improvement

The branding platform created by *SFMade* has been valuable to local PDRR firms but it is not clear how well the brand is recognized by those that are not already interested in locally manufactured goods. *SFMade* has had limited penetration in non-PDRR areas of the city and among tourists (T. Garcia, personal communication, April 28, 2013) for example, which may explain recent efforts to market the brand in the Asia-Pacific region. The preference by *SFMade* to endorse manufacturers with a retail presence or direct-to-consumer business model was useful in creating an identity for the program but it does not raise the profile of truly "back streets" firms that have a business-to-business model. This may be why *SFMade* is less known in non-PDRR areas (C. Dalton, personal communication, January 30, 2013).

The need for substantive support with issues related to real estate and business property surprised staff at *SFMade* despite the fact that the real estate pressures were repeatedly cited as the most pertinent issue in PDRR districts for manufacturers and other back streets firms. Ironically, property-based problems have increased since *SFMade* was established because the program has helped foster manufacturing entrepreneurialism in the city, which has increased demand for space; vacancy rates for industrial property rates in San Francisco are currently at the lowest they have ever been according to the OEWD (K. Rich, personal communication, March 28, 2013).

CHAPTER 5.0

BOSTON & *BACK STREETS*

Chapter 5 — Boston and *Back Streets*

Boston is the largest city in New England and home to over 625,000 residents. At 48.6 square miles, it is the second smallest major municipality in the United States by land area after San Francisco. Like other large, historic North American cities, Boston's economy was dominated by industrial activity until the 1960s. Economic growth and surging demand for real estate from the finance, education, and medical sectors, helped launch a series of shoreline infill projects in the 1980s and 1990s that significantly expanded the city's buildable area. Businesses in these sectors also placed conversion pressures on the city's industrial districts. In response to the city's deindustrialization and loss of back streets PDRR jobs, Mayor Thomas Menino implemented a municipal program through the Boston Redevelopment Authority (BRA), a quasi-governmental organization overseeing planning, economic development, and other important municipal offices. The *Back Streets* program as it was called was inaugurated in 2001; it sought to raise the profile of back streets firms in PDRR districts and help them remain and grow in Boston. The program provides an interesting juxtaposition to *SFMade* because economic development and planning activities in Boston are housed within the BRA, which has a relatively more hierarchical approach compared with other cities according to BRA staff (S. Di Stefano, personal communication, Aril 12, 2013). This chapter introduces the Boston context, traces PDRR activity in the city, and identifies important governmental players involved in economic development. The first half of the chapter closes by outlining the advantages that back streets business have in Boston (and why they are viable in this context), and discussing the challenges that back streets businesses face. The second half of the chapter presents the three-stage evaluation of the program.

Context Analysis: The City of Boston

PDRR Trends in Boston

The boom in Boston's knowledge economy after the 1970s has placed considerable pressure on back streets PDRR firms by increasing the competition for land, and drawing economic development effort away from the back streets. Employment in the manufacturing sector alone contracted by approximately 67,000 jobs; between 1970 and 2000, the PDRR share of municipal employment had fallen from 20 per cent to roughly 7 per cent before stabilizing (BRA, 1999, 2002a). While GDP growth resulting from knowledge-based industries in finance, medicine, and higher education exceeded GDP losses resulting from the displacement of back streets businesses, the marked change in employment statistics (Table 9) has raised concerns about the integration of blue-collar skilled employees within Boston's new economy.

There are four key PDRR (industrial) districts in Boston that house the majority of SME back streets PDRR firms; they are located near Boston's key transportation arteries (Figure 14). The Marine Industrial Park (MIP) is a 191-acre municipally-owned property approximately 1.5 miles from downtown. It houses approximately 200 businesses employing nearly 3,500 people in food processing, ship repair, seafood distribution, light manufacturing, beer brewing and importing. Presently, 95% of the MIP is occupied. Alsen Mapes Industrial Park (AMIP) and Crosstown Industrial Park (CTIP), also municipally-owned, are much smaller districts housing PDRR businesses that also have less of a maritime orientation than the MIP. The AMIP and CTIP were developed in the 1970s by the Economic Development and Industrial Corporation (EDIC) of Boston, in part through Department of Housing and Development grant funding. Newmarket District, the city's second largest, and most central PDRR land use area has the highest concentration of SMEs in the city. It is located approximately 1.5 miles south of the Financial District, much like the Eastern Neighbourhoods in San Francisco. The Newmarket Business Association represented nearly 200 firms a decade ago, but today there are approximately 500 businesses employing over 11,000 people, generating over $3 billion in sales every year. Many are back streets PDRR businesses, with a concentration in meat and other forms of food processing.

Table 9 — Employment in the City of Boston, 1970-2000: Changes in Selected Sectors. Source: (Mallis, 2002)

	1970		2000	
	Number	% Total	Number	% Total
Total Employment	559,991		693,647	
Manufacturing	63,812	11.4%	27,993	4.0%
Construction	22,296	4.0%	20,091	2.9%
Wholesale Trade	42,630	7.6%	17,855	2.6%
Finance, Insurance, Real Estate	76,343	13.6%	107,963	15.6%
Services	145,080	25.9%	320,191	46.2%

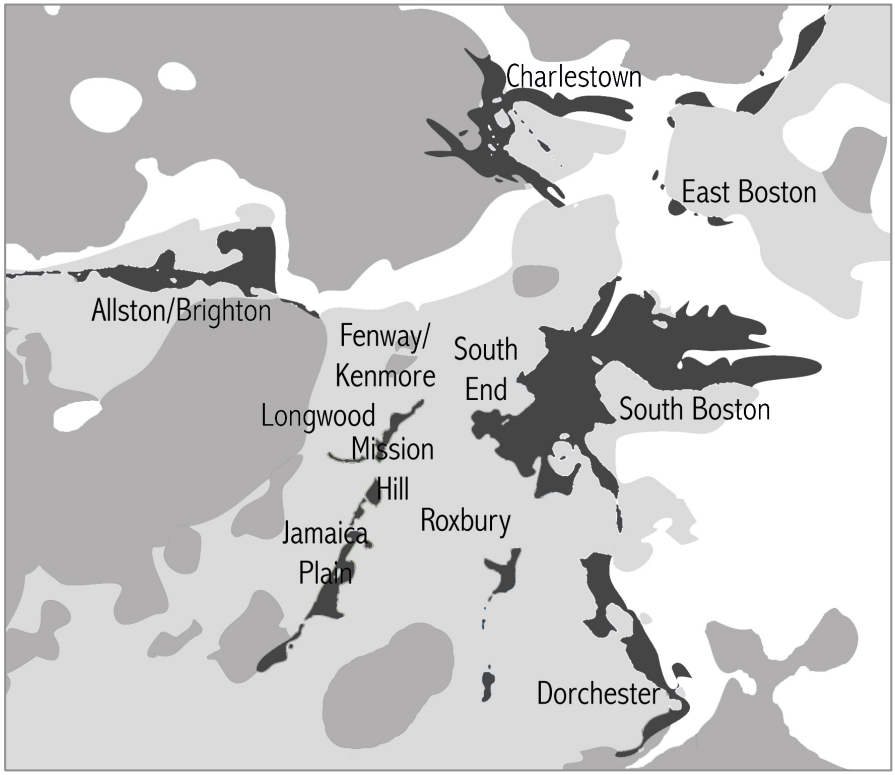


Figure 14 — Back streets districts in Boston. Source: Adapted from Mallis (2002)

Back streets businesses experienced a small rebound in the new millennium according to the BRA. In 2001 approximately 21 per cent (versus the 20% noted above) of Boston-based jobs were provided by back streets firms, while PDRR districts occupied roughly 5 per cent of the city's land area*.

Local Economic Governance and its Relationship with PDRR

There are several government agencies involved with economic development, small business development, planning, and other activities relevant to SME back streets businesses in Boston's PDRR districts. The Boston Redevelopment Authority (BRA) became the primary office in charge of economic development, after merging, in 1993 with the Community Economic Development and Industrial Corporation (EDIC)†. The EDIC, now a department within the BRA, was established through the State's Department of Housing and

** This includes all industrial uses classified as such by the Assessing Department, but excludes industrial sites for public use because "those jobs are classified as governmental and not industrial." In contrast, the Initiative for a Competitive Inner City, a private consulting group hired by the BRA calculated that 3,811 acres of PDRR space existed in the city using zoned acreage instead of the Assessing Department method cited by the BRA. (Mallis, 2002)*

† The EDIC legally remains a separate entity but it resides within the BRA's scope of activities related to economic development

Community Development to support back streets businesses in the central city because of the large-scale industrial displacement that was occurring at the time. The EDIC was an effort to hedge against the uncertainty of whether office-based jobs (Boston's "new economy") could compensate for the losses occurring in PDRR sectors (Mallis, 2002). EDIC operates as a department within the BRA's Economic Development Division to support economic growth and development. This includes coordinating, where appropriate, housing strategies, the planning and development of educational and medical institutions, and overseeing the activities that were under EDIC's jurisdiction prior to the merger. The BRA is technically a separate political entity from the municipal government, but the Mayor appoints the BRA director and has considerable influence over the Authority by setting its political agenda and the annual budget (BRA, 2010).

The Economic Development Division of the BRA is the umbrella that oversees municipal initiatives to support small business and other economic growth. The EDD's functions that are relevant to back streets businesses are (BRA, 2002b) four-fold: it issues development permits and enforces the Zoning Code, manages municipally owned industrial property (mostly through the EDIC), and provides business investment capital through the Boston Local Development Corporation (which administers the $1-million Back Streets Back-up revolving loan fund) and the Boston Industrial Development Financing Authority (which issues tax-exempt Industrial Development Bonds and Enterprise Zone Facility Bonds usually in excess of $3-million due to high administration costs). The fourth function of the EDD is to coordinate six "economic initiatives*", of which the *Back Streets* program is one.

Economic Programs and Plans for the PDRR Sector

Following Mayor Menino's instructions, the BRA began researching SME back streets firms in 1999 to develop an economic development plan that would address the challenges they face. The ensuing report outlined an action plan based on increasing industrial development and business activity, maintaining brownfield sites for industrial use, improving port facilities and infrastructure, and capturing "new collar" jobs in the back streets sector created by Boston's professional services industries (BRA, 1999). The main strategy that the City employed to support back streets businesses was through industrial land retention policies because curbing adverse pressures on PDRR districts resulting from the real estate market was seen as paramount. Strengthening and retaining SME back streets businesses in central city Boston, to the BRA, has meant that industrial real estate must remain accessible (in price and location) and suitable for modern, small-scale PDRR activities. The BRA report from 1999 informed a second study by an external consulting group (ICIC) that ultimately defined the BRA's *Back Streets* program.

Another relevant governance factor in Boston is the role of the Mayor. The City has a strong-mayor form of government (like San Francisco), which tends to amplify the Mayor's influence in policy-making. There is a legacy in Boston, beginning with Mayor Ray Flynn, of a neighbourhood-focused approach to development and planning, which the incumbent Mayor, Thomas Menino, has upheld. The City's economic development initiatives, *Back Streets* and otherwise, are rooted in a neighbourhood-based political agenda (Mallis, 2002). This means that economic master plans are designed at the neighbourhood level, with goals and objectives being articulated at a neighbourhood level rather than city-wide. In neighbourhoods with significant PDRR land use, most of the master plans have yet to be created (an indication that political attention has not traditionally been allocated to these areas or the business that operate within them, i.e., SME back streets firms).

Advantages of Operating PDRR in Boston

After several decades of expansion and development, PDRR businesses of all scales that relocated to Boston's peripheral neighbourhoods are beginning to face similar challenges to their central city peers.

** CREATEBoston is an economic initiative of the BRA that provides assistance and resources to "creative sector" businesses. Back streets PDRR businesses do not qualify under the EDD's definition, which is confined to six industries: film, music, media, design, crafts/visual arts, and performance.*

Traffic and the cost of land have increased most significantly, and residential neighbourhoods are increasingly resisting industrial activities. While the City of Boston could not compete with the surrounding suburbs in the past as a attractive location for industrial activity, the cost advantage of suburban space has nearly evaporated, while central city business locations provide a number of competitive advantages for firms (BRA, 1999, p. 3).

Chief among these benefits, according to the Sue Sullivan, executive director of the Newmarket Business Association, is proximity to clients, business partners, and supply chains, especially for direct-to-consumer back streets firms and those whose client base is predominantly located near the downtown. Municipal transportation and energy-related infrastructure is also more accessible from a central city location*. Logan International airport, for example, can be reached in ten minutes from the Marine Industrial Park and Newmarket industrial districts. Food-related PDRR businesses, which make up a majority of Boston's back streets sector, rely heavily on just-in-time delivery and they work with perishable goods that cannot be stored cheaply. For these business, accessibility is paramount; locating within the central city allows firms to safely deliver perishable products at minimal distribution cost.

Since 2000, the Mayor has promoted PDRR activity in Boston. The City established the *Back Streets* program and has invested in supporting back streets firms. Having the majority of the City's government offices that are involved with economic development housed together within the BRA has also been advantageous from a business standpoint: it has helped streamline business administration processes and coordinate economic development initiatives. The most important advantage for back streets firms in Boston is that the BRA owns and manages a large amount of industrial land. These areas and other PDRR enclaves can also be more intensely developed for industrial purposes, which would make modern industrial facilities available to new or expanding SME back streets businesses (Table 10). Another feature of central city Boston that makes back streets PDRR activity viable from the business' perspective is that, like San Francisco, Boston provides a geographic branding ingredient (spatial capital) owing to the city's industrial history and culture.

Table 10 – PDRR districts by neighbourhood in Boston and their land use intensity. Source: BRA, 2002

Neighbourhood	Building Space (ft^2)	City-Owned Share of Industrial Space	F.A.R. Building Square Footage to Lot Size
South Boston	11,752,711	32.70%	0.75
Dorchester	4,338,624	12.10%	0.47
Allston-Brighton	3,424,769	9.50%	0.45
Hyde Park	3,017,616	8.40%	0.45
Roxbury	2,739,843	7.60%	0.94
Charlestown	2,565,170	7.10%	0.65
Central	2,260,453	6.30%	3.05
South End	2,010,190	5.60%	1.29
East Boston	1,610,111	4.50%	0.38
Jamaica Plain	570,755	1.60%	0.73
Fenway-Kenmore	554,176	1.50%	1.26
West Roxbury	508,083	1.40%	0.12
Mattapan	322,346	0.90%	0.51
Roslindale	190,049	0.50%	0.43
Back Bay-Beacon Hill	60,174	0.20%	13.64
TOTAL	35,925,070	100%	0.61

Disadvantages of Operating PDRR in Boston

Like land-scarce San Francisco, the primary concern for PDRR businesses in Boston is the availability, cost and long-term viability of industrial property. The city's relatively rapid recovery from the recent economic

** With caveats, see below*

downturn has resulted in elevated demand from commercial and residential property developers because the city has been perceived in the market as a stable and lucrative real estate investment opportunity, according to the BRA (anonymous, personal communication, May 15, 2013). In addition, state and municipal business-related costs tend to be higher in Boston than in surrounding areas or other locations across the country:

> *the cost of doing business is higher overall: there are higher taxes, larger infrastructure costs, its not easy to move around in the city all the time.*
> *S. Sullivan, Executive Director, Newmarket Business Association*

> *Salaries are higher, we have better environmental regulations… workers are generally better protected.*
> *– Senior staff member, Boston Redevelopment Authority*

Existing back streets firms that are looking to expand intend to do so in central city areas of Boston, adding to demand for already limited industrial space (McCabe, 2007). These back streets businesses and others are also looking for improvements to the industrial real estate facilities that are currently available in the city. The most frequently requested upgrades include access to high-speed internet and better roadway management (McCabe, 2007). Because of the need for maintenance and repair on industrial buildings, the Newmarket Business Association has found that PDRR land uses have faced continual issues with the Inspectional Services Department that manages permitting (S. Sullivan, personal communication, May 29, 2013).

Although central cities function as transportation nodes that has helped PDRR businesses stay connected to their supply and consumer markets, the existing transportation (and parking) system in Boston presents a number of challenges for back streets firms. Major projects like the Big Dig have increased throughput by creating a divided high-volume thoroughfare, but because the entrance to the tunnel system is located beside the Newmarket industrial area, the PDRR district has seen a large amount of localized congestion (S. Sullivan, personal communication, May 29, 2013). Given that road-based surface transport is the predominant distribution mode for Boston's back streets firms it is no surprise that a 2007 survey of 272 PDRR businesses in the city listed highway access (78% agreement), safety (75% agreement), traffic flow (70% agreement), and parking for personal vehicles (68% agreement) as critical issues (McCabe, 2007).

Part of the pressure that PDRR firms face is due to the economic vitality of Boston's other economic sectors. The city and wider region enjoy a considerable competitive advantage in advanced services and knowledge sectors compared with the national average (Mallis, 2002) and this has changed the socio-economic profile of many neighbourhoods. In Boston's industrial period worker housing was built in close proximity to factories throughout the city, resulting in industrial-residential land use integration. Changing socio-economic conditions increased pressure to convert industrial property for other uses according to staff at the BRA (anonymous, personal communication, May 15, 2013). Despite municipal efforts to the combat these pressures, industrial upzoning continues. The Dorchester industrial district was entirely rezoned in 2002 from a dedicated manufacturing area to "conditional use manufacturing," and in the same year, major biotech facilities were developed in other predominantly PDRR land use areas (Mallis, 2002; BRA staff member, personal communication, May 15, 2013).

Back Streets Case Study

According to Mayor Menino "the goal of the *Back Streets* program is to support Boston's many small and medium-sized industrial and commercial companies by creating the conditions in which they can grow and prosper, and attract new manufacturing and commercial businesses to the city" (BRA, nd). The program is designed to utilise the City's "land, workforce and financial resources" (BRA, n.d.) to achieve its mandate. The program began with an assessment of Boston's industrial districts "to determine current land use and anticipate growth needs of businesses operating within them" (Van Belleghem, 2002). An independent

consulting group (ICIC) was commissioned to carry out this assessment, which included consultations with businesses (largely from the MIP and Newmarket business district) and transportation studies. *Back Streets* was designed to help create district master plans for Boston's PDRR areas and to establish a network of District Business Managers that would serve as the link between City Hall and business owners. The district master plans have not yet been completed and the district business manager network is just beginning to be implemented in the Newmarket district (Sal Di Stefano, personal communication, April 15, 2013).

Needs Evaluation Q1: Target Audience of the Program

As a public initiative the *Back Streets* program is required to serve all Boston-based businesses as well as firms interested in moving to the city. There is no membership system in place and all services are available to firms regardless of their size or profitability. However, the *Back Streets* program maintains much stronger relationships with businesses in Newmarket and the Marine Industrial Park (the two most substantial PDRR districts in the city), meaning that in practice, resources are being allocated to certain areas more than others.

Needs Evaluation Q2: Services Provided

The ICIC report that built on the BRA's initial report on PDRR in the city identified four services that were needed to support the sector:

[1] Real estate solutions to address land issues and conversion pressures
[2] Financing options to provide capital for business development and expansion
[3] Assistance navigating the regulatory and administrative environment
[4] Workforce development services

Table 11 summarizes what the BRA website lists as *Back Streets'* core functions. The table indicates that the ICIC report directly influenced the service package offered by the program.

Table 11 — List of Back Streets functions and business services

Functions	Business Assistance Services	
	Service	Details of Service
Protect industrial land use through planning and zoning	Site Selection	Locating property within the City's neighbourhoods The BRA manages its own stock of industrial real estate that can serve the PDRR community
Identify opportunities for expansion and development	Financial Assistance	Providing financing capital for the purchase of property outside of the private sector at competitive rates
Identify transit and infrastructure improvements	Workforce Training	Workforce development services are administered by the JCS. *Back Streets* helps connect firms with services provided by the JCS and other service providers
Identify public realm improvements	Business Advocacy	Assistance navigating bureaucratic process so that owners can focus on operating the business *Back Streets* advisors also evaluate business plans and provide guidance on business management
Policy support	Political representation	*Back Streets* staff help influence and design policy to address PDRR needs in the city

Real Estate Services

In Boston, there is no public-access industrial real estate listing service available. Consequently, PDRR firms rely on property agents that have purchased access to private databases to locate suitable space in the city. Because the system of broker commissions discourages real estate agents from working with SME

PDRR businesses (the returns per sale are too low), back streets firms often rely on word of mouth or individual site visits to locate suitable space. The *Back Streets* program addresses this issue by using public funds to access private industrial real estate databases and make them available to SME back streets firms. Program staff also offer free assistance with negotiating real estate contracts once a suitable facility is identified. In addition, the BRA manages its own industrial building stock offering rent-controlled space for PDRR businesses. In San Francisco, SFMade managed a proprietary real estate listing service, in effect building its own database, through voluntary participation by industrial property landlords. The more comprehensive listing services provided by the BRA are possible because of the public funding that is available to purchase registration to professional listing services.

Financing Assistance

The *Back Streets* Loan Fund is a major capital resource for businesses that cannot secure capital from private lenders. It is technically administered by the EDIC, beyond the scope of the *Back Street* program, but the two initiatives are tightly integrated. The revolving loan fund, valued at approximately $1-million, relies on customer credit worthiness but, due to the imperative to support SME back streets firms, the EDIC has greater risk tolerance for issuing loans and can be more flexible with loan repayment than many private financial institutions:

> *We are more forgiving on missed payments and other one-time circumstances that prevent borrowers from paying us back, than commercial banks can be*
> *– S. Di Stefano, personal communication, April 15, 2013*

The Fund is capable of lending up to $250,000 to *Back Streets* businesses that are operating, or looking to settle, in Boston. Contracts vary in size, with a large proportion being distributed to small- and medium-sized enterprises with 15-30 employees. Bigger PDRR firms (Boston's few remaining large-scale industrial operations) are able to secure private sector financing or their capital needs qualify them for more substantial BIDFA financing, which are usually valued in excess of $3-million. The smaller Back Streets revolving loan is often used to reduce credit risk and encourage private sector investment in smaller, more entrepreneurial firms.

Because it is administered by the BLDC, a 501.3(c) non-profit organization, back streets loan fund rates are relatively competitive, making it a viable alternative for back streets firms. Because the fund is housed within the BRA and operates on a revolving basis, loaned fund are also subject to fewer administrative requirements (BRA staff member, personal communication, May 15, 2013)*. For example, back streets firms that receive BLDC financing are not required to prove that the business has grown in measurable terms or that they have hired new employees once the funds are dispersed, as is the case with private sector financing. In contrast, businesses drawing capital from other municipally-financed loan funds may be required to demonstrate that the public investment resulted in job or other forms of economic growth (BRA staff member, personal communication, May 15, 2013). This is an advantage for firms because it is difficult to connect business growth with public financing, causing many small business owners to find administrative procedures an impediment to efficiently running their business and ineffective (Cowling & Siepel, 2012).

Workforce Training

The *Back Streets* program, through sister organizations within the BRA, coordinates a job bank that helps connect employers with job-seekers. Skills training workshops are available as well as language support

** The administrative stipulations that were originally tied to the federal and state grants used to finance the revolving loan have eroded over time because the capital has revolved through several cycles of distribution and repayment. The funds are now subject only to BRA policies*

services to non-English business owners. Workforce development efforts are examples of strategic partnering rather than direct service provision by the program.

Business Advocacy and Support

The business assistance and advocacy activities of the program center on guiding businesses through administrative processes such as obtaining occupancy permits, registering businesses, and acquiring other necessary operating authorizations. The Newmarket Business Association frequently liaisons with the Back Streets program on issues related to helping its SME PDRR firms with navigating the public administration system (S. Sullivan, personal communication, May 29, 2013).

Advocacy services "cut down on the time [businesses] spend on administration" (S. Di Stefano, personal communication, April 15, 2013) and they help communicate the needs of the sector to other relevant government channel. For example, the Back Streets program has developed land use priority maps in Boston to identify PDRR districts and categorize PDRR land use parcels as "non-conversion", "buffer-use", and "negotiable conversion" zones. Urban planners, economic development professionals, and other policy-makers use these maps when upzoning is being considered to minimize overall impacts on the integrity of back streets businesses and PDRR districts (S. Di Stefano, personal communication, April 12, 2013).

Needs Evaluation Q3: Service Relevance

The services offered respond to the needs identified in the ICIC state of affairs report, but real estate support appears to be a key focus (S. Sullivan, personal communication, May 29, 2013). However, there is a disparity between the majority of the program's day-to-day activities (business support services) and the purpose of the program as stated in guiding documents (the four *Back Streets* functions). The latter emphasize neighbourhood development and real estate, but local firms interacting with *Back Streets* have utilized, more than anything, administrative assistance (to reduce processing times and facilitating interactions with government bodies, for example). Furthermore, in a survey of PDRR business owners in Boston, the companies listed transportation issues as the primary challenge they face (McCabe, 2007). The stated real estate focus is therefore not in tune with the daily service demands of businesses and draws attention away from the transportation infrastructure challenges. That is not to say that real estate support has not benefited PDRR firms, merely that the program should expand opportunities for businesses to connect with the program (through the District Managers Network) and begin addressing, in creative and innovative ways, localized transportation nuisances.

Process Evaluation Q1: Resources Available to the Program

It is difficult to assess the resources of the *Back Streets* program because the program budget is an item within the overall budget of the BRA. Many of the services provided by *Back Streets* are also made available through strategic partnerships with other BRA departments, such as the BLDC and JCS. In 2010, the BRA annual operating budget totalled nearly $14-million and EDIC oversaw approximately $36-million. There is an additional $1-million earmarked by the Mayor for the Back Streets Back-Up Loan. *Back Streets* functions as a business consultation service that also serves as the portal through which PDRR firms can access public resources and other service providers, which is strikingly similar to SFMade's role in San Francisco. Being housed within the BRA has helped the program function as the portal to government:

> *We are physically situated in the building that also houses the folks determining city zoning. When we develop zoning we can immediately think about the impact on and needs of back streets firms*
> *– S. Di Stefano, Manager, Back Streets Program*

Process Evaluation Q2: Program Support Network

Private Sector Partners

The relationship between *Back Streets* and private actors (mainly the financial community) has not been made formal in any respect, but the collaborative relationship has been beneficial for local back streets firms. For example, between 1998 and 2002, the Boston Local Development Corporation approved over $4-million in small business loans (this includes non-back streets businesses), which "leveraged more than $8,500,000 in bank financing," (BRA, n.d.). Subordinated debt financing from the BRA requires ongoing interaction between the BRA and private banking community. The Back Streets program has been instrumental in steering public-private financing resources to SME back streets firms in PDRR districts.

Public Sector Partners

As a municipal program, *Back Streets* receives support from myriad city departments and initiatives. The Mayor is also an advocate for back streets businesses; in a strong-mayor government, this has visible impact, particularly with coordinating government policies and activities to benefit back streets businesses. Two major partners that work with the BRA on economic development for the back streets businesses are; the Mayor's Office of Jobs and Community Services (JCS), which manages over $25-million in Federal, State and local funds on workforce development; and the Planning Division, which coordinates all planning and zoning in the city's neighborhoods. The Boston Business Hub, run by the Department of Neighborhood Development, functions as the City's central, online contact point for small businesses in all sectors. The BBH is supplemental to the Mayor's Hotline, a 24-hour service that provides business and resident support.

Community Partners

In addition to the support that *Back Streets* receives from within the municipal government, the program has also partnered with community groups, industry associations, and private sector actors. One of the longest standing relationships has been with the Newmarket Business Association, based in the largest PDRR district in the city, which has been working with local PDRR businesses for over 30 years. Groups like the NBA help *Back Streets* connect with back streets firms, which has been necessary given the fact that the District Managers network has not been established (S. Di Stefano, personal communication, April 12, 2013).

Process Evaluation Q3: Advantages and Constraints

Advantages

There are three strengths to the *Back Streets* program: governmental support and integration, policy efficiency, breadth and portability. One of the strongest aspects of *Back Streets* is the support and endorsement it has received from government, which has allowed the BRA to craft policy and coordinate public investment in the interest of PDRR back street business needs. The fact that the BRA is legally separate from the City government has helped streamline processes from critical economic development offices (planning, economic development, infrastructure management). Back street businesses benefit from the synchronization of activities that occurs within the BRA because *Back Streets* staff have a more comprehensive (portfolio-based) outlook on back streets business, PDRR districts, and their economic function within the broader economy. *Back Streets* staff are included in internal land use planning processes, which encourages the BRA's planning and economic development professionals to take on a more holistic assessment of land use policy with respect to industrial activities:

When planners want to explore industrial conversion, I am called into the first meeting and we have an open discussion about the implications
— S. Di Stefano, Manager, Back Streets Program

As a municipal program, *Back Streets* has better access to public resources and tools to help back streets firms. The program is also embedded within the formal system of government, which allows it to communicated with other public agencies more effectively and scale its activities to smaller or larger projects as needed for businesses and PDRR districts. Unlike a grassroots initiative, *Back Streets* can help initiate public projects to improve the economic climate for PDRR firms. For example, in the Newmarket Industrial Park, the BRA's planning department adopted a "no net loss of the industrial space" goal, then strengthened zoning review guidelines to ensure that real estate market pressures toward conversion could be curbed (Cities of Migration, n.d.).

Constraints

The weakness of *Back Streets* is that its resources are overstretched, it contends with relatively more administrative constraints, and is more sensitive to the changing political climate. *Back Streets* has a duty to serve all businesses and residents currently in Boston and those seeking to move to the city. The program cannot draw resources away from clients that draw on disproportionate resources compared with others for example (S. Di Stefano, personal communication, April 12, 2013). Impartiality means that all firms in the target group must have equal access to staff, financial and other resources, and the work of the municipal program must be in the interests of the health and vitality of the broader economy or community. This may hinder the program's ability to connect with the entire PDRR community meaningfully, and may be a less efficient use of resources (Cowling, & Siepel, 2012). While the impartiality regulations that apply to municipal programs like *Back Streets* may be more egalitarian, they prevent some forms of service provision that disproportionately benefit firms but have long-term positive impacts for PDRR districts or the back streets community at large. Services like *SFMade's* Manufacturer's Assistance Program (MAP) favour growth firms, but the success of MAP companies has helped the organization communicate its value and gain private sector funding support (K. Sofis, personal communication, March 15, 2013). One-size-fits-all business support solutions may also not be adequate to address unique individual business needs, but the impartiality clause seems to inherently favour them.

Another administrative or regulatory weakness that municipal programs are subject to deals with budgeting. Very rarely are public programs given a budgetary allotment for marketing purposes; in Boston, so funding is given to Back Streets for advertising program services (S. Di Stefano, personal communication, April 12, 2013). This may explain why assistance with navigating bureaucracy is so valued by PDRR firms — very few are aware of the resources that exist to support them or how to capitalize on them. Programs like *Back Streets* rely on staff members to reach their audiences, but this can be time and capital-intensive, or simply impossible if insufficient personnel are assigned to the program as was the case for the District Managers initiative within *Back Streets* (S. Di Stefano, personal communication, April 12, 2013).

Political conditions figure prominently in the management of top-down programs. As representatives of the government, the pressure to reflect positively on elected officials is acute, but there is more than professional reputation at stake. In order to continue providing valuable services to the sector, *Back Streets* staff must sustain the attention and support of political figures. Even though the program may be housed within the municipal government, if the political climate was to change direction, resources may be withdrawn or reduced. The Community Development Corporation of Boston (CDCB) is a good example. CDCB was tasked with developing the Crosstown Industrial Park in Roxbury in 1985. Initially, the project has political support but that faded leading to a significant slowdown in the construction of the CIP thereafter (Overbea, 1985). Mayor Menino recently announced that he will not be running for the Mayor's office again, ending a two decade long career in Boston politics. Mayor Menino originally established and has continued to fund the *Back Streets* program, but the subsequent regime may be less

inclined to do so. Grassroots organizations receive significant public investment, but their existence is contingent on a community-based need rather than the political position of elected officials.

Impacts Evaluation Q1: Community Reception/Perception

The *Back Streets* program does not have a membership base whose growth can be used as a proxy measure for community support like *SFMade*. Rather the program relies on feedback from Boston-based firms and the community organizations that represent PDRR activities in the city such as the Newmarket Business Association (NBA). While interviews with the NBA reveal that the *Back Streets* manager is considered a positive agent for businesses, it is doubtful that NBA's experience with *Back Streets* is typical for PDRR enclaves in Boston. The Newmarket area has been involved with the program through its development and implementation. The NBA is also the most substantial of industrial districts in central Boston; *Back Streets* staff have naturally focussed their attention to businesses in the district. But with a staff of one, it is unlikely that other areas of the city can received as much attention, especially if they lack an established and representative business association group. Many PDRR firms may feel neither positively nor negatively about the program because they are not aware of its existence (S Sullivan, personal communication, May 29, 2013). A comprehensive survey of back streets businesses in PDRR districts is needed to clarify the extent of contact with and benefits derived from the program.

Impacts Evaluation Q2: Major Successes and Areas for Improvement

Successes

Real estate solutions are at the center of the *Back Streets* program. Examples of facilities that have been developed to bring large floor-plate back-office PDRR real estate to market include the Lafayette Corporate Center (400,000 ft^2), Palladio Hall (200,000 ft^2), Fargo Building (420,000 ft^2), Landmark Center renovation (600,000 ft^2), and the Hood Plant redevelopment in Charlestown (40,000 ft^2) (BRA, 1999). A significant public investment has also been made in Newmarket, which is being labelled as the first industrial eco-park in the country with favourable businesses services like free waste audits (S. Di Stefano, personal communication, April 15, 2013).

The BLDC revolving loan fund has provided a consistent supply of business investment and expansion capital to accommodate entrepreneurialism and growth in the back streets sector. The BLDC loan has been successful in two ways: revolving funds function by reinvesting repaid portions of loaned capital, the fact that the fund has existed for over 30 years is an indication that the capital has been reasonably invested. Secondly, it has provided a relatively more risk-tolerant and less administratively encumbered financing instrument — compared to other private or public (respectively) funding options — for SME back streets businesses that have had difficulty sourcing capital in the past (BRA staff member, personal communication, May 15, 2013). With limited state or federal regulatory compliance obligations tied to the loans provided through the BLDC, and with some insulation from oversight by the City government, the Back Streets Back-Up Loan fund is seen as a more efficient financing vehicle (BRA staff member, personal communication, May 15, 2013).

A lasting success is that *Back Streets* has increased awareness of back streets businesses and PDRR districts in the City. This has, for example, improved the way zoning is carried out and has helped curb industrial conversion, through the conversion priority maps (S. Di Stefano, personal communication, April 12, 2013) and recent improvements to the permitting processes for back streets businesses (S. Sullivan, personal communication, May 29, 2013). Municipal interaction with the sector through representative associations like the NBA has increased. The Newmarket Business Association claims it has been advocating for back streets businesses and PDRR districts for over 35 years, but since *Back Streets*, the organization's reach access to policy-making offices has improved:

I work very closely with many municipal departments, but I'll call the Back Streets program and ask Sal to put several departments together if a firm needs it… these departments don't have a particular vested interest in PDRR, so it helps to have an internal facilitator
– S. Sullivan, Executive Director, Newmarket Business Association

From the City's perspective, the NBA has become more aggressive and outgoing in their advocacy, which may simply a result of heightened interaction through Back Streets rather than any substantive change at the NBA.

Areas for Improvement

Relative to their efforts with real estate and administrative services, the *Back Streets* program has been less successful with community outreach. One of the central goals of the program when it was being developed was to establish a network of District Managers that would make program staff available on-site to PDRR businesses. The network was never established, which has hampered efforts to connect with firms. Recently, *Back Streets* initiated on-site office hours on a part-time basis in select districts but given that there is only one staff member working for *Back Streets,* the challenge of connecting with firms is likely to remain, especially in less established PDRR districts:

The Newmarket Business Association is fortunate in its relationship with the Back Streets program but I am not sure how the program functions in the rest of the city
– S. Sullivan, Executive Director, Newmarket Business Association

For *Back Streets* to be as involved with other PDRR districts as it is with the NBA, more personnel are needed and this is difficult to justify under budgetary constraints. It may be possible to conserve resources and increase service quality if, in smaller PDRR districts that may lack an analog to the NBA, *Back Streets* helps to create or extend the role of existing a grassroots, localized groups representing SME back streets interests in the area.

A second area for improvement is to raise awareness among *citizens* and other *businesses* in the city. *Back Streets* has made great strides within the City to include PDRR in decision-making and policy development, but less has been done with the broader public. The branding platform that SFMade developed in San Francisco was designed to communicate with the broader public and a similar initiative may be beneficial in Boston. Coordinating retail events, factory tours, and other similar initiatives that would bring PDRR out of the "back streets" and into the "main streets" could improve business activity, increase neighbourhood support, and reduce NIMBY sentiment to PDRR activities (especially in rapidly gentrifying neighbourhoods.

CHAPTER 6.0

SYNTHESIS & CONCLUSIONS

Chapter 6 — Synthesis and Conclusion

The program evaluations of *SFMade* and *Back Streets* have revealed that grassroots (informal) and governmental (formal) approaches to sectoral economic development differ in their strengths and the role that they can play to support small- and medium-sized back streets businesses that rely on PDRR land use. The case studies reveal that in the case of this form of sectoral economic development horizontal collaboration between formal and informal efforts is desirable, as has been suggested by academic literature on economic development governance (Fontan, et al., 2009). This chapter summarizes the findings that emerged from the program evaluations and identifies what the case studies of *SFMade* and *Back Streets* suggest about supporting SME back streets businesses in PDRR districts in other cities.

Synthesis

Needs Evaluation

The purpose of needs comprehension component of the program evaluation was to identify how well grassroots and governmental (or "treetops") programs understand local PDRR needs, and whether their institutional settings affect how the programs address those needs. The three questions guiding this stage of the evaluation dealt with identifying the target audience of the program, the service provided, and whether the services were relevant. The largest difference between the two models was that bottom-up organizations had the ability to be more exclusive in the business community that they chose to serve. Due to impartiality regulations, treetops initiatives are less likely to establish membership-based services. Rather municipal sector-based economic development programs were made universally accessible in Boston, and equal access to services was mandatory for small businesses in the target sector regardless of the firms' economic characteristics. There are advantages and disadvantages to both systems. The flexibility that grassroots organizations have with defining and serving their client base may improve the efficiency of the program (by focussing resources on SME back streets firms that are actively operating in the city and most likely to succeed and grow), but it is less egalitarian and may underserve local businesses that are most in need or most resistant to seek out support. For example, an oft-cited benefit of supporting SME back streets firms in central cities is that these businesses provide an entrepreneurial and employment opportunity for ethnic minorities (Bronstein, 2009; Curran & Hanson, 2005), but minority and ethnic business owners are the least likely to be aware of and seek out business support services (Bates & Robb, 2013). On the other hand, the *Back Streets* program found that their obligation to serve relevant businesses currently operating in Boston, as well as prospective firms looking to settle in the city from elsewhere, constrained resources. This resulted in the program disproportionately focussing resources in areas (like the Newmarket district) where it was easier to connect with the community (because of a longstanding relationship, the presence of representative groups like the Newmarket Business Association, or a higher concentration of SME back streets firms). While this may be resolved through more funding, with the realities of municipal funding, it would be difficult to justify public investment in one (difficult-to-define and less "visible") sector, especially in a central city context where resources are already constrained and multiple stakeholders are in need of support (FCM, 2012). Nevertheless, the municipal program approach is fundamentally more comprehensive.

Both programs managed a suite of services that were based on previous professional reports that identified SME back streets business needs. It was clear that the institutional setting of the programs created service gaps. The most significant shortfall with the *SFMade* program was the lack of PDRR real estate support services when the program was established, and limited opportunity to address property-based issues in the long run for back streets firms and PDRR districts. This is because the decision-making power and resources that would be necessary to address the most substantial issues, namely real estate and infrastructure requirements, do not fall to grassroots organizations. Their role in these areas comes in the form of advocacy and information gathering for those with decision-making power and financial capacity to modify and improve conditions. In contrast, the *Back Streets* program focussed heavily on real estate

and administrative processing issues faced by local back streets businesses, but neglected to invest as heavily in networking with small businesses as *SFMade*. The choice of which service areas to focus on seems to be a reflection of the strengths offered by the program structures, which is heavily influenced by their institutional setting: governmental sectoral economic development programs like *Back Streets* have direct (or better) access to municipally-owned industrial real estate, the ability to influence land use policy development, more sway in decision-making processes on infrastructure projects that can benefit targeted economic sectors, and they can assist with regulatory procedures for businesses. Informal or grassroots programs can have a closer relationship and support from the business community; they seem better equipped to speak for the whole sector and coordinate group action among the business community. Hence, it is not surprising that *SFMade* has not yet made serious inroads with addressing the real estate insecurity problem faced by SME back streets firms in San Francisco, but has created an identifiable brand for local manufacturers, has rapidly increased membership registration from the target community, and has become the primary portal between government, private sector investors, and the local SME PDRR community (at least, this is what the composition of *SFMade's* funders suggests).

Another reason behind each program's emphasis on certain services over others relates to the legacy and culture of the program in its local context. *Back Streets*, as the successor to the Economic Development and Industrial Corporation (EDIC), inherited that organization's real estate orientation and the Mayor's neighbourhood-based development model. Likewise, the branding and retail focus of *SFMade* stems from the fact that early corporate partners and founding members had strong ties with this community. The fact that grassroots and treetops programs focussed their efforts on services that drew on their strengths and reflected their legacies reinforces the needs to network these approaches to economic development in order to provide a more comprehensive sectoral support.

When networking grassroots and municipal efforts to support back streets businesses in PDRR land use areas of central cities, the needs evaluations of *SFMade* and *Back Streets* suggest that a governance system resembling a wheel-hub (Figure 15), with rules and structures emphasizing a joint decision-making model rather than a hierarchical or competitive structure (Evers, 2013; Rhodes, 2007). In such a model, politically-motivated, municipal programs whose staff have more access to decision-making power and resources to deal with real estate and infrastructure issues act as central agencies to coordinate public responses to the business needs voiced by a network of government-endorsed grassroots organizations that reside within back streets districts throughout the city. With respect to relationship-based business services (business plan consultation, networking, brand development, etc.), grassroots organizations have an advantage because they have deeper access to the business community and appear to be more trusted by business owners. A model of this kind would help the economic development governance system carry out the "economic restructuring… [and] change in established social and economic practice" (Stone, 1993, pp. 17) because it would draw on "nongovernment resources by enlisting nongovernment actors" (ibid.).

Table 12 - Needs Evaluation: Summary of Findings

	Strengths	Weaknesses
Grassroots	▪ Access to the community ▪ Flexibility with targeting service recipients ▪ Representation and advocacy for business support and needs servicing from	▪ Selective and potentially more exclusive ▪ Limited real power to address the most substantial (real estate and infrastructural issues)
Governmental	▪ Egalitarian ▪ Services offered to a broader audience ▪ Decision-making power over resource-intensive issues (property and infrastructure)	▪ Relatively more resource-intensive to connect with the business community ▪ Political climate and motivations have a greater influence on services offered
Both	▪ Service focus depends more on capacity rather than the needs of businesses ▪ Program legacy influences who is served and the needs that are serviced ▪ Both programs provided relevant services but failed to cover all necessary needs	

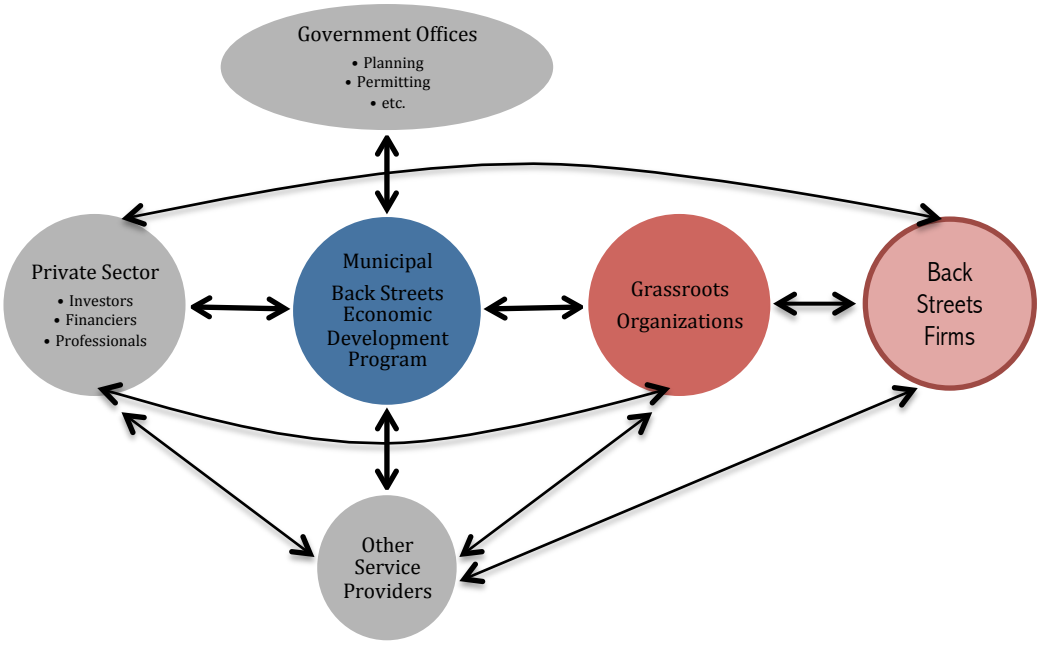


Figure 15 — Potential economic governance map for supporting back streets businesses in central cities

Process Evaluation

The process evaluations performed on *SFMade* and *Back Streets* examined how the programs' services are managed and delivered. Three questions were addressed that helped identify the resources that were available to operate the program, the programs' support or resource supply network, and the principal advantages and constraints resulting from the programs' institutional setting.

One of advantages of the grassroots approach was a better capacity to generate private sector funding for program activities, which is essential to sustaining coalitions of economic support for back streets businesses (Stoker, 1998). Fully three quarters of *SFMade's* budget was privately financed. Corporate investment was stimulated by tax credits for grants provided to local charities (like *SFMade*) via the Community Reinvestment Act. *SFMade's* experience is unique because the focus among private sector donors and financiers was on small-scale manufacturing firms rather than the whole of PDRR businesses. Much of the private sector interest was tied to venture investment opportunities in manufacturing entrepreneurialism, which is also nearly (if not entirely) reserved for producers with a retail or direct-to-consumer business model. The same level of interest may not exist from the private sector to support distribution, repair, and recycling firms, or manufacturers of less value-added products. That considered, the private sector funding that *SFMade* collected was used to fund program services that were available in some capacity to its entire membership. For this reason, and because the funding also allowed *SFMade* to maintain its advocacy and other business support initiatives, the ability to entice private sector investment in back streets-type firms should be considered a distinctly grassroots advantage.

In comparison, the BRA's municipal program did not attract private sector funding for its activities, relying instead on budget allocation from the City. Nevertheless, Back Streets was able to spur private investment in PDRR and back streets businesses through other means. The BLDC's Back Streets Loan Fund generated substantial private sector investment by fronting loans and thereby decreasing the perceived lending risk that private financial institutions associated with back streets businesses. The role of public venture capital in stimulating private investment in small business development has been well documented (Leleux & Surlemont, 2003), thus Boston's experience is not unique. Strictly speaking, the BLDC loan fund is administered outside the *Back Streets* program. The former was established (by earmarking a portion of public business development capital for the back streets sector) in response to

pressure from *Back Streets* program staff. This is a demonstration of the power that municipal business support programs have in steering public economic development resources to targeted groups like back streets businesses or PDRR districts. In sum, grassroots initiatives may offer more attractive investment avenues for private capital, while treetops programs have access to potentially large pool of public resources that can be used for economic development initiatives.

One of the distinguishing factors between the grassroots and municipal programs studied dealt with how well the program could be scaled and adapted in the local context. Governance research suggests that grassroots organizations tend to exhibit less organizational capacity, which can interfere with efforts to scale programs to effectively address more sophisticated issues that arise as the organizations mature (Fontan et al., 2009; Stoker, 1998). *SFMade* was beginning to encounter these challenges in relation to industrial land use policy. The grassroots group has played an advocacy role for back streets business interests in negotiations with the City on land use policy in PDRR districts. This has made it difficult for SFMade to negotiate or compromise on land use policy decisions because it has a clear constituent group to represent. *SFMade* risks alienating its core of support (local manufacturers) if it makes compromises that the community does not support. Because grassroots organizations emerge out a specific need to address a community issue, they can encounter a path dependency pressure that makes it difficult to manage complex multi-stakeholder negotiations (Fontan, et al., 2009), like those involving land use policy.

External influences were found to be an important factor in the way that grassroots and municipal economic development programs functioned in a central city context. *SFMade* relied heavily on external funding and decision-making power to support local manufacturers and back streets businesses. The lack of distributed power to grassroots organizations within economic development governance meant that for many important questions, especially those dealing with land use policy and infrastructure investment, *SFMade* functioned as an advocacy or lobby group. Fontan et al. (2009), in a Montréal-based study, found that grassroots organizations were aware of their power limitations but this did not diminish the importance of their contribution to economic development governance (Fontan, et al., 2009, pp. 850). In San Francisco, urban planners and economic development practitioners noted in interviews that *SFMade's* advocacy was essential to gathering political momentum behind difficult land use policy decisions (K. Rich, personal communications, March 28, 2013). The value of grassroots advocacy is understandable given the sensitivity that governmental programs have to prevailing political agendas.

Top-down programs like *Back Streets* are funded by the City and may have policy-making power (or at least have better access to institutional partners with that power), but deeper access to government is somewhat of a double-edged sword. Party politics and local political culture can have a profound impact on the operation of municipal programs. In Boston, interviewees uniformly expressed concern about the impending Mayoral changes, and the influence of EDIC's legacy on the way that *Back Streets* operated was also evident. The threat and opportunity that prevailing political motivations present to municipal programs has been well documented in municipal governance research (Evers, 2013; Stoker, 1998). Political parties and culture impacts the structure of governance systems, whether they were more hierarchical or collaborative, and whether the resources of formal and informal groups were capitalized upon most effectively. *SFMade* and other grassroots organizations can be impacted by the political climate if governance shifts toward a more hierarchical, closed-door decision-making model. In contrast, community organizations exist outside of government, allowing them to outlive political regimes and engage in coalition building with new political partners as necessary (Fontan, et al., 2009).

Table 13 — Process Evaluation: Summary of Findings

	Strengths	Weaknesses
Grassroots	▪ Can generate direct private sector investment in the program ▪ Greater resilience to political regimes	▪ Private sector investment interests tied to corporate gain ▪ Reliance on external power and resources
Governmental	▪ Organizational capacity allows for scaling programs and negotiation on complex issues such as land use policy ▪ Can leverage public resources to stimulate private sector support in back streets firms	▪ Difficulty reaching businesses with services and communications ▪ Professional barriers to advocacy ▪ Sensitive to prevailing political agendas within City government

Impacts Evaluation

The third stage of the program evaluation examined the program's impact on back streets businesses in PDRR districts of central cities. One of the most important qualities of bottom-up organizations when it comes to providing support services for PDRR businesses is the open access it provides and the trust that can be developed between the organization and its target community. A grassroots organization is "of the sector, for the sector," and if well organized it can use this position to provide more effective relationship-based services such as business guidance, networking, and representation. Grassroots solutions tend to have more fine-grained, firm-level data that is continually evolving with the relationship between the organization and local firms. They also tend to be physically closer to firms, which builds trust and buy-in from the business community who see grassroots organizations as playing "on the same team." This allows grassroots economic development programs to communicate better with businesses, making services and other resources more accessible and actionable. *SFMade* is an example of an organization that used its legitimacy within and access to local businesses to increase external investment in those businesses, especially with money from the private sector. The access and legitimacy that comes from a community-based foundation increases the potential for long-term path dependency issues as discussed.

Municipal programs are limited by impartiality conditions in their ability to be nuanced or strategic when providing services, but the neutral nature of top-down programs is better suited for wider application and portability. Boston's *Back Streets* program has made significant contributions to the PDRR sector in that city. By leveraging the full powers available to municipal government, resources have been utilized to provide services that have made it easier to operate a PDRR business.

Table 14 — Impact Evaluation: Summary of Findings

	Strengths	Weaknesses
Grassroots	▪ Access to businesses ▪ Trust from the community allows for clearer communication flow	▪ Long term path dependency with regards to complex problems that require compromise
Governmental	▪ Institutional capacity and resources to significantly alter the economic landscape	▪ Distance from the target community makes it difficult to transfer resources or respond to evolving business needs

Networking Grassroots and Treetops Initiatives to Support Urban PDRR

SFMade and *Back Streets* demonstrate the importance of networking efforts between formal (governmental) and informal (grassroots) organizations to support back streets PDRR businesses in central cities. Both programs exhibited a high degree of collaboration with local public, private and community partners. The purpose of this report was to identify the strengths and weaknesses of grassroots formal and informal approaches to economic development for the back streets business in central cities. The resulting revelations were meant to inform efforts to network formal and informal efforts in this context.

Economic governance theory stresses the importance of coordinating the efforts of multiple (forma and informal) actors in geopolitical space in order to reach collective economic goals. Theory, practice, and the findings in this report stress that both municipal and grassroots groups have a role to play, but that a division of responsibilities can take place to maximize the efficacy of both in economic development efforts. Table 15 summarizes the broad lines of role division that can be drawn between formal and informal initiatives to support back streets businesses based on the strengths and weaknesses of their approaches as seen through the *SFMade* and *Back Streets* models.

Table 15 — Recommended division of responsibilities for formal and informal actors

Program Structure	Key responsibilities
Municipal "Top-down"	Bureaucratic processing Real estate and land use management Leveraging private sector financing through public venture and business development lending Coordinating public and quasi-public partners
Grassroots "Bottom-up"	Advocacy and policy development support Business development services Leveraging non-governmental and private sector partners

The first step in networking community-based and governmental programs is to acknowledge the access that different approaches provide. Municipal initiatives have better access to decision-making powers; they are better positioned to function as a central contact point for grassroots organizations. In that role, they may limit the need for grassroots groups to build independent relationships with formal or institutional actors involved in economic governance. They can also reduce the need for relevant government actors to be aware of and effectively serve all grassroots groups in the central city. *SFMade's* leadership was adept at forging partnerships in government circles, but maintaining relationships with myriad relevant government offices was resource intensive, especially for a small organization (Fontan et al., 2009). *SFMade* concentrated its relationship-building on the Office of Economic and Workforce Development (OEWD), and ultimately formalized the connection via the manufacturing and fashion liaisons positions. In Boston, the *Back Streets* program served as a central channel to government for back streets business. Neighbourhood associations like the NBA communicated to government officials through the program specifically because they found it difficult to attract the attention of different departments, each with its own set of personalities, foci, and objectives. What was needed in Boston was an active network of business associations (rather than an in-house District Managers Network as was planned) that represented the business community more comprehensively (the NBA operated only in the Newmarket district for example).

Both formal and informal groups proved capable of generating private sector support for SME back streets businesses — *SFMade* did so through direct investment from the private sector into the program, and *Back Streets* leveraged private sector capital through joint financing contracts for businesses. Top-down initiatives can wield public funds as seed capital to reduce the risk exposure to private sector firms as the BRA has done through the Back Streets Back-up Revolving Loan. Grassroots groups generally do not generate revenue so they rely entirely on external capital to fund their services. However, effective bottom-up initiatives are attractive to private lenders (large corporations especially) because they are often seen as more efficient than publicly organized programs, and they have the added allure (from a corproate branding perspective) of being community-led initiatives. In other words, grassroots programs can access private capital by leveraging their community status and rich knowledge of business needs.

Boston's top-down approach relies on government powers to directly influence the economic environment to support SME back streets firms in PDR districts. Examples include *Back Streets'* industrial conversion priority maps that were used to change land use policy, and the redevelopment of the Newmarket industrial District, which brought in new infrastructure to deal address the needs of modern, more technologically-intensive PDRR activities. These powers are checked by the need for a municipal program to maintain impartial business support services because they operate with public funds and in the broad public interest. Municipal impartiality regulations have two important implications in the context of

back streets business support services: firstly, although impartiality is designed to ensure that services and resources are equally accessible by all businesses, it may spread services and resources too thin, which can ironically result in disproportionate attention being given to the most visible or vocal businesses in the city. In Boston, much of the work that *Back Streets* is involved with is concentrated on the Newmarket Industrial District — the largest concentration of SME PDRR businesses in the central city area. Businesses in other PDRR districts have not received the same attention. So while the program is designed to be accessible by everyone, in effect, because the BRA has limited staff, the program is not equally accessible by all firms – those in the NBD have an advantage (however unintentional). It is difficult for a municipal program to stay active and involved in every PDRR enclave in the city, particularly because the back streets considered in this report are small operations with a relatively weak voice in local economic governance. Through a hybrid governance network the municipality serves as the central contact point for all back streets businesses, thereby maintaining impartiality, while a web of endorsed grassroots organizations located in PDRR districts serve as the representative bodies for businesses on the ground (grassroots groups serve as the District Managers Network that the *Back Streets* program had intended to create but could not finance).

Philadelphia implemented an industrial renewal program in the 1950s based on reports, issued by the Mayor and Commerce Department Director, that urged council to curb the ongoing loss of industrial (mostly manufacturing) jobs (G. McKee, 2004; G. A. McKee, 2010). The Mayor called for "a cooperative project in which the city government and the local business community would collaborate in the development of new factories on city-owned land and the modernization of existing industrial facilities" (McKee, 2004, pp. 67-68). The ensuing Philadelphia Industrial Development Corporation (PIDC) oversaw the industrial revitalization effort; it blended the roles of municipal and grassroots organizations shown in Figure 15. The activities undertaken by the PIDC in the 1960s, when it emphasized Philadelphia's small and medium-sized specialty and batch manufacturing firms, offers a model for PDRR support strategies "and a historical indicator of both their potential viability and their limitations" (McKee, 2004, pp. 89). However, as political interest in PIDC's mission waned, the program lost direction and submitted to industrial conversion pressures in the real estate market. This is another practical example of the political sensitivities of public programs, which have been documented in governance literature (Fontan, et al., 2009). By formalizing the relationship between formal and informal partners, and giving grassroots organizations a position within the governance structure, the PIDC example may have been avoided. In Boston, the *Back Streets* program could focus on mobilizing government resources for businesses rather than cultivating a relationship that it ultimately did haphazardly. In San Francisco, groups like SFMade could have been cultivated and supported throughout the city, acting for PDRR interests beyond the manufacturing sector had the City government established a municipal body to build that network.

If political attention shifted away from the back streets sector, as it did in Philadelphia, the advantage of the proposed governance structure would be that a network of active grassroots organizations could continue to operate (outside of government) with a strong voice and connections to one another. In other words, by formalizing the relationship with grassroots organizations, rather than usurping it, the community-based organizations may help insulate support for back streets businesses against the adverse consequences from administrative change. As the planning staff and zoning administrators found in San Francisco, during a period of extreme opposition to industrial employment in that city, groups like *SFMade* that were advocating for PDRR district preservation and more support for back streets businesses, were invaluable in securing various land use policies and commitments from the municipal government.

Grassroots organizations may also have more flexibility in the way they provide services. With fewer restrictions on how they promote and serve the sector, bottom-up organization have the potential to be more nuanced and innovative as service providers. The Manufacturer's Assistance Program (MAP) program, for example, is more difficult to justify within a municipal program because it inherently favours certain businesses and excludes others. *SFMade* is able to roll out MAP to great effect for rapidly growing firms and generate larger benefit for other businesses in the process. As MAP increased profits for the businesses in the program, private venture capitalists became increasingly motivated to invest in PDRR,

which was now being recognized as a growth sector. Programs like MAP can (as is the case in San Francisco) also increase the legitimacy of the program by demonstrating what *SFMade* is capable of producing for business owners.

Context

Local context plays a major role in the way that PDRR support programs can and should be structured. No two urban environments are alike, and any effort to replicate or adapt the lessons learned from Boston and San Francisco must be carefully adapted to respect local conditions. Keating (1991) identified the many factors that complicate efforts to compare and contrast governance approaches across municipalities within the Untied States, much less to export them abroad. Nevertheless, as Pierre (2005) highlights, when contextual factors are considered appropriately, there is value in comparative case studies like the one presented above.

The programs studied in Boston and San Francisco both demonstrated a relatively strong degree of collaboration between formal and informal actors within local economic governance for back streets businesses in PDRR districts. One reason for this is that the most senior government officials in both contexts advocated for the benefits that these firms could bring to the local economy. The Mayors in San Francisco and Boston led efforts to upgrade policy, work with businesses, and engage grassroots organizations, which helped to harmonize efforts and dictate the goals of those involved in economic development. Looking at metropolitan economic governance in Europe and the U.S., Evers (2013) found that political culture was a significant factor in the design of economic governance systems and the nature of interactions that took place in within those systems. Likewise, in his examination of Canada's Technology Triangle (CTT) in southern Ontario, Leibovitz (2003) showed how economic development programs could fail to build associative and collaborative action between public and private stakeholders. In the CTT, competitive intergovernmental relations combined with a popular belief from the private sector that government was inefficient had created a governance system with limited trust and few incentives among public and private partners to collaborate toward stated economic development goals (Leibovitz, 2003). In San Francisco and Boston, the Mayors' endorsements of *SFMade* and *Back Streets* helped coordinate efforts within government, and served to integrate the activities of municipal officials, industry associations, and community groups. In the central cities that were studied, a strong-mayor form of government prevailed, which may explain why the Mayors' initiatives were so effective in galvanizing support for back streets firms and PDRR districts (and avoiding the dysfunction of the CTT scenario). In the governance structure proposed (Figure 15), the network of grassroots organizations would serve as the driving force of economic development. In cities with weak-mayor or mayor-council forms of government, such as Toronto and Vancouver in Canada, the structure would help to build the necessary coalitions needed to establish new economic governance regimes (Stone, 1993).

Defining a Target Sector for Economic Development Programs

The purpose of this paper was to identify, based on the strengths and weaknesses identified through case studies, how to network the efforts of informal and formal actors in local economic development governance for SME, back streets businesses in central city PDRR districts. Governance can be defined as the system or processes that coordinate action between multiple formal and informal partners toward commonly defined goals. The relationships involved are in flux and the relationships can be formally established or managed ad hoc among actors in municipal space. What is necessary is to clarify the common goal that is being sought by the governance systems. In order to do so, central cities must wrestle with the challenges of defining what the target businesses would be of such efforts.

Chapter two discussed the ways in which industrial real estate can be defined: using a land use and built form basis would lead the definition to follow the PDRR model employed in San Francisco and elsewhere. This model has two key advantages: it highlights the diversity of activities that take place in "industrial" areas and draws attention to the multiple economic actors that rely on a distinct built form in

order to survive. At the same time, the PDRR definition has problems because it includes activities, such as R&D and digital media or IT, that can price out other forms of PDRR, like apparel manufacturing (SFPD, 2002). In Boston, an alternative approach was used, which focussed on the fact that some sectors or groups of businesses were less visible to the broad public and received relatively less attention from the policy and economic development community. Calling these firms "back streets" contrasted them with "main streets" businesses that were influential in policy circles, had significant private capital interest, and could compete more effectively in real estate markets.

The downside of the back streets approach is that it is not rooted in an empirical basis for defining the types of businesses considered. In Boston, as much attention was given to back office, but still commercial, services as manufacturers, distribution firms, and repair yard operators. The inclusion of commercial activities undermines the economic benefits that are sought out by municipal governments, namely to diversify employment opportunities beyond office-based jobs. This report chose to use a combination of the two definitions because the term "back streets" highlights that the firms in question are being neglected (and therefore do not fall into the "new economy"), and the PDRR land use profile maintains focus on the land and built form aspects that are so central to the issue. Existing NAICS and zoning policy terminologies do not provide a better frame of reference than "back streets firms in PDRR districts" as it is used in this report because the former is based on industry activity (not the type of employment) and zoning classifications tend to favour the residential-industrial-commercial classification with degrees (light, medium, and heavy, for example) of each listed by area. For all the practical value of the "back streets in PDRR districts" definition, it is not perfect. For a governance system to be effective a consensus must be reached about what is (and what is not included in the target group). Given cultural references and existing land use or industry classification systems in place, this may change based on the central city. For example, San Francisco's PDRR definition included IT companies, likely because of the strong influence that this sector has on the local economy. Likewise, Boston included commercial services in its back streets definition, which is a reflection of the role that these activities play in the city's knowledge-based economy.

Conclusion

If we accept that small- and medium-sized back streets businesses relying on PDRR districts are desirable in central cities economies, then economic development governance system must consider that these economic actors comprise a portfolio of assets that must be managed, particularly because they are scarce" (DCOP, 2006, pp. 22). Adopting a "portfolio" perspective allows municipalities to look at developable sites as multipurpose tools: to capitalize on immediate opportunities, hedge against future uncertainty, or to provide a resource reserve for anticipated future needs. This is a more comprehensive outlook than highest-and-best-use land use evaluation, which may not lead to the most desirable community and economic development outcomes (Wolf-Powers, 2005). When considered in this holistic manner, the needs and benefits of back streets businesses in PDRR districts can be assessed against the alternatives more effectively. These firms have multidimensional needs, the servicing of which requires significant collaboration between formal and informal governance actors.

Limitations of the Research

There was considerable agreement among the interviewees regarding the roles of municipal and grassroots programs in economic development for the PDRR sector. However, the *SFMade* and *Back Streets* case studies hinged on a small sample of interviewees. A larger sample of local planners, program staff, and (especially) PDRR business owners would help validate the findings presented above. A comprehensive survey of PDRR businesses in the two cities would be valuable as a tool to assess the impacts of programs and to determine how much of the back streets business community operating in PDRR districts of central cities has interacted with those programs.

Opportunities for Further Research

The most interesting area of further research is on hybrid programs that are community-based but have been allotted political or financial powers by public and/or private partners. Whether such structures exist is the first question, but perhaps the Business Improvement Association model can provide insight. BIAs have the power to levy membership fees that in practice resemble property taxes on businesses. They can invest in the public realm, participate in infrastructure projects, and even dictate local architectural standards. At the same time, management of the BIA rests entirely in the hands of local business owners. A well-documented precedent for a BIA oriented toward back streets businesses and PDRR districts does not exist yet in North America