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The Decentralization of Intrametropolitan Business Services in the Paris Region: Patterns, Interpretation, Consequences

Ludovic Halbert

*University of Paris-1 Panthéon-Sorbonne,
191, Rue Saint-Jacques, 75005 Paris, France
ludo_halbert@yahoo.fr*

Abstract: What is the importance of the decentralization of business services in a Parisian metropolitan region that is known for its inherited monocentricity? Using revised statistical and cartographic methodological tools, I try to answer two questions: Is the new Parisian metropolitan economic geography one of dispersal or of polycentricity? Does decentralization mean the decline or the reinforcement of the economic core? If secondary suburban economic centers benefit from the decentralization of business services, neighboring spaces of the municipality of Paris, such as the inner western suburbs of La Défense and Boulogne-Billancourt, are affected, too. This article demonstrates that polycentricity is not opposite to the constitution of a new golden triangle within the dense part of the agglomeration. This means both that economic centrality still matters (and thus that dispersed cities may not be the twenty-first century's metropolitan archetype) and that an enlarged core business district (CBD) straddling Paris and the western Hauts-de-Seine *département* is being reinforced (thus invalidating the theory of CBD decline). Thanks to the widening of the business district from Paris to La Défense, the labor market remains integrated; meanwhile, secondary economic centers in the Outer Suburbs tend to create fragmented subregional labor markets of their own.

Key words: business services, economic decentralization, polycentricity, spatial differentiation, labor market subfragmentation.

The location of business services is undergoing a mutation at both the international and intrametropolitan levels. From Peter Hall's (1966) world cities to Sassen's (1991) "global city," research on worldwide metropolitan regions has been blossoming. According to Sassen, the dynamics of globalization, characterized by both the increasing importance of international exchanges (including financial flows) and the reorganization of corporate strategies to gain access to this world market, have led to the constitution of particular metropolitan regions, such as London, New York, and Tokyo. These regions are all characterized by the importance of financial and service producers' activities, which have been taken as indicators of the degree of globalization

of cities. The more important the share of service producers, the more global a city is. In this regard, Paris has been the focus of an ongoing debate. Although Sassen (1994) included it in her list of global cities, some specificities of the Paris metropolitan region seem to contradict such a choice. Going past this "global city" argument, Veltz (1996) established that the Paris region belongs to what he called an "archipelagic economy," which tends to associate key economic regions in a global network. Such networks have been studied by the Loughborough Group Analysis of World Cities (GaWC) (see Taylor 2003; for the case of London, see Beaverstock, Smith, and Taylor 2003), which illustrated that the strategies of multinational firms rely on specific nodes that are

embodied in some major urban regions: in this ranking, Paris comes second in Western Europe, just after London. Daniels (1993) pointed out how the dynamics observed at the international level are linked to the reconfiguration of intrametropolitan geography.

As early as the 1960s, Gottmann (1961), a French geographer, focused on the intraregional level in his analysis of the megalopolis, which he depicted as a multicentered urban organization stretching from Boston to Washington in which the strongly interrelated economic centers benefited from the functional and spatial division of the productive system. Since then, urban and economic geographers have endeavored to document the reorganization of productive systems as secondary economic centers have grown in often-traditionally monocentric city-regions. In the case of North American metropolitan regions, for instance, the suburbanization of service producers has been theorized by the terminology of "third wave" decentralization (Cervero 1989); that is, business services tend to leave the historical core business district (CBD) for more attractive peripheral suburban places and, in so doing, follow the earlier departure of population, manufacturing, and household services. However, if the existence of this dynamic is well recognized in the scientific community, it has raised two geographic debates that are still unsettled: namely, whether the new Parisian metropolitan economic geography is one of dispersal or of polycentricity, and whether decentralization means the decline or the reinforcement of the economic core. This article addresses these debates by looking at the case of the Paris region.

Reevaluating the Deconcentration of Business Services

First, the importance of the decentralization of business services in reshaping the economic geography of cities must be evaluated. The North American CBD-centered urban agglomeration is sometimes

described as a form of the past. The "corporate exodus" in New York, for example, has led some authors to predict the death of cities (Jacobs 1963). In this context, what new spatial patterns do metropolitan regions adopt? For some authors (Gordon and Richardson 1986, 1996a), the Californian examples of Silicon Valley and Orange County demonstrate the constitution of dispersed urban regions in which CBDs tend to be small, as if they are unable to compete with vast fast-growing suburban areas. Other case studies have shown that spatially limited suburban economic centers, known as "edge cities" (Garreau 1991), are emerging in peripheral areas and creating polycentric metropolitan regions. This geographic debate questions the meaning of centrality. If edge cities are still economic concentrations, even if they are on the outskirts of urban agglomerations, trends in dispersion signify the end of "economic centrality" as large, noncentered subregions are being constituted.

Second, the interpretation of decentralization processes is puzzling. Some U.S. authors (see, e.g., Garreau 1991) have argued that decentralization is proof of the decline in CBDs. According to them, traditional business districts have become less-efficient places, unable to compete in the global economic system: their office market is said not only to be inadequate and too expensive, but also to suffer the consequences of a negative image because of traffic congestion and social tensions. Against this perspective, some Canadian researchers have contended that the CBD is being reinforced (Coffey, Polèse, and Drolet 1996). If major Canadian urban regions face the decentralization of business services, this process cannot be explained by factors that are identified as being specific to U.S. cities, as is illustrated in the case of Montreal (Coffey, Drolet, and Polèse 1996). Rather, the departure of business services from CBDs indicates the selective consolidation of the traditional CBD that manages to move low value-added services to peripheral locations, and hence to keep high-order activi-

ties concentrated, thanks to expensive office markets.

The strengthening of the competition for central location is not to be taken for granted. As information and computer technologies (ICT) and telecommunications develop and as transport costs decrease, one could assume that location does not matter as much as it used to (Cairncross 1997). Indeed, to locate a firm on the periphery of a major metropolitan region is a way both to benefit from agglomeration economies and to reduce the diseconomies of central location. In other words, it allows companies to be closer to the workforce and to decrease real estate costs but to be still strongly connected to the central economic center and to major national and international gateways, such as airports, railway stations, and highways.

However, the literature has emphasized that centripetal forces work against decentralization processes, as illustrated by changes in the global economy and the reorganization of firms. In an internationalized economy, a firm must find a balance between the global and the local scale (the term *glocalization* has sometimes been used). Corporate strategies attempt to maintain an equilibrium between the necessity to centralize decisions in order to increase efficiency and gains in productivity, and to be decentralized enough to react to the specificities of regional markets—hence, the constitution of a multilayered network of world cities that are part of a hierarchical international urban system. For some authors, the logic underlying this decentralization of multinational firms relies on the necessity to be in contact with clients and partners, since one characteristic of the service sector is the involvement of consumers during the production process (Bonamy and May 1994). Consequently, the development of ICTs induces that nonstandardized information that can be collected only through face-to-face contact is always more strategic (Graham and Marvin 1996; Castells 1996). Therefore, the closer the service producers are to their clients, the more productive the organization. In the

French consulting industries, the numerous openings of secondary offices in Lyon, Lille, Toulouse, and Marseille during the 1990s by Paris-based headquarters illustrated this necessity. At the intrametropolitan level, the face-to-face requirement pleads in favor of the most central locations in the city-region. However, in the Paris region, this factor must be balanced by public planning policies. Indeed, the regional *schémas directeurs* (guiding schemes) have been trying to develop a more polycentric urban organization that is based on a network of *villes nouvelles* (new towns) and on public investments in railway and road-transport infrastructures. The effects could promote the decentralization of activities.

Paris: A Test Metropolitan Region

The aforementioned debates on the intrametropolitan reconfiguration of main cities in the world have led to many case studies of the urban regions of Sydney, Copenhagen, and London, to name but a few. The Sydney study (Pfister, Freestone, and Murphy 2000) showed how trends in deconcentration were effective in a metropolitan region that is characterized by low density and long distances. Being far away from the main economic center seems to make it easier for a secondary economic center to develop. In the case of Copenhagen (Illeris 1997), the study of advanced business producers attested to the reality of trends in decentralization by showing how a large subregional quadrant benefited from such dynamics, especially in ICT industries.

Hall (2003) proposed that the results he observed in London could be generalized to a set of Western European metropolitan regions (see the introduction to the 2003–2006 Interreg IIIb POLYNET project): rejecting the North America-based model of edge cities, which does not seem to be efficient in depicting old historical cities that have been rebuilding themselves, rather than expanding indefinitely (see

Cattan, Pumain, Rozenblat, and Saint-Julien 1994; Huot 1998), he argued that in the London, Randstad (the Netherlands), Rhine-Rhur and Rhine-Main (Germany), and Brussels regions, decentralization may be characterized as "concentrated deconcentration." The decentralization of the metropolitan economic core benefits mainly secondary economic poles of the metropolitan region. In this context, there have been few studies of the Paris region, since urban and economic geographers have been reluctant to analyze a metropolis that has been described as unchangingly monocentric.

It is true that the Paris region area is denser and more compact than are common world cities (such as London). Even if suburbanization processes are long historical ones, some of which can be dated to as early as the second half of the nineteenth century, no suburb stretches over endless distances. The Paris administrative region (Ile-de-France) is 12,000 km²—that is, as big as the London metropolitan area (IAURIF, 2002)—but only 20 percent of it is urban. With such a small size and a high density (the regional average of 900 inhabitants per km in effect hides a much more important urban density in the agglomeration), the Paris region is unlikely to develop trends in the decentralization of business services because the development of secondary economic centers in the agglomeration requires competition with an historically predominant central core that is only a few kilometers away.

Moreover, as the political, economic, and cultural capital of France, Paris is not only the first metropolitan area in a macrocephalic urban system (Paris is seven times the size of Lyon, the second-largest French city), it also concentrates many national-level activities. The state government, national and multinational headquarters, and cultural centers have long been located within the 105 km² of the City of Paris. For these reasons the study of the hypothesis of the decentralization of business services using the case of Paris is even more relevant, since this metropolitan region seems resistant enough to test the intensity of the subur-

banization of business services. Indeed, the work of Beckouche (1999) and Beckouche, Damette, and Vire (1997) demonstrated how the western districts (*arrondissements*) of Paris were no longer the only economic concentration, since the business district La Défense, for instance, was gaining in importance. Alvergne and Shearmur (2002) proposed a detailed study of employment by business services. They observed a trend toward decentralization that was characterized by diffusion and concentration logics. Nevertheless, their approach did not go beyond the economic sector analysis and did not interrogate the spatial division of labor within the region.

The Decentralization of Business Services in the Paris Region: A Complex Spatial Reorganization

Against this background, I now analyze the geography of business services by measuring not only the importance of trends in decentralization, but also the effects of these trends on the relationships between the main economic core and other secondary centers, as well as on the geography of the regional labor market. In so doing, I attempt to answer the following questions: As decentralization occurs, is the spatial division of labor getting more intense? What role is played by the traditional center: is it still the decisional core of the metropolis? Are newly developing secondary economic centers merely obeying orders from the traditional center or attracting more upmarket activities? Finally, what is the nature of the relationship between economic centers: indifference, competition, or cooperation? The Paris region used to be praised for its relative integration in a single metropolitan labor market (Rousseau 1998). Is subregional fragmentation, such as has been described in some of North America's urban regions (Godfrey 1995), occurring there as well?

The scale of analysis obviously matters in understanding transformations in metropolitan economic geography. Against the use of what seems to be too wide a spatial aggre-

gate in some North American studies (mainly because of the nature of available data), I mapped economic data not only at the broad scale of metropolitan areas, (the city and its two peripheral rings), but also at much finer levels. The use of different scales allowed me to go beyond a mere center-periphery approach that most authors aspire to (see the recommendations by Gordon and Richardson 1996b) and to provide new insights into the complex reorganization that affects metropolitan economic geographies. Indeed, the use of municipality-level maps allowed me to depict these transformations more precisely.

Moving Off Center: A Center-Periphery Analysis

The most common methodological approach to studying the decentralization of jobs is center-periphery analysis. For example, Gordon and Richardson (1996b)

concluded that Los Angeles represented the norm, rather than an outlier, of a decentralized urban region, thanks to a scientific protocol that compared population and employment geography among three areas they defined as the Core City, the Primary Metropolitan Statistical Area, and the rest of the Consolidated Metropolitan Statistical Area. This represents the easiest way to study trends in decentralization because most data are available on this broad metropolitan scale.

To ensure comparability, I used the same methodological approach by defining three study areas: Paris City, a metropolitan area that I refer to as the Inner Suburbs (*Petite Couronne*), and a larger metropolitan area that I refer to as the Outer Suburbs (*Grande Couronne*) (see Figure 1). To track the changing localization of service-sector activities, I used employment statistics from the Institut National de la Statistique et des Etudes Economiques (INSEE—the French

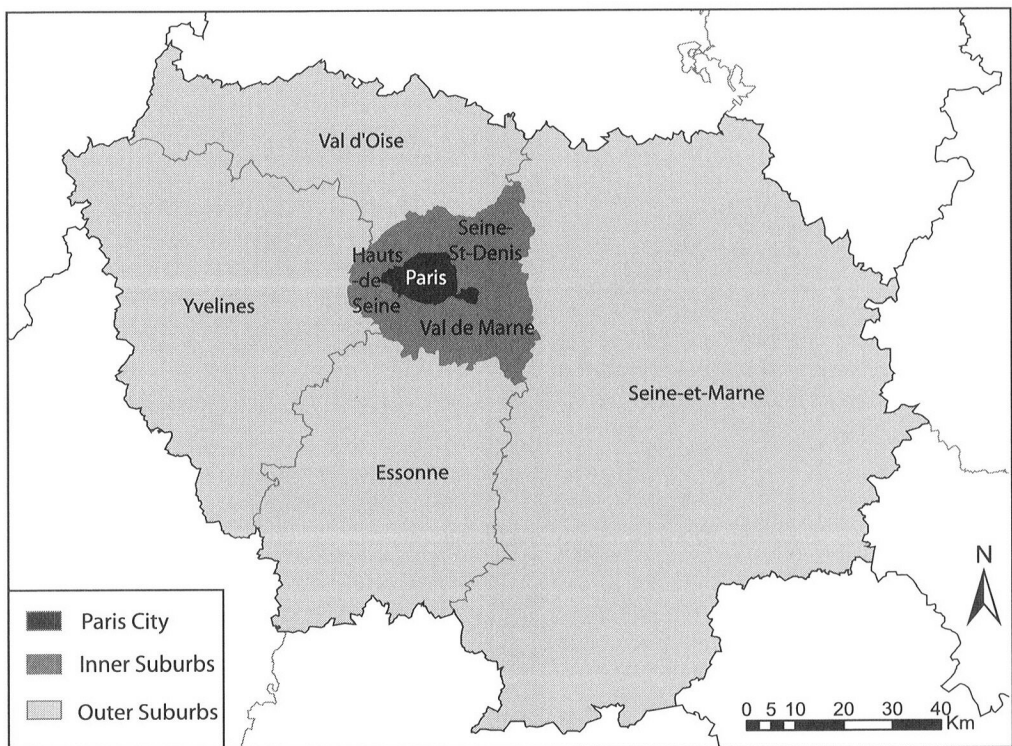


Figure 1. Administrative map of the Ile-de-France region.

equivalent of the U.S. Bureau of the Census) for the last three censuses (1982, 1990, and 1999). I analyzed all activities that could be defined as producing services sold mainly to firms that belong to what has been called the "periproduktive" sector in the STRATES team's analytical grid (Beckonche and Damette 1993). Three main types of economic sectors are involved in this category: business services, such as management, marketing, accounting, legal affairs, information technology (IT), real estate, and research and development (R&D); banking-finance-insurance; and transport and telecommunications. With around 1.85 million jobs in 1999, these accounted for over 40 percent of the total employment in the Ile-de-France region. The number of jobs had increased since 1982 (2.3 percent per year) by more than 640,000 new jobs, even though there was stronger growth in the first intercensus period (1982-1990) than in the second (1990-1999). The localization of producer-service activities was shared more or less equally between Paris and its two suburban rings (see Figure 2). The 485,000 producer-services jobs in the Outer Suburbs were

only slightly less than the 635,000 and 700,000 of Paris City and the Inner Suburbs, respectively. In an inherited monocentric agglomeration, this situation can be explained only by an intense spatial reorganization of the production system.

Over the 1982 to 1999 period, if the overall growth of periproduktive jobs was strong, it was unequally distributed. Paris City, for instance, the traditional center of employment for producer services in the metropolitan region, did not benefit from this positive trend; the proportion of producer-services jobs decreased 0.3 percent per year. In contrast, the rest of the region expanded steadily. The Inner Suburbs gained 300,000 producer-services jobs, with a variation of +4.5 percent per year, enabling it to become more important in size than Paris City. The Outer Suburbs showed the highest variation rate over the period, with +6.1 percent per year, that is, a net gain of 247,000 periproduktive jobs. These figures recall observations by North American authors that there is a metropolitan decentralization gradient that benefits most "peripheral" areas.

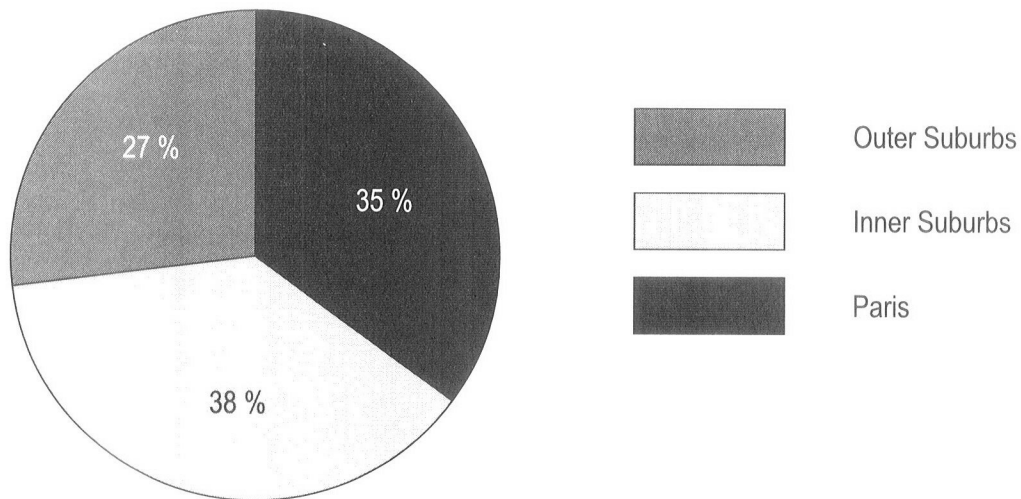


Figure 2. Center-periphery distribution of periproduktive employment in the Paris region (1999).

Source: INSEE/IAURIF, National Census 1999.

A More Complex Geographic Pattern

This description is simplistic, however, since the center-periphery gradient is not sufficient to explain mutations in the metropolitan economic system. When the scale of observation is changed, the decentralization processes appear more complex. To demonstrate this fact, I focus on statistical data at the *départementale* level. The Ile-de-France region is subdivided into eight *départements* (equivalent to counties). Paris is a *département* by itself, whereas the Inner Suburbs include three (the Hauts-de-Seine, west of Paris; the Seine-Saint-Denis, northeast of Paris; and the Val-de-Marne, southeast of Paris), and the Outer Suburbs have four (the northwestern Val d'Oise, the northeastern and eastern Seine-et-Marne, the southern Essonne, and the southwestern Yvelines) (see Figure 1). In 1999, *départementale* figures showed a distribution of producer-services employment that was still dominated by Paris (see Figure 3). The only *département* that was able to compete with the French capital was the Hauts-de-Seine, with 368,000 producer-services jobs (20.2 percent

of the regional total). The six other *départements* were far behind, their producer-services employment ranging from 100,000 to 180,000 jobs, that is, from 5 percent to 10 percent of Ile-de-France's total. These data indicate that the actual center of the metropolitan economy in 1999 was no longer Paris alone, but the two *départements* of Paris and the Hauts-de-Seine. Somehow, the regional economic core had been enlarged to the first western Inner Suburbs.

The *départementale* variation between 1982 and 1999 allows for more subtle observations (see Figure 4). If the four Outer Suburbs *départements* benefited from steady growth (between +5.3 and +7.3 percent per year), thus confirming decentralization processes, the situation in the Inner Suburbs was much more unequal. The trends were widely different between Val-de-Marne and Seine-Saint-Denis, where variation over the same period only slightly exceeded the regional average (+3 percent per year), and the Hauts-de-Seine's spectacular growth (+6.2 percent per year). This finding confirms the imbalanced pattern of growth in the center of the agglomeration between

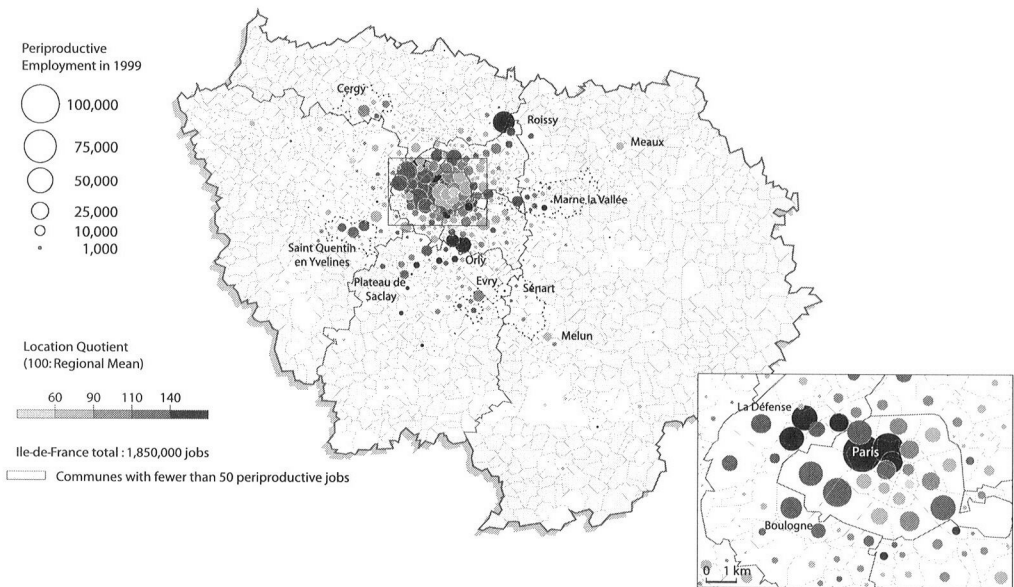


Figure 3. Map of periproduktive employment in the Ile-de-France region (1999).

Source: INSEE/IAURIF, National Census 1999.

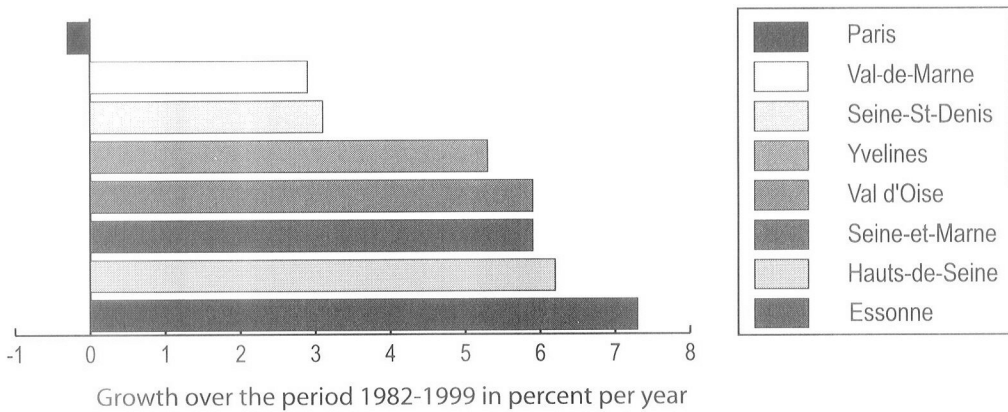


Figure 4. *Départementale* periproductive employment variation rate (1982–1999).
Sources: INSEE/IAURIF, National Census 1982–1999.

the fast-growing western half and the slower-developing eastern part. Consequently, the *départementale* approach indicates that observations that are made at a simple center-periphery level do not allow for any definitive conclusions. Slightly changing the scale of analysis leads to a different understanding of the productive system's geography. In this case, the decline of the center against fast-growing suburbs, asserted by the center-periphery model, is challenged by a view in which the Outer Suburbs' strong development is not the opposite of the enlargement of the economic center from Paris to the Hauts-de-Seine *département*. The most precise spatial aggregate given by the INSEE is that of the municipalities (*communes* in French). With over 1,300 municipalities in the Paris region, it allows one to draw an accurate cartography of producer-services employment. The aim is to understand the form taken by the trend toward decentralization. Thus, the question must be asked: Is the metropolitan region affected by the dynamics of dispersion that produce a large subregional producer-services employment area, or is it limited to a few economic centers, that is, the dispersion versus the "concentrated deconcentration" theory?

In 1999, the cartography of producer-services jobs showed the predominance of a triangle-shaped area that was centered

on Paris and its adjacent western municipalities (see Figure 5). The three summits of this triangle were the western *arrondissements* (districts) of Paris, known as the Financial City (218,000 periproductive jobs); La Défense economic center and its neighboring municipalities, located in the middle of the Hauts-de-Seine *département* (165,000 periproductive jobs); and Boulogne-Billancourt/Issy-les-Moulineaux/Paris's southern districts, located mostly in the eastern part of the Hauts-de-Seine *département* (120,000 periproductive jobs). The rest of the western districts of Paris and of the municipalities linking Paris to La Défense (Neuilly-sur-Seine, Levallois-Perret, and Clichy) must be added to depict what is the new golden triangle of the Paris region. Altogether, they account for no less than 610,000 periproductive jobs, almost 40 percent of the regional total.

In addition, "secondary economic centers" (Cervero 1989) can be identified: the 12th and 13th *arrondissements* on the eastern part of Paris (77,000 periproductive jobs), the two airports of Orly and Roissy (34,000 and 50,000 periproductive jobs), and the *villes nouvelles* (the Paris region's new towns)—eastern Marne-la-Vallée (37,000 periproductive jobs), southeastern Evry and Sénart (30,000 periproductive jobs), southwestern Saint-Quentin-en-Yvelines (34,000 periproductive jobs), and northwestern

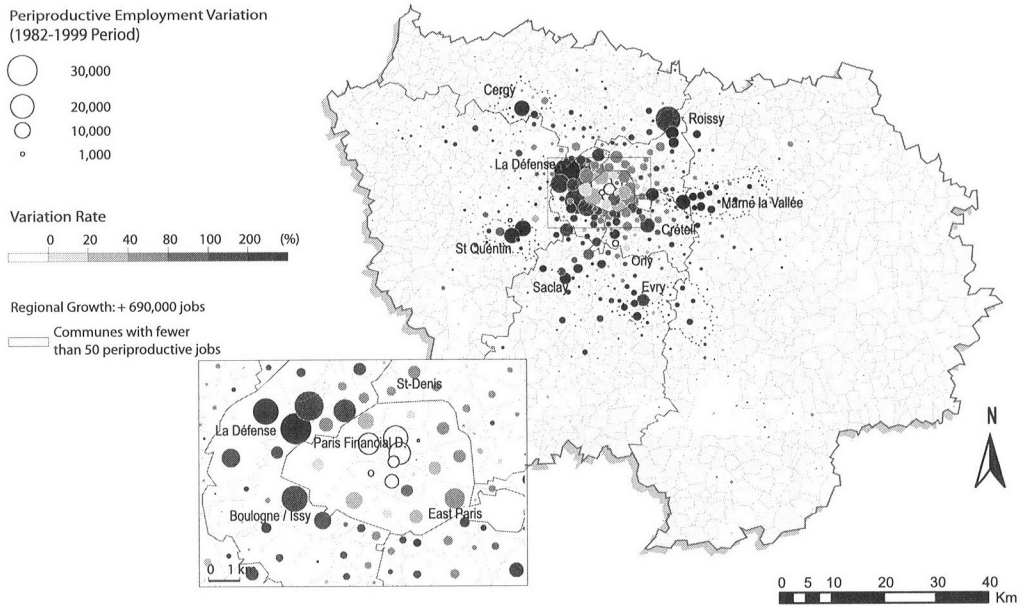


Figure 5. Map of variation in periproduktive employment in the Ile-de-France region (1982–1999).
Sources: INSEE/IAURIF, National Census 1982–1999.

Cergy-Pontoise (26,000 periproduktive jobs). To what extent is this description related to the spatial mutation of the regional economic system between 1982 and 1999? During that period, Paris’s business district was affected by a decline in producer-services employment. Between 1982 and 1999, it lost 77,000 jobs, or over a quarter of its original size. On a broader Parisian scale, only the eastern districts of Paris (mainly the 12th *arrondissement*) were able to keep up with the pace of regional development (+3.1 percent, a gain of 27,000 periproduktive jobs). In contrast, the middle of the Hauts-de-Seine *département*, pulled up by La Défense, had the strongest regional variation (+7.9 percent per year, a gain of 94,000 periproduktive jobs). The southern part of the Hauts-de-Seine *département* was not far behind, with an additional 44,000 and 17,000 periproduktive jobs, respectively, for Boulogne-Billancourt/Issy-les-Moulineaux and the south Hauts-de-Seine. Economic development spread on a spatial-contiguity basis, leading to the formation of the

triangle-shaped core straddling Paris and the Hauts-de-Seine *département*. If this phenomenon was noticed by some authors before (Beckouche 1999), it has never been demonstrated so clearly.

From 1990 to 1999, the spatial expansion of the Paris region CBD seems to have benefited other municipalities as the Hauts-de-Seine came close to being saturated. This pattern is obvious in the two northern municipalities of Saint-Denis and Aubervilliers (9,000 periproduktive jobs gained from 1982 to 1999), yet it remains to be demonstrated in the other municipalities surrounding Paris along the internal expressway (the “Périphérique”). However, recent data on office market geography have tended to confirm this trend (Bertrand and Dizian 2002).

The Outer Suburbs faced the same dramatic geographic transformation from 1982 to 1999. Although residential areas were hardly affected, two main economic trajectories can be observed. First, relatively isolated secondary economic centers grew

vigorously. They spread in only a few surrounding municipalities, such as Roissy (+10.7 percent per year, a gain of 32,000 periproductive jobs), Cergy (+8.1 percent per year—a gain of 15,000 periproductive jobs), and Evry (+11.9 percent per year, a gain of 13,000 periproductive jobs). In other parts of the metropolitan area, producer-services corridors were being constituted that linked two or more secondary economic centers either together or to the central metropolitan triangle. Examples are in the eastern part of the region, with Marne-la-Vallée (+19.8 percent per year, a gain of 29,000 periproductive jobs), and in the south, with an axis stretching from Saint-Quentin-en-Yvelines to Saclay (a cumulated gain of 50,000 periproductive jobs). However, this example of the constitution of an important secondary periproductive area is nothing in comparison to the examples of large subregional dispersion in California.

From 1982 to 1999, then, the decentralization of producer-services employment or, more exactly, the distribution of this growth, seems to have favored a reorganization of the metropolitan economic geography. From a monocentric agglomeration predominated by a single Parisian business district at the beginning of the 1980s, the geography of the economic system became one of a metropolitan region whose structure, far from being dispersed (as seen in some North American cities), was polycentric by 1999. This change confirms that central location—or, at least, economic centrality whether in the middle of the agglomeration or on its edges—still matters.

The Limits of Deconcentration: The City-Center Reinforcement Hypothesis

What explains the decentralization process that affects producer-services jobs? Is the business district suffering a decline that benefits other areas of the metropolitan region, or is this deconcentration process testimony of its increasing strength? The answer to this question will vary, depending

on the indicators that are used. The first difficulty, then, is to establish a scientifically shared definition of which activities embody today's economic centrality. Most authors agree on a list of business services that are often described as "high-order services activities" or "advanced services producers" (Coffey, Drolet, and Polèse 1996). Behind the labels, however, it is sometimes difficult to be sure either of the exact content of the data that were used to localize such markers of economic centrality or of its comparability with the data of other case studies.

I propose that a mere analysis of economic sectors is not sufficient. Most of the time, high-order services are defined as a set of economic sectors, such as headquarters or knowledge-intensive business services. A nonexhaustive list would include jobs in management, accounting, legal affairs, finance, and real estate (Alvergne and Shearnur 2002). But even in such sectors, all the employees are not highly qualified professionals. Some employees, sometimes a majority, of this force as described by a SIC code, such as in many headquarters, are only partly qualified (clerical workers, for instance). Therefore, studies of high-order services are often biased, taking into account jobs that are not relevant to the question. To map the "advanced service producers," it is thus necessary to analyze at the same time both economic sectors *and* business functions.

It is possible to do so in the Paris case, thanks to the STRATES statistical tool, which allows one to obtain two pieces of information for every job: the economic sector, which describes the main activity of the firm that employs the labor force (based on the French equivalent of SIC codes), and the professional function, which details the specific activity of each employee within a firm (managerial staff, technicians, researchers, and so forth). The aim of this tool is not only to go beyond a simplistic economic description that omits secondary and tertiary activities, but also to add functional information to sectoral analysis. In the case of Paris, "advanced services producers" have the following characteristics: they belong to the economic sectors of either

production (manufacturing, building, and agriculture) or periproduction (business services, finance-banking-insurance, or transport and telecommunications); they deal with the functions of justice, culture, research, management, engineering, or logistics; and they are in the upper professional categories (highly qualified white-collar workers).

According to this description, in 1999 the Paris region had about 700,000 high-order services jobs, representing 15 percent of the regional labor force. Business services accounted for more than half the total, much more than the manufacturing (20 percent), banking (12 percent), and transport and telecommunication (11 percent) sectors. In terms of functions, management is predominant (53 percent), followed by marketing (17 percent) and R&D (16 percent).

Geography of Advanced Services Producers in 1999

In 1999, high-order services were slightly more concentrated in the geographic center of the agglomeration than were the producer services. Paris City and the Inner Suburbs had 240,000 and 284,000 high-order services jobs (35 percent and 41 percent), respectively, of the regional total. The Outer Suburbs lagged behind, with only 24 percent of the Ile-de-France region, a low figure compared to their share of a third of the total regional labor force. Location quotients, calculated as the ratio between the share of high-order services and the share of periproduktive employment, testify to this more central location. The Paris location quotient is close to 1 (indicating no particular specialization in high-order services), that of the Inner Suburbs is 1.25, and that of the Outer Suburbs is only 0.74.

The *départementale* analysis details this observation. With 28 percent of the region's high-order services employment, the proportion of such jobs in the Hauts-de-Seine is close to that of Paris, followed by 10 percent (70,000 high-order services jobs) in the Yvelines, (the western and southwestern *département* of the Outer Suburbs), a

proportion that is twice as high as any of the remaining *départements*. These findings indicate not only the predominance of Paris and the Hauts-de-Seine (the latter *département's* location quotient is 1.41) as the core of the regional economic system (63 percent of Ile-de-France's high-order services jobs are in these two *départements*), but also the enduring nature of an east-west imbalance, the Yvelines and the Hauts-de-Seine *départements* representing over 60 percent of the region's high-order employment outside Paris (their cumulated location quotient is 1.69).

The cartography at the scale of municipalities gives a more precise view (see Figure 6). First, the central metropolitan nature of high-order services is confirmed: the center of the metropolitan region is where the highest number of jobs are concentrated. With 361,000 high-order services jobs in 1999 (over half the regional total), the golden triangle, mentioned earlier in relation to periproduktive activities, was not only the business core of the Paris metropolitan region, but also the region's most important decision-making center. In contrast, the eastern Parisian districts and their neighboring municipalities in the north and east of the Inner Suburbs had only a few high-order services jobs. In the Outer Suburbs, high-order services were not numerous. Yet, secondary centers and corridors—such as Cergy, Roissy, and Noisy-le-Grand (Marne-la-Vallée), with 9,000 to 12,000 jobs each—could be observed. However, the most impressive concentration was located in the southwestern part of the metropolitan region—mainly the corridor linking Saint-Quentin-en-Yvelines to Vélizy-Villacoublay (33,000 high-order services jobs) and the axis between Massy and Saclay (16,000 high-order services jobs).

1982–1999: Reinforcement of the Center?

High-order services grew steadily in the Ile-de-France region, from 450,000 jobs in 1982 to 700,000 in 1999, or a gain of 3.35 percent per year over the period. This variation must be compared to the evolution of

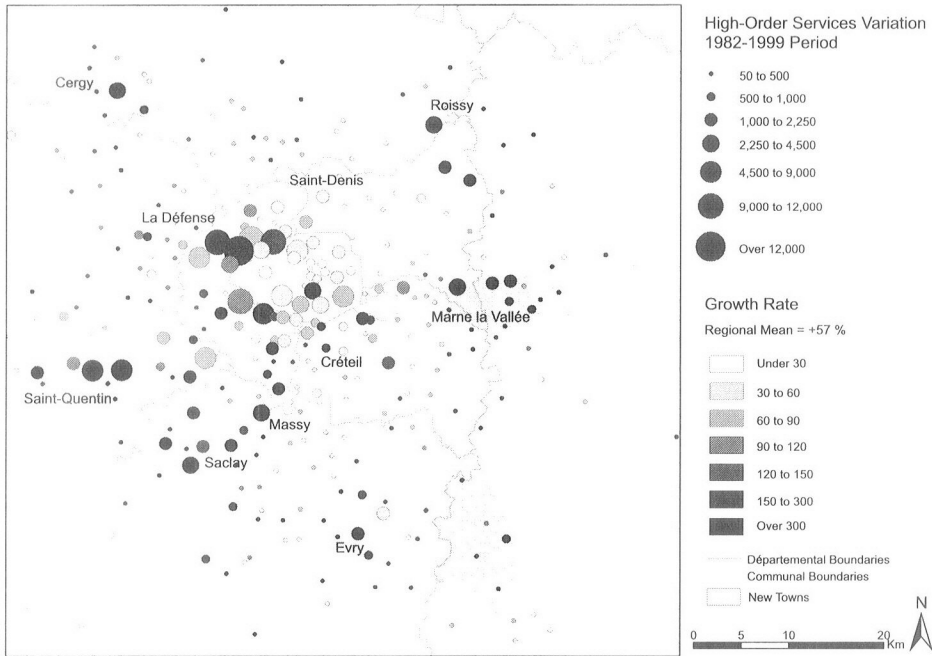


Figure 6. Map of variation in high-order services employment in the Ile-de-France region (1982–1999). Sources: INSEE/IAURIF, National Census 1982–1999.

global labor force, which increased 0.4 percent per year in that same period. In other words, high-order services largely contributed to the overall variation in the labor force between 1982 and 1999, its share rising from 10 percent of the region's total workforce to 15 percent. If the Inner Suburbs and the Outer Suburbs gained 127,000 and 92,000 high-order services jobs (or 4.7 percent and 6.7 percent per year), respectively. Paris also benefited from this general trend, with an increase of 34,000 jobs (0.9 percent per year) (see Figure 7). However, Paris suffered a decline relative to other parts of the metropolitan region, from 47 percent of the region's high-order services employment in 1982 to 34 percent in 1999. At first glance, one would think, considering the center-periphery approach, that the economic core declined. A finer spatial analysis tends to show the contrary.

To measure the importance of the transformation of the location of high-order services within the metropolitan region, I

refer to the coefficient of concentration.¹ In 1999, its value was 55 for the Ile-de-France population, 88 for the region's entire labor force, and 171 for high-order services jobs. This finding confirms that high-order services were more concentrated than the labor force, which was more concentrated than the population. Between 1982 and 1999, the coefficient decreased (it was 253 in 1982): in 1999, high-order services jobs were distributed to more municipalities. This finding is not enough to confirm a decline of the Parisian center, however.

A cartographic analysis of the variation in employment in high-order services between 1982 and 1999 clearly shows two distinct but complementary trends. First, the places that

¹ The coefficient of concentration, or Herfindahl coefficient, equals the square sum of *municipal* shares. The stronger the coefficient, the higher the concentration. If a coefficient is high, then only a few *municipalities* have a large part of employment.

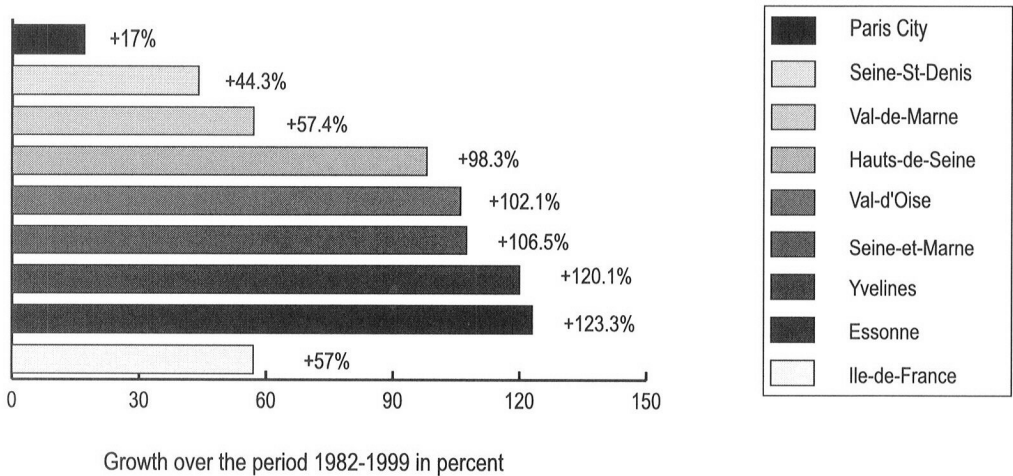


Figure 7. *Départemental* variation of high-order services employment in the Ile-de-France region (1982–1999). Sources: INSEE/IAURIF, National Census 1982–1999.

had the most important variation in size were La Défense (+50,000 jobs) and Boulogne-Billancourt/Issy-les-Moulineaux (+25,000). The first conclusion to be drawn is that the decentralization of the Paris CBD benefited mostly the two main economic centers of the Hauts-de-Seine *département*. In other words, the metropolitan economic centrality was enlarged. This broadening of the core center did not hamper the development of secondary economic centers in the Outer Suburbs. In the southwestern part of the metropolitan region, Saint-Quentin, Vélizy, Massy, and Sacy had the highest rates of growth in the region (over 17 percent per year for some of them, or an increase of 34,000 high-order services jobs), followed by Cergy, Roissy, and Marne-la-Vallée (with a gain of 6,000 to 10,000 jobs).

In conclusion, there is no such thing as a declining central core in the Paris region. Instead, one can observe a redistribution of the region's strong growth toward neighboring western municipalities (chiefly La Défense and Boulogne), a redistribution that widened its extent. This expansion did not prevent the development of secondary economic centers in the Outer Suburbs, especially in the southwestern suburbs. In short, the renewed metropolitan economic

geography is one of complex dynamics leading to a new spatial division of labor.

Toward a Dissociated Polycentricity?

To study the spatial division of metropolitan labor (restricted in this case to periproductive activities), I focus, in this last section, on main concentrations of employment. The methodology was based on a two-step protocol. First, I defined thresholds to select main municipalities—at least 2,600 periproductive jobs and a density of producer services and high-order services jobs per built urban space—of more than 10 and 4, respectively; 100 municipalities met these criteria. Second, I grouped municipalities into economic centers according to spatial-contiguity criteria, economic profiles (economic sectors as well as functions), and the identity of their recruitment areas. With this method, I identified 21 producer services-economic centers in the Paris metropolitan region. Amounting to only 8 percent of the region's municipalities, they represent 62 percent of the labor force, 72 percent of Ile-de-France's periproductive employment, and 79 percent of high-order

services jobs. These figures are an indicator of Paris's metropolitan polycentricity.

These economic centers differ according to their location within the urban region, their branch sectors and functions specializations, and the proportion of high-order services employment in their labor force. These differences led me to develop a typology of the metropolitan spatial division of labor, a division that can be summarized as one of "dissociated polycentricity." This refers to the hypothesis that there is a link between the polycentric shape of economic geography and the requirements of the productive system in which economic sectors and functions are partly dissociated within the intrametropolitan space. If one reversed the narrative, observing the division of labor, one would assume an "integrated polycentricity" because each economic center would have a definite role in the spatial organization. This point cannot be settled until we manage to shed light on the economic flows between these places, since integration requires dense and regular relations in the day-to-day functioning of the economic system.

The Ile-de-France's regional average shows a diversified profile, which has been depicted in the literature (Beckouche, Danette, and Vire 1997). From merely a large economic sectors point of view, business services represent almost 65 percent of all periproductive jobs, far ahead of transport and telecommunications and finance-bank-insurance (24 and 13 percent, respectively), but when detailed economic subsectors are examined, it appears that no activity exceeds 15 percent of the region's periproductive jobs (see Figure 8). Transport, banking-insurance, management, and wholesale trade are the four most important, with a share of 13 to 14 percent. With values only half as big, IT, telecommunications, and other general services to firms rank second. All other activities (R&D, marketing, and engineering) account for under 5 percent of Ile-de-France's periproductive employment. In terms of broad functions, the abstract production activities (conception, management, and marketing)

are more important than "concrete" ones (64 percent and 22 percent of the region's periproductive jobs, respectively) (see Figure 9). This finding indicates the wide extent to which the Parisian productive system is involved in the development of a knowledge-intensive and information economy (Ascher 1995).

Among the 21 economic centers, only a few are close to the regional average, confirming an intense differentiation within the metropolitan region. The near-average economic centers are located in Paris City (such as southeastern Paris, middle-eastern Paris, or eastern Paris) or in the Inner Suburbs (Créteil). All these centers are in the dense part of the agglomeration and are urban centers, sometimes with a large number of producer-services jobs. Their economic-sector profile is diversified, their functions are predominantly those of abstract production, and their share of high-order services jobs is not especially strong. However, these economic centers are the exception in an economic system in which specialization is the norm, as, for example, in the business districts.

Specialization of Economic Centers

Business Economic Centers. Business centers are defined as having predominantly management and finance-banking-insurance activities; abstract functions that largely exceed the regional average, especially in marketing and management; and a high proportion of high-order services. Five business centers meet these criteria in the Paris region, four of which constitute the central metropolitan triangle: Paris-Financial City; the western districts of Paris; La Défense; Boulogne-Billancourt/Issy-les-Moulineaux; and, in the Outer Suburbs, Saint-Quentin-en-Yvelines.

Slight differences distinguish these economic centers. The Financial City and the western districts of Paris are the traditional financial and headquarters centers. For instance, in the Financial City, the banking and insurance industry accounts for 35 percent of periproductive employment,

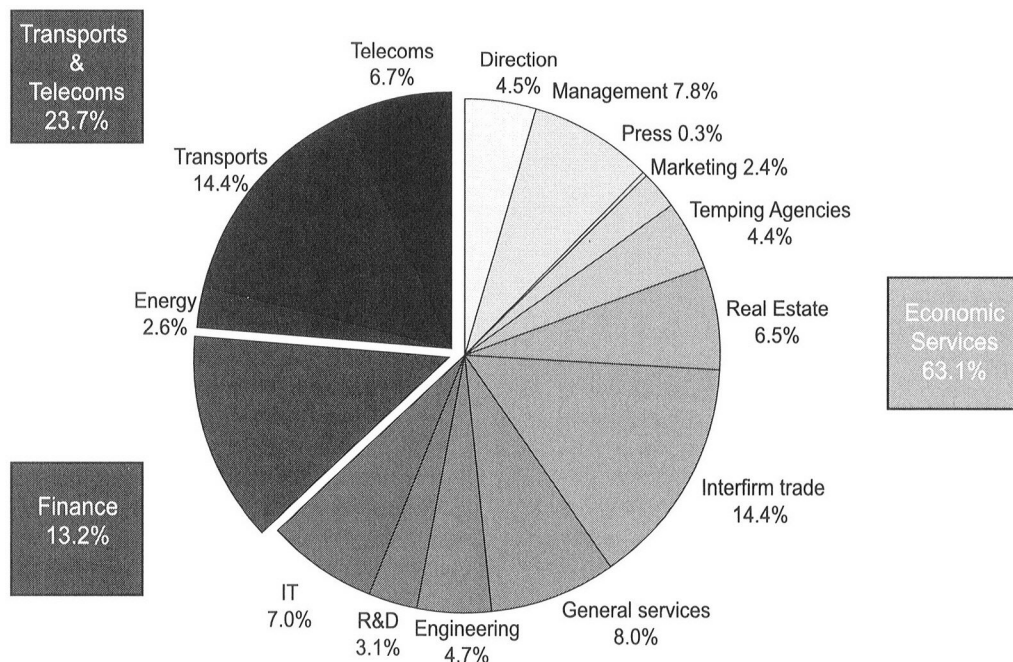


Figure 8. Profile of the Ile-de-France region branch activities. Source: INSEE/IAURIF, National Census 1999.

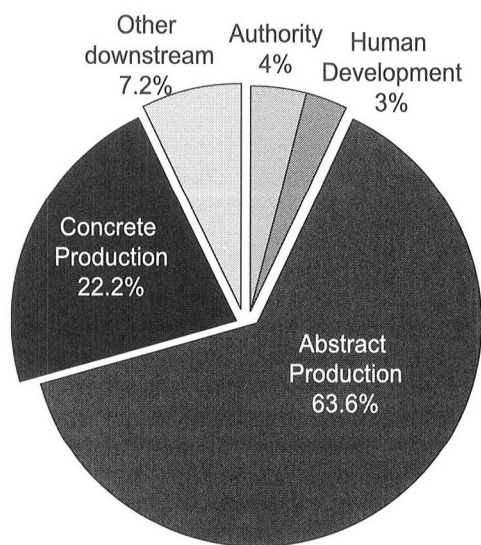


Figure 9. Profile of the Ile-de-France region functions. Source: INSEE/IAURIF, National Census 1999.

while management activities represent 18 percent (see Figure 10). La Défense, although a financial center, is home to a large proportion of wholesale trade and IT companies. Boulogne’s economic center is more specialized in the telecommunications and media industries. As for Saint-Quentin-en-Yvelines, its profile is in between two categories. It is impossible to deny its business-oriented profile because management activities are important (14 percent). However, this *ville nouvelle* also has an economic profile that is close to the high-technology and R&D-oriented profile of neighboring suburban economic centers.

Southwestern “Technopolitan” Centers. “Technopolitan” economic centers (Benko 1991) are specialized in high-technology activities, such as IT, telecommunications, R&D, and engineering, in a way that far exceeds the average of the Ile-de-France

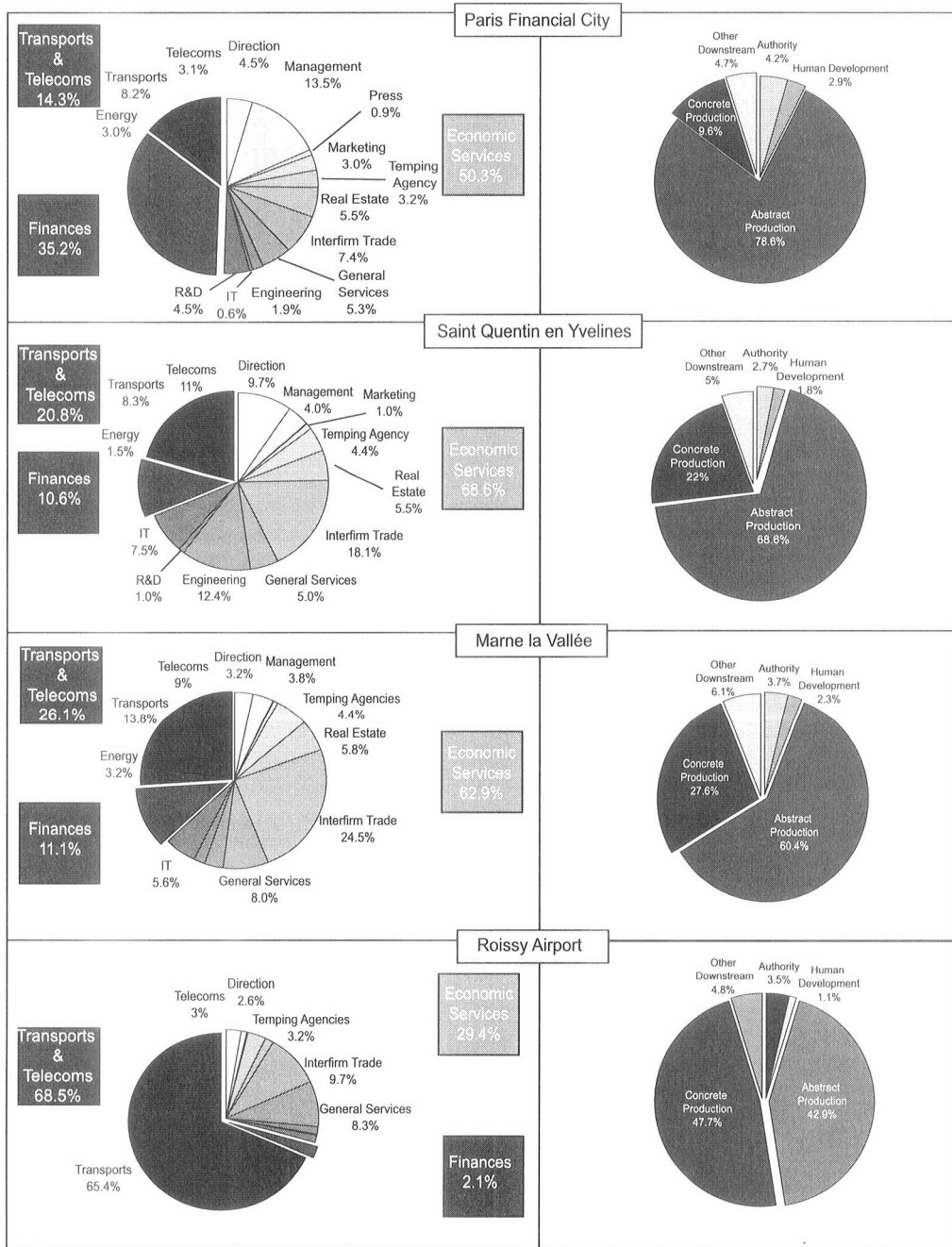


Figure 10. Profile of four economic centers. Source: INSEE/IAURIF, National Census 1999.

region. This specialization reflects an upstream-activities orientation. In terms of functions, it is no surprise that abstract production dominates, with an overrepresentation of research and conceptual jobs. For this reason, these economic centers have the highest rate of high-order services in the region, outnumbering even the central core.

Straddling the Yvelines and the Essonne *départements*, the “technopolitan” centers are concentrated in the clearly delimited southwestern part of the Outer Suburbs. In addition to Saint-Quentin-en-Yvelines, the Hauts-de-Seine Sud, Vélizy-Villacoublay, Saclay, and Massy belong to this high-technology employment category. If each center has its own specificities—such as Saclay, for instance, which is dedicated to research activities—overall, they express the same “technopolitan” specialization.

Downstream-Activities Economic Centers. The remaining economic centers all fit the same profile. In terms of economic sector, downstream activities, such as logistics and wholesale trade, are overrepresented. Incidentally, the material-production functions, if not always prevalent, are more important than in the regional average. Moreover, employment in high-order services is low.

Where are these secondary economic centers located? In the case of the two economic centers of Saint-Denis and the north Hauts-de-Seine, they are located in some traditionally industrialized places of the Inner Suburbs that are undergoing economic conversion processes. In these centers, logistics and wholesale trade account for over half producer-services jobs (against a quarter for the regional average). Although a bit more diversified, the *villes nouvelles* (Saint-Quentin-en-Yvelines excluded) have a high proportion of material-production functions. Only Cergy in the north appears a little closer to the regional average in that it has a nonnegligible share of management activities. Finally, Roissy and Orly airports are, as can be expected, special-

ized in material production (over half their jobs), which can be explained by the importance of logistics activities.

In sum, the functional- and sector-based analysis of the 21 main economic centers demonstrates bold intrametropolitan specialization among a metropolitan core that is dedicated to business activities and management functions; a southwestern “technopolitan” area that leads in high-technology industries and R&D functions; and the remaining downstream-activities centers in the Inner and Outer Suburbs. How, then, does this spatial division of the periproductive system change the labor market geography? I explore this question next before I turn to my conclusion.

Subfragmentation of a Once-Integrated Labor Market?

Regional and national planners, as well as scientists, have long emphasized the role of a large and integrated labor force to explain the high economic productivity of the Paris metropolitan region.² At least as early as 1965, with the “Schéma Directeur d’Aménagement Urbain de la Région Parisienne,” regional planning documents underlined the necessity of an efficient infrastructure system that would enable the transportation of virtually all workers anywhere in the region, thanks to urban highways or the Regional Express Railway. The coherence of a compact and interconnected labor market has been put forward as a key explanation for the higher productivity of the Paris region over other French cities (Rousseau and Prud’homme 1992).

The transformation of the Paris agglomeration from a monocentric city to a more polycentric metropolitan region can have strong impacts on the once-praised integration of the labor force. As has been shown

² The term *integrated* reflects the fact that most municipalities of the metropolitan region were sending an important share of their commuters to the economic core of Paris.

in North American metropolitan regions, such as New York (Godfrey 1995), European cities, which have traditionally been described as less fragmented than other urban regions in the world, may be at a turning point with the constitution of sub-regional labor markets. To evaluate the reality of such a phenomenon and to measure the extent to which it can be explained by the deconcentration hypothesis, I mapped commuting producer-services jobs of the 21 economic centers identified earlier. Two simple cartographic indicators were used: the "attraction range," which is defined as the number of municipalities sending at least 10 producer-services workers to the economic center, and the "polarizing intensity" which refers to the number of municipalities sending at least 10 percent of their producer-services workers to the economic center. The first indicator measures the maximal geographic range of the economic center, and the second measures its capacity to command a labor market fully or partly. Figure 11a illustrates these two indicators: a *municipality* belongs to the attraction range of an economic center if its color is everything but white; conversely, it is part of the polarized area if it is darkened.

Paris: A Decreasing Influence. In 1982, the influence of Paris's Financial City was predominant within the agglomeration (see Figure 11a). Its attraction range exceeded 650 of the 1,300 municipalities, allowing it to recruit workers from far into the Outer Suburbs, especially along the RER A train line. Its influence was a bit stronger in the northern half of the region, affecting as many as 580 municipalities in the whole region. In 1999, the situation had changed dramatically. If its attraction range had increased slightly (10 percent) following the expansion of the metropolitan area, the Financial City suffered a strong diminution of its capacity to command a regional labor market. Its polarizing intensity diminished by half between 1982 and 1999. In other words, if the Financial City was still the biggest economic center in 1999, it was

not as predominant as it used to be as a labor force recruitment area.

All the other economic centers within Paris seem to have suffered the same decline. For instance, in 1982, central and eastern Paris (the 10th, 11th, and 19th *arrondissements*) used to be the second economic site in the Ile-de-France region in terms of both attraction range and polarizing intensity (with 450 and 150 municipalities, respectively). Its polarization area extended as far as the Outer Suburbs' fringes of a large eastern half of the agglomeration. In 1999, its polarizing intensity had crumbled, with a 75-percent decrease in the polarization area, and it commanded solely its own districts and a few small and far-away municipalities.

Inner Suburbs: Too Strong a Competition. The Inner Suburbs' economic centers, located close to Paris, faced the same difficulties. No matter how fast growing they were, their influence within the metropolitan region did not strengthen between 1982 and 1999. Créteil, for example, with an attraction range of 100 municipalities in 1982 and 173 in 1999 did not reinforce its capacity to command a local labor market: in 1982, it polarized no municipalities but itself; in 1999, it was still limited to 10 small residential municipalities of its immediate surroundings. This observation on stagnating economic centers is verified by a fast-growing center, such as Boulogne-Billancourt/Issy-les-Moulineaux. Even though that center had become a major central economic concentration within the metropolitan business core, its polarizing intensity declined by over a third between 1982 and 1999. This observation can be extended to Vélizy-Villacoublay (Figure 11b), an important economic center that specializes mostly in high-technology industries. In conclusion, it seems that the economic centers of the Inner Suburbs, squeezed between Paris and the Outer Suburbs, had lost their capacity to command a well-delimited labor market area. All but one.

The Spectacular Growth of La Défense. In 1982, La Défense had already acquired a reasonable weight, considering its short history, with the first office tower having been built in 1964. With an attraction range of only a little under 400 municipalities and a polarizing intensity close to 50 municipalities, it used to be part of the secondary economic centers in size, following those of Paris. It managed to command the labor market of its neighboring municipalities and even a bit farther in the eastern fringe of the Yvelines *département*. In 1999, La Défense had vigorously consolidated its position within the regional labor market. Its polarizing intensity had increased by 150 percent—one of the strongest positive variation rates—a spectacular result, considering its already large size in 1982. In 1999, it ranked second, with 560 municipalities, closely following Paris's Financial City. In fact, almost the entire metropolitan region was within reach of La Défense. Moreover, with 150 municipalities polarized, it commanded a large northwestern sector, if not the entire western half of the region. Not quite as influential as Paris, La Défense helped Paris maintain the integration of a fragmenting regional labor market.

Subfragmentation in the Outer Suburbs. All the other economic centers whose influence increased between 1982 and 1999 were in the Outer Suburbs; Roissy, the five *villes nouvelles*, and Saclay witnessed a powerful reinforcement of their attraction range, far exceeding the general metropolitan expansion. They consolidated their polarizing intensity, thanks to variation rates higher than 150 percent, figures that cannot be explained only by the weakness of their situation in 1982. Their polarization area did not go toward central sites of the agglomeration, but rather in the direction of all the municipalities of the Outer Suburbs. Resisting the traditionally dominant Parisian center and competing successfully with intermediate economic centers in the Inner Suburbs, they showed an evident ability to become subregional labor market centers.

Saint-Quentin-en-Yvelines, for instance, went from commanding only a few neighboring municipalities in 1982 to having a broad influence over a large southwestern part of the region in 1999. As a result, a twofold phenomenon could be observed from 1982 to 1999. At the regional scale, the strong development of La Défense, while making up for the relative stagnation of Paris, tended to uphold the existence of a metropolitan labor market, whereas at the more local level, secondary economic centers, located far enough from the metropolitan triangle core, grew steadily and became subregional labor market centers.

Conclusion

The metropolitan economic geography of the Paris region changed dramatically from 1982 to 1999. To understand this complex reorganization, I argued first about the importance of carefully choosing the scale of analysis. Zooming from analyses of the CBD versus the Inner and Outer Suburbs to analyses at the *municipal* scale enabled me to shed new light on these changes. Four main observations have been made. First, the trend toward the decentralization of business services affected the Paris region even though its inherited geography seemed to be resistant. Spatially, the form of this decentralization was polycentric (“concentrated deconcentration”), not dispersed. This polycentricism occurred within the limits set by the specific geography of Paris, that is, a small and dense agglomeration. Second, the dynamics of decentralization did not mechanically induce the decline of the traditional business district. The Paris case shows that not only is economic centrality still a key element in understanding contemporary economic trends, but also that the central metropolitan service pole has enlarged its position and concentrated upper-market activities. The strength of this pole is such that it has tended to spread to neighboring spaces (La Défense and Boulogne-Billancourt/Issy-les-Moulineaux). Third, the constitution of a more polycentric metropolitan region is correlated with a strong

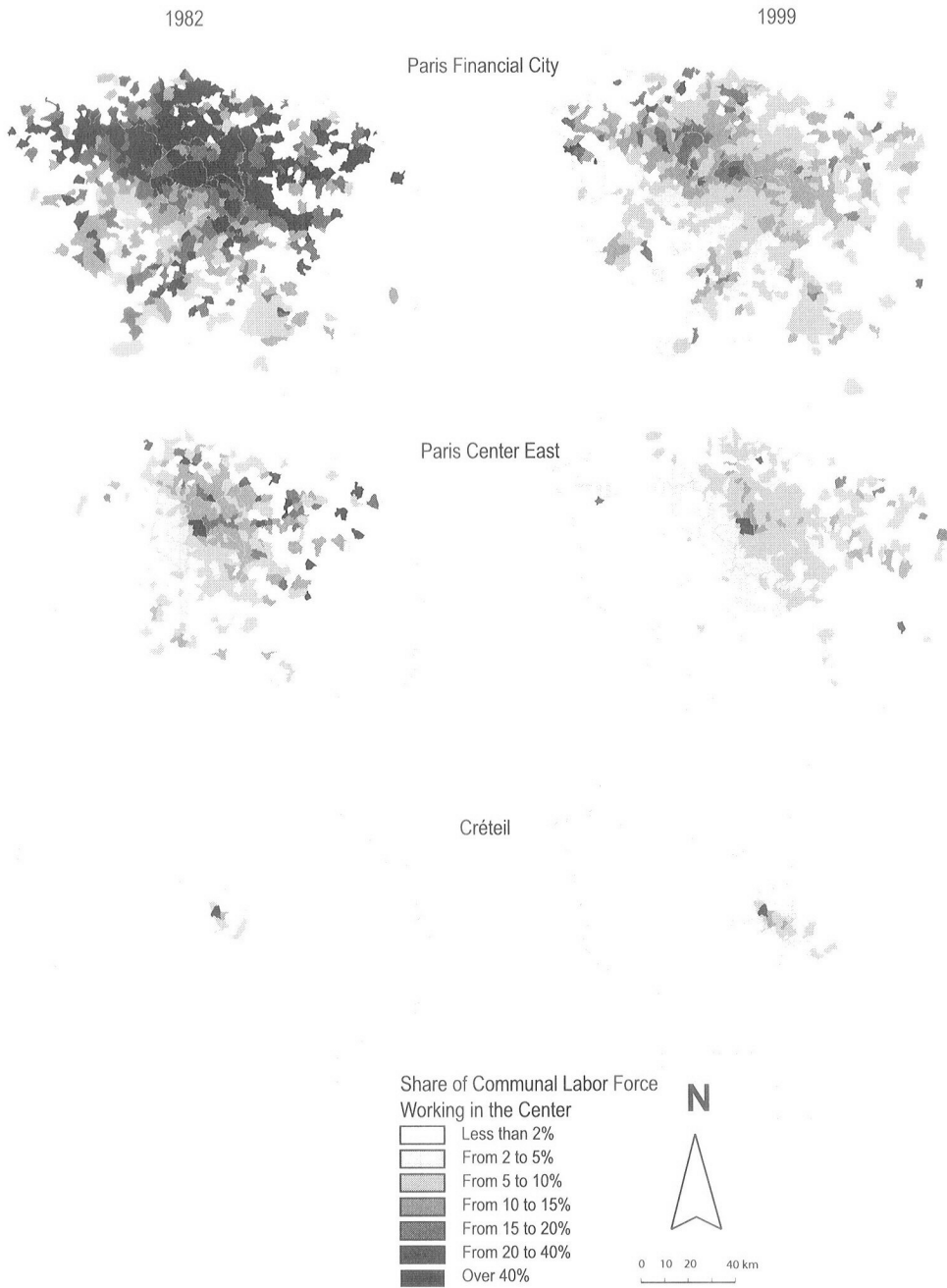


Figure 11a. Map of the geography of periproduktive labor market. Source: INSEE/IAURIF, National Census 1999.

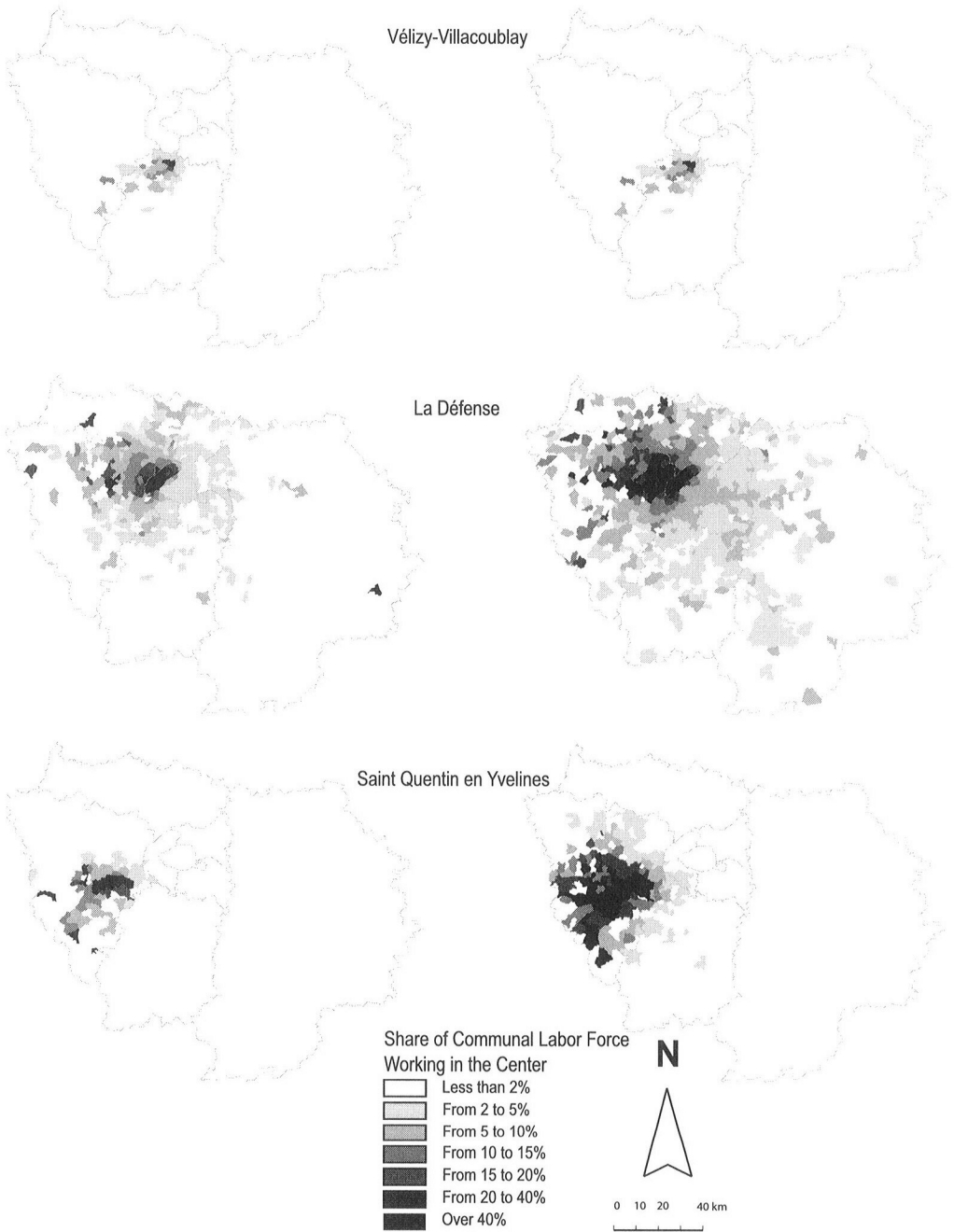


Figure 11b. Map of the geography of periproductive labor markets. Source: INSEE/IAURIF, National Census 1999.

spatial differentiation of services activities (what I have called "dissociated polycentricity"). If main business services are still located in a widened metropolitan core, high-technology and R&D activities are concentrated in the southwestern part of the region and most downstream activities are concentrated in secondary economic centers in the Inner and Outer Suburbs. Fourth, the constitution of a more polycentric urban region seems to have induced a transformation of the labor market geography. Whereas the core area managed to keep a regional influence on the entire metropolis, thanks mainly to the increasing influence of La Défense, secondary economic centers in the Outer Suburbs were able to organize partly or fully subregional labor markets. In other words, both integration and fragmentation trends coexist.

It must be stated that it was not my intention in this article to explain the factors that have caused the reorganization of Paris metropolitan economic geography but, rather, to detail as precisely as possible the spatial dynamics that have affected the production system. Therefore, the analysis presented here was the first step of a research agenda in which I propose two avenues for further analyses. The first is to study some factors that have been depicted in the literature as key elements in understanding what seems to be a new metropolitan economic geography. Examples of the factors to be analyzed include corporate organizational and spatial strategies, since the change in market scale induces the reconfiguration of the internal organization of firms in the context of globalization (Mucchielli 1998); the real estate market, since there seems to be a shift from a demand-driven market to a more supply-oriented economy in which investors and real estate developers arbitrate risks and profits according to the location within the metropolitan region (Nappi-Choulet 1997); and public institutions' principles of planning, which have been important in the case of Paris modeling the perceptions of other key actors and of actions (such as investments and territorial marketing) to promote

a more polycentric pattern. The latter factor is all the more central today because a new regional *schéma directeur* is in preparation.

The second step in my research agenda aims not only to explain spatial dynamics, but also to describe the day-to-day functioning of the urban system. In contrast to a static geography, which informs only the characteristics of spaces, a new geography is needed to improve our understanding of the spatial working of the production system in its day-to-day relationships. In Castells's (1996) terminology, it is necessary to go beyond a geography of places to one of flows. Does a polycentric shape induce systemic relationships? In other words, do economic centers constituting the polycentric geography of the metropolis actually exchange flows of data, money, information, and workforces? This issue poses a challenge because public statistics are not adequate for research at the metropolitan scale or at the level of firms. Hence, it will be necessary to develop new sources of data. Qualitative studies, based on interviews with firms or on theoretical work on networks of firms, are one way to achieve such a difficult goal (see the GaWC analyses on global networks, Taylor 2003). The other is to create comprehensive databases that record firms' flows, as I am currently doing with the French public telecommunications carrier in the case of the Paris metropolitan region.

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