THE CITY OF VANCOUVER'S INDUSTRIAL LAND USE PLANNING IN A CONTEXT OF ECONOMIC RESTRUCTURING

by

SCOTT LOGUE

B. A., The University of British Columbia, 1989

A THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS (PLANNING)
in
THE FACULTY OF GRADUATE STUDIES
SCHOOL OF COMMUNITY AND REGIONAL PLANNING

We accept this thesis as conforming to the required standard

THE UNIVERSITY OF BRITISH COLUMBIA

April 1998

© Scott Logue, 1998
In presenting this thesis in partial fulfilment of the requirements for an advanced degree at the University of British Columbia, I agree that the Library shall make it freely available for reference and study. I further agree that permission for extensive copying of this thesis for scholarly purposes may be granted by the head of my department or by his or her representatives. It is understood that copying or publication of this thesis for financial gain shall not be allowed without my written permission.

Department of Community and Regional Planning

The University of British Columbia
Vancouver, Canada

Date April 27, 1998
ABSTRACT

Industrial land use and economic policy created by the City of Vancouver between 1968 and 1991 is analysed within a context of economic restructuring to illustrate how these types of policies may be improved. Within this time frame, the City of Vancouver had three distinct periods of policy development that were largely delineated by local political and economic factors. The first period was characterised by a liberal-based civic party in control of the local administration, a healthy urban economy, and a post-industrial sentiment that did not support the industrial community and resulted in a significant decrease in the city's supply of industrial land. In the second period, an increasingly left of centre local government was forced to contend with the poor economic conditions of the early 1980s; consequently, the industrial sector and the economy as a whole received considerable attention and support from the local government. The third period was characterised by the re-birth of post-industrialism and a right of centre administration with little interest in economic planning or maintaining an industrial sector in the City of Vancouver. The main lessons to be drawn from this policy analysis are (1) that the modern economy will continue to change rapidly and generate significant consequences and challenges for civic governments, (2) there are benefits to planning for the future rather than simply accommodating change as it happens, (3) the short sighted agendas of politicians need to be tempered by an assessment of the long term consequences of policy development and implementation, (4) there needs to be
co-operation between the region's numerous public bodies to ensure complementary policy development across municipal boundaries, and (5) governments need to be proactive and engage in economic planning during both growth and recessionary economic periods in order to embrace new economic opportunities as they arise, mitigate the negative consequences that change often generates, and help produce strategic visions for planning purposes.
TABLE OF CONTENTS

ABSTRACT ........................................................................................................... ii

TABLE OF CONTENTS ....................................................................................... iv

LIST OF TABLES ................................................................................................. vii

LIST OF FIGURES ............................................................................................... vii

CHAPTER 1: INTRODUCTION ............................................................................. 1

I. PURPOSE ........................................................................................................... 1

II. DEFINITIONS ................................................................................................ 4
   A. Industry ........................................................................................................ 4
   B. Policy ........................................................................................................... 5

III. METHODOLOGY AND THESIS OUTLINE ............................................. 6

IV. LIMITATIONS .............................................................................................. 9

CHAPTER 2: THE CONTEXT OF ECONOMIC RESTRUCTURING AND INDUSTRIAL DECENTRALISATION .............................................................. 11

I. INTRODUCTION ............................................................................................ 11

II. ECONOMIC RESTRUCTURING ................................................................. 11
   A. Increasing Service Employment ............................................................... 12
   B. Post-Industrialism? ................................................................................... 14
      1. The Fisher/Clark Thesis ...................................................................... 14
      2. Bell's Post-Industrial Society ............................................................... 14
      3. Criticisms of Post-Industrialism ...................................................... 15

III. INDUSTRIAL RESTRUCTURING AND DECENTRALISATION ................ 18

IV. LOCATION OF INFORMATION/HIGH-TECHNOLOGY FIRMS ............... 23

V. RECOMMENDATIONS FOR THE URBAN ECONOMY ............................ 24

VI. CONCLUSIONS .......................................................................................... 31
CHAPTER 3: ECONOMIC RESTRUCTURING AND INDUSTRIAL DECENTRALISATION: THE CITY OF VANCOUVER AND ITS REGION .......................................................... 33

I. INTRODUCTION ........................................................................................................... 33
II. VANCOUVER AND ITS REGION ................................................................. 33
III. ECONOMIC RESTRUCTURING IN GREATER VANCOUVER .......... 35
    A. Employment Structure in the Vancouver CMA ........................................ 35
       1. Service Employment and Its Spatial Characteristics in Vancouver ....... 37
       2. Industrial Employment and Its Spatial Characteristics in Vancouver ...... 41
    B. The Nature of the City of Vancouver's Industry ........................................... 48
IV. CONCLUSIONS ....................................................................................................... 50

CHAPTER 4: VANCOUVER'S APPROACH TO INDUSTRY .............. 51

I. INTRODUCTION ........................................................................................................... 51
   A. Framework for Policy Analysis ................................................................. 51
II. AN ERA OF POST-INDUSTRIALISM: 1968 TO 1976 ..................... 53
   A. Political Change and Rise of Post-Industrialism ........................................ 53
   B. Evolution of Civic Policy ................................................................................. 55
       1. False Creek: From Theory To Practice ..................................................... 56
       2. Acceptance of The GVRD's Livable Region Plan ..................................... 59
III. PROGRESSIVE ECONOMIC PLANNING: 1977-1986 ............... 61
   A. Growing Political Awareness of Industry and the Economy .................. 61
   B. The Livable Region's Industrial Plan ............................................................. 63
   C. The EDO and Its Economic Strategy ............................................................ 65
   A. Political Change ......................................................................................... 71
   B. Revival of the Livable Region & the Attack on Industrial Land ............. 72
   C. Industrial Policy ........................................................................................ 73
       1. Large Scale Retail Use Of Industrial Land ................................................ 74
       2. Area-by-Area Rezoning Approach ............................................................. 76
       3. A Strategy For Managing Change In Industrial Areas ............................ 77
V. GENERAL DISCUSSION AND CONCLUSIONS .............................................. 79
CHAPTER 5: CONCLUSIONS .......................................................................................86
I. INTRODUCTION ............................................................................................86
II. CONCLUSIONS ............................................................................................86
   A. Economic and industrial restructuring will likely continue well
      into the future. .........................................................................................86
   B. Industry has been and can continue to be an important sector
      of the modern economy. ........................................................................87
   C. Policy should not be formulated with only a short term
      perspective in mind. ..............................................................................88
      1. There is a short term politicisation of local policy development ....88
      2. Land use, economic, and urban growth management policies
         have long term and often dramatic consequences. ........................88
   D. Municipalities must be involved in economic planning. ..................89
   E. The private sector has to operate within the policy framework
      created by municipal governments .......................................................91
      1. Need regional co-operation to ensure complementary policy
         development. ....................................................................................92
   F. Each region's experience with the trends is unique. ........................93
   G. Tread with caution .............................................................................93
III. AREAS OF FURTHER STUDY ......................................................................94

WORKS CONSULTED .....................................................................................96

APPENDIX 1: MANUFACTURING FIRMS AND EMPLOYMENT

IN THE CITY OF VANCOUVER ......................................................................105
LIST OF TABLES

Table 1: Vancouver CMA Labour Force by Industrial Sector, 1961-1991 ...........................................................................................................38
Table 2: Occupation Changes in the Vancouver CMA, 1971-1991 .........................................................................................................................40
Table 3: Industrial Sector Employment, 1971, 1981, and 1991 ..............46

LIST OF FIGURES

Figure 1: Population for Vancouver and its CMA ....................................34
Figure 2: The City of Vancouver, the GVRD, and the CMA ..................36
Figure 3: The City of Vancouver’s Industrial Land, 1968-1991 ............44
Figure 4: Distribution of Industrial Employment in Vancouver .............47
Figure 5: Changing Structure of City Industry, 1966 and 1991 ............49
CHAPTER 1
INTRODUCTION

I. PURPOSE

History is full of many examples of cities that have struggled with the challenges presented by rapid economic change. Clearly, a major objective for any local government should be to position itself so that it can mitigate the negative consequences of such change and be prepared to exploit any opportunities that present themselves. In order to evaluate how a local government responded to the economic challenges and opportunities presented by a rapidly changing economy, this thesis examines the evolution and impact of economic and land use policy of a central city in Canada between 1968 and 1991. To this end, the City of Vancouver’s industrial land use and economic policy will be analysed within a context of economic restructuring and industrial decentralisation. It is intended that the final result will be a greater understanding of the significant role local government can have in determining an urban centre’s economic future given that the major forces of change are outside its immediate sphere of influence and control.

In the post-war period, economic restructuring and industrial decentralisation have had considerable repercussions for regional structure and land use in North American cities. Accelerating greatly in the last two decades or...
so has been a restructuring of the economy characterised by a general shift in employment away from industry and towards services. A result of this restructuring has been the growth of the central city's office dominated Central Business District (CBD) and other service dominated employment clusters. In addition to service employment growth, large-scale industrial decentralisation has been occurring as the suburbs and other regions or countries have become more attractive for manufacturing firms. Industrial decentralisation has led to the abandonment and redevelopment of many central city industrial areas (Hall 1991, 6-8; Levine 1989, 141; Scott 1988).

For a number of reasons, it is prudent to revisit the role of industry in the modern urban economy to determine how this sector has fared given the changes to urban form and local policy caused by, in large part, economic restructuring and industrial decentralisation\(^1\). First, due to the widespread acceptance of a service-based “post-industrial” economy as the next stage of economic development, traditional industrial activity has often been relegated to a lower status than higher order services. Second, services have often been the catalyst for the rejuvenation of floundering, obsolete, or stagnant industrial based urban economies. Finally, although many urban economies have changed from being industrial to service based, industry can still have many mutually beneficial linkages with the CBD's corporate complex.

\(^1\) Economic restructuring and industrial decentralisation will both be discussed in greater detail in the second chapter.
Although Vancouver cannot be considered a "classic" industrial city, it is an appropriate case study for this examination because in many ways it has mirrored the typical North American urban economy's evolution, and yet also possesses characteristics that make such a study even more imperative. Like many other advanced city-regions, Vancouver's service employment has escalated to over three-quarters of its total workforce, higher order services have expanded dramatically, and reconfiguration of urban space has occurred as industry has decentralised and the CBD has grown. More than in most cities, perhaps, Vancouver has a population with an entrenched expectation that a high level of livability be maintained in its region; has experienced sustained population growth for many decades; has limited room for suburbanisation; is an integral part of one of the fastest growing regions in North America; has many of the pre-requisites for continued industrial and service growth; has experienced considerable erosion of its industrial land base, has had a very large role for services in its economy for most of the last century; and, because of the historically small regional consumer base and the distance from other major markets, its economy has not been dominated by manufacturing to the same degree as it has in other major cities.
II. DEFINITIONS

At this point, it is necessary to define "industry" and "policy" in order to establish the basic parameters of the following investigation. Other terms, however, are more appropriately discussed at greater length in other parts of the thesis.

A. Industry

Although the application of rapidly changing technology is making it harder to define "industry" in a meaningful and modern sense, the term "industry" is used here to collectively refer to the following types of industries normally located on industrial zoned land:

- manufacturing industries (Division E of the 1980 Standard Industrial Classification (SIC)),
- construction industries (Division F),
- transportation and storage industries (Division G),
- communication and other utility industries (Division H), and
- wholesale trade industries (Division I) (Vancouver 1989, 2).

Although some of the above activities are considered to be services, they are included on a generic basis as industrial because they are major users of industrial land.

Industry has also been categorised as either heavy or light in nature. The image of heavy industry that typically comes to mind is the one of the large, dirty, noisy, and visually offensive heavy industrial site -- an image that originally factored into the eventual separation of industry from other land uses. Examples
of heavy industrial facilities include saw mills, pulp mills, mineral processing plants, and rail yards. Light industry, on the other hand, is composed of activities that are of a smaller scale and are less noxious and noisy. Firms of this type tend to have less space requirements, and often locate within multi-tenant buildings. Consequently, light industrial plants -- such those in the assembly, high-technology, and research and development streams -- are more compatible with other commercial and residential activities and often make up the transition zones between heavy industry and other land uses (Filion and Mock 1991, 402-403, Vancouver 1989, 2-3).

B. Policy

"Policy" is defined as a set of decisions, strategies, and actions designed to achieve a desired outcome. "A policy defined this way has three important elements: (i) there has to be a desired state of affairs, (ii) there must be a conscious and purposeful undertaking of decisions and actions, and (iii), there must be some recognisable causal relationship between the desired state of affairs and the decisions and actions taken" (Leung 1985, 1). Policy can also be inferred from the pattern of decisions made over time (Hill and Bramley 1986, 3).

For the purpose of this thesis, it is the consideration of "civic," or "public" policy that is relevant. In other words, only policy created or adopted by the City
of Vancouver's council will be considered. Furthermore, only land use and
economic policies with significant implications for Vancouver's industrial land
base are discussed.

III. Methodology and Thesis Outline

The principal question being addressed in this thesis is as follows: given
the sweeping effects of economic restructuring and industrial decentralisation,
what can be learned from the City of Vancouver's industrial and economic policy
experience between 1968 and 1991? To properly answer this question,
secondary research questions also need to be addressed.

• What are the causes and results of economic restructuring, and why is
  this process (and the resulting industrial decentralisation) of interest to
  urban planners?
• To what degree have industrial decentralisation and economic
  restructuring affected the City of Vancouver?
• Can distinct periods of change be identified, and how can they be
  characterised?
• What are the relevant factors or influences in the formation of these
  periods?
• What can be learned from the Vancouver case in terms of responses to
  rapid economic change?
Following this introductory chapter, the analysis and discussion will be presented in the following sequence:

**Chapter 2**

Since the last few decades have seen fairly dramatic changes in terms of economic restructuring and industrial decentralisation, it is necessary to explore the causes of the two trends and, focusing on industry, identify how these trends have affected the form of the modern urban centre. A brief discussion of the theory of economic restructuring is used to clarify the role of industry in a modern post-industrial urban economy. Several paths or strategies for policy makers to pursue to help successfully deal with economic restructuring and mitigate the negative consequences associated with such change are discussed. This chapter provides the primary context for the subsequent analysis of how the City of Vancouver and its industrial and economic policy have changed throughout the period of study. This chapter is essentially a review of academic literature.

**Chapter 3**

The extent of economic restructuring and industrial decentralisation in the Vancouver metropolitan region is explored to establish the next level of the study's foundation and identify the impact the two processes have had on the employment and land use of both the City of Vancouver and its region. Sectoral and occupational statistics broken down geographically illustrate the evolution of the intra-metropolitan pattern of development in the City of Vancouver and its
region. The City's experience is focused on in order to identify, in a broad sense, the change in the relative role of its industrial sector and the type of industry it has, as well as how the City has responded to these trends and other pressures to reconfigure its land use patterns. Reports generated by Statistics Canada, the City of Vancouver, the Greater Vancouver Regional District (GVRD), and scholars and researchers serve as the primary sources of data and information for this chapter.

Chapter 4

Next, the industrial components of the City of Vancouver's economic and land use policy are examined. Four questions will be addressed in this chapter:

- Between 1968 and 1991, what policy trends developed in the City of Vancouver in these designated policy areas?
- What factors contributed to the development of these policy trends?
- What attitudes toward industry do these policies reveal?
- What major criticisms of the City of Vancouver's policies can be identified?

To answer these questions, the industrial-oriented policy development trends that existed during the period of study will be identified and discussed. Local political and economic conditions will be used to help explain why the policies developed the way they have. Examples of the policies adopted in each of the distinct periods will be discussed to help define the periods, and the
recommendations discussed in the literature review in Chapter 2 are used to identify the major deficiencies of these policies. The analysis is influenced by the observation that industrial activity can still play a very significant and economically positive role in the modern urban economy. Again, reports prepared by the GVRD, the City of Vancouver, local academics, and newspapers serve as the sources of information for the analysis presented here.

Chapter 5

Finally, conclusions and lessons to be learned from Vancouver's experience are identified with the intention of adding to the understanding of the processes affecting industrial and economic policy development at this level. The conclusions are of a general nature, have implications for planning in these policy areas, and are not restricted in relevance to the Vancouver region. The chapter ends with a list of suggestions for additional study that would be beneficial to the collective understanding in this area of policy development.

IV. Limitations

This study is not an in-depth analysis of Vancouver's political or economic evolution, nor is it an exhaustive enumeration of the policies that have influenced the industrial land base; rather, it is a discussion of the implications for the City of Vancouver's industry of the major policies that define three distinct periods of
policy development. Local politics and the changing economy are discussed only so far as they help explain the development of the policy being considered.

The analysis is largely subjective because of the relatively short periods of examination used in this study. For example, the full impacts of a change in zoning or economic policy measured by changes in employment data or square footage of a particular type of structure are not readily ascertainable for the three separate periods identified in this study. The buildings or firms in an area that has been rezoned do not immediately disappear simply because a policy has been adopted by the local government; it may take many years for the effects of some policies to manifest themselves fully.

There are also the intrinsic difficulties involved in trying to separate the impact of a particular policy from the regular operation of the market. Because there is no way to determine with certainty how the economy would have changed in the absence of a particular civic policy, it is also difficult to separate the impact of civic policy from the regular operation of the private market. Furthermore, there is the difficulty in determining how individual firms respond to a particular policy before and after the policy is implemented; some businesses may anticipate the passing of new policies and act accordingly, some may wait until the policy is implemented before they respond, and others may simply ignore any new policies.
CHAPTER 2
THE CONTEXT OF ECONOMIC RESTRUCTURING AND INDUSTRIAL DECENTRALISATION

I. INTRODUCTION

This chapter places subsequent policy analysis in a context of economic restructuring and industrial decentralisation and the effects these processes have had on urban form in North America. First, economic restructuring is defined, and the service employment component is briefly discussed to identify its role in the recent development of urban centres. Second, from a theoretical perspective, the notion of a "post-industrial" economy is referenced to emphasise that "post-industrial" does not mean that industry no longer has a place in our economy. Third, the reasons for and impacts of industrial decentralisation are discussed to illustrate the direct consequences the process has had for urban form. Finally, based on the major locational considerations of modern industrial firms and the changing urban economy, a number of general observations for governments to consider to help preserve or enhance their future urban economic vitality are noted.

II. ECONOMIC RESTRUCTURING

Advanced industrial nations are experiencing a fundamental restructuring of their economies. It is generally agreed that this process is distinguished by an increasing role in the economy for service employment characterised by "a shift of the economy away from goods production and into service production" (Beauregard 1989, 7).
A. Increasing Service Employment

In an examination of the effects of the service sector on urban development in Canada, David Ley and Thomas Hutton (1991) concluded that the growth of the service sector has been a major element in the restructuring of the economies and physical development of Canada’s major urban centres since the mid-1960s -- a common experience among advanced/post-industrial nations. In reference to the 1980s, Ley and Hutton observed that Canada’s urban employment growth “was led by service industries, including public and social services, business and financial services, and by more advanced, skill-intensive service occupations. More specifically, urban employment growth has been led by rapid expansion in the managerial, administrative and related category, which is closely associated with the development of producer services in urban areas” (185).

Services now account for three-quarters or more of employment among the most industrialised countries, and perhaps the most noticeable physical manifestation of the growth in service employment over the last quarter of a century or so is the concentration of high density development in the Central Business District (CBD). The CBD is an attractive location for finance, insurance, real estate, head office and other advanced corporate services--often referred to as “the corporate complex of economic activities” (Ley and Hutton 1991, 182). Despite considerable decentralisation in the last decade or so, most head offices of the largest firms are highly centralised in the CBDs of the largest metropolitan areas, and, on a regional basis, nodal cities continue to act as the focal point for the top management functions for businesses operating in their
regions (Gottmann 1982; Castells 1989, 11). The desirability of a central location for
the corporate complex can be explained by the importance individual firms place on
face-to-face business contact, being close to clients and business services, having
access to quality office space, having a prestigious downtown address, and being close
to core area amenities (Ley and Hutton 1991, 194).

Since the 1960s, however, there has also been a growing trend towards the
decentralisation, or suburbanisation, of secondary office functions (routine automated
processes) and some headquarters due to high rents and lack of space for expansion
in many CBDs, breakthroughs in telecommunication technology, and the negative
aspects of mass commuting by office workers living in the suburbs. Many consumer
and public services have also moved to the suburbs in order to follow the population
they serve. This decentralisation of services takes advantage of the suburbs' cheaper
land and a work force of married, educated women willing to work on a part time basis
(Castells 1989, 13, 143-156).

Despite this decentralisation of service employment to the suburbs and some
suburban “town centres” in multi-nucleated metropolitan regions, the high-rise
dominated CBD has continued to grow and encroach upon the inner city and its
industrial areas. This encroachment has resulted in the displacement of many of the
traditional uses found in these areas (Levine 1989, 141; Scott 1988, 85-89; Ley and
Hutton 1991; Gad 1991; Gad and Holdsworth 1987). However, considering that most
of the US’s new office space is being developed in the suburbs (Ames and Blakely,
1992, 7), it is uncertain whether the centralising nature of higher-order service employment will continue indefinitely.

B. Post-Industrialism?

1. The Fisher/Clark Thesis

As early as the 1930s, an economy based primarily on service employment was predicted by the Fisher and Clark “three-sector” linear model of economic progress. This model is defined by successive growth and decline of sectors as an economy advances from the “primary” sector (based on agriculture), to the “secondary” sector (based on industry and manufacturing), and finally to the “tertiary” sector (based on services). According to this theory, movement from one stage to the next occurs as technological advances improve productivity to the point where workers can then move to employment in the next higher order sector (Allen 1988, 104).

2. Bell’s Post-Industrial Society

Like the Fisher/Clark thesis, Daniel Bell’s early 1970s linear model of economic and social change is also composed of three stages -- pre-industrial, industrial, and post-industrial -- which are conceptual sequences along the axis of production and the kinds of knowledge used (Allen 1988, 11). The characteristics of Bell’s widely accepted and much debated post-industrial concept include the change from a goods producing to a service economy, and the growing pre-eminence of a professional and technical
class employed primarily in services (trade, finance, transport, health, recreation, research, education, and government) (Bell 1973, 20).

3. Criticisms of Post-Industrialism

In contrast to post-industrial theorists, many economic theorists argue that the implied linear model of change from agriculture to manufacturing to services is overly simplistic. This body of literature identifies three main criticisms of the widely accepted post-industrial hypothesis:

1) The post-industrial hypothesis relies on statistically rigid categories that can lead to the proposal of questionable statements and trends (Castells 1989, 126-137; Cohen and Zysman 1987, 11-27);

2) Manufacturing remains an integral part of the modern economy as it generates economic growth and supports much of the service sector (Rose et al. 1984, 142-43; Schneider and Fernandez 1989, 538); and

3) The US economy did not shift out of agriculture and into manufacturing; instead, while farming labour has decreased, agricultural production and output has actually increased (Cohen and Zysman 1987, 13). Since industrialised countries are now producing more industrial output than ever before, it is safe to say that “rather than supplanting physical production in modern economies, services have become increasingly complementary to manufacturing” (Coffey 1994, 11).
The 1987 work of Stephen Cohen and John Zysman is an example of a theory that takes issue with the view of a service based "post-industrial" economy as the next stage of development and the natural successor to an industrial based one. The concept of a "postindustrial economy, supported precariously by a peculiar substitution of statistical categories of job classifications for analysis and thought, is grossly misleading" (12) as the statistical categories do not show the complementary linkages that exist between services and manufacturing and other industries (11-27; Coffey 1994, 11-20).

Cohen and Zysman and others argue that manufacturing is critical to the health of the modern economy; a substantial core of service employment is intimately tied to manufacturing, and if manufacturing is removed from a country's economy, much of that country's high-wage service employment will eventually also be lost. They state that the US's weakness in production is eroding its competitive position and that the US must be very involved in the production of goods since this is where most of the value is added (Cohen and Zysman 1987, 3-7). In other words, "manufacturing must automate, not emigrate" (Cohen and Zysman 1987, 8).

Manuel Castells also disagrees with the post-industrial position that our economy has been shifting out of industry and into services, and suggests that the use of statistical categories has led to a widespread misunderstanding of them. "It is not true that services are the dominant activity in the economy. If we look at the actual

---

1 See, for example, Rose et al 1984, 42-43.
processes in society rather than statistically rigid categories, we can see that most service activity is dependent on the functions it performs for manufacturing, for agriculture, and for the production of symbols or goods" (Castells 1991, 7). Advanced services (legal, engineering, advertising, insurance, accounting,...) “are purchased primarily by industrial corporations, and their cost is included in the final cost of the product manufactures” (Knight 1982, 56).

In terms of the economic base of metropolitan regions, William Coffey (1994) argues that the post-industrial school of thought stressing the decreasing significance of manufacturing and the rising importance of services has to be acknowledged as an extreme perspective (30). The other extreme is identified as the school that considers all service activity to be non-productive. Coffey concludes that “as usual, ‘reality’ lies somewhere between the two extremes” (31) as manufacturing and services are so interdependent that one activity does not matter more than the other, and both are necessary to a healthy urban economy.

Rather than a post-industrial economy, Gary Gappert and Castells have proposed other theories to address the recent restructuring. Gappert asserts that an "advanced-industrial" stage is being created and is characterised by increases in technologically sophisticated and knowledge-intensive industrial employment as well as growth of the service sector (Gappert 1982, 19). According to Castells, an information revolution is occurring and is characterised by its reliance on the quality of knowledge as its source of productivity (1989, 10). This new technological paradigm has two main
features: 1) the major new technologies focus on information processing with informational inputs and outputs, and 2) the main effects of new technologies are on processes rather than on products (1991, 2; 1989, 13-14).

III. INDUSTRIAL RESTRUCTURING AND DECENTRALISATION

Any economic restructuring involving industry and having significant spatial implications would obviously be of concern to any urban centre where industry has had a significant influence on the formation or development of that city. This section briefly notes the role of industry in the formation of the industrial city, and then discusses the causes and spatial impacts of a major consequence of economic restructuring, namely industrial decentralisation.

Due to the importance of transportation to the manufacturing process, the first industrial firms tended to locate near the source of their raw material inputs, in close proximity to labour, or in areas where they could take advantage of existing transportation infrastructure such as harbours, canals, and, eventually, railways (Filion and Mock 1991, 410; Knight 1982, 59). This pattern of industrial location persisted until the post-war period when automobile use proliferated, suburban sprawl exploded, and the auto-oriented suburban industrial park began to influence urban form (Hodge 1991, 65; Prud'homme 1989, 50-52).

The movement of industry from central areas to the suburbs and beyond, the process of "decentralisation," occurs at both the metropolitan and regional scales.
Metropolitan decentralisation is comprised of three major components: the migration of industry from the central city to the suburbs, the death of some of the centrally located firms, and the birth of others in the suburbs. Although metropolitan decentralisation has been traced to the inter-war years, it has only dominated urban patterns in many regions and countries since the 1970s. Regional decentralisation, on the other hand, is characterised by the movement of productive capacity away from the core city or metropolitan region by plant closures and the opening of new branch plants in declining or peripheral regions or countries (Knox and Agnew 1989, 199; Gottmann 1982, 10).

Decentralisation results in part from a number of forces pushing the profit-seeking industrial firm out of the central areas of cities. The inner city industrial areas were normally the first to be developed, so the buildings there reflected the industrial practices that existed at the time of their construction. At the beginning of the post-war period, many of the multi-storey structures found in these areas were old and had limited expansion potential due to already developed neighbouring sites. Other factors that acted to push industry to the suburbs and beyond included the high cost of inner city land, unplanned industrial development, lack of parking and loading/unloading facilities for trucks, congestion, high taxes, zoning changes, environmental laws, conflict with increasingly politically active urban residents, and encroachment on industrial areas by non-industrial uses (Scott 1980; Filion and Mock 1991, 414-415; Knox and Agnew 1989, 199; Knight 1989, 234).
Decentralisation also occurs as forces attract or pull industrial firms into the suburbs. For example, the spread of space-consuming production methods of the Fordist production system - the deskillled assembly line - worked better in single storey than in multi-storey facilities, and the suburbs and their industrial parks provided access to large tracts of cheap, undeveloped land with excellent transportation infrastructure (Scott 1988, 211; Knox and Agnew 1989, 199). Furthermore, a major impetus for decentralisation has been the firms' attempts to escape the high cost and militancy of the inner city's workforce; the suburban areas, with their skilled labour and abundance of unskilled, cheap, non-unionised women, provided attractive alternative locations for these firms (Scott 1980; Castells 1991, 23-24; Knox and Agnew 1989, 198).

In addition to these push and pull forces, other preconditions - such as improvements in communication and transportation systems, and a certain degree of vertical integration in the firm - need to exist before new firms can seriously consider selecting suburban or more distant areas to locate within, or before old firms will relocate to such sites. Writers on the decentralisation process have stressed the importance of technological advances in communication (such as telephones, facsimiles, and computers) and the movement of goods (by trucks, refrigeration trailers, and expressways) in accelerating the decentralisation of industry to the suburbs and beyond (Filion and Mock 1991, 411-412; Scott 1988, 210; Knox and Agnew 1991, 198; Knight 1982, 58; Fainstein 1990, 35; Blakely and Shapira 1984, 98).
Allen J. Scott, in *Metropolis: From the Division of Labour to Urban Form*, emphasised the need to remove the individual firm's dependency on the linkages associated with agglomeration economies before it can locate in the suburbs, and he stated this can be accomplished by vertical integration (210). Scott went further to say that, historically, the pressures of competition and the quest for profit have led to the fragmentation of the production process and the desire to enhance labour productivity by increasing the capital-to-labour ratio through reinvestment in new technology. The result was the large scale, deskilled, mass production branch plant that first emerged in the 1920s and proliferated after World War II (209). This evolution, and the increasing demands of unionised labour, had considerable geographical impacts on industry.

Among the observable signs of this process are the movement of deskilled units of production into such local labour-market niches as: (a) suburban communities with large reserves of underemployed females; (b) the small towns and rural areas (with their passive and industrially inexperienced populations) outside of the main manufacturing regions of the United States; (c) the old market towns of France, Italy, and Spain; (d) the Intermediate Areas of Britain with their chronically unemployed workers; and (e) the dense and overcrowded cities of selected parts of the Third World. Locational niches such as these have all been extensively penetrated by routinized deskilled branch plants in recent decades (210).

The effects of decentralisation on the industrialised nations have been considerable, especially since the early 1970s. Between 1967 and 1982, in thirty of the largest cities in the United States, there were significant losses of manufacturing employment. Although the central city areas lost many production jobs in the post-World War II period, often the loss was more than made up for by gains in manufacturing employment in the suburban rings. In the three "largest Canadian metropolitan regions, between 1975 and 1985, manufacturing employment was growing
most rapidly in the outer suburbs" (Filion and Mock 1991, 411); for example, high
technology industries involving research and development have been increasing in
numbers in the suburbs and utilising nearby skilled suburban labour (Filion and Mock
1991, 419-424). However, especially in the north eastern United States, even the
suburbs started to lose some of their industrial employment as the decentralisation to
the periphery continued in the 1970s (Scott 1988, 15-20).

In many of the great industrial cities, the out-migration of industrial firms has
produced desolate landscapes of unused structures and vacant lots (Fainstein 1990,
34; Prud'homme 1989, 53). Since the 1960s and with varying levels of success, urban
redevelopment has been the main way for US and Canadian cities to respond to the
restructuring. By using public investment and development incentives, cities have tried
to maintain their manufacturing base while also changing their economies and land use
patterns to accommodate advanced corporate services, new housing projects, and
tourism (Levine 1989, 141). Consequently, huge tracts of land world wide have been
recycled from industrial to other uses (Hall 1991, 6-8).

Many central city industrial areas, however, still play a vital role in the modern
economy. First, these industrial areas frequently provide the room for the industry that
necessarily serves both the city and its region (Knight 1982, 63). Second, many cities
have experienced the development of some light industries moving into the abandoned
areas to take advantage of a cheap immigrant labour force and an established
infrastructure (Filion and Mock 1991, 408). Finally, inner city industrial areas frequently
function as "incubators" for new industries and firms since these areas provide many small sites close to the support services required by new firms (Chu 1991; Scott 1980).

IV. LOCATION OF INFORMATION/HIGH-TECHNOLOGY FIRMS

The information and technology dominated industries that have recently blossomed have several notable locational requirements. First, they require access to a skilled workforce and an environment formed by a network of interactive relationships among innovative organisations and individuals. Second, since the producers have to be able to respond to their customers' changing demands, the general trend is to locate where good access to the products' end-users is readily available. Third, there exists a sharp spatial distinction between innovative production, advanced manufacturing, and assembly functions. The result is a general pattern of centralised technological innovation and decentralised application of the products based on pools of skilled labour in areas not too far away from the firm's innovative centre (Castells 1989, 54,72-77; Scott and Storper 1990, 12).

Other studies regarding high-technology oriented firms and their location, especially in areas that do not have long histories of industry, have revealed the following important considerations:

(1) Amenities (good climate, educational options, cultural and recreational facilities, and so on);

(2) Access features (such as international airport and freeway access);

and
(3) Agglomeration economies (nearby inputs in the form of head offices, producer services, and firms offering other inputs).

Additional factors such as the presence of major universities and government or corporate sponsored research and development facilities are also very important to the innovation of new knowledge, and, consequently, important locational considerations for high technology manufacturing firms (Castells 1989, 39, 83; Hall 1992, 3).

V. RECOMMENDATIONS FOR THE URBAN ECONOMY

From the preceding discussion, the following characteristics of the modern economy have been identified as having considerable implications for cities:

- a city's place in the regional, national, and global system of cities is not guaranteed by virtue of its current or past position;
- the economy is constantly changing due to innovations in communication and technology;
- economic restructuring and industrial decentralisation have had, and will continue to have, considerable positive and negative implications for the economic vitality and physical configuration of many urban centres;
- service employment decentralisation may increase in the future, suggesting too great a reliance on service employment in the local economy by many central city policy makers; and
• decisions regarding the physical/built environment (including land use) can have consequences that exceed the life span of many economic/technological cycles.

The literature has also determined that industrial activity has considerable value in the modern urban economy. First, industrial firms often employs people that may be incapable or simply not suited to service employment. Second, especially in manufacturing, the wages earned are often higher than those generally obtainable in the lower skilled service occupations. Higher wages provide the workers with the ability to obtain a higher standard of living than would be possible in many low skill service occupations. Third, in many cities, industrial activity can add a level of diversity and stability to the local economy that may not exist without it. Fourth, industry can supply the local population with many of its needs, such as in the case of food and beverage production, as well as produce exportable goods that bring cash flows from other regions into the area of production.

The development and maintenance of industrial zones take advantage of existing investment in industrial buildings and transportation infrastructure, such as railroads, highways, and airports. The zones allow industrial activity to develop and stimulate other facets of the local economy through the numerous backward and forward linkages that often exist between the various industrial firms and between industrial firms and specialised service firms (such as those in the areas of industrial design, marketing, and training). The existence of industrial areas provides the
opportunity for the local economy to benefit from any offshoots of local private or public research and development. The "offshoots" often take the form of small flexible production firms that need specialised service inputs and have significant employment and social benefits in the area of incubation as well as in the area where they eventually relocate to when they have outgrown their original sites. Their departure from the area of incubation allows the process to begin all over again with new firms and products.

Preserving an existing industrial zone may have an additional advantage over redevelopment of the area to other uses; the often significant environmental clean up costs necessary to prepare many industrial areas for other uses can be reduced or even avoided if the land is preserved for industry.

It should be noted that an urban economy does not require industrial activity in order to be diversified, and the value of the diversification that includes industrial activity may be minimal depending on the nature of the industry in that local economy. It is widely accepted that the diversification of the economic base adds a measure of economic stability and adaptability in an increasingly dynamic and global economy; however, such diversity can be achieved without a significant industrial component. A diversified service economy with a diversified market for its services can provide many of the benefits that a diversified economy which includes a sizeable thriving industrial component, including the ability to add to the export base by exporting services. The diversified economy that includes a considerable amount of industry may also be less
than desirable if the industry is characterised by obsolescence and a comparative advantage that has been supplanted by other regions and countries. Attempts to revitalize an obsolete industrial sector may divert the available investment capital from more successful, longer lived, and lucrative industrial and service endeavours. However, modern high technology based and flexible industrial activity, with significant backward and forward linkages, can still have very substantial benefits as described above.

The literature has acknowledged these characteristics and suggested ways to help maintain or improve future urban economic vitality and sustainability. First, since the city plays a crucial role as a region’s connection to the global economy, local governments must take greater roles in determining their cities’ economic futures instead of simply letting impersonal market forces completely dictate their paths. The metropolis of the Industrial era is an “‘accidental city’ -- an accident of the Industrial Revolution. Their origin and growth were dictated primarily by locational advantages, technology, and market forces under the hubris of industrialisation and nation building. Now the challenge is to transform the metropolis, or accidental city into an ‘intentional city’” (Knight 1989, 225-226) where human resources and city planning are more important than natural resources or locational attributes.

Any “intentional” cities that cannot nurture a "sufficient collective commitment to a concerted course of action or development strategy are unlikely to have the resiliency required during the turbulent times that lie ahead" (Knight 1982, 48). Since
“comprehensive” planning has fallen out of favour in the planning community, Harvey S. Perloff, in Planning the Post-Industrial City, has observed that many US urban planning departments have focused on day-to-day concerns and not given long term considerations enough attention (1980, 4). He stresses that long range planning is essential to anticipating and accommodating change, and thereby minimising the adverse effects and anxiety associated with the rate of technological and economic change being experienced today. Long range planning is also needed to ensure that the city’s limited resources are not used ineffectively; higher order-economic opportunities may be impossible to realise if earlier lower-order pursuits take up the available limited resources such as land.

Consequently, Perloff emphasises the need to combine both open-option and end-state approaches to urban planning. Such a hybrid approach would give planners the flexibility to take advantage of any new economic opportunities that may arise, provide a framework for everyday decisions, and give private interests some sense of future direction. The end-state aspect of this approach would need to be very sensitive to economic and technological advancements in order to recognise what may be needed in the future in terms of human, capital, and land resources (181-185).

As a means to develop an economy that can adapt relatively quickly and smoothly to economic changes, Peter Hall and others² advocate moving urban and regional economies out of declining sectors and into expanding ones. More

² See, for example, Blakely and Shapira 1984, and Cohen and Zysman 1987.
specifically, efforts need to be made to foster the science and high-technology dominated manufacturing sector, develop the producer services sector, and exploit the changing significance of location for both of these key sectors (Hall 1992, 3). Clearly, this entails action in areas outside of land use zoning, the traditional means of civic intervention in the private sector.

To identify the expanding sectors referred to above, local and senior levels of government need to engage in global scanning for new technologies and industries in order to take advantage of the window of opportunity that opens during the transition from one regime to another (e.g. Fordist to Flexible production). Once agglomerations form in these new areas of economic development, the window of opportunity closes (Scott and Storper 1990, 40-41). Latecomers have difficulty surviving when competing against the already established agglomerations, so the search for new opportunities must be anticipatory and occur early in the transition process (Fainstein 1990, 36). Governments may also have to act as a catalyst in the local development of new industries by helping to finance their development.

As several studies of medium sized regional cities have revealed, success dealing with economic restructuring can be enhanced by substantial involvement in strategic planning by cultural, medical, educational, and business organisations. Pittsburgh, for example, has rebounded from the economic devastation inflicted upon it by industrial decentralisation by relying, in part, on the growth of its universities and the

---

3 Discussions of these cities and others can be found in the following sources: Judd and Parkinson, 1990; Pittsburgh (Pittsburgh: a tale of two cities 1993; Anatomy of Cities 1986; Sbragia 1990), Glasgow (Boyle 1990), and Hamburg (Dangschat and Ossenbrugge 1990).
incubating industries and supporting producer services that have resulted from the application of the university research. Land use and economic policy should recognise the benefits of such relationships, and include these organisations in a meaningful way in the planning process.

Ames and Blakely have articulated the necessity of a regional authority of some kind to ensure that all of the administrative authorities (including senior levels of government) in the metropolitan region co-operate with each other (1992, 15). Local governments should retain a significant amount of autonomy, but it is necessary to deal with regional issues, such as economic and land use policy, on a regional basis to ensure complementary and more comprehensive policy development across administrative borders.

Finally, local governments also have to actively plan for making the "knowledge" based city open and attractive to the "knowledge" worker. This would entail preserving and enhancing the physical, cultural, and recreational amenities, and the physical infrastructure providing access to and integration with the global economy. The access infrastructure includes international airports, national and international road and rail systems, harbours, telecommunications, and so on (Friedmann 1989; Knight 1989, 237-38).
VI. CONCLUSIONS

Although the increase in service employment and industrial decentralisation has given credibility to the post-industrial notion of our economy, this concept has been criticised for its linear simplicity and the use of rigid statistical categories that ignore the complex inter-linkages between sectors. In fact, industrial pursuits should not be completely abandoned as our economy restructures because industry has a significant impact on the future health of the service sector and the economy in general; it is more appropriate to abandon declining industries and embrace new or expanding ones.

The challenges and long term uncertainty created by economic restructuring in a rapidly changing and global market place require a planning approach that is significantly different from the one that has been employed in many North American cities. To create a more adaptable urban economy, governments -- particularly local governments -- must take a more aggressive role in planning and developing their economies. Cities that are to flourish must become "intentional" and pursue new economic opportunities as they arise. To do this, urban governments must recognise the long term consequences of land use decisions and plan for the future instead of simply accommodating change as it occurs. Governments must take an anticipatory approach and actively seek out new and developing sectors that can be exploited locally. The large tracts of under-utilised land and vacant structures left behind by industrial decentralisation can be used to help facilitate the development of these new economic sectors; therefore, planning for the redevelopment of these sites must be done carefully since the lack of developable land may prevent the future exploitation of
new economic opportunities and detract from the city's ability to quickly adapt to future opportunities.

It is also recommended that local governments engage in strategic planning on a co-operative basis with other organisations inside and outside their respective administrative boundaries. This approach recognises that a modern metropolis is often a single mass of urban development encompassing several distinct administrative units, or cities. Several urban issues -- such as amenity development, transportation infrastructure, land use, and economic development -- are necessarily regional in nature and transcend local boundaries. Consequently, such issues need to be considered at both the regional and the local scales to facilitate efficient and complementary policy development and the development of cities that are attractive to the modern "knowledge worker." A regional administrative body may be necessary to ensure such regional co-operation exists.

Finally, civic authorities have to recognise the significant economic benefits that are derived from large cultural, medical, educational, and business organisations as employers, service consumers, and producers of spin-off businesses. The involvement of these organisations in strategic economic and land use planning is recommended to foster complementary development strategies and the dedication of appropriate resources to ensure the accommodation of these economic benefits.
CHAPTER 3
ECONOMIC RESTRUCTURING AND INDUSTRIAL DECENTRALISATION:
THE CITY OF VANCOUVER AND ITS REGION

I. INTRODUCTION

The preceding chapter identified the general causes of economic restructuring and industrial decentralisation and discussed the impacts these processes have on the physical configuration of urban centres. This chapter has two distinct objectives: first, to assess the considerable extent to which the processes of economic restructuring and industrial decentralisation have affected the City of Vancouver and its metropolitan region, and second, to illustrate the continued significant role for industrial activity in the economies of both the City of Vancouver and its metropolitan region. The analysis will provide the local background for Chapter Four, which examines how the City of Vancouver's government responded and contributed to the observed changes.

II. VANCOUVER AND ITS REGION

Rapid population growth has had significant implications for the Vancouver region. As Figure 1 illustrates, both the City of Vancouver and its surrounding suburbs have experienced a substantial population growth rate which is expected to continue into the foreseeable future. The primary challenge to the numerous urban and regional planning bodies in this region is to contend with the impacts associated with such rapid population growth. This growth would not be as daunting in a region with few natural or man-made barriers to the development necessary to accommodate the new population;
Figure 1: Population Projections for Vancouver and Its CMA

Source: Vancouver 1989a.
however, many of the characteristics that attract people to the Vancouver region also severely impede the region's capacity to absorb continued high rates of urban growth. Although physically attractive and offering numerous recreational opportunities, the mountains, river, and ocean severely limit urban expansion. The Agricultural Land Reserve (ALR) has also inhibited urban and industrial expansion by removing a significant portion of the Lower Mainland's land base suitable for urban development.

III. ECONOMIC RESTRUCTURING IN GREATER VANCOUVER

When urban growth occurs to the extent that physically separate municipal entities become essentially one contiguous urban mass, the economies of the individual municipalities can no longer be properly analysed in isolation; the individual economies are so inter-dependent that the regional economy must be examined as a whole in order to truly understand its structure and pace of change. Therefore, the following analysis begins with a consideration of occupation and industry employment data with the Vancouver CMA as the preferred study area (see Figure 2). As the analysis progresses, greater attention will be focused on the City of Vancouver to illuminate, at least partially, the intra-metropolitan patterns of development experienced in recent decades.

A. Employment Structure in the Vancouver CMA

As noted earlier, economic restructuring is generally characterised by the increasing roles of service employment and industrial decentralisation. The service employment component of the definition refers to an increase in service employment in
Figure 2: The City of Vancouver, the GVRD, and the CMA

Source: North and Hardwick 1992, 202 (modified)
general, and places a special emphasis on advanced and business services such as finance, insurance, real estate, management, and administration. Consequently, occupation and industrial sector employment data broken down geographically can at least partially illuminate the structure and pace of change of a region's economy and its intra-metropolitan pattern of development.

1. Service Employment and Its Spatial Characteristics in Vancouver

Although services factored greatly in the physical and economic development of the City of Vancouver (Wynn 1992, 107-110), the City's more recent experience with economic restructuring is still quite similar to the experiences of other post-industrial cities in Canada and other developed nations. In the Vancouver CMA, service employment increased from about 67% of its total labour force in 1961 to about 79% in 1991 (see Table 1). A closer examination reveals that certain categories of service employment exhibited exceptional rates of growth, such as a 317% increase in the finance, insurance and real estate (FIRE) category, and a 449% increase in the aggregated community, business and personal services category. The most dramatic growth, an increase of almost 790%, was in the business services category as it increased its share of the total workforce from 2.94 to 7.94%; this indicates a shift in the economy away from services targeting people to services focusing on business.

In terms of occupations, the Vancouver CMA's workforce also exhibited change that is characteristic of the economic restructuring process. Between 1971 and 1991, all of the service occupations grew in absolute terms with the higher order services
Table 1: Vancouver CMA Labour Force by Industrial Sector, 1961-91

<table>
<thead>
<tr>
<th>Industrial Division</th>
<th>Employment</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>3,806</td>
<td>5,430</td>
</tr>
<tr>
<td>Forestry</td>
<td>2,518</td>
<td>3,355</td>
</tr>
<tr>
<td>Fishing and Trapping</td>
<td>1,836</td>
<td>1,575</td>
</tr>
<tr>
<td>Mining</td>
<td>1,581</td>
<td>3,370</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>57,485</td>
<td>78,770</td>
</tr>
<tr>
<td>Construction</td>
<td>19,897</td>
<td>32,034</td>
</tr>
<tr>
<td>TCU</td>
<td>34,934</td>
<td>49,980</td>
</tr>
<tr>
<td>Wholesale/Retail Trade</td>
<td>59,699</td>
<td>85,700</td>
</tr>
<tr>
<td>FIRE</td>
<td>15,918</td>
<td>28,180</td>
</tr>
<tr>
<td>Community, Business, and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Services</td>
<td>70,380</td>
<td>127,775</td>
</tr>
<tr>
<td>Education Services</td>
<td>7,898</td>
<td>18,180</td>
</tr>
<tr>
<td>Health / Social Services</td>
<td>12,113</td>
<td>27,530</td>
</tr>
<tr>
<td>Accom., Food, and Bev.</td>
<td>18,828</td>
<td>30,280</td>
</tr>
<tr>
<td>Government Services</td>
<td>12,905</td>
<td>22,336</td>
</tr>
<tr>
<td>TOTAL</td>
<td>268,254</td>
<td>416,169</td>
</tr>
</tbody>
</table>

leading the group (see Table 2). As expected and emphasised in the literature, the higher order services requiring higher levels of education and serving business increased at rates greater than that exhibited for the lower order services. Not surprisingly, the managerial/administrative category led the service occupations with almost 390% growth over the period, even growing substantially in the early 1980s despite a severe economic recession. Those service occupations that exhibited a rate of growth of about the same or less than that of the overall workforce were in the services that (generally) catered to the growing population base rather than business.

Another notable characteristic of today's restructuring economy is the increasing participation in the global economy. Although the historic economic ties between Vancouver and the rest of the province remain strong, there is "undoubtedly a substantial reorientation of the Vancouver economy from its traditional role as a service centre for the rest of the province to its position in the increasingly interdependent urban nodes of the emerging economy of the Pacific Rim" (Davis and Hutton 1992, 12). Davis and Hutton (1991; 1992, 6) have noted the existence of a growing body of empirical evidence suggesting that services are becoming increasingly exportable and that such evidence has been observed in the Vancouver area.

Services directly targeting the population tend to be more generally dispersed throughout the increasingly suburban population base while the growing head office and producer services complex exhibit a tendency to concentrate in the downtown area (North and Hardwick 1992, 219). The producer services, "a tightly interwoven set of
### Table 2: Occupation Changes in the Vancouver CMA, 1971 - 1991

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Number of Employees</th>
<th>Change (%)</th>
<th>Share of Total Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managerial, Administrative</td>
<td>21,030</td>
<td>52,805</td>
<td>65,020</td>
</tr>
<tr>
<td>Natural Sciences, Eng., Math</td>
<td>14,215</td>
<td>25,190</td>
<td>26,220</td>
</tr>
<tr>
<td>Social Sciences and Related</td>
<td>5,440</td>
<td>12,720</td>
<td>17,530</td>
</tr>
<tr>
<td>Occupations in Religion</td>
<td>795</td>
<td>1,040</td>
<td>1,455</td>
</tr>
<tr>
<td>Medical and Health</td>
<td>19,495</td>
<td>32,920</td>
<td>37,960</td>
</tr>
<tr>
<td>Artistic, Literary, Recreational</td>
<td>5,315</td>
<td>10,370</td>
<td>14,770</td>
</tr>
<tr>
<td>Clerical and Related</td>
<td>88,700</td>
<td>143,290</td>
<td>146,780</td>
</tr>
<tr>
<td>Sales</td>
<td>55,855</td>
<td>75,330</td>
<td>81,390</td>
</tr>
<tr>
<td>Farming, Horticultural</td>
<td>7,760</td>
<td>9,600</td>
<td>12,295</td>
</tr>
<tr>
<td>Fishing, Hunting, Trapping</td>
<td>1,795</td>
<td>1,295</td>
<td>2,155</td>
</tr>
<tr>
<td>Forestry and Logging</td>
<td>2,390</td>
<td>2,270</td>
<td>2,320</td>
</tr>
<tr>
<td>Mining and Quarry</td>
<td>1,130</td>
<td>935</td>
<td>790</td>
</tr>
<tr>
<td>Processing</td>
<td>18,365</td>
<td>21,410</td>
<td>19,650</td>
</tr>
<tr>
<td>Machining and Related</td>
<td>11,794</td>
<td>14,090</td>
<td>16,640</td>
</tr>
<tr>
<td>Product Fabricating, Assem.</td>
<td>28,335</td>
<td>40,785</td>
<td>40,690</td>
</tr>
<tr>
<td>Construction</td>
<td>32,140</td>
<td>41,705</td>
<td>40,980</td>
</tr>
<tr>
<td>Transport Equipment Operation</td>
<td>19,170</td>
<td>25,285</td>
<td>27,510</td>
</tr>
<tr>
<td>Material Handling and Related</td>
<td>15,865</td>
<td>17,340</td>
<td>15,410</td>
</tr>
<tr>
<td>Other Crafts / Equipment Oper.</td>
<td>5,730</td>
<td>7,730</td>
<td>5,925</td>
</tr>
<tr>
<td>Total</td>
<td>430,769</td>
<td>646,725</td>
<td>724,525</td>
</tr>
</tbody>
</table>

often small, vertically disintegrated business services ... [serve] the local community and [have] few input linkages beyond the city. Employment in this sector has grown at an annual rate of 6 percent, and the businesses that comprise it exhibit a high degree of spatial concentration. Over 70 percent of all producer services within the Greater Vancouver Regional District are located in the city of Vancouver\textsuperscript{a} (Barnes et al. 1992, 185-187). Although the GVRD has experienced substantial office space construction since the 1970s -- the 1991 inventory is about 150% larger than it was in 1977 (Hutton 1985, 16; GVRD 1992, 2) -- the dramatic increase in service employment in the 1980s helped to stimulate a boom in office space construction largely concentrated in the City of Vancouver. Between 1985 and 1991, the City of Vancouver, with its growing corporate/producer complex, captured 65% of the more than 7 million square feet of new office space in the GVRD.\textsuperscript{1}

2. Industrial Employment and Its Spatial Characteristics in Vancouver

Logically, if services increase their share of the regional labour market, then there has to be a corresponding decrease in the share of non-service employment. Despite the recession of the early 1980s and the increasing dominance of service employment in the economy, Vancouver's primary, manufacturing and construction sectors still have a significant role in the regional economy; these sectors employ almost 21% of the region's total labour force (about 182,000 workers) and were larger in absolute terms in 1991 than they were in 1961.

\textsuperscript{1} GVRD 1986; 1992. The 1991 figures do not include data for the City or Township of Langley because, although current members of the GVRD, they were not members when the earlier 1985 survey was conducted.
Of all sectors and occupations, the poorest performing over the period of study are the blue collar jobs in the primary and secondary sectors which, generally, have suffered a declining share of the total labour market since 1971. The forestry and logging and the mining and quarry occupation categories performed the worst and suffered net losses as urban development and industrial decentralisation forced the jobs further and further into the hinterland. After the recession ran its course, all of the blue collar occupations rebounded in absolute terms except those in the mining and quarry category.

Manufacturing and construction stand out from the other non-service sectors due to their relatively large size and better performance over the period of study. The manufacturing sector, despite its decreasing share of the regional workforce from 21.4% to 11.2% between 1961 and 1991, increased absolutely by 71.7%. The manufacturing occupations (the product fabricating and assembly category) also saw a 60% increase in absolute terms between 1971 and 1991. Perhaps of more significance is this sector's performance between 1981 and 1991, which saw a 2.5% increase in absolute terms despite a significant drop of almost 7% in the first half of the decade. This translates into an almost 10% increase in manufacturing sector employment from 1986 to 1991 in an era of deindustrialisation and automation in developed countries.

Construction, as a sector and as a category of occupation, saw considerable absolute growth even though experiencing decreasing shares of region employment.
Construction occupations, reacting to the catalysts of rapid population growth and the increasing demand (perceived and real) for office space in the 1980s, increased absolutely by more than 63% since 1971 despite an almost 2% loss over the recession years of the early 1980s. Between 1986 and 1991, these occupations rebounded and grew by about 28%, due to a housing and office construction boom.

Finally, with regard to the future, a recent projection of the Vancouver CMA’s sectoral employment completed for the GVRD’s Development Services Department indicates that absolute growth of all major sectors\(^2\) will continue into the foreseeable future. This suggests a continued substantial role for industrial activities in the region and an increasing demand for industrial floorspace and land.

Obviously industry still has a substantial role in the regional economy, but what about industry’s impact on the pattern of land use and economic structure of the City of Vancouver? Historically, three industrial areas developed in what is now considered the functional and economic centre of the region, forming a land use pattern that persisted for many decades (see Figure 3). These industrial areas -- along the Burrard Inlet, False Creek, and the Fraser River -- accommodated heavy industry dominated by sawmills and rail, port, and shipyard facilities (Hardwick 1974, 84; MacDonald 1982, 404-406).

---
\(^2\) For the purposes of this projection, the Agriculture, Forestry, Fishing and Trapping, and Mining sectors have been aggregated into a single category designated as the “Primary Sector.”
Figure 3: The City of Vancouver's Industrial Land, 1968-1991

Zoned land considered suitable for continued industrial use
- Former industrial land rezoned or released for other use (1968-91)
- Zoned industrial land with uncertain future as of 1991

Source: North and Hardwick 1992, 209 (modified)
Once suburban investment began and automobile use increased in the 1950s and 1960s, industry began to decentralise. With the construction of new transportation infrastructure (such as roads, bridges, and an international airport), the City of Vancouver's marginal sawmills and other industrial plants requiring more space either closed permanently or decentralised to the newly accessible periphery (North and Hardwick 1992, 208-218). The typical multi-storey industrial building of the inner city became less attractive when compared to the more inexpensive and spacious ones being constructed in suburbs such as Burnaby and Richmond (GVRD 1971, 14). In fact, the suburban migration of industry was so extensive that by the early 1970s, all of the operational sawmills in the False Creek area had either relocated or had plans to (Hardwick 1974).

Clearly, industrial decentralisation has continued as the City of Vancouver's industrial employment, floorspace, and acreage have decreased absolutely in recent decades while the rest of the region's relative shares have increased. Place of work data (see Table 3) indicate that the city has experienced a net 7% decrease in industrial employment between 1971 and 1991, and the city's share of regional industrial employment has dropped from 53% to 32% over the same time period (see Figure 4). Even between 1985 and 1991, well after the devastating impacts of the recession, the City of Vancouver lost about 12% of its inventory of industrial floorspace, and its share of the GVRD's stock dropped from 37% to 29%. In terms of land zoned for industrial use, the region's serviced industrial land in 1991 (about 13,500 acres) was

---

3 GVRD 1985; 1992. The 1991 total for the GVRD does not include the stock found in the City of Langley and the Township of Langley. Although these municipalities were part of the GVRD in 1991, they were not in 1985.

<table>
<thead>
<tr>
<th>Sector</th>
<th>City of Vancouver</th>
<th></th>
<th></th>
<th>CMA</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>3,287</td>
<td>5,043</td>
<td>3,652</td>
<td>9,191</td>
<td>13,847</td>
<td>12,983</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>35,251</td>
<td>35,019</td>
<td>32,568</td>
<td>70,169</td>
<td>92,006</td>
<td>99,076</td>
</tr>
<tr>
<td>Construction</td>
<td>11,877</td>
<td>13,906</td>
<td>7,029</td>
<td>25,361</td>
<td>39,561</td>
<td>34,106</td>
</tr>
<tr>
<td>Transp/Comm/Util</td>
<td>26,131</td>
<td>30,959</td>
<td>29,619</td>
<td>46,260</td>
<td>67,528</td>
<td>80,990</td>
</tr>
<tr>
<td>Wholesale</td>
<td>18,295</td>
<td>19,648</td>
<td>15,280</td>
<td>26,299</td>
<td>41,724</td>
<td>45,869</td>
</tr>
<tr>
<td>Total</td>
<td>94,841</td>
<td>104,575</td>
<td>88,148</td>
<td>177,280</td>
<td>254,666</td>
<td>273,024</td>
</tr>
</tbody>
</table>

Sources: GVRD 1984; Vancouver 1993b.
Figure 4: Distribution of Industrial Employment in Vancouver

Sources: GVRD 1984; Vancouver 1993b
about three times that of 1961; in the same period, the City of Vancouver either re-zoned or released from the industrial land base about 1,100 acres leaving only about 1,700 acres for industrial use.

B. The Nature of the City of Vancouver’s Industry

Despite this industrial decentralisation and economic restructuring, industry in the City of Vancouver is still important since it accounts for about one-third of the industrial employment, firms, and floorspace in the province’s largest industrial region. A recent City of Vancouver Planning Department report on the city’s industrial areas, however, concluded that the structure and nature of city industry has changed considerably over the last few decades. With the departure of heavy industry and larger manufacturing firms from the inner city industrial zones, the report found that the character of the City of Vancouver’s industry has become much more “light” in character with a significant incubating component (Chu 1990; Vancouver 1993c, 13).

To support this conclusion, the report notes the obvious decrease in heavy industry and the rise in light industrial employment and firms in the inner city’s industrial areas (see Appendix 1). This data reveals that major changes have occurred in the ranking of the five largest classifications of manufacturing employment in the City of Vancouver (see Figure 5). By 1991, food and beverage and wood products had fallen in ranking from first and second respectively in 1966 to third and fourth, printing and publishing and clothing rose from fourth and fifth to first and second, and metal
Figure 5: Changing Structure of City Industry, 1996 and 1991

fabricating plummeted from third to tenth while machinery rose to the fifth spot from the seventh.

Furthermore, the advent of automation and other technological advances have increased production to the point where more can be produced with less labour and space. The City of Vancouver has had very low vacancy rates for most of the last twenty years (Constantineau 1993; Braham 1990, “Industrial Vacancy” 1989; Spence 1983) and, in 1993, had the most intensely utilised industrial land in the region with a gross floor space ratio (FSR) of about 0.33 compared to about 0.12 in the rest of the region (Vancouver 1993b, 11).

IV. CONCLUSIONS

Clearly, economic restructuring and industrial decentralisation have occurred in the Vancouver region in a manner that conforms to the experiences of many post-industrial cities. Even though Vancouver has many of the characteristics that make it suitable for continued industrial expansion and has seen an absolute growth in regional industrial employment, the City has rezoned considerable portions of its industrial land base to other uses. With expected continued growth in total population and service and industrial employment, all of which are confined to a limited land base, the wisdom of permanently removing large tracts of industrial land from the region’s stock could seriously hinder the City’s ability to respond to new economic opportunities in the future and requires serious review.
CHAPTER 4
VANCOUVER'S APPROACH TO INDUSTRY

I. INTRODUCTION

The preceding chapter outlined the degree of economic restructuring that has occurred in the Vancouver region and the amount of land that has been removed from the city's industrial land base in recent decades. Next, focusing primarily on the impact on local industry, how the City of Vancouver responded to the economic restructuring and industrial decentralisation is examined. To do this, it is necessary to review the City's economic and industrial land-use policy from 1968 to 1991, and consider how the policy affected the industrial land base. Consideration is also given to the local political and economic conditions under which the policy was developed to help explain why the policies developed as they have.

A. Framework for Policy Analysis

The entire study period of 1968 - 1991 has been broken down into three distinct periods based on the identification of the general trend of policy development affecting industry in the city. The first period, 1968-1976, is based in large part on the emergence of a post-industrial sentiment that had considerable negative implications for the long term survival of industry in the
inner city of Vancouver. The period was characterised by the birth and rise to power of a liberal-based civic party, and by a healthy urban economy that began to falter near the end of the period.

The second period, 1977-1986, saw declining economic conditions increase concern for the health of the industrial sector and the employment it represented, and also generate greater attention for the growing service sector. The liberal civic government fell from power and was replaced by the right of centre Non-Partisan Association (NPA), followed by a coalition of the left. This latter administration was forced to contend with the recession of the early 1980s, and, consequently, gave the city's economy considerable attention.

The third period, 1987-1991, is characterised by a re-birth of the post-industrialism of the early 1970s, which had an similarly negative impact on industrial activity in Vancouver. Housing concerns and regional planning topped the local political agenda while industrial land erosion escalated.

The chapter concludes with a general discussion of the policy trend over the entire period of study. It is concluded that whereas Vancouver may have successfully responded to economic restructuring in terms of supporting the service sector, the City's policy pertaining to industry and its land base has been
inadequate due to its ad hoc approach and the minimal consideration of the long term consequences of its policy.

II. AN ERA OF POST-INDUSTRIALISM: 1968 TO 1976

A. Political Change and Rise of Post-Industrialism

In the 1960s, industry played a central role in Vancouver's economy and the development strategy advocated by its City Council. Because of growing concerns over the recession of the late 1950s and early 1960s, coupled with anxiety stemming from the growing exodus of people to the suburbs, economics and physical growth and redevelopment became important issues for Vancouver's government for the rest of that decade. In an attempt to address these concerns, the NPA controlled City Council endorsed a number of initiatives designed to stimulate industrial growth and strengthen the role of the downtown corporate complex. These initiatives called for the rezoning of land for light industry, subsidisation of office development in the downtown area, public urban renewal, and the construction of a freeway system and a third crossing of Burrard Inlet (Gutstein 1975, 70; 1983, 200; Hardwick 1974, viii).

In 1968, public opposition to these initiatives and the perceived pro-development mentality of the NPA facilitated the formation of two additional civic parties -- The Electors' Action Movement (TEAM) and the Committee Of
Progressive Electors (COPE) (Ley et al. 1992, 259-61; Church et al. 1993, i). By the end of 1972, TEAM had a majority of the seats on the Vancouver's City Council and applied an approach to urban development that can best be described as "post-industrial" and not supportive of local industry. "In TEAM's view, Vancouver's 'destiny' was as a postindustrial city; the purpose of the political [reform] movement was then to hurry the urban development process toward this goal" (Ley 1980, 247).

Although TEAM did not have any explicitly stated economic or employment policies, its campaign slogans and the writings of a prominent TEAM councillor, Walter Hardwick, capture the essence of their policy direction. Campaign slogans such as "the livable city," "people before property," "for people, not concrete and asphalt," and "to plan and develop Vancouver for people" clearly illustrate the party's policy emphasis on the quality of life rather than the traditional and impersonal economic rationality platform offered by the NPA. Furthermore, David Ley, in a paper examining TEAM's impact on Vancouver's landscape, concluded that TEAM's tenure in office suffered from a "relative neglect of economic relations in favour of social, cultural, and political initiatives" (1980, 258).

---

1 Ley 1980, 251. The slogans were originally taken from published and unpublished TEAM campaign literature.
Hardwick characterised the NPA's policy as being industrially focused and neglecting the dramatic changes in the economy, such as industrial decentralisation and the increasing dominance of the quaternary sector in the urban economy. Hardwick described the changes being wrought on the urban fabric during the early TEAM years in office as "shifting the direction of the city from the industrial city with its material symbols of buildings and freeways toward the post-industrial city with its concern for people and human-scale artefacts" (Hardwick 1974, 36). Vancouver's future economic success as a post-industrial city, as determined by Hardwick, was dependent on the quality of the city's natural and cultural amenities and their ability to attract tourism and service workers. Any activity that would either cause deterioration of the environment or potentially detract from the image of the natural amenities would, therefore, undermine the long term economic viability of the region; consequently, the displacement of industry to areas outside of the city, particularly from potential high amenity waterfront areas, was deemed desirable (Hardwick 1974, 195-208).

B. Evolution of Civic Policy

Vancouver's decision to redevelop the north and south shores of False Creek and the endorsement of the GVRD's Livable Region 1976/1986 strategy epitomise the 1968-1976 period's policy focus, which had considerable negative implications for industry in the central city. The evolution of policy applying to
False Creek in the late 1960s and mid 1970s highlights the local government's increasing concern for urban livability, and also illustrates the implicit anti-industrial policy that characterised TEAM's first two terms in control of City Council. The Council's endorsement of the regional growth management strategy published by the GVRD reiterated TEAM's policy focus on livability and illustrates how the local and regional governments' policy supported industrial decentralisation.

1. False Creek: From Theory To Practice

The actions of the two largest land owners in the False Creek basin, the Canadian Pacific Railway (CPR) and the City of Vancouver, set in motion a de-industrialisation process in False Creek that continues even today. In 1962, the CPR created a wholly owned subsidiary, Marathon Realty, to develop "all the [CPR's] land not required for the operation of the railway" (Gutstein 1975, 17). Recognising the enormous potential profits derived from rezoning and developing its industrial properties adjacent to downtown Vancouver, the CPR and Marathon Realty began a major push to develop the rail company's inner city industrial land. Action to achieve this goal included the CPR's decision to move its freight operations out of False Creek (Gutstein 1983, 207-208), withholding land from the industrial market to discourage industrial expansion in False Creek, refusing to extend industrial leases without a long-term policy from
the City regarding the area's future use, and aggressively pursuing several high density apartment schemes for False Creek's north shore (Challis et al. 1972).

The City of Vancouver, the other major land owner in False Creek, also acted to redevelop the industrial heart of the city. To begin with, the City essentially reacted in opposition to the CPR's attempts to redevelop their industrial lands. The City's Planning Department challenged the CPR's withholding of land from the industrial market in the mid-1960s, but then Council responded to the demand for a long-term land use policy for the area by adopting a policy in 1967 to keep the area industrial. However, with growing pressure to consider alternative uses for False Creek from the CPR, the public, and the fledgling civic political parties, Council voted to re-examine their decision to keep the area industrial in 1968 (Challis et al. 1972).

When the CPR made the redevelopment of False Creek a political issue, the City began to ponder the future of the area even though the economic merits of industry still exerted a significant influence in the thinking of planners and other land owners (Hardwick 1974, 95); while the NPA Council of the late 1960s leaned towards continuing to plan for False Creek as an industrial area, "TEAM development policy in 1968 included an innovative proposal to transform False Creek 'from purely industrial use to a combination of residential, recreational and clean industrial uses'" (Ley 1980, 254). Subsequent planning documents
recognised that service employment was growing rapidly, and that the land in False Creek had potentially high values, was not intensely used, contained many obsolete structures, and was too expensive for many types of industry (Vancouver 1968, 8,22). Giving into pressure in November, 1969, the NPA Council approved a program to investigate redevelopment options for the lands the City owned on the south shore of False Creek (Challis et al. 1972).

With the control of Council swinging over to the "post-industrial" oriented TEAM in 1972, the fate of industry on the north and south shores was settled. Supported by a 1971 GVRD study on regional industrial land supply which concluded there would be no shortage of industrial land over the next thirty years, TEAM implemented its redevelopment policy for False Creek. Because of the party's heavy emphasis on livability, the redevelopment plan relied on parks, public access around the entire False Creek waterfront, and landscaping to convert the industrial heart of the region to primarily residential use (Ley 1980, 255). Consequently, industry became a conditional use for the entire False Creek area; the only industry allowed had to meet the following criteria: it had to be "clean," compatible with the residential focus of the future redevelopment, be related to marine facilities, or serve downtown. The plan called for log-booming operations in False Creek to be halted immediately, and stated that wholesale and distribution operations were only to be allowed east of Cambie Street (Vancouver 1773; 1974).
2. Acceptance of The GVRD's Livable Region Plan

In 1971, the GVRD Board declared that its major objective was to manage growth and change so that the livability of the region was either maintained or improved (GVRD 1975, 1). To achieve this objective, a public consultation process was initiated which eventually led to The Livable Region 1976/1986 plan. The City of Vancouver's endorsement of this plan in May, 1975, (Vancouver 1989b, 14) sent a message to the industrial community that industrial firms were not welcome in the inner city.

The five interrelated components of the strategy proposed in the Livable Region plan are as follows:

1. Share residential growth fairly amongst the GVRD's municipalities to minimise commuting;
2. Promote a balance between jobs and population in each part of the region;
3. Build regional town centres to act as focal points for employment, shopping, and other amenities;
4. Use a transit based transportation system to link the town centres; and
5. Preserve and develop regional open space (GVRD 1975, 19-20).

Clearly the first two elements of the strategy work against preserving an industrial role in the City of Vancouver. First, the determination of residential growth shares was based on thirteen criteria, which included the residential redevelopment of land that is "easily and cheaply available" and land within
“under-used industrial areas” (GVRD 1975, 12). These two criteria target industrial land for redevelopment since industrial land, whether utilised to its capacity or not, is generally cheaper to purchase than residential or commercial land. With enormous potential profits arising from the rezoning of industrial land to residential use, it is not surprising that many industrial land owners put considerable pressure on the City to rezone their properties. Through the manipulation of lease rates and renewals, both the CPR and the City of Vancouver created an air of uncertainty in False Creek that forced firms to either close or relocate, discouraged reinvestment and modernisation, and helped perpetuate the under-utilised nature of the area.

Second, the promotion of a balance of jobs to population objective essentially requires the region's central municipalities to encourage the process of industrial decentralisation. This is not necessarily prudent goal to pursue given the limited land resources in the region and the fact that the strategy does not have any mechanisms to help the decentralising industrial firms relocate or to persuade them to even remain in the region. Essentially, the GVRD's strategy in effect endorsed a pattern of behaviour that was hostile to industry and did not place enough emphasis on how the implementation of the plan in its entirety might impact the health of the local economy.
III. PROGRESSIVE ECONOMIC PLANNING: 1977-1986

This period is considerably different from the one that preceded it in terms of its political and economic upheaval, its generally more holistic awareness of the urban economy, and its recognition of the important economic role of industry. After a brief consideration of some of the changes in the political and economic realms, their consequences for industrial policy are discussed. Specifically, the rise of concerns about the faltering urban economy after years of essentially strong economic performance led the City to reject employment decentralisation, limit non-industrial use of industrial land, create an economic development office, and develop an economic strategy that included a positive role for industry.

A. Growing Political Awareness of Industry and the Economy

After conducting a survey to identify the issues that the region's industrial community considered important, the GVRD reported that despite the economic slowdown in Vancouver in the mid 1970s, there was a consensus among the respondents that the region's industrial future was bright. However, the report identified that there was also general agreement that the major industrial development issue in the GVRD was the shortage of industrial land, especially since the establishment of the Agricultural Land Reserve (ALR) in 1973. The land captured by the reserve included considerable amounts of "industrial
suitable" land which had become dedicated to permanent agricultural use. The creation of the ALR drastically altered the conclusions of the GVRD's 1971 report on industrial land supply and created a "perceived critical shortage of serviced and available industrial land in the region" (Paulson 1976, 69).

It was under these circumstances that the urban economy, and the role of industry within it, began to receive more attention by urban policy makers in the late 1970s. An indication of this greater emphasis on the economy by Vancouver politicians was the action taken by the new TEAM mayor in early 1977; in his inaugural address, Mayor Volrich stated he would not accept the GVRD's Livable Region strategy's call to discourage development in the City of Vancouver because of the negative consequences such a policy would have on Vancouver's economy (Persky 1980, 60). This was a rejection of the GVRD's recommendation to encourage employment deconcentration, of which industrial decentralisation is a major component.

The Volrich administration, responding to poor local economic conditions and decreasing numbers of industrial firms and workers, acted to protect industry in the City of Vancouver in early 1977 by adopting a policy intended to curtail non-industrial development on industrial land. Specifically, the policy attempted to limit the amount of office development in industrial areas by requiring the Director of Planning to only approve office use as a conditional use in industrial
zones where it could be shown to be justified. This was intended to at least retard a trend that had seen the construction of about 164,000 square feet of office space in industrial areas over the decade preceding the implementation of the policy, largely occupied by businesses having little to do with the adjacent industrial activities (Vancouver 1989b, 16). However, the policy was ineffective and failed to stop the slow increase in non-industrial use of industrial land (Whitlock 1985, 18).

B. The Livable Region's Industrial Plan

In 1978, Vancouver’s City Council renewed its commitment to support industry in the city by endorsing the GVRD’s Industry and the Livable Region (Vancouver 1989b, 16). Although the purpose of the GVRD report was to help achieve the earlier regional growth strategy’s goal of promoting balanced employment to population throughout the region, it also recognised the need to create more jobs in the region, the importance of industry in a strong and diverse metropolitan economy, and the perceived shortage of industrial land in the region.

The GVRD’s plan for industry in the region contained the following major policies:

- To reclaim under-utilised waterfront land for public use.
• To establish open space or recreation easements on waterfront industrial land.

• To remove from the regional inventory any sites that can no longer be considered suitable for industrial development, such as Vancouver's inner city waterfront.

• To include the role of existing and future industrial activity as an integral part of each municipality's comprehensive development plans.

• To protect existing industrial areas from encroachment by non-compatible and competing uses that decrease the overall industrial viability of the respective areas.

• To prepare detailed, area-specific plans encouraging complementary industrial development.

• To create a regional industrial development commission to co-ordinate industrial development activities and create centralised monitoring to identify emerging trends and issues (14-17).

Even though the first three policies reflect the acceptance of industrial decentralisation and the non-industrial redevelopment of very limited industrial land, the remaining four work to encourage a more balanced perception of the urban economy by emphasising the value of industry and taking steps to preserve it. The need to preserve the remaining viable sites in Vancouver was illustrated by the GVRD's use of geographically specific industrial employment
targets, which revealed that the City of Vancouver would probably not be able to accommodate its projected share of industrial employment growth (an increase of eight percent between 1971 and 1986) (GVRD 1977, 28).

C. The EDO and Its Economic Strategy

The creation of the Economic Development Office (EDO), a department that would come to have a dramatic impact on economic planning in the City of Vancouver, is further evidence of increasing political support for industry and its rejection of the GVRD's Livable Region strategy. In October, 1977, City Council approved the creation of an Industrial Development Office that would begin operations in early 1978. The objective of the new office was to "advise on industrial needs, encourage retention and expansion of existing industries, provide information to prospective new firms, ... and suggest long term industrial policy" (Vancouver 1977, 7.10). It became clear, however, that the City would be better served if the scope of the new office was to include the economy in its entirety rather than just the industrial component. Consequently, the name was changed to reflect the greater breadth of the task it was charged with, and became the Economic Development Office (Fancy 1995). Since the City of Vancouver did not have any explicit or clearly articulated economic or industrial land use strategy, the formation of this office was in a sense the formal acceptance of the need to develop policy favourable to the continued existence
of industry in the city, a clear departure from TEAM's earlier post-industrial perception of urban development.

The influence of the EDO grew as the political tide changed. Under Mayor Volrich's administration, the EDO simply commented on reports produced by the civic bureaucracy. When the leftist coalition headed by Harcourt gained power in the economically depressed early 1980s, Harcourt approached the EDO and requested that it create an economic strategy for the City of Vancouver (O'Brian 1981).

Beginning the process to develop such a strategy, the EDO reviewed Vancouver's relevant policy and determined that much of the city's growth and development had been determined largely by market forces with only limited influence from municipal public policy and planning guidelines. Commenting on the state of these policies in 1981, the EDO concluded that "the existing economic development guidelines in Vancouver are imbued with some serious deficiencies, in that they:

(a) have largely been developed in an ad hoc manner over time, and therefore lack coherence in many respects,

(b) apply for the most part to relatively small areas of the city,

(c) are concerned chiefly with certain physical aspects of growth and development, and do not adequately consider (for example) important functional and social elements and implications, and
do not, in the aggregate, constitute adequate strategic guidance for economic development” (Hutton 1985, 3).

The case for a clearly articulated and explicit economic strategy for the entire city had finally been made.

The resulting economic strategy recognised the growing importance of service employment in the urban economy, and, therefore, concentrated on this sector of the economy. Industry, however, was still considered an important component of the urban economy with growth potential, so the strategy specifically included efforts to strengthen the industrial sectors. The following strategic initiatives formed the backbone of the economic strategy for the City of Vancouver:

1) Promote Vancouver as the ‘key’ business communications centre linking North America and the Pacific Rim;

2) Promote Vancouver as an international financial centre;

3) Promote programs to increase expenditures by tourists in Vancouver;

4) Develop a program to promote Vancouver’s other ‘invisible’ exports;

5) Encourage advanced technology manufacturers;

6) Formulate a development plan for the medical precinct;

7) Support Vancouver’s small business entrepreneurs; and

8) Encourage the development of light industrial space in the City (Vancouver 1983, 4).
The first four initiatives have been implemented quite successfully and concentrate on improving the conditions for service development and the continuation of the livable city concept (Fancy 1995). They also indirectly affect industrial development by creating an environment that is attractive to workers in the more advanced technology streams, expanding markets by increasing the interaction with South-East Asia, and attracting capital to a region that provides access to the US market via Canada's participation in the North America Free Trade Agreement.

The final four initiatives have the greatest potential to impact industry in a positive manner and partially offset the competition for limited resources that the service oriented initiatives create. Any action, such as the streamlining of civic regulations, that would support small business entrepreneurs and make it easier to operate within the city would directly apply to industrial as well as commercial ventures. The creation of a development plan for the medical precinct, especially if it involved any major relevant actors, has the potential to facilitate the development of areas dedicated to the manufacturing and service spin-offs of research undertaken in the medical complex. Unfortunately, of these two initiatives, only the one supporting small business entrepreneurs has achieved any really measurable success (Fancy 1995).
Increased development of advanced technology manufacturing and light industrial space in the city was hoped to be achieved by:

(a) amending the industrial zoning by-laws to provide greater certainty for desirable industrial activities;

(b) encouraging multi-storey industrial buildings - particularly in the City's core; and,

(c) entering into joint venture agreements with entrepreneurs for the development and leasing of industrial buildings on City-owned industrial land (7).

It can be argued that the implementation of these three actions have had limited success. First, the industrial schedules were refined to eliminate many non-industrial and conditional uses. Whether the refinements provide greater certainty for industry is questionable when the changes have taken place in an environment of continued industrial land erosion. In the opinion of the Director of the EDO, Sid Fancy, any increase of industrial floorspace and industrial employment experienced in the City of Vancouver since the early 1980s can be largely attributed to actions in the private market place rather than by any civic policy. Second, only two higher density industrial buildings had been attempted by 1995, and both by the same developer. By 1995, only one of these buildings was operating successfully, and construction of the other had been halted due to the financial difficulties of its owner -- not exactly a successful track record for modern multi-storey industrial development. Third, according to Fancy, the joint-ventures approach was unsuccessful because of the private sector's reluctance to commit limited investment capital to land leased from the City. The approach
may have been more successful if the City had developed the land and then
leased or sold the structures for industrial use, possibly even for specific types of
industrial activity.


This period is very similar to 1968 - 1976 because of its indifferent-to-
generally hostile treatment of industry and its share of policy designed to remove
industry from the city. These policies do not consider the long term, holistic
consequences of the erosion of the industrial land base, reflecting instead an
anti-industrial bias on the part of the political administration. First, the economic
and political environment is considered to illuminate the influence they had in the
framing of the industrial policies. Second, consideration of the perceived
housing crisis in Vancouver is discussed in terms of the local administration’s
preoccupation with it, and the consequences it had on Vancouver’s industrial
land base. Third, focusing more on the industrial policy, attention is given to the
City’s policy change to allow large retail uses in industrial areas, the area-by-
area rezoning approach, and the removal of land from the industrial land
inventory for other uses. These policy initiatives clearly demonstrate the
administration’s disregard for maintaining a healthy industrial sector and a lack of
commitment to future economic considerations.
A. Political Change

With Expo '86 came a changing of the political guard as Harcourt's coalition of the left was ousted in favour of Gordon Campbell and the NPA. Accompanying this shift to the right was a renewed post-industrial sentiment similar to that which defined the early 1970s. In fact, as suggested by Mayor Campbell's statement that he is "not a big fan of saving industrial lands (for industry)" (Truscott 1991), the Campbell administration can be characterised as generally anti-industrial and not very interested in municipal or regional economic planning.²

This post-industrial sentiment in the new mayor is not surprising because of Campbell's previous role as the assistant to TEAM's Mayor Art Phillips in the early 1970s, and his employment with Marathon Realty when it unsuccessfully tried to develop their holdings in False Creek (Magnussen 1990, 183). Other factors that helped make Campbell's perspective more politically palatable include an increasingly accepted notion of a post-industrial urban economy for the Vancouver area, an economy that had clearly rebounded after the

² This assessment is based in part on the Campbell administration having downplayed the role of the EDO, eventually abolishing the VEAC in 1988, refusing to even consider an economic strategy that had been prepared for the City of Vancouver for the following decade (Magnussen 1990, 183), and adopting numerous policies harmful to the survival of industry within the city.
devastating recession of the early 1980s, and growth management and housing related issues surpassing the economy in the list of regional priorities.

B. Revival of the Livable Region & the Attack on Industrial Land

In the late 1980s, despite the province’s removal of the GVRD’s planning authority in 1983, there was a revival of regional planning by the GVRD. The new thrust, the Creating Our Future campaign, culminated in a revitalised version of the 1975 town centre concept referred to as the development of a “compact region.” This and other regional initiatives (such as the Clouds of Change) adopted by Vancouver City Council in the late 1980s and early 1990s clearly articulated its policy priorities: reducing commuting and pollution, maintaining and increasing recreational space, creating more compact regional development through increased density, and addressing concerns with housing supply and affordability. In an attempt to meet these objectives and minimise conflict from the established, NIMBY-oriented residential areas, the City targeted industrial land for redevelopment to other uses.

Arising from Mayor Campbell’s apparent preoccupation with housing related issues, a study of Vancouver’s housing needs was undertaken and resulted in the identification of industrial lands that would be suitable for future residential communities. The 1989 report to City Council, New Communities in
Industrial Areas, identified those industrial areas that were considered by City staff to be “surplus,” under-utilised, or no longer generally suited to continued industrial use. The report concluded that of the nine identified areas, the relative redevelopment potential was greatest for those “smaller industrial areas in or adjacent to residential neighbourhoods” (Vancouver 1989c, 3).

This report can be criticised in several ways. First, the potential role for these smaller industrial areas as high technology industrial centres serving the CBD or providing locations for spin-offs of university or medical research was over-shadowed by Campbell’s housing focus. The report also undermined the industrial future of these enclaves by creating an expectation of future rezoning to uses that would generate substantial profits for the property owners; the uncertainty surrounding the future zoning logically discourages industrial investment and the necessary upgrading of facilities in the industrial zones, and forces existing firms to consider relocation in order avoid being caught without well researched alternative locations.

C. Industrial Policy

Beginning in 1987, the Campbell administration approved several industrial policies that have had negative consequences for the industrial
community ranging from creating an environment that discourages investment to the lifting of the industrial designation of some of the industrial land.

1. Large-Scale Retail Use Of Industrial Land

In October, 1985, in response to increasing pressure to allow large-scale retail developments on industrial land, Council rejected a recommendation of the Director of Planning to prepare a plan for accommodating large scale retail uses in the City of Vancouver. Instead, an alternative recommendation that Council, as a matter of policy, "not favour the rezoning of industrial land to accommodate mega-markets" (Vancouver 1987d, 1) was passed with only two dissenting votes (Vancouver 1987d, 4).

The policy position of Council regarding large-scale retail use was not as clear after Campbell took office, and pressure to allow this use on the city’s industrial lands was escalating. Until 1987, "Council's concerns ... included potential conflict with the City's industrial objectives, potential alterations of Vancouver's commercial structure, a possible rise in industrial land prices, and an over-saturation of the retail marketplace" (Vancouver 1987a, 2).

Instead of reconfirming the earlier position against such uses in industrial areas, Council adopted the following policy on November 24, 1987: "Only retail uses of 1000 m² or less gross floor area are permitted in industrial zoning
districts. Council will consider applications to rezone from industrial (M, I, and IC) zones to CD-1 for the purpose of developing retail uses in excess of 1000 m$^2$. Rezoning will require Council approval of a specific form of development at a Public Hearing" (Vancouver 1992). The policy also listed a number of criteria that were to be used in the evaluation of the applications, but, according to Phil Mondor, a City of Vancouver planner, the criteria were designed to address some of the concerns of the day and were not considered nor intended to be difficult for applicants to meet.

Although the policy could be used to restrict retail development and support the continued industrial use of the industrial areas, Mondor states that the intent of the policy was to allow for the consideration of these new mega-store uses in industrial areas for a number of reasons including 1) the fact that the City of Vancouver could not avoid the impacts of such stores on its retail sector because several stores of this type were being constructed in Burnaby and other nearby suburbs, and 2) the only really suitable locations for such developments in Vancouver were in the industrial areas. According to Mondor, there was "considerable concern" in the industrial community regarding this policy and the effects it could have on the cost and availability of industrial land.
2. Area-by-Area Rezoning Approach

In the early 1980s, the Harcourt administration adopted several principles to protect industrial land for viable existing and future industrial uses by establishing a buffer between heavy industrial and residential areas, and by trying to create areas that were more appropriate for high technology rather than traditional industry. It was hoped that new industrial zoning schedules would achieve these goals. Under the Campbell administration, however, the objective changed to one that sought to preserve land for industry, but also to permit changes where that change was in the public's interest; in areas no longer suitable for industry, rezonings to residential, institutional, or recreational use were to be considered (Vancouver 1987c, 2-3).

When the new zoning schedules were finally approved in 1987, an area-by-area rezoning approach to implement the new schedules was adopted with the proviso that City officials meet with interested parties to obtain their input regarding what the zoned use should be for the sites being reviewed (Vancouver 1987c, 4). Those areas experiencing the greatest pressure for change were the first to be considered for rezoning. This approach was endorsed by Council along with a need for an all-encompassing industrial land use policy, but discussion on this latter issue was deferred until a later time (Vancouver 1989b, 17). Clearly this is an example of the City's practice of rezoning in an ad hoc
manner and in the absence of a comprehensive understanding of the present or future roles of these areas in Vancouver's economic system.

Between its inception in early 1987 and the end of 1988, about 10% of the city's industrial lands had been rezoned by the "area-by-area" rezoning process. In reviewing the merits of the process in 1989, the City's Planning Department had the following to say: "It lacks a clear and broadly accepted goal of the aggregate or end result that it would strive to achieve. It lacks a tangible concept and plan for the role of the city's industrial areas, with concrete and specific details about the types of industry, amounts of land and locations for this continued industrial role. More fundamentally, City plans and policies for industry, and the area-by-area approach now underway for implementing them, do not adequately address significant industrial trends and prospects and regional context" (City of Vancouver 1989b, 17).

3. A Strategy For Managing Change In Industrial Areas

The perception that the area-by-area approach was failing highlighted the absence of and need for a city-wide strategy to manage change in industrial areas. The groundwork for this strategy was laid down in a policy initiative adopted by Council in July, 1990. The trends identified as particularly significant
were declining industry in the city (a trend that the City's policy has played a major role in creating), and pressures to rezone industrial land for other uses.

The explicit purpose of the 1990 initiative was to "propose a strategy for managing change in Vancouver's industrial areas by:

- releasing some industrially zoned land, identified as inappropriate for continued industrial use; and
- review the remaining industrial lands to establish future industrial land requirements."

(July 10, 1990, 1)

The first prong of the policy called for the release of 270 acres, about 15% of the city's total industrial land, which were no longer considered to be suitable for continued industrial use; they were released from the industrial land base to facilitate redevelopment. The suitability of these sites for continued industrial use was determined by the following criteria: areas "with little remaining traditional industry; with poor accessibility to truck routes; adjacent to residential neighbourhoods; and already in non-industrial use" (Vancouver 1990, 1). Land that met some or all of the criteria were deemed suitable for release despite their possible use for non-traditional industrial use.

---

3 Resulted in the adoption by Council in March 14, 1995, of the Industrial Lands Strategy, which has as its primary objective to "retain most of the City's existing industrial land base for industry and service businesses...to meet the needs of port/river related industry, and city-serving and city oriented industries." The policy is intended to be reviewed in about ten years.
The most notable flaw of this policy is the release of industrial land before the review of the industrial land supply had been undertaken to determine if there was a surplus, shortfall, or sufficient land to address future industrial demand. Logically, it makes sense to conduct the review first, then, if there is a shortfall, the areas that had been designated for release could be utilised as special precincts with industrial uses that were more appropriate for the area than what had been there in the past. However, by removing land from the inventory, new forms of industry have been prevented from developing in those areas where traditional industry had been declining.

V. GENERAL DISCUSSION AND CONCLUSIONS

Over-riding the preceding consideration of the City of Vancouver's industrial policy is the assumption that the industrial sector can be a valuable component of the modern urban economy. It is clear that much of the City of Vancouver's economic and land use policy since at least 1968 has focused, quite successfully, on the service sector, but has lacked concerted and consistent support of the industrial sector. In fact, the preceding sections have shown that the economic and industrial policy has been generally hostile towards industry over much of the study period, or when it has attempted to protect industrial land, it has been ineffective due to poor economic conditions or insufficient political will. Consequently, the industrial land base has been
reduced by about 40% between 1968 and 1991 with most of the erosion occurring during the first and last periods discussed above.

The City's industrial policy has been lacking in several ways. There has been little to no planning by the City of Vancouver to provide a catalyst to help develop new industrial sectors in Vancouver. The City's efforts to encourage new forms of industrial development through joint ventures on City owned land and higher density industrial buildings have generated very little interest from the private market and other levels of government. Furthermore, any efforts to identify new industrial possibilities and nurture their development in the city have been left completely to the private sector and other levels of government to pursue on their own in an uncoordinated manner (Fancy 1995).

Including the efforts of the provincial and regional governments, the City's policy thrust has consistently been to support the service sector, address the "housing crisis," increase the livability of the area, and protect and enhance the area's exceptional amenities. Efforts in these directions have contributed to the creation of an environment that is attractive to both service and high technology industrial workers. However, the application of several policies intended to address these issues, such as creating residential communities in under-utilised industrial areas, demonstrate the politicians' lack of understanding of industrial trends and the value of industrial land to the urban economy. Clearly, as long as
the economy was performing reasonably well, the "immediate" and pressing nature of issues such as housing and urban containment overrode the long term desirability and necessity of economic planning.

In the case of the City of Vancouver, the support of growing sectors and the abandonment of old faltering ones has taken the form of the consistent support of the service sector and the abandonment of the industrial sector. Although some effort has been made to address the growing high-technology sectors, such as refining the industrial schedules to make them more amenable to this form of industry, approaches such as the area-by-area rezoning approach to implement the schedules and changes in economic and political control have had an almost contradictory impact by introducing non-compatible uses and encouraging a trend of continued rezonings to the exclusion of industry; the political desire to redevelop industrial land for housing and other "higher" uses has reigned supreme over the survival of industry and the contribution it makes to the economy. More recently, however, there has been an official recognition of the value of Vancouver's industry as an employment generator for the regional industrial sector as well as for the service sector, and policy has been adopted to preserve much of the remaining industrial lands.

As noted earlier, co-operative regional economic and land use planning involving all levels of government and major non-governmental organisations is

---

4 See, for example, the Central Area Plan and the new Industrial Lands Strategy.
beneficial to adapting to economic restructuring. Unfortunately, in the area of
industrial policy, the Vancouver region has seen little such co-operation or co-
ordination during the period of study as most major players have tended to act
independently and frequently in competition with each other (Keller 1995a).
According to the former Director of the EDO, although the City of Vancouver has
been successful in involving other agencies in the development of the economic
strategy in the early 1980s and implementing many of the service sector
components of the strategy, the City of Vancouver has made few efforts --
outside of working with the port authorities -- to involve other major organisations
in the strategic and long term planning of its industrial land base. Even the
development of a comprehensive and strategic plan for the medical precinct
called for in the 1983 strategy, which would necessitate the involvement of other
actors, has still not materialised (Fancy 1995).

There has been co-operation between the City and the provincial
government in area of Vancouver’s urban development, but there has also been
considerable conflict. For much of the last two and a half decades, the political
philosophy of the local governing body and that of the provincial government
have been at different ends of the political spectrum. This difference is logically
less than conducive to co-operation. Even when they have been politically
compatible, co-operation has been wanting. When Volrich was Mayor, for
example, the Social Credit provincial government over-ruled the City’s wishes
regarding the location of BC Place Stadium. Later, the same Socred
government purchased Marathon Realty's lands on the north shore of False
Creek and turned the city's centennial celebrations into the World Exposition,
1986, and dictated the form and route of the Skytrain (Magnussen 1990;
Gutstein 1983).

During the period of study, the GVRD has either acquiesced to the City's
wishes in the area of industrial land use, or has had no teeth to implement the
initiatives it deemed important relative to economic issues, especially after 1983
when the GVRD lost its land use planning authority. In the 1970s, instead of
using its land use powers to try to encourage City compliance with GVRD
policies to preserve industrial land, the GVRD endorsed the City's past and
planned actions, such as the conversion of False Creek and other industrial
areas to residential and other uses, which is contradictory to some of the
GVRD's other policies such as the preservation of industrial land. Also, the
badly needed regional industrial authority advocated by the GVRD in its 1978
industrial strategy has unfortunately not yet been formed.

The City of Vancouver has responded reasonably well to the economic
restructuring of recent decades, and this can be at least partly attributed to the
City's long term vision of a "livable" post-industrialism. In fact, the City of
Vancouver has taken this vision to heart and actively pursued numerous policies
that supported this vision, becoming in many respects an “intentional” city. Unfortunately, the vision was not comprehensive enough to fully appreciate the dynamic and interdependent nature of the sectors of the urban economy, and how the important industrial sector might be affected by the implementation of many of the policies put forth to support the vision.

Perhaps the City of Vancouver’s greatest shortcoming during the period of study has been its inability to provide direction and stability for the industrial community by developing and implementing a long term, city-wide, comprehensive industrial land use strategy that also takes into account the industrial policies of the surrounding municipalities. The City of Vancouver’s failure to develop such policy, its focus on the “housing crisis,” Campbell’s preference for acting to release industrial lands for housing and other uses before a review of the long term industrial market had been completed, and his administration’s rejection of long term economic planning illustrates the City’s short term focus at the expense of long-term considerations in a period characterised by rapid change. Instead, an expectation was created on the part of industrial land owners that their land would eventually be rezoned for other uses for immediate real-estate profits, which would conceivably discourage the upgrading of obsolete or ageing industrial structures and encourage the decentralisation of industrial activity outside of the city and region.
Finally, whereas most industrial regions have had industrial decentralisation thrust upon them by the actions of the private sector’s efforts to maximise profits, Vancouver has also experienced decentralisation either forced upon the private sector through rezoning campaigns such as in False Creek, or encouraged by the City through its seemingly endless redevelopment motivated rezonings for “higher” uses of privately held industrial land. The Vancouver area, which is well suited for substantial industrial growth because of its amenity and locational attributes, has seen an industrial growth rate that is, arguably, substantially less than it could have achieved given a more stable and comprehensive policy environment that did not encourage redevelopment to other uses.
CHAPTER 5
CONCLUSIONS

I. INTRODUCTION
This review of the City of Vancouver's industrial and economic policy evolution, covering a period characterised by rapid economic and structural change, has generated a number of conclusions and implications for future economic and land use policy development and planning. These conclusions have general applicability to other jurisdictions. This chapter will identify and briefly discuss these conclusions, and then identify associated topics for study which would benefit the planning in these policy areas.

II. CONCLUSIONS
A. Economic and industrial restructuring will likely continue well into the future.

As illustrated in Chapter 2, economic restructuring and industrial decentralisation have wrought significant changes on the economies and form of metropolitan areas around the world in recent decades. There is no reason to expect the structure of the economy of the future to closely resemble that of today as production and communication technology continues to evolve.
B. Industry has been and can continue to be an important sector of the modern economy.

Despite the dramatic changes that have occurred in advanced economies in recent decades and the fact that industry is becoming increasingly difficult to define due to its own evolution, the industrial sector has remained, and is expected to remain, an important component of many modern urban economies. The support function the sector performs for the CBD, and its employment generating capacity for both industrial and service occupations, makes the preservation of viable industry desirable. The idea of preserving industrial areas in cities is not as unpalatable as it may have been even just a few years ago since modern industrial areas are much more attractive and environmentally friendly than they used to be. This is not to say that an urban economy has to have a significant industrial base in order to prosper; a sufficiently diversified service economy can also flourish, but if a particular city has many of the elements that make industry likely to prosper if it located there, then industrial activity and the benefits it can have for both the service and industrial sectors should be seriously considered by that city's policy makers and planners.
C. Policy should not be formulated with only a short term perspective in mind.

1. There is a short term politicisation of local policy development.

   The generally short terms of local governments tend to work against long term policy development, especially when generally short term or high profile issues dominate the local media and political agenda. The possibility for significant change in the composition of local councils and the direction of their policy from one election to the next can be destabilising for investment and economic continuity. Consequently, some sort of mechanism to ensure that a long term outlook is considered would be useful and encourage long term business planning conducive to dealing successfully with economic restructuring and the opportunities it may present.

2. Land use, economic, and urban growth management policies have long term and often dramatic consequences.

   Economic, land use, and urban growth management are inter-related policy areas that must be considered in a co-ordinated and strategic manner with sensitivity to the long term consequences specific policies and decisions may have for other components of the urban system. Politicians, planners, and other bureaucrats must remember that part of their role is as a steward over the limited urban resources (including the city's capacity to adapt to change). In other
words they have an obligation and responsibility to act prudently, be informed, and consider the long term consequences when making potentially irreversible decisions regarding these assets.

Consequently, those people charged with the planning for and accommodation of change in the urban system need to arrive at a consensus regarding the desired future vision for their respective cities. A long term plan needs to encompass all major components of the urban system (such as the natural and built environments, economy, society, and government) and articulate broadly conceived, multi-sectoral goals and policies to project a strong image of the future. Shorter term and more specific policies and plans need to be generated to add the necessary flexibility to respond to economic opportunities as they arise.

D. Municipalities must be involved in economic planning.

Governments need to be involved in the area of economic planning for a number of reasons not limited to the following:

- Cities are arguably the focal points of the modern economy.
- Total control over the economy and the urban system cannot be left to the private sector because private interests will often prevail to the detriment of public ones.
• In times of poor economic performance, people and companies often call on the various levels of government to help them stimulate the economy and look after the economic and social casualties.

• The government has control over policy areas that directly affect the business environment, such as land use and taxation.

Accepting this, the local government must plan for its economic health while keeping the following in mind:

• Planning for the economy must occur in periods of economic growth and not just when the economy is in decline;

• Considerable attention directed at the growing economic sectors is desirable, but it should not be at the expense of other sectors that may not be performing as well but still contribute significantly to the local economy. This is especially important given the rapidly changing nature of the economy and the technology that affects it; a relative declining status as in the industrial sector is not an indication of absolute decline nor of a lack of present or future utility;

• Local governments need to take an active role in the financing of specific economic endeavours to help an industry during an incubating phase. This "financing" can take the form of the municipality acting as a loans broker or by directly giving tax or rent concessions or financial assistance; and
• The regional economy needs to be studied as a unit and as a collection of geographically based parts in order to get as clear as possible picture of the economy and how decisions in one area may impact other areas. The resources of higher levels of government and the region's various municipalities should be pooled together to allow for cost effective planning in this area.

E. The private sector has to operate within the policy framework created by municipal governments.

The urban economy operates within a framework established by government policy. Even though the local government is often seen as the least powerful level of government in our system, it can have considerable consequences for continued urban economic vitality. Consequently, any policy or real estate development that conceivably impacts the economy should have the private sector's and other governments' involvement in its formation and implementation to help identify, understand, and mitigate the negative impacts the policy or development may have. Having said this, it must also be remembered that the desires of the economic actors should not overshadow the welfare and future flexibility of the urban system as a whole. In other words, the rezoning of industrial land to a higher use simply to gain immediate real estate
profits for industrial land owners is not necessarily in the best interest of the
greater urban system.

1. **Need regional co-operation to ensure complementary policy development.**

With the multi-jurisdictional nature of contemporary metropolitan areas such as Vancouver, any co-operation that may exist between the different actors in the private sector and the various levels of government can be quite fragile. Clearly, policy in each of the traditional areas of civic intervention need to be complementary within a single jurisdiction and across others in the metropolitan area. It may be prudent to establish a regional authority with the power to control the co-ordination of policy development to ensure complementary policy development across multi-jurisdictional areas (i.e. co-ordinate the actions and intentions of the parties involved, but at the same time still allow the individual actors to respond to opportunities that arise as long as they are still reasonably consistent with the regional policy). After all, the removal of industrial land from one municipality may not significantly impair the region's ability to maintain a viable industrial sector if the remaining municipalities in the region are committed to the preservation of industrial activity and land in their local economies.
F. Each region's experience with the trends is unique.

The evolution of public policy is influenced by many factors including the philosophies of the governments in power, the involvement and adaptability of the private sector, technological change, historical development, and so on, which makes one city's experience and needs different from those of other cities and regions. Because of this uniqueness, the fact that a significant change occurs in one or more regions does not mean that the same trend will manifest itself in other areas. Furthermore, the solutions to problems and the approaches for implementing the solutions adopted by one administration may not be directly employable in other jurisdictions; however, with modification sensitive to a particular city's conditions and history, the approaches used in other jurisdictions may be of considerable value in helping that city adapt to change or solve problems.

G. Tread with caution.

When developing policies, it is important to clearly identify the emerging trends as well as be aware that the indicators of the trends are nothing more than indicators. Statistics used in economic analyses are only measures and do not accurately capture the volatility and complexities of the economy, its evolution, and all of the factors that contributed to the generation of the indicators in the first place. Therefore, it is important to overcome the impulse to
put too much faith in the observed trends and to remember to investigate the other factors that may have played a significant role in the influence of the trends.

III. AREAS OF FURTHER STUDY

This study is not exhaustive, but it has identified that even cities such as Vancouver that can be considered to have successfully dealt with recent economic restructuring may have done so at a cost that may not be acceptable in the long term. The following is a list of suggestions for further study that should add to the understanding of the long term implications of local economic and land use policy development and generate greater attention from the local administrative bodies to the needs of the rapidly changing urban system:

- Conduct similar studies focusing on other cities on either an individual or comparative basis to either confirm or refute the conclusions found in this study.

- Examine more closely the corporate response to civic policies in Vancouver and other cities to more accurately assess the impact the policies have had on the decision making of these actors.
• Examine the environmental consequences and increased corporate expense arising from the need for industrial and quasi-industrial firms that serve the CBD to do so from locations further from their local market.

• Explore how advances in technology have altered the way business is conducted and how this may impact the future location of higher order and producer services -- will the CBD become an artefact of the past and high-technology industry the salvation of the future?

• Investigate the pros, cons, and viability of creating an industrial land reserve of the same nature as the ALR.
Works Consulted


Fancy, Sid. 1995 (October 10). Personal Communication.


"Industrial Vacancy Rate Dips to 1.6% -- What's Left Said Older, Unwanted." 1989 (February 2). *Vancouver Sun*.


Mondor, Phil. 1998. (April). Personal communication.


Spence, Craig. 1983 (October 26). “City Development.” *Vancouver Courier*.


---. 1987d. Vancouver Planning Department. Large-Scale Retail Uses in Industrial Areas. Vancouver.


### Appendix 1: Manufacturing Firms and Employment in the City of Vancouver, 1966 - 1991

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Food &amp; Beverage</td>
<td>185</td>
<td>6336</td>
<td>142</td>
<td>5209</td>
<td>120</td>
<td>5509</td>
<td>104</td>
<td>6424</td>
<td>82</td>
<td>5370</td>
<td>94</td>
<td>4647</td>
</tr>
<tr>
<td>Rubber &amp; Plastics</td>
<td>18</td>
<td>274</td>
<td>17</td>
<td>239</td>
<td>14</td>
<td>371</td>
<td>12</td>
<td>293</td>
<td>23</td>
<td>242</td>
<td>16</td>
<td>225</td>
</tr>
<tr>
<td>Leather</td>
<td>11</td>
<td>274</td>
<td>17</td>
<td>239</td>
<td>14</td>
<td>371</td>
<td>12</td>
<td>293</td>
<td>23</td>
<td>242</td>
<td>16</td>
<td>225</td>
</tr>
<tr>
<td>Textiles</td>
<td>31</td>
<td>720</td>
<td>30</td>
<td>740</td>
<td>26</td>
<td>464</td>
<td>26</td>
<td>584</td>
<td>30</td>
<td>453</td>
<td>51</td>
<td>910</td>
</tr>
<tr>
<td>Clothing</td>
<td>48</td>
<td>2027</td>
<td>51</td>
<td>6155</td>
<td>35</td>
<td>4472</td>
<td>30</td>
<td>3371</td>
<td>33</td>
<td>1972</td>
<td>79</td>
<td>2642</td>
</tr>
<tr>
<td>Wood</td>
<td>59</td>
<td>6255</td>
<td>51</td>
<td>6155</td>
<td>35</td>
<td>4472</td>
<td>30</td>
<td>3371</td>
<td>33</td>
<td>1972</td>
<td>79</td>
<td>2642</td>
</tr>
<tr>
<td>Furniture &amp; Fixtures</td>
<td>116</td>
<td>1694</td>
<td>97</td>
<td>1011</td>
<td>63</td>
<td>922</td>
<td>68</td>
<td>753</td>
<td>27</td>
<td>539</td>
<td>45</td>
<td>645</td>
</tr>
<tr>
<td>Paper</td>
<td>17</td>
<td>464</td>
<td>15</td>
<td>420</td>
<td>15</td>
<td>385</td>
<td>12</td>
<td>313</td>
<td>6</td>
<td>181</td>
<td>34</td>
<td>341</td>
</tr>
<tr>
<td>Printing &amp; Publishing</td>
<td>149</td>
<td>3278</td>
<td>167</td>
<td>3577</td>
<td>155</td>
<td>3733</td>
<td>165</td>
<td>4286</td>
<td>220</td>
<td>4613</td>
<td>349</td>
<td>7554</td>
</tr>
<tr>
<td>Primary Metal</td>
<td>16</td>
<td>893</td>
<td>13</td>
<td>646</td>
<td>10</td>
<td>435</td>
<td>13</td>
<td>470</td>
<td>16</td>
<td>458</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metal Fabricating</td>
<td>156</td>
<td>4234</td>
<td>134</td>
<td>3504</td>
<td>102</td>
<td>2634</td>
<td>88</td>
<td>2510</td>
<td>79</td>
<td>1567</td>
<td>60</td>
<td>778</td>
</tr>
<tr>
<td>Machinery</td>
<td>22</td>
<td>1758</td>
<td>28</td>
<td>1081</td>
<td>38</td>
<td>1254</td>
<td>34</td>
<td>1211</td>
<td>29</td>
<td>987</td>
<td>87</td>
<td>1465</td>
</tr>
<tr>
<td>Transportation Equip.</td>
<td>37</td>
<td>1272</td>
<td>29</td>
<td>919</td>
<td>25</td>
<td>833</td>
<td>24</td>
<td>1053</td>
<td>20</td>
<td>430</td>
<td>153</td>
<td>1045</td>
</tr>
<tr>
<td>Electrical</td>
<td>22</td>
<td>642</td>
<td>29</td>
<td>777</td>
<td>29</td>
<td>818</td>
<td>32</td>
<td>699</td>
<td>37</td>
<td>937</td>
<td>78</td>
<td>1161</td>
</tr>
<tr>
<td>Non-metallic Mineral</td>
<td>24</td>
<td>691</td>
<td>18</td>
<td>702</td>
<td>10</td>
<td>445</td>
<td>14</td>
<td>452</td>
<td>11</td>
<td>348</td>
<td>48</td>
<td>599</td>
</tr>
<tr>
<td>Petroleum &amp; Coal</td>
<td>48</td>
<td>712</td>
<td>28</td>
<td>579</td>
<td>21</td>
<td>476</td>
<td>25</td>
<td>419</td>
<td>49</td>
<td>534</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemical</td>
<td>146</td>
<td>1530</td>
<td>136</td>
<td>1459</td>
<td>92</td>
<td>1618</td>
<td>112</td>
<td>1383</td>
<td>139</td>
<td>1161</td>
<td>113</td>
<td>935</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>13</td>
<td>390</td>
<td>60</td>
<td>2824</td>
<td>51</td>
<td>3020</td>
<td>12</td>
<td>562</td>
<td>45</td>
<td>922</td>
<td>67</td>
<td>554</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1100</td>
<td>33170</td>
<td>995</td>
<td>29895</td>
<td>809</td>
<td>27257</td>
<td>822</td>
<td>27750</td>
<td>831</td>
<td>22721</td>
<td>1470</td>
<td>29881</td>
</tr>
</tbody>
</table>

Note: 1) 1991 data are estimates prepared for the GVRD.
2) Blanks indicate that data were not available.