

UC Berkeley

IURD Working Paper Series

Title

Suburbia makes the Central City: A New Interpretation of City-Suburb Relationships

Permalink

<https://escholarship.org/uc/item/4hk3r4f5>

Authors

O'Connor, Dr. Kevin

Blakely, Dr. Edward J.

Publication Date

1988-08-01

Peer reviewed

Suburbia Makes the Central City:
A New Interpretation of City-Suburb Relationships

Dr. Kevin O'Connor
Geography Department
Monash University
Clayton, Australia

Dr. Edward J. Blakely
Professor and Chair
Department of City and Regional Planning
University of California at Berkeley

Working Paper No. 485

August 1988

Institute of Urban and Regional Development
University of California at Berkeley

The research reported on in this paper was carried out with assistance granted by the University Education Abroad Program for Pacific Rim Studies.

* * *

Dr. O'Connor is currently on secondment to the Vice Chancellor's Office at Monash University.

Professor Blakely is Chair of the Department of City and Regional Planning at the University of California at Berkeley.

SUBURBIA MAKES THE CENTRAL CITY: A NEW INTERPRETATION

The interdependencies between central cities and suburbs have taken on a new character in recent years, as completely new geographical and functional arrangements of industry and service activities have emerged. The latter shift has meant that the level of development in a suburban area can have a positive impact upon the role and function of the central city within the metropolitan economy. In this new arrangement the CBD has taken on a new and potentially more vital function. The central city was historically the sole generator of work, and the origin of innovations; it is now one unit that supports the activity taking place around it. At the same time, the places that were suburbs have changed their character. They have a powerful economic role of their own; they are no longer "sub-urban" in the old sense of the word. That is, they are no longer miniature urban appendages; rather, they are now integrated socioeconomic systems that form the core of the metropolitan system. Thus, a new pattern is emerging where the vitality of the central area is related to the economic activity in the whole metropolitan economy. This linkage runs counter to conventional wisdom; it means that we must reconceptualize urban policy in metropolitan areas. In this new pattern of central city-suburb linkage, the current land use policy which attempts to limit suburban growth in the interests of central city development is likely to be both ineffective as well as counter-productive.

We argue in this paper that today's suburbs are the result of an entirely new set of forces, and it is perhaps a mistake to see them simply as a stage along the way in urban evolution, but rather a new phenomenon. Understanding the pressures that have produced this new pattern is the basis for a new approach to urban policy, one that will facilitate the integration of suburb and central city. This paper outlines how the old approach to

the suburbs evolved from the pattern of development that operated through the 1950s and the 1960s, and goes on to indicate how a new structure, and a new set of inter-dependencies, exists with the suburbs surrounding central cities in today's modern metropolitan regions. We develop a conceptual basis for this argument by examining the development of the Pacific Rim city systems of Melbourne and San Francisco as illustrations of this pattern.

The Suburbs and the Central City: The Old View

The conventional wisdom based on European concepts, that suburban development was bad for a metropolitan area, was built upon a long heritage in urban analysis. For example, research on population change showed gains in the suburbs balancing losses in the central city, due in large part to residential preferences (James and Hughes, 1974). Over the same period, manufacturing firms left the central city and located in the suburbs because land was cheaper, and labor available; in this move they began to change the character of the metropolitan system by bringing large-scale employment to suburban locations. Kain's idea of a "doughnut" city (Kain, 1968) was a powerful image that elegantly portrayed the consequences of these changes, showing how substantial economic activity surrounded an empty core. Furthermore, Stanback and Knight's (1976) study showed commuters earned income in the central city economy, but generally spent it on retail and other services in the suburbs. This was conceptually important, as it indicated the CBD was no longer the major service center for the whole metropolitan economy. In turn this insight signalled that suburban development would not necessarily reinforce the dominance of the central city. Finally, a major multi-city study in eastern and western Europe proposed that "urban growth is followed by suburban sprawl which

ends in urban decline," noting "the town is going to fall to pieces" (van den Berg, 1982, page 44).

Although not all planners were that pessimistic, analysis similar to that surveyed above made it imperative that planning policies should attempt to stop suburbanization. This stance was taken to maintain population and the existing social mix, to ensure the full use of existing infrastructure, and preserve the economic primacy of the central city. In summary, a long heritage in urban analysis, together with social and economic concern with the outcome of population loss, suggested that central cities suffer if suburbanization goes unchecked. The natural effect was to install policy at the metropolitan scale to regulate and if possible limit suburbanization, and at the city scale to encourage increases in population. This type of thinking is no longer relevant. The suburbs are important economic units, and the central city is attracting advanced services rather than population-related services. It is now clear that suburban development is an important positive influence on central city growth. The following sections explore that idea in more detail.

A Reinterpretation of Suburban Development

Considerable research on the social and economic character of the suburbs has laid to rest the notion that the suburbs are socially homogeneous, sprawling residential enclaves (Donaldson, 1969). Rather, suburbs are now recognised to be both socially and economically diverse, with complex internal transport patterns and networks of sub-centers (O'Connor and Maher, 1979; Leinberger and Lockwood, 1986).

There are two parts in the new process that produces this modern suburban structure. The first is that decentralization, or relocation from center to suburbs, is no longer as important

as it once was. Today, most suburban growth emerges from the location of new firms or old ones expanding in their present locations. In this sense the suburbs have an important growth dynamic of their own, and compete for activity in similar locations in other cities. The second aspect here is that there are important functional linkages between the suburbs and the central city, so that activity located in the suburbs will generate demand for services in the central city. These two aspects can be illustrated by reference to office activity and manufacturing.

Office Location

Table 1 has been prepared from a variety of studies into reasons for the location of office activity in the suburbs. In particular, these studies have investigated whether suburban office businesses have moved from the central city. This aspect attracts considerable attention in planning policy, and also in the general media, as large-scale relocations of offices from the central city to the suburbs are often interpreted as an illustration of the old ideas outlined in the previous section. However, as the results in the table show, the number of moves from the central city is a very small share of the total number of new offices located in the suburbs. These results provide strong support for Gad's (1985) comment that there are qualitative differences between offices in the suburbs and the CBD, and growth in one can take place without necessarily influencing the other. These surveys generally find the principal reason for suburban office growth is to provide space for existing businesses or new businesses locating in the suburbs for the first time.

At one scale, then, the suburbs can be regarded as a separate unit, and office activity within them responds to local

TABLE 1 SURVEYS OF SUBURBAN OFFICE LOCATION

AUTHOR	LOCATION	SURVEY SIZE	SHARE OF FIRMS SURVEYED IN SUBURBS THAT MOVED FROM CENTRAL CITY
Code (1983)*	Toronto	1159	12.0%
Fothergill (1987)	Melbourne		11.0%
Kroll (1984)	San Francisco	248	7.0%
Jones Lang Wootton (1987)	Sydney	443	5.7%

* See also Code (1987) for more recent information.

demands. However, within many office activities there has been relocation from central city to suburb, especially of "back office functions," which are the lower-level tasks undertaken within activities like banking and insurance in particular. This type of relocation has a very important consequence in that it frees up space for higher-level functions in the central city. At the same time, the suburban operations need close contact and often daily linkage with the central city to enable decisions to be made on the information they process. In this way, these relocations strengthen the connections between central city and suburb. In fact, although there has been some relocation of headquarters from the central city (Quante, 1976), recent work has indicated that relocated firms rely on the central city for higher-level services (Black, 1980). Hence, office activity illustrates that suburban developments have both a character and direction that is separate from those in the central city, whilst at the same time there are strong linkages and connections between the two areas.

Manufacturing

Manufacturing was the activity that provided the most dramatic examples of relocation from central city to suburb. For this activity, it was generally understood that firms left the central city in favour of the suburbs; as part of this understanding, the central city was viewed as the "incubator" for new industries (Hoover and Vernon, 1960). In today's world, those ideas do not hold. Doolittle (1985, page 89) has reviewed material here and comments, "central cities are no longer effective as incubators for new and small firms." Schmenner (1980, page 455) has looked at the generation of new businesses in Cincinnati and observed the "central city has apparently lost some of the power formerly ascribed to it as an incubator of new

firms. Relative to their stock of plants, many suburbs and fringe areas of the metropolitan area do better in attracting new enterprises." In fact, Landis (1988) points out that, in the 1973-1983 decade, employment in production and non-production manufacturing in U.S. suburban locations by over 1.7 million jobs, while the central cities lost almost one quarter of a million jobs in this category. But this is not the full story, since Landis (1988) also shows the role of the central cities has changed structurally, with a net increase in 1.3 million service jobs in the same period. Scott's (1982) major review of research on the theory of industrial location substantiates the new interdependence between city and suburb by showing that the suburbanization of industry is attributable to structural changes in production technology. In particular, suburbanization involves firms that are more likely to have a standardized product and higher capital intensity than those that locate in the Central City. An important part of Scott's work is that decentralization of production is paralleled by centralization of control, as the suburban plants are generally part of big organizations with head offices in central cities. When seen from this perspective, industrial suburbanization will lay the basis for strong central city-suburban links.

In fact, manufacturing industry provides perhaps the most important element of central city-suburban integration, as modern day manufacturing is strongly connected to services. Cohen and Zysman (1987) outline these interdependencies and cite the following examples of services that are relevant to manufacturing: "design and engineering services for product and process; payroll inventory and accounting services; financing and insuring; repair and maintenance of plant and machinery; training and recruiting; testing services and labs; industrial waste disposal; and the accountants, publicists, designers, payroll, transportation, and communication firms who work for the engineering firms that design and service production equipment;

and the trucking firms that move the semi-finished goods from plant to plant, up the links of the manufacturing chain" (page 22). Perhaps more importantly, they comment, "all services we have mentioned, and many more, simply must be performed in close proximity to the manufacturers" (page 14). Coffey and Polese (1987) have documented some of these linkages for manufacturing firms in the Montreal Region. They find insurance, accounting, engineering, consultancy, and legal advice are essential links between factories and office areas.

Recognizing these linkages, and emphasizing in particular knowledge intensive goods, Knight (1987) has identified a new form of metropolitan development, corresponding to the "advanced industrial city." Here the availability of services like those outlined above is the necessary precondition for manufacturing development. Knight stresses in particular the importance of education and research services and the flow on to product development and testing. It is well known that many of the services identified above prefer to locate in the CBD of metropolitan areas, because they require face-to-face contact with one another. Recognizing the concentration of these advanced services, and taking into account the ideas of Knight and the emphasis on spatial proximity of Cohen and Zysman, it is clear that substantial suburban manufacturing growth will generate demands for CBD-based services, and lay the foundation for strong linkages between these two parts of a metropolitan area.

Recent Insight into Change in Central City and Suburbs

Three multi-city studies on the rates of change of population, employment, and social characteristics have provided a foundation to establish a new perspective on the links between central cities and suburbs. A most important common thread in

these three studies is the role ascribed to the overall metropolitan area's performance, and to the broader regional economy, as determinants of central city trends.

For Bradbury et al. (1982, page 138), "SMSA employment growth is a critical determinant of city population growth," whilst Garn and Ledebur (1980, page 253) comment that "the central cities of distressed metropolitan areas are unlikely to experience economic growth in any significant degree while their suburbs continue to languish economically." What this work suggests is that the central city performance is influenced substantially by the operation of the metropolitan area as an entity. In the Bradbury study, for example, 44 cities in a sample of 153 had growth in both central city and suburbs over the period of the study. Another important piece of evidence that indicates a new central city-suburbs link is the revival of many central city economies in recent years, even in the face of continued population decline (Ganz, 1985). In fact, large increases in central area office space have been recorded in several cities that have experienced quite rapid suburbanization (Black, 1980). In part, this growth has been due to the location of advanced services. The latter respond to the agglomerative benefits available in some central cities, and the linkages between themselves are more important than contacts with their own market. In this sense they are independent of the trends in population within their respective cities and will grow even though local population is falling.

Varaiya and Wiseman (1983) established two groups of ten metropolitan areas for comparison. One group had depressed central cities, whilst the other had growing central cities. Their data on employment spanned the period 1958 to 1977. What is particularly striking is that in metropolitan areas with depressed central cities, rates of change in suburban manufacturing employment became negative after 1967. In contrast, in the group of cities with growing central cities, the

rates of change of suburban manufacturing remained positive and rose through part of this period. In addition, the data shows that high-wage services grew rapidly in suburban locations in the group of metropolitan areas that had growing central cities. This information illustrates the powerful effect that a healthy suburban economy can have upon the central city; the high level of manufacturing and other service growth in the suburbs underpins the high growth in central city services.

The work surveyed to date is based on data analysis of many cities, which allows generalizations to be made concerning the links between central city and suburban growth. Certainly the data at this scale does suggest that suburban change can have a positive impact on central city development. To refine that insight, it is important to move down in scale to some individual cities; and that step is taken in the next section.

Central City Development and the Suburbs in Selected Cities

The aggregate results discussed above are confirmed by the experience of Boston. Doolittle (1985) found a strong causal link between the central city and the suburbs in this metropolitan area. He observes, "as the regional manufacturing economy regained its strength, employment in the cities' business service, finance insurance and real estate firms grew. City employment did not begin to grow until regional manufacturing firms grew with the latest high tech boom" (page 85, 86). Yago and McGahey (1984:23), working in New York, comment, "... the city's economy is not distinct from upstate problems. Nor is the service sector easily separable from the long term health of the manufacturing sector."

In an analysis of cities in the Great Lakes region, Mayer (1987) found that office development in the CBD of Chicago has occurred at the same time that rapid growth has taken place in

the suburbs, especially around O'Hare airport. He notes the same is occurring in Detroit and Minneapolis-St. Paul. In Sydney, Blakely and Fagan (1988) have shown that between 1971 and 1981, central city job growth in finance and community services (and very substantial office redevelopment) has taken place, whilst there has been major suburban expansion in both population and jobs. Similar results emerge from studies in Los Angeles, where Orange County growth has taken place at a time of a central city office building boom, and also in Phoenix.

To extend this insight, the authors have begun some intensive analysis in San Francisco and Melbourne. These two cities were selected because they have had a similar history, as gateway cities to large regions, and have strong economic bases in manufacturing and trade activities, utilizing major port facilities. The latter role, together with centrally focussed public transport systems, have given both places a strong CBD. Finally, both have experienced rapid suburbanization of population, and especially of manufacturing since 1960. The results reported below have been assembled in the early stages of a major project on suburban development and central city growth in Pacific Rim cities.

Melbourne

Melbourne is a metropolitan area with a population of 2.9 million, spread at low density around Port Phillip Bay. The foundations for this low-density settlement were laid by the establishment of a CBD-focussed electric railway system, which began service in 1926, and reached out up to 25 miles from the CBD even at that time. Population growth was accommodated in suburbs adjoining this rail network up until around 1960, when higher levels of car ownership made residential development away from the rail network possible.

The spread in population was followed by a dispersal in employment on a large scale during the 1960s, as new industrial economic growth, and regional shopping centers and malls, were constructed to meet demand of a population now a considerable distance from the CBD. These changes were reflected in the emergence of subcenters, and a multicentered metropolitan region began to emerge in the 1970s (O'Connor and Maher, 1979).

Recently, population loss has been recorded in the suburbs close to the CBD, and this trend has begun to be felt in older established mid-suburban locations. In this way the geography of Melbourne's population change mirrors that of many US cities. At the same time, rapid growth in outer suburban manufacturing and retailing has continued. New industrial estates, where landscaping, car parking, recreational, and service facilities are included in an overall planned estate have become popular, and new and already established businesses have been moving to these locations in large numbers.

Imbedded in this low-density suburbia -- which extends some 50 miles across -- is a strong CBD, where office activity has concentrated. The latter has been slow to follow the spread of other activity to the suburbs. This cluster of office buildings in the original CBD, and on its southeastern margin, remains the key business centre in the metropolitan area. The lack of decentralization of office activity reflects, in part, metropolitan-area planning controls that limit big office buildings to a few selected sites. However, that policy is not adequate to explain the extent of concentration, nor the major multi-storey redevelopments that have taken place in recent years in the CBD.

To illustrate these ideas, data has been assembled on recent construction activity for a central subregion, made up of the CBD and its adjoining inner suburbs, and the rest of the metropolitan area. The central region corresponds in both size and age to the City within many US Metropolitan Areas.

The data in Table 2 indicates that over the period 1981-1984, the central area's share of office building rose; in contrast, the share of factories built in the suburbs increased steadily. The significance of the latter is underscored by the fact that the Melbourne metropolitan area was the most important in the nation for factory building in this period.

San Francisco

Between 1950 and 1960, the San Francisco Bay Area population increased by one million. Almost all of this growth occurred in the nearby suburbs of Alameda, Santa Mateo, and Contra Costa Counties. This early population growth resulted from residential development, with only modest commercial activity in the growing areas. In the ensuing decade, 1960-1970, another one million people were added to the Bay area. The Bay Area Rapid Transit System was developed to accommodate this population growth. However, as Dowall (1982) noted, industrial growth and commercial activity was already moving away from San Francisco to Santa Clara and Contra Costa Counties. The centralized transportation system designed to move workers to San Francisco and Oakland could not serve its intended function because development was becoming even more dispersed than the system could accommodate. By 1980, Santa Clara County had twenty-five per cent of the region's employment, surpassing both Alameda (Oakland) and San Francisco in employment opportunities. Table 3 illustrates the pattern of suburban office and industrial growth in the San Francisco Bay Region.

This indicates that the rate of development in the suburbs has been faster than that in the cities in the Bay Area. However, San Francisco had twice as much building as any other area in this period, and in the few years up to 1984 increased its stock of office space by 20 percent. This illustrates a healthy level of activity, and shows again that the central city

TABLE 2 SHARE OF CONSTRUCTION ACTIVITY IN CENTRAL CITY AND SUBURBS
-- MELBOURNE 1981, 1984

Construction	1981 %	1984 %
Offices		
Central	74.7	81.6
Suburbs	25.3	18.4
Factories		
Central	8.2	3.5
Suburbs	91.8	96.5

Source: Australian Bureau of Statistics Building Activity. (Value of work done in each year).

TABLE 3 OFFICE GROWTH, BAY AREA 1980-1984

	1980	1984	
Location	(1,000 sq.ft.)	(1,000 sq.ft.)	% Added 1980-1984
Cities	47.3	60.5	12.7
Oakland	7.3	10.5	30.5
San Fran	40.0	50.0	20.0
Suburbs	31.7	66.4	42.4
Walnut Crk	3.0	5.6	45.7
Alameda	3.5	8.4	58.3
Marin	.8	2.8	71.4
San Mateo	7.0	11.4	38.6
Santa Clara	2.6	8.9	70.8
San Jose	3.3	6.3	47.6
Other Suburbs	11.5	23.0	55.8
Total	42.0	110.0	38.2

Source: Cynthia Kroll Suburban Squeeze II: Response to Suburban Growth. Center for Real Estate and Urban Economics. Univ. of California, Berkeley, 1986.

economy has grown whilst suburban building has taken place.

This comparison has used annual additions to office and factory space in Melbourne, and a survey of total office space in San Francisco. Both pieces of information support the idea that economic growth in the suburbs and development in the central area can occur side-by-side, and that central cities do not have to fear the growth of their suburbs. In fact, the reverse could be true, and suburban factory development could trigger growth in central city services.

Implications for Metropolitan Planning and Planning Theory

The links between the central city and the suburbs that are identified above have two consequences. First, they provide a synergy that can be capitalized upon in the economic development planning of both the central city and the suburbs, whilst, second, they will lead to some new and different approaches to strategies for central city transport and land use policy.

On the first point, this paper has established that today's links between central cities and suburbs are different from those that operated in the past. In the modern metropolitan area, this synergy holds important potential for growth in both areas. For the central city firms, there is the opportunity to serve businesses in the suburbs, whilst suburban firms can grow by taking advantage of advanced services available in the central city. Approaching development in that way pre-supposes that the central city and suburbs can operate as an effective unit within a metropolitan area.

On the second point, transport and land use planning in the central city has to recognize the importance of the linkages identified above, and move to take advantage of them. Many of these links involve daily trips by courier services, movement of freight, and visits by businessmen. Planning and urban

development theory must come to grips with a new set of inter-relationships and recognize the synergy between the central city and its suburbs. Implementation of this concept would lead to the development of courier services, freight flows, and daily business traffic. For example, special street parking bays, or a number of parking spaces in any new building, need to be designated especially for the use of courier services. Taking that a little further, the whole planning of non-peak-time traffic and parking has to be based on the idea that suburban businesses will be attempting to contact CBD firms, and will need different parking and traffic regulations than those that are developed for commuters. At present, attitudes to short-term parking in central cities are often based on plans for retailers and the hope that short-term parking spaces will lure suburban shoppers from their home locations to shop in old central city areas. A more enlightened planning strategy will focus on the links discussed above, so that short-term parking will be supplied for individuals visiting the central city to contact its service firms.

These two aspects means that the planning of both central city activities and suburban areas will be improved by recognizing the metropolitan perspective that links them together. This is not yet another appeal to take a broad or metropolitan view, but rather it is a position developed from understanding how modern metropolitan areas work, and, by identifying the opportunities that exist, to improve the development of both the central city and the suburbs.

It would be a mistake to assume that the links and connections that are discussed above can have a straightforward effect on each and every city. The processes that have been discussed cannot be expected to solve the serious social problems that emerge from the spatial mismatch of labor demand and labor supply that has been identified from early work on suburban development. These mismatches emerge when central city labor is

unable to work in its own labor market, as the new services do not demand its skills, while at the same time the jobs that may be appropriate are in suburban locations. Moreover, residential segregation by race and income are increasing as a result of the suburbanization of the metropolis. This aspect of recent central city development has been identified by Kasarda (1985), whilst Leinberger and Lockwood (1986) point to the problems that city-based labor has in reaching suburban jobs. An analysis of the redevelopment of Baltimore, for example, has shown that the main benefits of substantial downtown growth has been felt by suburban in-commuters to the new service sector jobs (Levine 1987). Significantly, in this analysis the sole link with the suburbs was identified as that of in-commuters, and the job base or structure of the suburban economy was completely ignored. Perhaps there is an important lesson here, that central cities can no longer plan their own futures; solutions to the problems of unemployment of their minority groups may need to take in account the economic activity of their surrounding suburbs.

At the same time, suburban development is not without its problems. These include the congestion that is associated with recent rapid development and car travel (neatly encapsulated in Cervero's [1986] work on suburban gridlock), and the problems of a job market where job choice is limited and the local economy is dominated by a few industries. Leinberger and Lockwood's (1986) understanding of the links discussed earlier may improve approaches to these problems as they can't be addressed or solved within the suburbs themselves, but rather will require action on a metropolitan scale.

Finally, the work discussed above has established that a considerable portion of the service sector growth of the central city can be associated with the surrounding suburban economy. This is a different perspective from that which has begun to emerge in, for example, Noyelle's (1983) work on advanced services and Sassen Koob's (1985) concept of "global control

capability," which both stress national and international links as the key to the emergence of powerful new central-city service-sector-based activities. The present paper is not designed to oppose that view; rather, it hopes to add something. Although the international and national role is obviously critical to the development of big metropolitan areas, it is perhaps not coincidental that places like San Francisco, Los Angeles, Boston, and New York, which figure so prominently in Noyelle's work, have seen very substantial growth and development in their suburbs in recent years.

This leaves open a challenging research agenda. The authors intend to pursue research aimed at identifying the new links between the central city and the suburbs as inter-dependent economic units, as well as examining the new urban character of modern industrial and service developments. We will also explore alternative urban design and development strategies that can accommodate this form of development. The work summarized above has shown that, on an aggregate level, the links between central city and suburb are quite strong. It remains to test this idea at the level of individual services, something that remains unexplored at present. What is needed is survey work on central city offices to establish the importance of suburban clients in overall business networks; and, at the same time, work on suburban businesses is needed to identify the links with central city services. When work along those lines is in hand, the understanding of the role of the suburbs and central city change will be made clearer. Our research will be conducted in Sydney, Melbourne, San Francisco, and Los Angeles as major representatives of this emerging pattern. These cities are all on the Pacific Rim, where this new pattern of development is most pronounced.

BIBLIOGRAPHY

- BLACK, J.T. (1980). "The Changing Economic Role of Central Cities and Suburbs," in Solomon, A.P. (ed), The Prospective City. Cambridge, M.I.T., pp. 80-123.
- BLAKELY, E.J., and FAGAN, R.H. (1988). Metropolitan Strategy in Sydney: Employment Distribution and Policy Issues. Monograph 36, University of California, Berkeley, Institute of Urban and Regional Development.
- BRADBURY, K.L., DOWNS, A., AND SMALL, K.A. (1982). Urban Decline and The Future of American Cities. Washington, Brookings.
- CERVERO, R. (1986). Suburban Gridlock. New Brunswick, N.J., Center for Urban Policy Research.
- CODE, W.R. (1983). "The Strength of the Centre: Downtown Offices and Metropolitan Decentralisation Policy in Toronto." Environment & Planning 15, pp. 1361-1380.
- CODE, W.R. (1987). "The Impact on Development Feasibility of Containment Policies in Central Business Districts." Paper, Regional Science Association 62, pp. 81-92.
- COFFEY, W.J., AND POLESE, M. (1987). "Intra firm Trade in Business Services: Implications for the Location of Office-based Activities." Papers, Regional Science Association 62, pp. 71-80.
- COHEN, S.S., AND ZYSMAN, J. (1987). Manufacturing Matters: The Myth of the Post Industrial Economy. New York, Basic Books.
- DONALDSON, S. (1969). The Suburban Myth. New York: Columbia University Press.
- DOOLITTLE, F.C. (1985). "Metropolitan Employment Change in OECD Countries and the Policy Implications for Inner Cities," in Research in Urban Economics 5, pp. 75-96.
- DOWALL, D. (1982). The Suburban Squeeze: Land Use Policies in the San Francisco Bay Area. Institute of Urban and Regional Development, Univ. of California at Berkeley.
- FOTHERGILL, N.C. (1987). Metropolitan Office Development: Draft Report. Policy and Strategic Branch Ministry for Planning and Environment, Melbourne.

- GAD, G. (1985). "Office Location Dynamics in Toronto Suburbanisation and central district specialisation." Urban Geography 6, pp. 331-351.
- GANZ, A. (1985). "Where Has the Urban Crisis Gone? How Boston and Other Large Cities Have Stemmed Economic Decline." Urban Affairs Quarterly 20, pp. 449-468.
- GARN, H.A., AND LEDEBUR, L.C. (1980). "The Economic Performance and Prospects of Cities," in Solomon, A.P. (ed), The Prospective City. Cambridge, Mass., M.I.T. Press, pp. 204-257.
- HOOVER, E., AND VERNON, R. (1960). Anatomy of Metropolis. Cambridge, Mass., Harvard V.P.
- JAMES, F.J., AND HUGHES, J.W. (1974). "The Process of Employment Location Change," in James, F.J. (ed.), Models of Employment and Residential Location. New Brunswick, N.J., Center for Urban Policy Research.
- JONES, LANG, WOOTTON (1987). Office Space Dynamics. JLW Research, Sydney.
- KAIN, J.F. (1968). "The Distribution & Movement of Jobs and Industry," in Wilson, J.P. (ed.), The Metropolitan Enigma. Cambridge, Harvard U.P., pp. 1-42.
- KASARDA J. (1985). "Urban Change & Minority Opportunities," in Petersen, P.E. (ed.), The New Urban Reality. Washington, Brookings, pp. 33-68.
- KNIGHT, R.V. (1987). "City Development in Advanced Industrial Societies," in Gappert, G., and Knight, R. (eds.), Cities in the Twenty First Century. Vol. 31, Urban Affairs Annual Reviews, Beverly Hills, Sage, pp. 196-208.
- KROLL, C. (1984). Suburban Office Markets and Regional Economic Growth: The San Francisco Bay Area's 680 Corridor. Berkeley Planning Journal 1, pp. 112-130.
- LANDIS, J. (1988). "The Future of America's Central Cities," unpublished paper. July 1988, University of California at Berkeley, Berkeley, California.
- LEINBERGER, C.B., AND LOCKWOOD, C. (1986). "How Business is Reshaping America." The Atlantic Monthly 258, pp. 43-52.
- LEVINE, M. (1987). "Redevelopment as an Urban Growth Strategy: A Critical Appraisal of the Baltimore Renaissance." Journal of Urban Affairs 9, pp. 103-123.

- MAYER, H.M. (1987). "The Great Lakes Megalopolis," in Gappert, G., and Knight, R. (eds.), Cities in the Twenty First Century. Vol. 31, Urban Affairs Annual Reviews, Beverly Hills, pp. 163-172.
- NOYELLE, T. (1983). "The Rise of Advanced Services." American Planning Association Journal 49, pp. 280-290.
- O'CONNOR, K., AND MAHER, C.A. (1979). "Change in the Spatial Structure of a Metropolitan Region: Work-residence relationships in Melbourne 1961-1971." Regional Studies 13, pp. 361-380.
- QUANTE, W. (1976). The Exodus of Corporate Headquarters from New York City. New York, Praeger Publishers.
- SASSEN-KOOB, S. (1985). "Capital Mobility and Labour Migration," in Timberlake, M. (ed.), Urbanisation in the World System. New York, Academic Press.
- SCHEMMER, R.W. (1980). "Industrial Location and Urban Public Management," in Solomon, A.P. (ed.), The Prospective City. Cambridge, Mass., MIT Press.
- SCOTT, A. (1982). "Locational Patterns and Dynamics of Industrial Activity in the Modern Metropolis." Urban Studies 19, pp. 111-142.
- STANBACK, T.M., AND KNIGHT, R.V. (1976). Suburbanisation and the City. Montclair, N.J., Allanheld, Osum.
- VAN DEN BERG, L., DREWETT, R., KLOSSEN, L.M., ROSSI, A., AND VIJUERBERG, C.H.T. (1982). A Study of Growth & Decline: Urban Europe. Vol. 1, London, Pergamon.
- VARAIYA P., AND WISEMAN, M. (1983). "Reindustrialisation and the Outlook for Declining Metropolitan Areas." Research in Urban Economics 3, pp. 167-190.
- YAGO, G., AND MCGAHEY, R. "Can the Empire State Strike Back? The Limits of Cyclical Recovery in New York." New York Affairs 8, pp. 19-29.

