reviewed paper

MIA: Miami International Airport or Miami Innovation Area

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1 INTRODUCTION

The theme of this conference – mobility nodes and innovation hubs – provokes a number of very interesting and complex questions. First, and perhaps most important, is the overall question of whether or not the conjunction "and" implies spatial co-location or not. Should, or even have over time, mobility nodes been innovation hubs? Second, innovation in what – innovation in producing the mobility node?, or innovation in the sets of economic or social activities that surround the node? Third, should this question be answered from a demand perspective or a supply perspective? Demand analysis would focus on product; a supply analysis would focus on planning or making of the product.

This paper begins to address these broad questions by first developing a theoretically driven approach and then focusing on a specific airport situation – that of the Miami International Airport (MIA) and its surrounding economic node. It must be stated going in that the MIA area is a mature economic node with a history dating back to the 1950s. Thus, while not unique, the results of this paper are more appropriately applied to mature situations, and not new aerotropoli or concepts being built on virgin land.

This paper is organized as follows. The next section outlines a theoretical approach based on three dimensions: systems of airports, territorial capital, and economic cluster theory, each of which is related to the notion of innovation or innovation area. Then, we turn to the MIA area, depicted both in the literature as well as by their own descriptive material. The research problem is to re-consider the MIA area viz. the theoretical framework. Following a description of data and analytical methods, the final section draws the major conclusion: the MIA area is a transshipment cargo node.

2 A THEORETICAL FRAMEWORK: SYSTEMS OF AIRPORTS, TERRITORIAL CAPITAL, AND SUB-METROPOLITAN EMPLOYMENT NODES

In this section, I outline three key dimensions of a theoretical framework. These are: systems of airports, the emerging theories of territorial capital, and economic cluster theory as applied to sub-metropolitan centers.

2.1 Systems of Airports

Prosperi (2007) accidentally observed, in studying economic clusters around airports, that there appears to be ***systems of airports*** within metropolitan areas. Figure 1 demonstrates this idea for Dallas-Fort Worth. If true, barely addressed questions about the nature of airport mobility nodes arise, e.g., do different nodes in the system have different roles to play in both economic development and innovation. Understanding and/or quantification of these airports systems remains a challenge.

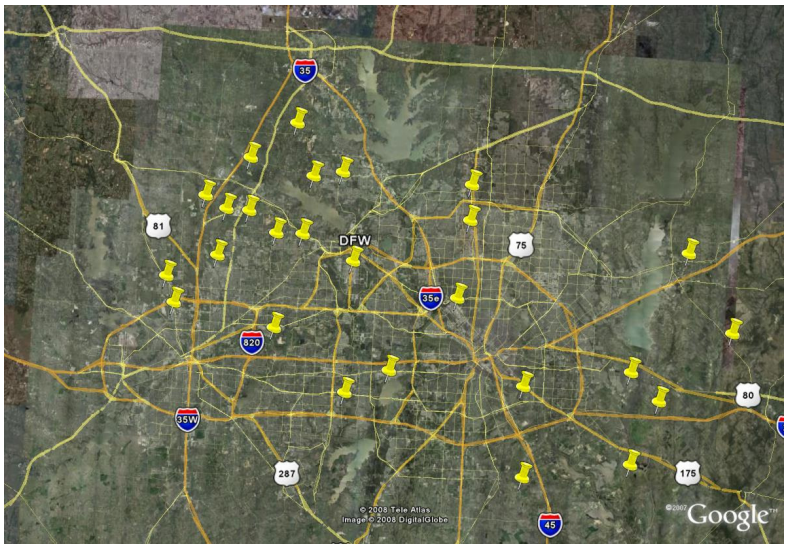

Figure 1: System of Airports in the Dallas-Fort Worth Metropolitan Area (map from Google Earth)

2.2 The Theory of Territorial Capital

The theory of territorial capital is neatly summarized in a paper by Camagni (2007). Here, I review some basic perspectives crucial to understanding and seeing the usefulness of the concept.

The first point is that this burgeoning theory of regional economics has to do with regional growth. Related, it is a cognitive or conceptual approach that focuses on the development path (or region-specific growth paths) for regions. Secondly, it is based more on the notion of "competitive advantage" (e.g., Porter, 2002) than "comparative advantage", thus freeing itself of the total fixed pie constraint. Third, the definition of possible growth paths for each region, city or territory relies on local assets and/or potentials and their full – and wise – exploitation.

In is important to note that although the notion of territorial capital is still in its formative stages its primary use has been as an EU policy focused on regions and/or city regions. The transition to sub-metropolitan places has yet to be attempted (but see, Giffinger and Prosperi, 2008, forthcoming).

How does this differ from traditional supply-side analyses? In such models, growth is a function of well known variables such as capital and labor, local resources, and infrastructure. The "new economic geography" or "new regional science" has focused – instead of on traditional production functions really developed for firms – on what is called the endogenous development literature. Here, emphasis is placed on industrial districts, milieu innovators, and production clusters. This emphasis, in turn, focuses attention on intangibles, atmosphere-type synergies, and governance factors. This set of factors has been interpreted in the literature as Putnam's (1993) social capital, Camagni's relational capital, or knowledge assets (Todtling and Trippl, 2005, Mommaas, 2004, Van den Berg et al., 2001).

So, territorial capital refers to:

- Localized externalities of both financial and technological factors
- Localized production activities, traditions, skills and know-hows
- Localized proximity relationships that make up a capital of a social psychological and political nature that enhances the static and dynamic productivity of local factors
- A system of cultural elements and values that attribute sense and meaning to local practices and structures and define local identities; they acquire economic value whenever they can be transformed into marketable products – goods, services and assets – or they boost the internal capacity to exploit local potentials
- A system of rules and practices defining a local governance model

Camagni (2007) argues that this new methodological approach is framed by a combination of existing literatures on: "theory of bounded rationality and decision making under uncertainty as exemplified in the work of Simon; the institutional approach to economic theory based on the theories of contracts as exemplified in the work of Williamson; the cognitive approaches to district economices and synergies including those of the Italian school, the French 'proximity' approach, the GREMI approach, and Storper's 'untraded interdependencies.'"

Territory, then, describes the following elements: a system of localized externalities, both pecuniary and technological; a system of localized production activities, a system of localzied proximity relationships, a system of local cultural elements and values, and a system of rules and practices defining a local governance model. The key, of course, is that – as capital – these systems influence competitiveness (Camagni, 2002).

2.3 Economic Cluster Theory

Three cluster theorists provide guidance for how to know and measure the existence and value of a set of economic activities. Porter's industrial cluster theory (2002) and its application to urban areas (1995) appears most appropriate for the design of new clusters. Yet clusters are more than unsubstantiated policy tools and can be empirically verified. At the evaluation level, Van den Berg et al. (2001) provides a clear set of intuitive criteria to assess existing and emerging clusters. Focusing on different sectors (cultural, electronics, telecommunications, health, media, and tourism), Van den Berg et al. lay out three broad potential criteria. They, and their components, include: (1) spatial economic conditions (strong local demand, intra- and inter-regional accessibility, quality of life, and 'cultware'); (2) cluster specific conditions

(initial size and development, cluster engines, strategic interaction, and level of new firm formation); and (3) organizing capacity (strong shared vision, political/social support, and public-private partnerships). Finally, Mommaas (2004) is concerned with "place-based (cultural) development." Although not comparable on the surface, emphasis on "place" make the arguments somewhat general. Mommaas' criteria to evaluate clusters include: horizontal aspects; vertical aspects; internal organization factors; external organizational factors; integration and/or openness; specific development paths; and spatial organization. These are all recognizable terms in the language of agglomeration and urbanization economics (cf. Bogart, 1998). Mommaas then examines these criteria in terms of five attributes of overall development practice including: (1) strengthening the identity, attraction power and market position of places; (2) stimulating a more 'entrepreneurial' approach, (3) stimulating innovation and creativity, (4) finding a new use for old buildings and derelict sites, and (5) stimulating cultural diversity and cultural democracy.

2.4 Synthesis: Towards a Problem of Territorial Capital for Airports

These three dimensions – systems of airports, territorial capital, and economic cluster theory – provide a framework for addressing the question of the spatial co-location or spatial co-dependence of "mobility node" and "innovation hubs". Clearly, in the context of this conference, the "hub" that is envisioned is defined in terms of that milieu, "in the air", context. Together, these dimensions provide a platform to look for aspects of territorial capital and economic competitiveness in and around airports.

In this paper, I focus on a developed airport region – the area around the Miami International Airport. Others might in other papers focus on a developing airport and/or the characteristics of a new airport. What is important is that this is a view of a "developed" airport and must be viewed in terms of its context, but also in terms of the necessary mixes of activities that go on around airports.

Finally, this paper is particularly descriptive. While theory-driven, it is nonetheless descriptive in its focus on documenting (what I have begun to call the structure or DNA of a place) components of both traditional and territorial capital. In some regards, the approach is a blend of edge city morphology (Sheer and Perkov, 1998) with the methodologies of the territorial capital theorists above.

3 MIA IN THE LITERATURE

In this section, I discuss some basic facts about the MIA and review two studies that have attepted to provide critical theoretical assessment of its impact and role in terms of economic development.

3.1 MIA: Some Basic Facts

The Miami International Airport (IATA: MIA; ICAO: KMIA; FAA LID: MIA) (www.miami-airport.com) is located 13km northwest of the central business district of the City of Miami in an unincorporated area of Miami-Dade County, Florida, USA. It is surrounded by a series of incorporated municipalities including the cities of Miami, Hialeah, Doral, and Miami Springs, the village of Virginia Gardens, and the unincorporated community of Fountainbleau.

MIA is a hub for American Airlines (passenger) and Arrow, Fine Air, UPS and Federal Express (cargo) as well as for a number of charter flights operated by Miami Air. In 2007, 33.7M passengers traveled through the airport (for the first 10 months of 2007) and it had the largest number of international passengers than any other US airport. But a warning is in the "air": for many years, MIA was a connecting point for passengers traveling from Europe to Latin America. Stricter visa requirements for aliens have altered MIA's role as an inter-continental connecting hub. Indeed, in 2004, Iberia ended its hub operations in MIA, opting instead to run more direct flights from Spain to Central America.

In 2006, MIA was 1st in the US in international freight and 4th overall in total freight. It is a major transshipment point between the US and Latin America. Most passenger airlines also carry belly cargo on passenger flights. UPS, FedEx, and DHL all operate their Latin American operations through MIA.

In terms of area consumed, MIA covers 3,300 acres, has four runways, and eight pier-shaped concourses. As with most important airports, there are several "improvements" under way. Concourses A, B, C, and D that primarily house American Airlines and its *Oneworld* partners' flights are being merged into a single linear concourse to be called the "North" Terminal. The remaining "South" (concourses H & J) and Central (concourses E, F, & G) have been constructed with the support of fifteen *Star Alliance* and *Sky Team* carriers. The newest, concourse J is seven stories tall, has fifteen gates, and a total floor area of 1.3 million sq ft including two airline lounges and several offices (see Figure 2).

Figure 2: Aerial View of MIA

For the twelve-month period ending December 31, 2006, the airport had 384,637 aircraft operations, an average of 1,053 per day: 77% scheduled commercial, 17% air taxi, 6% general aviation, and <1% military. There are 345 aircraft based at MIA: 7% single-engine, 35% multi-engine, and 58% jet.

3.2 Economic Spatial Structure of South Florida

Prosperi (2008, 2006) has argued that the economic spatial structure of South Florida can be understood by focusing on its major sub-metropolitan employment centers (see also Bogart, 2006). Among the foremost conclusions in these studies is the proximity and presumed role of airport (at multiple scales) operations. In terms of South Florida, the first and fifth largest employment concentrations are located adjacent to the MIA. The largest of these concentrations is located west of the airport and is primarily a warehousing, transshipment, and wholesaling area. The other large employment center is Coral Gables, a historic edge city. Prosperi used zip code data containing number and size distribution of firms and general wages to estimate employment resolved to the 6 digit NAICS classification scheme. In this manner, it is possible to characterize the professional services in Coral Gables as "advertising" and to pinpoint important economic clusters in and around the airport including "flower wholesalers."

3.3 MIA as Edge or Edgeless City

Lang (2003) argued that the MIA area is an edge city (Garreau, 1991), the image of which is included below. As of 2000, the MIA edge city had 9.2M sq ft of office space or 9.5% of the total office space in the South Florida metropolitan area. By 2002, office space in the Airport/West Dade area had grown to 9.9M sq ft. The amount and percentages of office space correlate quite nicely with the Prosperi description of sub-metropolitan centers generally, and MIA specifically, reported above.

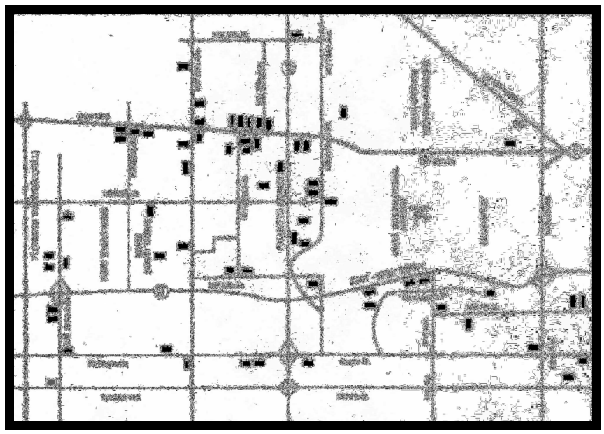

Figure 3: Composition of Airport West Area (from Lang, 2003)

4 RESEARCH PROBLEM

Previous sections have outlined theoretical frameworks for analyzing sub-metropolitan centers in terms of airport-dependence and territorial capital as well as provided some evidence for the importance of the MIA

node within the South Florida region. The research problem is simply to "dig deeper" – along the theoretical lines suggested above to further examine, what I have begun calling the "*DNA of*", the MIA node.

This deeper description focuses on four elements. The first is some understanding of the physical setting and infrastructure endowments and plans. The second element is consideration of those "industrial districts", urban milieu, and/or production cluster literatures. The third is more socio-economic and incorporates elements of more traditional residential location issues and concerns. The final element is directed at issues of social or territorial capital and focuses on the governmental and/or quasi-governmental agencies that operate in and around the airport.

5 DATA AND ANALYSIS

The physical setting and physical aspects of the MIA sub-metropolitan employment node relies initially on captured digital views from Google Earth and Microsoft Virtual Earth as well as collection of maps and plans from representative jurisdictions. On site investigation provides ground truth to these images as well as the opportunity to create more refined impressions.

The economic analysis relies on principles of economic base theory and location quotients. Using data from the US Department of Commerce, industrial structure is examined based on NAICS categorizations. Data include number of firms, size distribution of firms, and estimated payrolls. From these employment figures can be estimated. Comparison of local industrial structure to regional or national industrial structures allows some measure of industrial sector competitiveness. These data are examined from 1998 (the beginning date of the new classification system) through 2005 (the last date for which data are available).

The social analysis is aimed at discovering similarities and differences among a set of traditional socio-economic descriptors within the employment node. These variables – such as income, age, race, and housing stock and value – provide a context to discuss and evaluate overall community development questions.

Finally, the organizational/institutional/social capital analysis begins with a compilation of agencies and/or groups involved in the general business of "airports" and "airport development" and "airport and economic development" within the MIA sub-metropolitan center. Among those identified for analysis and review are the Miami Department of Aviation, the Greater Miami Chamber of Commerce, the Beacon Council, and the smaller towns and villages that surround the airport.

6 RESULTS

In this section, specific results are presented for each of the four areas of inquiry. For each area of inquiry, results are first presented descriptively and then discussed in terms of the theoretical model outlined above.

6.1 The Inverted T

The MIA area can be viewed, from 'above", as an inverted T (from a north-south perspective). The two axes that comprise the inverted T are the Palmetto Expressway (running north-south) and the East-West Expressway (running east-west). The trunk of the T runs along the Palmetto Expressway through zip code 33166 from West Okeechobee Road to the East-West Expressway, a length of 5 miles, with 4 interchanges. On the bottom of the inverted T are three zip codes running east to west (33126, 33122, and 33172).

The trunk is surrounded by continuously developed commercial and industrial properties for 1 mile (in a west direction) and .8 miles in the east direction where it abuts (for a major portion of its length north of the airport itself) a major transshipment point for assembling loads on trucks as well as several rail spurs.

The East-West Expressway runs from downtown Miami to the Everglades. Within the study area, it runs for a length of 8 miles and has major interchanges at the airport, NW 57th, Miami Dairy Road, the Palmetto Expressway, NW 87th, NW 107th, and the Florida Turnpike. Between the Palmetto and Florida Turnpike interchanges are two regional-scale shopping centers.

The key physical elements of this employment node are clearly focused on infrastructure needed to carry out the "transshipment" function of the cargo system – warehousing and wholesaling facilities and transportation facilities such as rails, roads, and linkages to the deep sea port. On the bottom of the T to the east is the airport; to the west is a three square mile area (3 miles in east-west direction, 1 mile in north-south direction) devoted entirely to warehousing and wholesaling. This area includes the Miami Free Trade Zone.

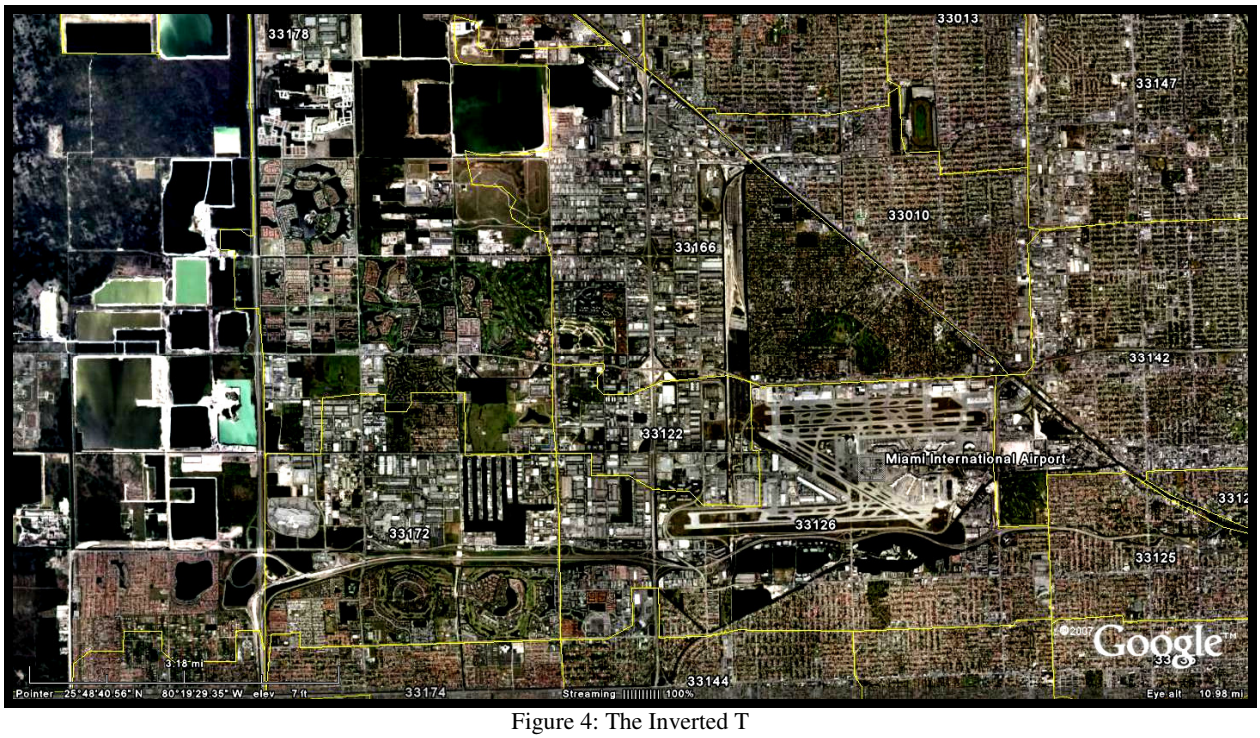

Figure 4: The Inverted T

6.2 Industrial Mix: Districts, Milieu, and Clusters -> There are Employment Submarkets

Taken together, the four zip codes that make up the core MIA area account for about 7% of all South Florida non-governmental employment and contain the highest concentration of such employment in the overall region. Yet, there are clear distinctions or foci *within* this employment node. In the following paragraphs, I examine industrial structure and employment patterns in these four core zip codes

Zip code 33122 is the center of the inverted T, located immediately west of the airport proper. In 2005, this zip code had 1,181 establishments, with 17,422 employees and a payroll of $717,622,000. The Bergian concept of *cluster engines* reveals that there are no *very large* (> 1000 employees) firms, two *large* (500-999 employees) firms (one in "other airport operations" and one in "limited service restaurants"), and eleven *sizable* (250-499 employee) firms. Five of these sizable firms are in transportation (scheduled passenger air transport, chartered passenger air transport, other airport operations, freight transport arrangers, and a courier. The remaining sizable firms include two in wholesaling (transportation equipment and repair, excluding motor vehicles and a beer and ale firm), two in other services (general automotive repair and electronic and provision equipment repair), a direct health and medical insurance company, and an "other" scientific and technical consulting company. Moreover, there were subtle changes in the composition of firms over the period 1998-2005, with transportation and warehousing firms and employment replacing wholesaling firms and employment as the dominant industrial sector.

Zip code 33126 contains the airport proper but also a swath of land south of East-West Expressway that contains both office parks and some residential uses. It has the largest concentration of employment in the MIA area with over 41,814 employees in 2,080 firms and an estimated payroll of $1,556B in 2005. There are four *very large* firms (two in transportation, one in information and one in management). One of the transportation firms is a deep sea transport enterprise, verifying an important linkage between "air" and "sea" transport. There are also seven *large* firms, one in retail, one in transportation, two in finance and insurance, two in administrative support, and one in health care. Nineteen sizable firms round out the major players with five in both transportation and administration, three in accommodations, and two each in finance and insurance and health care, and one wholesale, and one in management of companies.

Zip code 33166 contains the trunk of the T. In 2005, there were 4,017 establishments with an estimated 41,369 employees and a payroll of $1,454B. This area contains one *very large* surgical and medical instrument manufacturing firm, which appears to be the hub of a small eight-firm cluster. There are three *large* firms, one that manufactures electric construction components, one commercial bank, and one office administrative services. Finally, there are thirteen sizable firms, three in manufacturing (construction and mining machinery, packaged frozen food, and men's/boys clothing), three in wholesale (rubber product manufacturing, an iron foundry, and a commercial bakery), two corporate, subsidiary or regional

management establishments, and one roofing construction company, a deep sea freight transportation company, and four various service-related companies.
Zip code 33172 had 29,861 employees in 2,162 firms with a payroll of $1,061B. There are no *very large* firms. Four *large* firms include a flower and florist supply firm, a specialized freight trucking firm, and two administrative services – an employment placement firm and a security guard and patrol services. The nine *sizable* firms include one in construction (new multi-family general contractors), two wholesalers (a hardware merchant and another flower and florist supply firm), two retailers (women's clothing, department store), a transport firm (courier), an information firm (data processing and hosting), a professional firm (engineering services), and another security guard and patrol services firm. There are also two large shopping malls: the Dolphin Mall – basically a lower end mall and shops and the International Shopping Mall, a more traditional mall with four anchors.
The overall picture that emerges from this economic analysis can be summarized in terms of three key features. First, at least in this mature airport setting, it is clear ***that cargo and cargo handling and subsequent activities in the supply chain dominate economic activity***. In all, there are some 608 "freight transport arrangers" in the four core zip codes. Second, there are some subtle shifts going on in terms of the demand for land. In terms of a metaphorical bid-rent curve analysis, it is clear that transportation activities (including couriers) trumps warehousing, which trumps wholesaling of perishable goods, which trumps wholesaling of more durable goods. As growth occurs, firms with higher bid-rent demand move closer to the airport and push those with lower bid-rent demand further outward. Finally, activities not associated with transport directly are located further away, as is evidenced by the pattern of construction, manufacturing, and retail activities. Thus, within the observable land use pattern is a scheme that makes economic sense.

6.3 Who Lives Around the Airport

This potentially interesting question has not received the level of attention that economic or physical aspects have in the formal academic or professional literature. So, the question of who (by class, ethnicity, income, etc.) lives near the airport is worthy of investigation.

While the definition of a study area is clearly a matter of empirical choice, the MIA area may be further conceptually partitioned into a core inner ring and a outer ring to examine potential differences. The inner ring consists of the zip codes that immediately surround the MIA (no one lives in zip code 33122). To the north of the airport (zip code 33166) are the Village of Virginia Gardens and the City of Miami Springs. To the west (zip code 33172) is the City of Doral. The outer ring consists of two areas: the Town of Medley (zip code 33178) and the City of Coral Gables (zip code 33143), which is itself an edge city. Table 1 shows some demographic characteristics for these areas; it is clear that there is a difference between the "inner ring" zips and the "outer ring" zips. This is clearly a matter for further analysis.

SES Descriptors / Zip Code	Florida	33126	33122	33166	33172	33178	33143
Population 2005		43721 ↓		23,322 ↑	38,443 ↓	15,785 ↑	29,724 ↓
Population 2000		43814		22,563	38,515	15,272	*29,788*
Area / Density		9.1 /4789		9.6 / 2425	6.2 / 6198	23.8 / 664	7.9 / 3762
% Renter	30	60		49	49	30	40
% Female		53.1		49.8	53	51.1	52.9
Median Age	38.7	37.6		35.9	34.4	33.3	37.5
HH Size	2.5	2.8		2.6	2.8	2.7	2.4
Value of Home, 2005		203,454		311,174	169,082	359,515	405,549
Average Salary	39,563	24,876		41,090	28,266	54,298	76,762
Med HH Income	42,443	31,112		43,684	37,985	63,931	48,286
% People < Poverty	12.5	18.8		11	14.9	11.5	12.2
% Unmarried Partner	5.8	6.1		5.7	5.9	4.1	4.3
% Gay		.035		.04	.04 (m)	.035 (m)	.045 (m)
% HH	66.4	74		67.2	72.9	73.2	59.4
% Live/Work in MDC		95.6		92.9	95	91.5	96.5
Speak English Home		6.5		29.9	7.4	16.8	48.3
% Foreign Born	16.7	75.9		49	73.3	59.9	35.8
Major Country		Cuba		Cuba / Col	C / Nic	Ven / Cuba	Cuba

Table 1: Some Demographic Figures

6.4 Social Capital and the Institutions: Summary of Findings

Here, the vision and operational statements for three major groups that bear responsibility for the economic well-being of MIA are exposed and discussed. They are: the Miami-Dade County Aviation Department, the Greater Miami (and associated) Chambers of Commerce, and the Beacon Council. Most of this analysis is from published websites, although interviews have been conducted with selected personnel within the context of another project (Prosperi et al., 2008).

The first major observation is that MIA exists in "unincorporated areas" of Miami-Dade County and is surrounded by both formal and informal governmental organizations. This essentially means that oversight reverts to the county government, and not the government of any sub-county unit. Prudence would mandate/suggest "good relations" among governmental and quasi-governmental agencies, and particularly from the perspectives of territorial capital theory.

6.4.1 Miami-Dade County Aviation Department

In terms of direct responsibility, the MIA is operated by the Miami-Dade County (hereafter MDC) Aviation Department. The somewhat generic mission of the MDC Aviation Department is "to operate efficient and customer-friendly aviation facilities that provide for the safe and cost-effective movement of people and goods, and contribute to the economic growth of the community." Both "airport improvements" and "roadway improvements" are underway. The capital improvement program (CIP) for the airport proper includes programs for a new runway, a new configuration for the passenger terminals, and a new cargo facility. The fourth (8,600 ft) runway completed in 2003 increased capacity by 25%. The new passenger terminal structure will add over 4 million square feet to the existing 3.5 million square feet of space. Together, the North and South Terminals will have a total of 130 gates, with 100 international gates and 30 domestic gates. The terminal will have 556 ticket counters and 120 self-service check-in devices.

MIA's cargo facility development program provides the Airport with over 2.7 million square feet in seventeen cargo buildings. Apron space has grown to over 3.8 million sq ft, with 48 common-use cargo positions for large aircraft and 32 leased cargo positions (19 large and 13 small aircraft).

Roadway improvements include a widened Central Boulevard to accommodate forecasted growth, new service roads, wider bridges and improved access to parking facilities. A dedicated freight roadway, the 25th street Viaduct is being constructed beginning on the section nearest to the airport.

6.4.2 Greater Miami Chamber of Commerce

The home page of the Greater Miami Chamber (www.greaterniami.com) starts, unsurprisingly, with strong visual images/icons relating to "do business", "live work and play", the chamber, and news. A review of the current strategic plan (2007-2008) reveals four major objectives, three of which are internal (i.e., membership, finances). The "external" objective is stated as follows: "aggressively promote sustainable economic development in the community through a mix of local/regional and global initiatives that promote infrastructure, workforce and targeted industry growth as well as Miami's leadership in global commerce." The interesting words, within our theoretical framework, are infrastructure and targeted industry growth.

Continuing, the plan recognizes that economic development rests on both firms and the community. At the scale of the firm, the plan recognizes something called a "new economy reality that is more complex, both local and global." It focuses on competitiveness, driven by cutting edge market information, innovation, and cost containment by recognizing South Florida's niche in the global marketplace as being based on both traditional activities (agriculture and tourism) but also "newer" activities (entertainment, trade in goods and services, healthcare). It identifies fragmentation in the organization of the business community (not a good thing for territorial capital theorists). The fragmentation arises from regional chambers to economic development agencies to ethnic-based chambers to city chambers to foreign national chambers to functional chambers and business associations not working collaboratively together. Finally, it argues that if economic development and job creation are to accelerate, there will be a need for greater attention to coordination and cooperation of the region's leading chambers and agencies. And, obviously from their point of view, they should be that agent.

The Chamber holds the license for the Miami Free Trade Zone (www.miamizone.com). Physically located west of the airport, the FTZ comprises 72 acres, 47 of which are offer offices, showrooms, and warehouses;

the FTZ employs over 1,800 people. Their motto, unsurprisingly, is "duty benefits is the key to development."

Nearby, the City of Doral, with its own sub-chamber, is often cites, particularly by the global city / skyscraper researchers (cf. Lang, 2003; Oner, 2008), as an area of skyscraper concentration and therefore of global importance.

6.4.3 Beacon Council

The Beacon Council is a public-private partnership founded in 1986 that has assisted over 690 companies and generated capital investment of over $2.3B. On its website, there is a click to targeted industries wherein it states "Greater Miami's economy is highly diversified, composed of international trade, tourism and a variety of target industries. Companies in a variety of industries, ranging from bioscience, healthcare and information technology/telecommunication to aviation, international commerce and financial services, have found success and prosperity in Miami-Dade."

It is interesting to see how different groups portray themselves on websites. So, under "explore Miami-Dade County" the next click allows exploration of cultural venues (hmm! all are sports arenas), business venues (Miami Free Zone, Miami Health District, Miami International Airport, and Opa-Locka Executive Airport), and business centers (downtown Coral Gables, Doral, airport west, and the Brickell area).

In terms of targeted industries, the web page of the Beacon Council states that "more than 10 years ago, the business community in MD County began a concerted effort to diversify the economy to ensure the future success of our community. The business and community leaders of MD decided to focus on a variety of sectors, including: aviation, life sciences, financial services, information technology and telecommunication, international commerce, professional services, and film and entertainment – to promote business investment and job creation. The result is one of the strongest local economies in the US with record-low unemployment, strong job growth and every increasing interest from domestic and international companies in relocating and expanding to our community."

With regard to professional services (the industrial group that includes accounting, architects, commercial real estate, engineers, and legal services), the following examples of importance are offered (remember that these are from the Beacon Council): The MDC legal community ranks 2nd in the world for international arbitrations, behind only New York City. MDC is home to offices of the world's largest accounting firms, headquarters for the state's largest accounting firm, headquarters for the state's largest African-American accounting firm, and headquarters for the state's largest Hispanic accounting firm. Finally, "MDC architectural firms have designed projects on every continent and have office outposts in 30 countries ranging from Beijing to Dubai (*sic*). Together, there are 16,237 accounting, architectural, real estate, engineering, and legal services that grow and flourish in MDC. … As of 2006, there were 97,557 employees in MDC's professional services industries, which garnered total revenue of more than $57B. These numbers are sure to grow as more multi-national companies relocate and expand into MDC, providing more opportunities for these firms."

6.4.4 Other Municipalities

In Prosperi et al. (2008) interviews were held with the City Manager and Planner of the City of Miami Springs. In earlier times, this was an "airport city." Now, they have their southern border on the airport. They are looking to capitalize on this by further developing the commercial potential beyond hotels. To the west, the City of Doral, which is closer to the warehousing and wholesaling center, is engaged in a constant fight over "trucks."

7 CONCLUSIONS AND SPECULATIONS

So, I return to the choice presented in the title: Miami International Airport or Miami Innovation Area. The choice is clear: despite the rhetoric of the chamber and business development groups – MIA is the airport but one equally motivated and used by both passengers and cargo. There are five major points to be made in this conclusion.

The first major point is that the MIA area is a reasonably mature economic node. It was among the first set of major airports in the US and has continued to play a major role in the now-global air traffic network. Thus, the examination of innovation in this context is "innovation" in a mature cluster.

Second, the specific nature of the economic cluster is clearly influenced by its macro-context. The raison d'être and thus the cornerstone of even examining *existing and potential territorial capital* for the mix of activities in MIA is fundamentally related to its location as a gateway to Latin America and the Caribbean. It is clear that individual airports must relate to their geographic situations! Since global markets are constantly redefined, strategic positioning is required and needs to be monitored.

The third major point relates to the Bergian concept of cluster engine. Clearly, the role that American Airlines and its *Oneworld* partners play in the development of this airport is paramount. The simple notion that the airport is divided into two mega-terminals (one for American and one for the rest of the travelling world) implies the influence of largeness.

Fourth, innovation in industries will be dependent upon the types of firms that are in the area, which is dependent upon the existing situation. So, in the case of MIA, innovation in newer sectors will be different from innovation in existing sectors.

The firth major point refers to the territorial or social capital argument. It is paramount. In this case, it is clear that both economic and jurisdictional disagreements occur. It is also clear that multiple agencies and actors are involved in both formal government and informal governance of the MIA area. It is also clear that more than one group wants to be in charge. Clearly, there is work to be done!

8 REFERENCES

BOGART, W.T. Don't Call It Sprawl. Metropolitan Structure in the Twenty First Century; New York: Cambridge, 2006

BOGART, W.T. The Economics of Cities and Suburbs; Upper Saddle River, NJ: Prentice Hall, 1998.

CAMAGNI, R. Towards A Concept of Territorial Capital. Paper presented at Joint congress of the European Regional Science Association and ASRDLF, Paris, August 29-September 2, 2007.

CAMAGNI, R. On the Concept of Territorial Competitiveness: Sound or Misleading? Urban Studies, 39(13), 2395-2412, 2002.

GIFFINGER, R. & D. PROSPERI. Principles of Local Territorial Capital as Taxonomic Devices to Assess Competitiveness of Sub-Metropolitan Centers, to be presented, European Urban Research Association, Milan, October, 2008.

GARREAU, J. Edge Cities. Life on the New Frontier; New York: Doubleday, 1991.

LANG, R. Beyond Edge City: Office Sprawl in South Florida. The Brookings Institution Survey Series, March 2003.

MOMMAAS, H. Cultural Clusters and the Post-Industrial City: Towards the Remapping of Urban Cultural Policy; Urban Studies. 41(3):507-532, 2004.

ONER, A.C. Skyscraper Geographies, manuscript submitted to Geography Compass (Blackwell), 2008.

PORTER, M. Clusters and the New Economics of Competition; Cambridge, MA: Harvard Business School Press, 2002.

PORTER, M. The Competitive Advantage of the Inner city. Harvard Business Review (May/June): 55-71, 1995.

PROSPERI, D.C. Making Apparent the Economic Spatial Structure of the South Florida Metropolitan Region. In V. Coors et al., Urban and Regional Data Management, UDMS Annual, Taylor and Francis/Balkema, Leiden, Netherlands, 2008.

PROSPERI, D.C. Airports as Centers of Economic Activity: Empiricial Evidence from Three US Metropolitan Areas. Proceedings, 12th CORP Conference, 2007.

PROSPERI, D.C. "Economic" and "Spatial" Aspects of Creative Industry Clusters: Examples from South Florida. Paper presented at Social Theory, Politics and Arts Conference, Vienna, July 2006.

PROSPERI, D.C., R. GIFFINGER, P. HIRSCHLER, & G. HAINDL. Metropolitan Context: Local Strategic Positioning. A joint two term course taught at Florida Atlantic University (February) and Technical University of Vienna (May), 2008.

PUTNAM, R. **Making Democracy Work**. Princeton, NJ: Princeton University Press, 1993.

SHEER, B. & M. PERKOV. Edge city morphology: A comparison of commercial centers; Journal of the American Planning Association, 64:298-310, 1998.

TODTLING, F. & M. TRIPPL. One size fits all? Towards A differentiated Regional Innovation Policy Approach. Research Policy, 34: 1203-1219, 2005.

VAN DEN BERG, L., BRAUN, E. & W. VAN WINDEN. Growth Clusters in European Cities: An Integral Approach; Urban Studies, 38(1):185-205, 2001.