# The Economic Case for Regional Cooperation in Greater New York City

*Michael Lahr*, Associate Research Professor and Associate Director of Rutgers Economic Advisory Service at the Center for Urban Policy Research at Rutgers University.

*Address:*

33 Livingston Avenue, Suite 400
New Brunswick, NJ 08901-1982

*Lahr@rci.rutgers.edu*

*Andrew Haughwout* Research Officer, Business Conditions Function of the Federal Reserve Bank of New York and Co-editor of the *Journal of Regional Science*.

*Address:*

33 Liberty Street
New York, NY 10045
*Andrew.Haughwout@ny.frb.org*

## 1. The Problem

Urban decentralization is by no means just a phenomenon of the past half century. It began in the wake of the industrial revolution when problems of crowding, inadequate housing, congestion, crime, and unsanitary conditions became a hallmark of cities. Indeed, from today's perspective, an irony is that the market began to soften the *perception* of these urban evils in large part due to suburbanization via the dawn of the transportation revolution (Hall, 1988).

But economic forces alone did not lead to decentralization during the 19th century: zoning ordinances, other explicit separations of land use, and implicit segregation of ethnic and social groups contributed to urban decentralization as well. In fact, to combat urban problems some early regional planners (Howard, 1898; Geddes, 1915) envisioned a decentralized system of relatively self-sufficient communities, which would restructure industrially based social and economic relations (Fox, 1986). The results were the New Town and Garden City concepts. The subsequent municipal reform movement eased municipal incorporation and granted increased local authority that improved both the quality and quantity of public goods and services offered outside of central cities.

It, therefore, was not long before the social, economic, and political strength of these new suburbs was sufficient to form opposition to expansion of cities. Indeed, the aggressive spatial expansion of U.S. cities through the early 1900s created a backlash resulting in changes in state legislation requiring only the annexee's approval of annexation rather than the simple majority approval of the combined voting population of the annexing and annexed municipalities (Teaford, 1979; Jackson, 1985). This stricter standard and the enhanced political power of suburban municipalities made it easier for them to resist takeover.

The resulting structure of American federalism is unusual in its heavy reliance on a large number of geographically small local governments to provide and finance public goods. Tiebout's (1956) influential analysis of the benefits of a decentralized system of public goods provision has long formed the heart of economists' understanding of, and justification for, this system. Tiebout argued that the ability of residents to "vote with their feet" will, under certain conditions, lead to an economically efficient allocation of resources in the local public sector. That is, just as competition in private markets can lead to efficient outcomes, so too will competition among local governments.

This conclusion rests on many assumptions. A key one that has come under increasing scrutiny is that the many competing municipal economies are roughly independent of each other. During the past decade or so a good deal of effort has been spent investigating the nature of city-suburb economic relationships within metropolitan areas to test this proposition.

Nationwide evidence to date has revealed that cities and their suburbs tend to experience similar economic fates, growing or declining together. This empirical regularity, however, is not sufficient to establish that new metropolotan fiscal institutions are required, let alone ones that transfer resources from suburbs to cities. From this finding it could be argued, for example, that the suburbs are driving the economic fortunes of metropolitan areas. More recent (and more robust) research, however, supports the contention that city growth is causing suburban growth (Chang and Coulson, 2001; Haughwout and Inman, 2002). Haughwout and Inman (2002) have shown that weak city finances also lead to weak growth in both city and suburban income and home values. So in the U.S. there is an apparent nationwide tendency of the economic success of suburbs to depend on the economic fortunes of their central cities. These findings suggest that suburbanites have a financial stake in the health of their central city, even if they do not work or shop there. But the issue of how cities and suburbs might actually exploit this opportunity remains unanswered. Moreover, while there is some evidence that the linkages between cities and their suburbs are strongest in the largest metropolitan areas (Voith 1998, Haughwout and Inman 2002), these findings are general nationwide tendencies only and do not speak to any one particular metropolitan area. Indeed, the greater New York City region is generally observed to have peculiar economic behavior due not only to its unusually large size, but also to its national and global position compared to other metropolitan area nationwide.

In the remainder of this paper, we point out advantages of cities to both producers and consumers. We then examine the apparent future direction of the world economy and reflect upon its demands upon cities. We next summarize the small set of research pertaining to New York City and its suburbs. We wind up the paper by postulating some ways in which the City may expect some suburban cooperation with the goal of identifying the types of policies that are likely to encourage such cooperation.

## 2. The Economic Advantages of Central Cities

From an economic perspective why are cities important? This theme has been and will continue to be a topic of much research. It has been said that cities are places of high cost and that they're dangerous and highly congested. So then what is it about cities that make them attractive to businesses and households despite these negative attributes?

*Idea- and knowledge-intensive industries*

Several industries that have been identified as benefiting from locations in central cities are those known as information or knowledge intensive. Capello (1994) discusses how improvements in information technology are decentralizing intermediate within-firm decision-making processes like production and inventory management to make them more flexible. But she also stresses that they simultaneously fortify the tendency of firms to centralize not only strategic and control functions but also administrative and bureaucratic procedures away from peripheral units to avoid any overlap in function. But Capello does not identify specific industries that will have a centralizing tendency.

While Ota and Fujita (1993) also do not get into industry specifics, their model of information exchange among corporate headquarters at a single information-rich location and between each headquarters at that location and its production plants at information poor locations explains not only export-based businesses' decentralization tendencies but also the centralization tendencies of headquarters operations. In the case of headquarters and the financial industry, the need for face-to-face contact appears to be a key factor in their location decision (ter Hart and Piersma, 1990). Why is it important? Thrift (1994) suggests it is the financial sector's need for expertise that filters and interprets the information quickly and for the tacit information attached to the social contact that facilitates the explicit information exchanged. That is, such contact is important because it engenders trust, which helps in the information filtering process by reducing information uncertainty.

Among urban-based industries identified by Glaeser and Kahn (2001) are the knowledge-based industries as certain finance and producer services as well as basic science and technology development. Moreover, Schwartz (1992, 1993) finds not only that central city firms seldom rely on service providers based in suburbs or satellite cities, but that suburbs, indeed, still do depend on their central cities for certain financial and professional services. On the other hand, he suggests that suburban proximity may be sufficient for many such industries that rely on contact with the most idea-intensive industries.[1] Schwartz, however, then quickly adds that the main competitors of central-city-based service firms are not in the suburbs of their metropolitan area, rather they tend to be in the central cities of other metropolitan areas.

*The Cooperative Advantage of Cities*

Cities offer some cooperative advantage as well. That is, they offer firms and households the advantage of sharing the costs of certain resources. Even urban services as mundane as sewage infrastructure require a basic level of population to facilitate lower economic and social costs per household than viable alternatives. For public services like sewage, water, and highways, firms locating in rural areas or residential developments in suburban areas either have to induce counties or states to provide this infrastructure or pay for such linkages themselves. In this regard, central cities and inner suburbs are ideal locations for starting small businesses that cannot afford such services on their own.[2]

There are other public/private services that are efficiently produced at large scales. For example, a fairly large population is needed to support a professional performing arts company, zoo, or natural history museum (Glaeser and Kahn, 2001).

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[1] Indeed, interviews conducted by the senior author with representatives of major pharmaceutical manufacturers in New Jersey during the mid-1990s bear this out as well.

Similarly specialized health services need sufficient population bases to develop a viable practice. The same can be said for specialized lawyers, educators, and other specialized consumer-based service practitioners. All of these household-based services are generally more available, or available at lower cost, in larger cities.

Some cooperative economies can only be exploited by firms. One that has been noted in the literature as early as Hoover and Vernon (1959) is the local labor market. Not only are cities large pools of labor with diverse skill sets, but in certain cases they can provide labor with distinct sets of skills. In such cases, while a region's firms in an industry may offer steady employment, the employment of any given firm is vulnerable to the market's vicissitudes. Because of this both employee and employer are often better off in a setting of many firms. Employees benefit from steady employment, and employers benefit from a ready, skilled labor pool. Hoover and Vernon exemplified this phenomenon using New York City's garment district in the 1950s. More up-to-date examples are the computer industry in Silicon Valley and the pharmaceutical industry in the greater Philadelphia-New York region.

In a similar vein, specialized production in a city can induce concentration of an industry's firms due to a need to share a particular supply-chain link (Holmes, 1999). Such localization economies are particularly attractive from an ecological perspective when the link winds up being a good that might otherwise have been waste (Desrochers, 2002).

*The Competitive Advantage of Cities*

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[2] Indeed, the concept of so-called "incubator facilities" (see, e.g., Campbell and Allen, 1987) juxtaposed against the backdrop of a knowledge-intensive environment recalls Jane Jacobs's (1961) discussion of the

The competitive nature of many firms within a confined geographical space also creates benefits. These benefits are formed largely to the benefit of consumers via a process that Porter (1998) calls “competitive advantage.” The basic tenet is that concentrations of demand spur competition among producers who vie for market share. High competition both dampens prices and enhances innovation. Thus not only do consumers in areas of high demand benefit from lower prices for the goods and service then demand, but they also get more choice through more varied production. Since metropolitan areas, and the core cities in particular, are by definition large-sized market areas, they certainly benefit from competitive advantage.

*Historic and Natural Advantage of Cities*

Of course, cities have some historical/geographical infrastructure that gives them some obvious advantage as well. They continue to serve as trade centers due to their ready access to deep water harbors, interstate highways, railroads, and heavily trafficked airports. In part because of the presence of these facilities, several cities (Los Angeles, New York, San Francisco, Chicago, Miami, Dallas, Houston, and Washington, D.C, in particular) are major immigration gateways (Frey, 2002). Large immigration flows in a region tend to depress its wage rates, making industry there more competitive than it otherwise might be. Constant flows of new immigrants makes for a more interesting, diverse population, creating a melting pot of their ideas and cultures. This enhances the innovative potential of cities and furthers their roles as centers of culture (Jacobs, 1969).

So in the final analysis, what business specialties are attracted to cities that might spur the growth of large metropolitan areas? The answer is that cities offer competitive

need diversity in an urban setting.

locations of business to the creative arts and information/knowledge-intensive industries, and industries that require large, localized demand bases. Moreover they are natural centers of learning, culture, science and technology, health care, and government. And they remain centers of trade.

## 3. Globalization and the Future of Cities

Globalization supporters contend that it has spurred innovation, broaden investment opportunities and portfolios, and extended a lifeline to the world's poor. Its detractors counter that it is actually heightening inequality, undermining labor and environmental standards, and eroding the economic sovereignty less-developed nations. But most tend to agree that the world's economic interconnectedness is unprecedented and, now, largely irreversible. History suggests otherwise. Indeed, most change we attribute to the phenomenon "globalization" is not new (see, e.g., Bordo, Eichengreen, and Irwin, 1999). Most of the characteristics of the change also existed at the dawn of the twentieth century.

Yes, information technology (IT) has been changing the way our economy works: On the other hand, since the inventioneering of Thomas Edison and Alexander Graham Bell, this generally has been the case. So many assume that since its outset, change in IT has been relatively constant, albeit with occasional small jumps and with economic implications that have become more international in nature since 1980. Krugman (1995) further notes that our volume of trade is not qualitatively different from what it was early in the twentieth century. Interestingly, immigration rates at the turn of the last century were actually higher (Feinman, 2000).

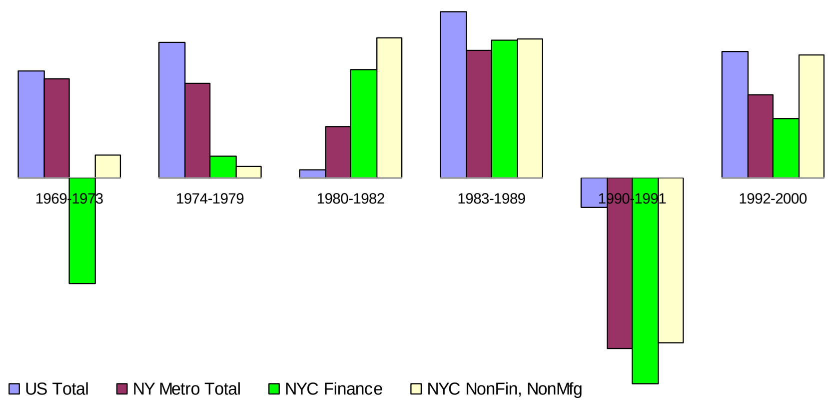
Indeed, there are really only two aspects of the greater phenomenon commonly referred to as "globalization" that can really be called new. They are (1) the free movement of capital made possible by recent trade agreements (Krugman, 1995) and (2) low transportation costs (Glaeser and Kohlhase, 2004). The result of these agreements is that large sums of money can cross borders more freely in the form of foreign direct investment or simple individual investment. Moreover, ***larger*** international exchanges of funds in generally are now possible.

So what are the implications of these changes to growth of central cities and metropolitan areas? The internationalization of capital movements has had major repercussions on international banking centers like New York, London, Frankfurt, the Rand District in The Netherlands, Paris, and Hong Kong, making them even more important in the international arena. This is because in order to make requisite exchanges capital markets need access to a high-volume international airport or access to fast-moving bullet trains that have access to such airports. Ports similarly are becoming more important as trade rises with the exchange of capital. As are there links to inland freight transportation modes, particularly rail and truck. Finally, immigration flows are increasing their tendency to follow capital flows, so that many of these banking centers are increasing their roles as immigration gateways.

## 4. Evidence from New York

The greater New York region has never existed under the rule of a single local political power. From its outset under England's King Charles II, the region near the mouth of the Hudson River was composed of three separate provinces: New York, New Jersey, and Connecticut. While this division has merely evolved into states, it has since splintered further into something on the order of 30 counties, 800 municipalities, and over 1,000 service districts. Moreover, the strong respect for home rule in the three components states has encouraged a total lack of unincorporated areas and a heavy reliance by municipalities on property taxes, and with that a natural predisposition towards suspicion of proposals tax reform and tax-base sharing (Yaro, 2000).

Figure 1: Employment Growth Rates
in Metropolitan New York City, 1969-2000




Further characterization of the region from 1970 to 2000 reveals that during recovery periods (national recessions occurred in 1980-1982 and 1990-1991) the greater New York City metropolitan area's changes in aggregate employment have tended to be bound by job changes in New York City's finance sector and across the entire U.S. (see Figure 1). This lends some credence to the suggestion that the finance industry spurs metropolitanwide growth. Schwartz's (1992, 1993) analyses of financial and producer services in the New York region bear this out in a more robust fashion. On the other hand, his evidence of the outward expansion of some of these key services deserves further examination and consideration.

More-detailed analysis by Lahr (2004) reveals that growth in the City's finance sector leads to suburban growth in employment and earnings two years hence, especially in the case of its Connecticut suburbs. On the other hand, New York City's suburbs remain one of the most expensive places in the US in which to live (ACCRA, 2003). Moreover, within the metropolitan area these cost differentials also exist, at least between New York City and its outer suburbs. In this light, is it not surprising, therefore, that Lahr also shows that manufacturing jobs and earnings are leaving the city to the benefit of the suburbs, particularly those in New Jersey. Meanwhile the metropolitan area as a whole is shedding such jobs and earnings at an even faster pace to the benefit of the rest of the nation.

One obvious manifestation of the interdependence among municipalities in the region is commuting. Since 1970, the jobs in the region have decentralized markedly, with rapid growth in the suburban counties surrounding New York City – Northern New Jersey, Long Island and the Lower Hudson Valley. Yet between 1970 and 2000, overall commuting into Manhattan, the region's core, actually increased in both absolute numbers and as a share of workers. At the same time, reverse commuting from New York to other locations has also increased. Bram and McKay (2003) document these trends and argue that commuting (which might be thought of as intra-regional trade in labor) represents an additional mechanism (to intra-regional trade in goods and services) generating interdependencies within the region.

## 5. Implications for the NYC Region

What are the implications? First of all, fiscal cooperation between the city and the suburbs seems to plausibly offer benefits to the region as a whole, and to both the City and its surrounding suburbs. Nonetheless, broad-ranging centralized metropolitan governance seems unlikely. In addition to (or perhaps because of) the fact that a wholesale consolidation would eliminate the benefits of local public sector choice, the political palatability of this option at the state level is low, and it is probably lower still at the municipal level. Robert Yaro (2000) of the Regional Plan Association, which has as part of its mission a goal keeping the greater New York City region economically competitive, puts it this way: "Reformers should not waste a lot of time or political capital on comprehensive governance solutions that look attractive on paper…but are politically unattainable in very large multicounty or multistate regions."

Public finance in the New York metropolitan area, with three states and hundreds of counties, municipalities and special purpose authorities, is extremely complex and a catalog of all the features relevant to regional growth would be impossible. We thus focus our comments on a set of principles that could guide incremental enhancements to economic efficiency in the region. We discuss both negative and positive dimensions; that is, we attempt to identify aspects of current policies that undermine efficiency as well as suggesting new features that might increase growth.

Two empirical regularities guide our discussion. First, inter-jurisdictional differences in taxation and public goods provision within the region distort the economic landscape and, other things equal, reduce growth. Second, the engine driving the metropolitan area's economy is its core, especially New York City. Combining these two principles, the question for policymakers is, "Given that jurisdictional differences in taxation distort the economic landscape in potentially deleterious ways, what kinds of options are available for enhancing the region's growth, especially in its core?" The central tenet of the answer is to reduce public sector incentives for firms to move outward from the center.

This suggests that such policy instruments as tax breaks for firms to locate outside the City and development of suburban infrastructure networks be avoided, while those that provide incentives for filling in, agglomerating and clustering are more desirable. An example of the application of these principles will be found in the taxation of commuters. A commonly heard cry in the region is that the elimination of the New York City commuter tax reduces the contribution to the city from its suburbs, weakening city finances and undermining city growth. While this is on its face true, there are at least two problems with this logic. First, a commuter tax distorts the economic landscape, providing firms with incentives to leave the jurisdiction in which the tax is incident, i.e., the City. Second, evidence suggests that the benefits of a fiscally healthy central city are spread to *all* suburbanites, not just those who commute to the city. Hence, a more effective instrument would be one that reallocated resources from the entire region, not just the relatively small proportion of households that commute into New York City, to enhancing agglomeration economies in the City. Such a plan would assure that the many who benefit from a strong center city pay to bolster it, rather than taxing a few for the benefit of many.

In general practical proposals for metropolitan governance across the greater New York metropolitan area should be based on incrementalism. Local precedent for such cooperation exists in the form The Port Authority of New York and New Jersey (PA), which has long supported area public works in the form of transportation infrastructure: administering public aspects of the port and harbor, City bridges and tunnels, the three major airports, and most recently investigations into a new tunnel for freight only. Moreover, New York City's nexus in the globalizing economy and the impact of international trade and travel on the greater New York City region, as discussed above, suggests that such activity should be administered from a metropolitan perspective.

Another example exists in the region in the form of the Meadowlands Commission, where tax-base sharing has been implemented since 1972. The idea of forming the Commission was to get all municipalities affected by the physical infrastructure planned for development in the Hackensack Meadowlands to buy into the large development proposal. If the development had been proposed like others before it, many affected municipalities would have rejected the concept, particularly those burdened heavily in the development plan by use of their land in the form of nontaxable public space or highways. Rather than face an outright veto of the proposed plan, the concept of tax-base sharing asks municipalities slated to gain most of the tax ratables to share their wealth with those municipalities designed to be burdened with the development's nontaxable developments. Thus, the tax sharing plan was intended to balance the development's designed land-use inequities so that the region could be developed as a unit with town-to-town equality.

But outside of localized tax-base sharing mechanisms, place-based and place-specific policies may be difficult to implement across the metropolitan area. So what types of policies *could* work in the region? One possible policy focus could be one targeting specific industries. Indeed, much of our focus in earlier sections of this paper was on the set of sectors in the New York City metropolitan economy that deserve special attention and treatment. Based on these discussions there are two obvious targets: infrastructure supporting finance industries, as well as cultural (including the arts) and scientific developments. Possible policy tools could take the form of some sort of targeted subsidy supported by suburbs, City tax or state relief for these industries, or some sort of tax-base sharing to support the growth of these key City sectors.

On the other hand, some of the metropolitan governance need not be targeted at specific industries. For example, it is clearly of some interest to all involved to enhance coordination of tax and regulatory policies across the three states. In particular, the three states should work toward leveling property and income taxes rates, liquor and sales taxes, land-use and environmental regulations, as well as labor regulations and their enforcement levels. These are the things that can make differences between the states. It's better if everybody is playing the same game.

Perhaps the most important recommendation is that policymakers with a long-run interest in the health of the metropolitan area's economy should engage in regular dialogue on the region's future. In a region with so many governments and so many officials charged with partial responsibility improving the welfare of its residents, such conversations will undoubtedly identify many more possibilities for cooperation than could be discussed in a single study. In such discussions lies the greatest hope for making New York's future as bright as it can be.

## 6. References


ACCRA. 2003. *ACCRA Cost of Living Index: Comparative Data for 307 Urban Areas*. ACCRA: Arlington, VA, November, 36 (3).

Bordo, Michael D., Barry Eichengreen, and Douglas A. Irwin, 1999. "Is Globalization Today Really Different than Globalization a Hundred Years Ago?," In Susan M. Collins and Robert Z. Lawrence, eds., *Brookings Trade Forum: 1999*. Washington, D.C.: The Brookings Institution, pp. 1-50.

Bram, Jason and Alisdair McKay. 2003. "Changing Commuting Patterns in the New York Metropolitan Region," mimeo, Federal Reserve Bank of New York.

Campbell, Candace and David N. Allen. 1987. "The Small Business Incubator Industry: Micro-Level Economic Development," *Economic Development Quarterly*, 1, 178-191.

Capello, Roberta. 1994. "Towards New Industrial and Spatial Systems: The Role of New Technologies," *Papers in Regional Science*, 73, 189-208.

Chang, Sheng-Wen and N. Edward Coulson. 2001. "Sources of Sectoral Employment Fluctuations in Central Cities and Suburbs: Evidence from Four Eastern Cities," *Journal of Urban Economics*, 49, 199-218.

Desrochers, Pierre. 2002. "Cities and Industrial Symbiosis: Some Historical Perspectives and Policy Implications," *Journal of Industrial Ecology*, 5(4), 29-44.

Feinman, Joshua N. 2000. "Globalization: Déjà Vu?," unpublished paper presented at a seminar on International Investing for Pension Professionals, Florence, Italy, July 9-14, available at http://ifecorp.com/Papers-PDFs/Feinman700.pdf .

Fox, Kenneth. 1986. *Metropolitan America: Urban Life and Urban Policy in the United States 1940-1980*. Jackson, MI: University Press of Mississippi.

Frey, William. 2002. "Census 2000 Reveals New Native and Foreign Born Migrant Shifts Across U.S." *Research Report 02-520*. Ann Arbor, Mich.: Population Studies Center, University of Michigan.

Geddes, Patrick. 1915. *Cities in Evolution*: *An Introduction to the Town Planning Movement and the Studies of Civics*. London: Williams and Norgate.

Glaeser, Edward L. and Mathew Kahn. 2001. "Decentralized Employment and the Transformation of the American City," *Brookings-Wharton Papers on Urban Affairs*, 2, 1-47.

Glaeser, Edward L., Mathew Kahn, and Jordan Rappaport. 2000. "Why Do the Poor Live in Cities," *National Bureau for Economic Research Working Paper No. 7636*. Cambridge, MA: National Bureau for Economic Research.

Glaeser, Edward L. and Janet E. Kohlhase. 2004. "Cities,Regions and the Decline of Transport Costs," *Papers in Regional Science*, 83, 197-228.

Hall, Peter G. 1988. *Cities of Tomorrow: An Intellectual History of Urban Planning and Design in the Twentieth Century*. New York: Blackwell.

Hart, H.W. ter and J. Piersma. 1990. “Direct Representation in International Financial Markets: The Case of Foreign Banks in Amsterdam,” *Tijdschrift voor Economische en Sociale Geografie*, 8(2), 82-92.

Haughwout, Andrew F. and Robert P. Inman. 2002. "Should Suburbs Help Their Central Cities?" William G. Gale and Janet Rothenberg Pack, eds., *Brookings-Wharton Papers on Urban Affairs* (Washington, DC: Brookings Institution Press). http://www.newyorkfed.org/rmaghome/economist/haughwout/citysubbrookings.pdf.

Holmes, Thomas M. 1999. “Localization of Industry and Vertical Disintegration,” *Review of Economics and Statistics*, 81, 314 - 325

Howard, Ebenezer. 1898. *To-Morrow: A Peaceful Path to Real Reform.* London: Swan Sonnenschein (reissued in 1902 as *Garden Cities of To-Morrow* by Faber and Faber, and republished in 2003 by Routledge under its original title).

Hoover, Edgar M and Raymond Vernon. 1959. *Anatomy of a Metropolis.* Garden City, New York: Anchor Books.

Jackson, Kenneth. 1985. *Crabgrass Frontier: The Suburbanization of the United States*. New York: Oxford University Press.

Jacobs, Jane. 1961. *The Death and Life of Great American Cities*. New York: Vintage Books.

Krugman, Paul. 1995. “Growing World Trade: Causes and Consequences,” *Brookings Papers on Economic Activity*, 1: pp. 327-362.

Lahr, Michael L. 2004. “Is New York City Still Propelling Growth in Its Suburbs?: A Study of Economic Spillover Effects through Spatial Contiguity,” unpublished working paper, Center for Urban Policy Research, Rutgers University, available online at http://ideas.repec.org/p/wpa/wuwpur/0403007.html.

Mumford, Lewis. 1925. “The Fourth Migration,” *Survey*, 54, 130-133.

Ota, Mitsuru and Masahisa Fujita. 1993 “Communication Technologies and Spatial Organization of Multi-Unit Firms in Metropolitan Areas,” *Regional Science and Urban Economics*, 23, 695-729.

Paytas, Jerry. 2002. “The Organization of Metropolitan Areas: The Development of the Hybrid Metropolis,” Center for Economic Development, Carnegie Mellon University, unpublished paper available at http://www.andrew.cmu.edu/user/jp87/omamarch2002.pdf.

Porter, Michael. 1998. “Clusters and the New Economics of Competition,” *Harvard Business Review*, 76(6), 77-90.

Schwartz, Alex. 1992. “Corporate Service Linkages in Large Metropolitan Areas: A Study of New York, Los Angeles, and Chicago,” *Urban Affairs Quarterly*, 28, 276-296.

_____. 1993. “Subservient Suburbia: The Reliance of Large Suburban Companies on Central City Firms for Financial and Professional Services,” *Journal of the American Planning Association*, 59, 288-305.

Teaford, Jon C. 1979. *City and Suburb: The Political Fragmentation of Metropolitan America*, *1850-1970.* Baltimore: Johns Hopkins University Press.

Thrift, Nigel. 1994. “On the Social and Cultural Determinants of International Financial Centres: The Case of the City of London,” in S. Courbridge, R. Martin, and N. Thrift, eds., *Money, Power and Space.* Oxford: Blackwell, pp. 327-355.

Voith, Richard. 1998. “Do Suburbs Need Cities?,” *Journal of Regional Science,* 38, 445-464.

Yaro, Robert D. 2000. “Growing and Governing Smart: A Case Study of the New York Region,” Bruce Katz, ed., *Reflections on Regionalism*, Washington, DC: Brookings Institution Press.