



AEROTROPOLIS: AIRPORTS AS THE NEW CITY CENTER

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THE RISE OF THE AEROTROPOLIS

Airports have become not just 21st century business magnets, but also regional economic accelerators, catalyzing and driving business development outward for many miles. As aviation-oriented businesses increasingly locate at major airports and along transportation corridors radiating from them, an aerotropolis emerges, stretching up to 25km (nearly 20 miles) from some major airports.

Analogous in shape to the traditional metropolis made up of a central city core and its rings of commuter-heavy suburbs, the aerotropolis consists of an airport-centered commercial core (airport city) and outlying corridors and clusters of aviation-linked businesses and associated residential development.

Some of these largest aerotropolis clusters such as Amsterdam Zuidas, Las Colinas, Texas, and South Korea's Songdo International Business District — near Incheon International Airport — have become globally significant airport edge-cities whose business tentacles routinely touch all major continents.

The aerotropolis, in fact, is the concrete urban manifestation of the global meeting the local, with the airport serving as its physical interface. Among the most prominent are Amsterdam Schiphol, Chicago O'Hare, DFW, Dubai, Hong Kong, Incheon, Memphis, Paris CDG, Singapore and Washington Dulles International airports (See Figure 3). Each has attracted a remarkable number of businesses to their properties and broader airport areas, generating huge economic returns to their regions and nations.

For example, more than 1,000 firms have located in the Amsterdam Aerotropolis (including the world headquarters of ABN Amro and ING banks located just six minutes from Schiphol's terminal) in part because of the superb connectivity this airport provides their executives.

Likewise, four Fortune 500 world headquarters are located in Las Colinas, Texas, only a 10-minute drive from DFW, while Chicago's O'Hare airport area has more office and convention space than most major cities. The Washington Dulles International airport region is the second largest retail market in the U.S. (just behind New York City's Manhattan Island) and has become a high-tech business and consulting hub as well.

Figure 1. Aerotropolises as Economic Accelerators

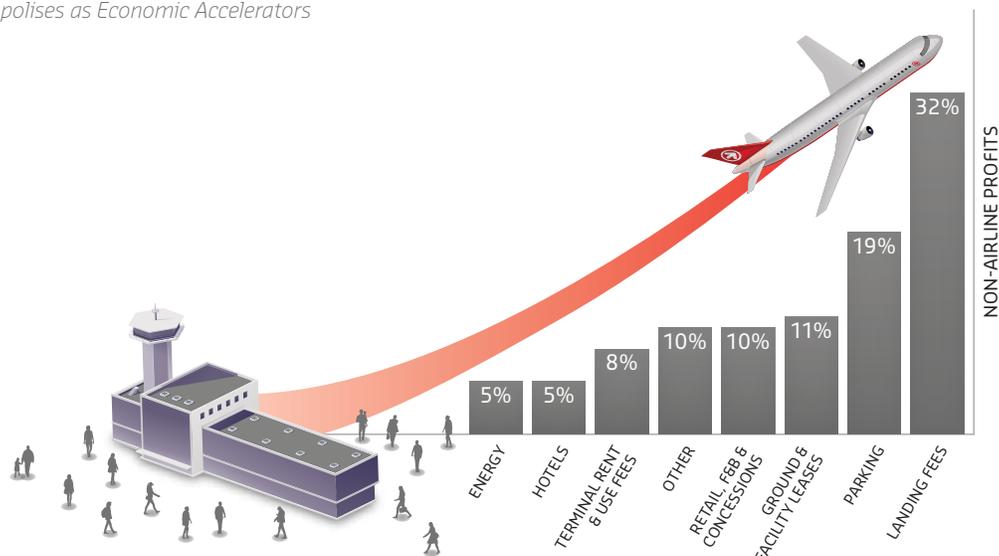
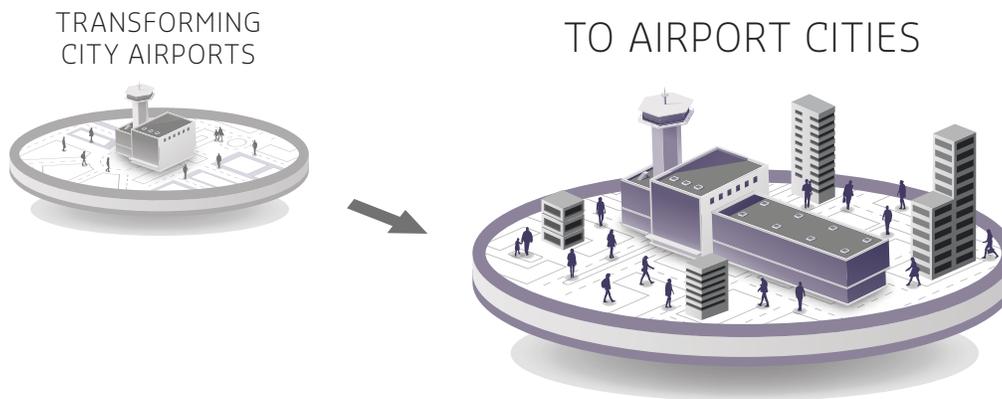


Figure 2. Evolution of City Airports to Airport Cities



Hong Kong, Incheon, Memphis, and Paris CDG boast leading cargo and logistics complexes, with the former two airports sustaining, respectively, Hong Kong Disneyland and New Songdo IDB, an airport-edge city the size of downtown Boston. Dubai and Singapore have emerged as full-fledged aerotropolises with their large leisure, tourism, commercial and finance sectors dependent on aviation. Both may legitimately be described as global aviation hubs with city-states attached.

AIRPORT CITY EVOLUTION

Airport cities have developed along different paths. A portion of them were planned from the start. Most, however, evolved in a largely organic manner responding to (1) airport land availability, (2) improved surface transportation access, (3) growing air traveler consumer demands, (4) airport revenue needs, (5) new business practices, and (6) site-specific commercial real estate opportunities.

Regardless of process, airports continue to transform from primarily air transport infrastructure to multimodal, multi-functional enterprises generating considerable commercial development within and well beyond their boundaries. Today, virtually all of the commercial functions of a modern metropolitan center are found on or near most major air gateways, fundamentally changing them from “city airports” to “airport cities.”

The passenger-terminal has led this transition. Airside (past security), gallerias and retail streetscapes have been incorporated into concourses, as have multiple leisure and consumer services. Upscale boutiques offering high-end fashion clothing and accessories, along with gourmet and themed restaurants, have been complemented by health, fitness and entertainment facilities including spas, clinics, multiplex cinemas and, in some cases, museums, art galleries, concerts and gaming venues.

TO AIRPORT CITIES

AIRPORTS AS CORPORATE HEADQUARTERS

Corporate headquarters functions were once the domain of downtown office buildings. No longer. Go to Terminal D at Dallas-Fort Worth International Airport (DFW) or to the concourse of Detroit Metro’s magnificent McNamara Terminal and you will see business people with bulging briefcases walking from their arrival gates into DFW’s Grand Hyatt and Metro’s swanky Westin Hotel.

They are pouring into these concourse-connected business class hotels not to sleep, but to meet. DFW’s Grand Hyatt and Detroit Metro’s Westin increasingly serve as virtual headquarters for geographically dispersed corporate staff, executives, and board members who fly in for sales meetings, client contacts, and high-level decision-making.

The full-range of office services and business support staff of a traditional corporate complex are available, including meeting rooms, computers and advanced telecom, secretarial and tech assistance. Some airport hotels, such as the Sheraton at Amsterdam Schiphol, Hilton at Frankfurt and Sofitel at Heathrow’s Terminal 5 now even rank among the most popular places to hold business meetings in Holland, Germany and the UK respectively.

And airports in Asia are taking “doing business” in them to a new level. For example, in 2010, Hong Kong International Airport opened the world’s largest terminal commercial lounge. Its 15,000 square foot facility is a full-service business center

[Travelers] are pouring into these concourse-connected business class hotels not to sleep, but to meet.

that supports up to 300 users with wireless office workstations, projectors, meeting rooms, advanced videoconference stations, and tech assistance. Large-screen TVs and an all-day buffet provide the entertainment during any downtime.

In tune with today's corporate needs for quick access to their widely dispersed clients and enterprise partners, The Squaire (designated "New Work City") opened at Frankfurt Airport in 2011. This two million square foot, mainly office and hotel complex, is over 2,000 ft long (650 meters) and nine stories high. Its primary value proposition is speedy connectivity, not only local and national, but also global. The Squaire is just eight minutes via covered walkway to the airport's international check-in counters.

In addition to an adjacent high-speed motorway, rapid ground connectivity to much of the region and beyond is provided by the inter-city rail station underneath the complex. Served by some 230 long-distance trains daily, The Squaire is without doubt the best-connected office building in Europe.

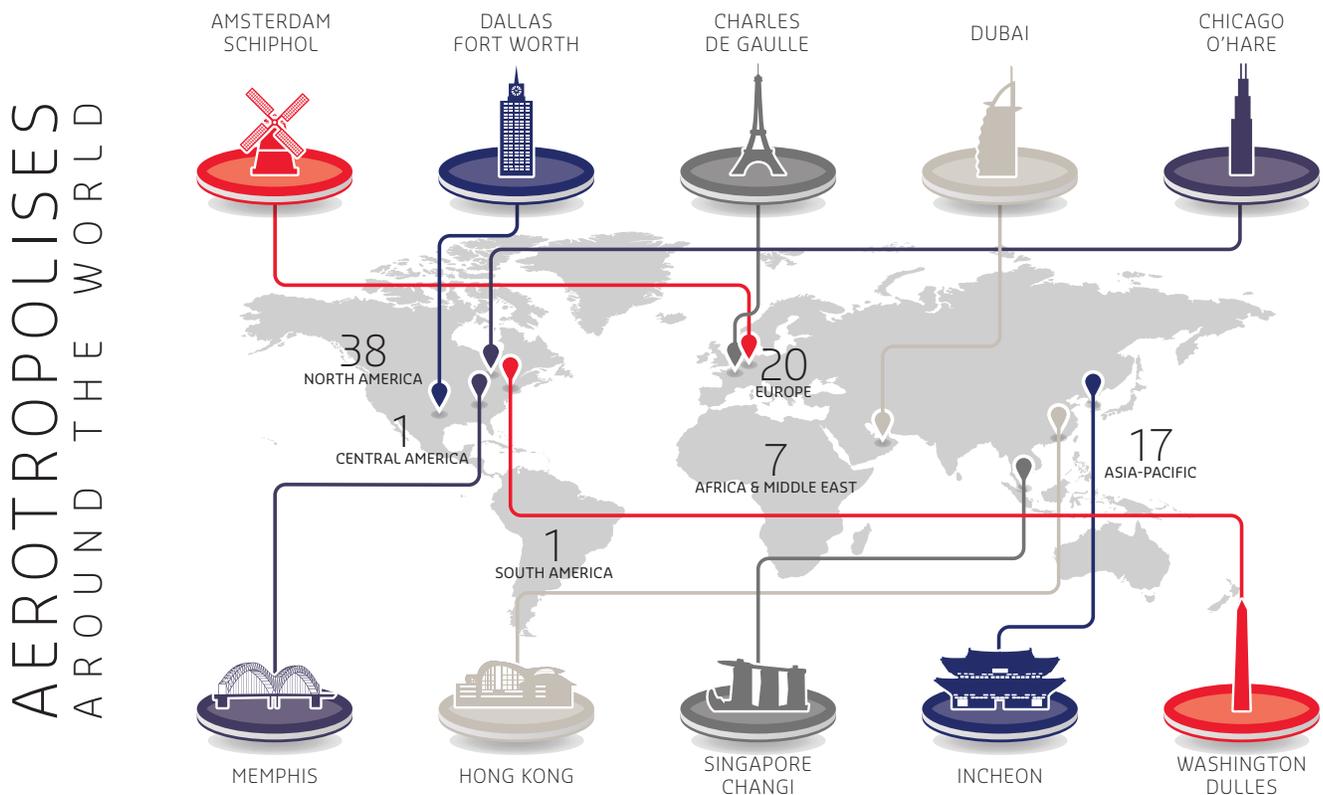
Excellent surface connectivity, together with Frankfurt Airport's extensive international flight network, has fashioned

it into a magnet for offices of travel-intensive firms. One prominent multi-national accounting, auditing, and consulting firm, KPMG, has made The Squaire its European corporate headquarters, occupying 400,000 square feet.

A number of major airports now actually exceed many downtown metropolitan central business districts in office space and employment. Rossypole, occupying 160 acres (65 hectares) in the middle of the Paris Charles de Gaulle Airport has over 2.5 million square feet (230,000 sqm) of offices. There are around 700 firms based on the 3,200-hectare (7,900 acre) airport property, employing a total of 87,000 people. Proceeding outward, there is an additional 770,000 sqm of offices in the immediate vicinity of the airport, along with many hotels and logistics facilities. Approximately 250,000 jobs in the Paris region are directly or indirectly related to CDG.

Airport city and aerotropolis development is gaining substantial traction, multiplying rapidly on a global scale. Using qualitative and quantitative techniques, I've identified over 80 airport cities and broader aerotropolises (airport-centered urban economic regions) around the world that are either already operational or in early stages of development.

Figure 3. Examples of Aerotropolises Around the World



Their distribution is widespread with 38 identified in North America, 20 in Europe, 17 in Asia-Pacific, seven in Africa and the Middle East and one each in Central and South America. Various criteria were used to designate operational or developing airport cities and aerotropolises. Some of the criteria are clearly subjective, so this list is by no means definitive. Without doubt, new sites will be added, while some shown here may fall by the wayside.

AEROTROPOLIS EMPLOYMENT SCALE AND INDUSTRY MIX

The employment scale and industry mix of the aerotropolis is much greater than many realize. Research by Dr. Stephen Appold and myself on employment around the 25 busiest passenger airports in the U.S., found that 3.1 million jobs as of 2009 were located within a 2.5-mile radius of these airports (2.8% of total U.S. employment); over 7.5 million jobs within a five-mile distance (6.8% of all U.S. employees) and 19 million jobs (17.2% of the U.S. total) within 10 miles (See Figure 4). Assessment of wages and salaries in these airport radii showed that the respective percentages from payrolls were 3.4%, 8.2% and 21.9%. This indicates that many jobs near major airports are relatively well paid.

When we studied individual airports, we found that those located a greater distance from the metropolitan city center generated significant employment clusters of their own. Fostered by these clusters, Chicago O'Hare has 450,000 jobs within a radius of five miles; DFW 395,000 jobs, and Washington Dulles International almost 240,000 jobs.

Fully 9.3% of all U.S. employment in transport and warehousing is located within 2.5 miles of the 25 airports we analyzed. The disproportionately high concentration of these jobs continued outward at least as far as a 10-mile radius of the airport fence.

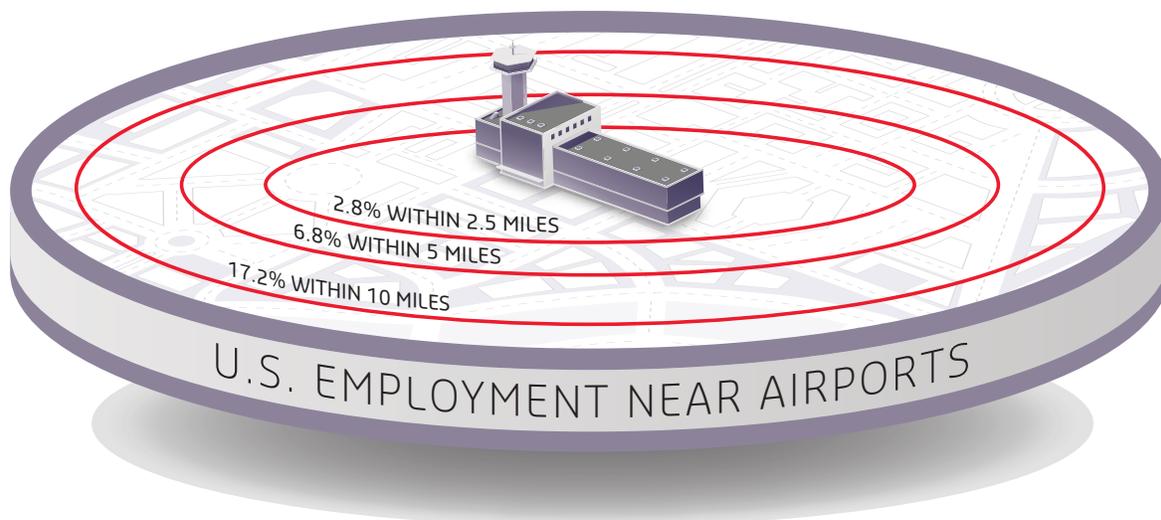
Even traditional downtown employment sectors such as finance, insurance, and administration are moving to airport areas. Our research comparing airport area employment with metropolitan central business district area employment showed that zones within five miles of the airport register 55% of the finance and insurance jobs that are located within five miles of the city center and 78% of the administrative and support jobs.

Hotels, of course, are mushrooming around airports. There are 49 hotels within 2.5 miles of Hartsfield-Jackson Atlanta, with the heaviest concentration just one to 1.5 miles away. This compares to 51 hotels located within 2.5 miles of Atlanta's city center.

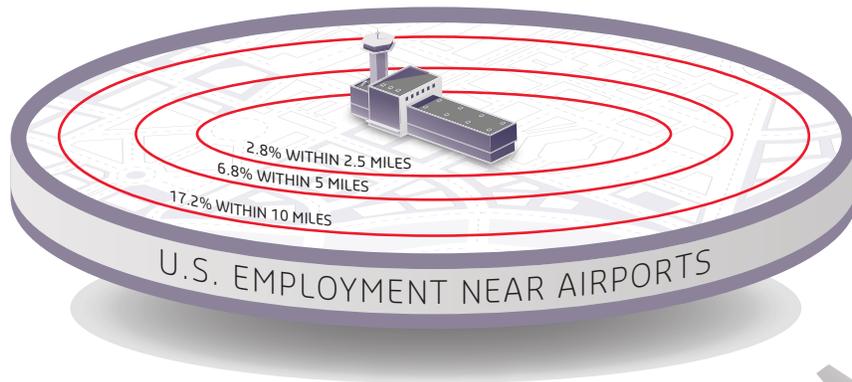
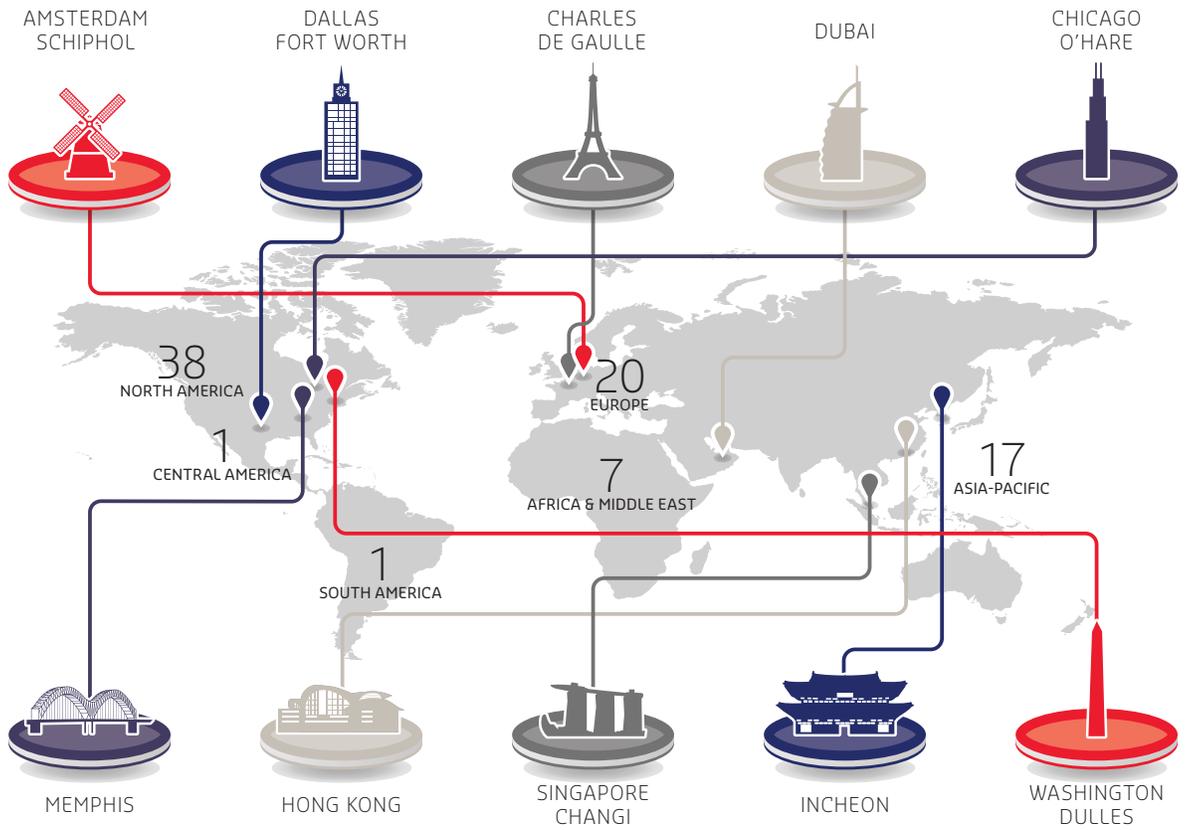
And, the largest concentration of hotel rooms on the entire U.S. West Coast is adjacent to Los Angeles International Airport's fence. Areas surrounding airports are also attracting businesses in a full range of professional, medical (life-sciences) and information and communication functions. Sports, recreation and entertainment complexes as well as showrooms, exhibition and convention centers are also gravitating toward them.

The aerotropolis is thus much more of a dynamic, forward-looking concept than a static, cross-sectional model where

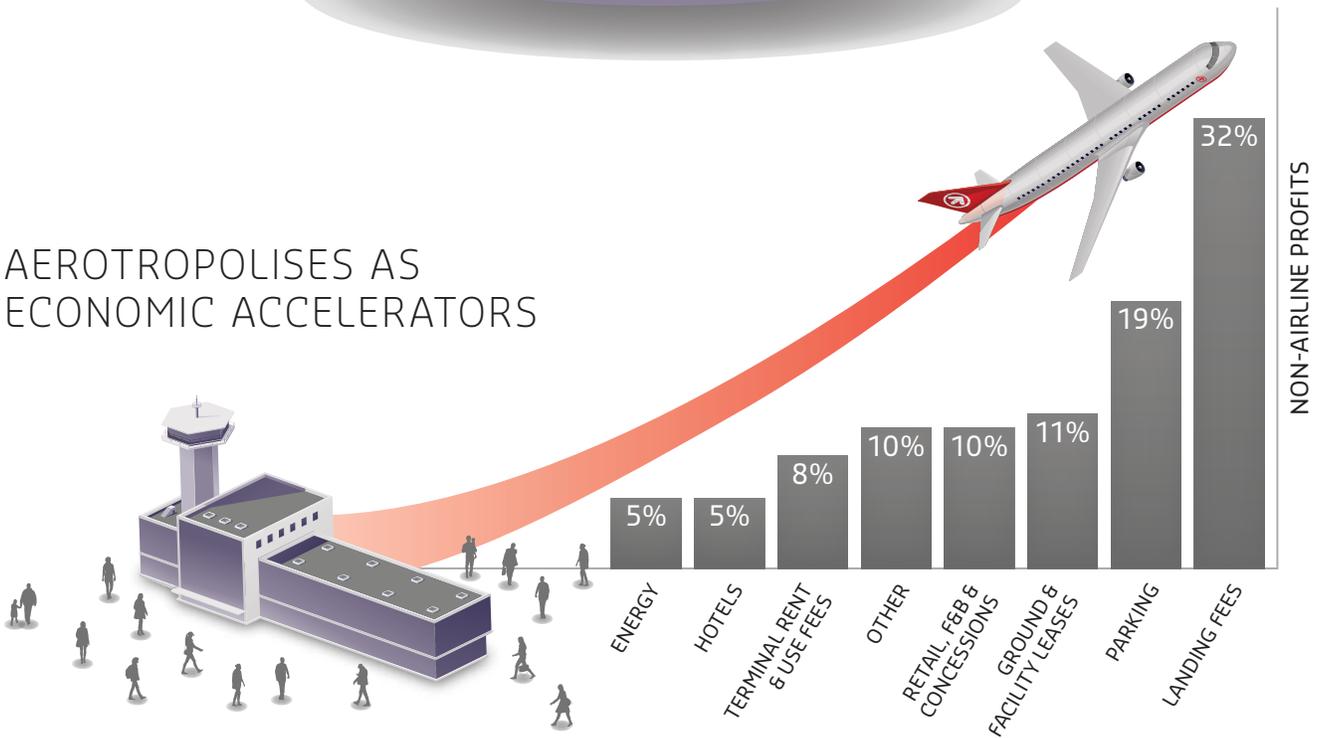
Figure 4. The Aerotropolis' Effect on U.S. Employment



AEROTROPOLISES AROUND THE WORLD



AEROTROPOLISES AS ECONOMIC ACCELERATORS



much existing development reflects historic airport-area growth over many prior decades, some in the distant past.

Future development of the aerotropolis will be driven by further global integration and the need for speedy connectivity. Both will be enabled and catalyzed by the continuing expansion of aviation routes operating as a Physical Internet moving people and products quickly worldwide, analogous to the way the digital Internet moves data and information.

With airports serving as key nodes (or routers) of this Physical Internet, aviation, globalization, and urban development converge, creating the 21st century aerotropolis.

CONCLUDING COMMENT

We have entered a new transit-oriented development era where cities are being built around airports instead of the reverse. In the process, the urban center is being relocated in the form of globally significant airport cities and aerotropolises. Propitious opportunities await metropolitan regions (including their traditional central cities) that can marshal the vision, planning skills, and coordinated actions to capitalize on them. ■

KEY INSIGHTS & IMPLICATIONS

- Airport city and aerotropolis development is multiplying rapidly on a global scale.
- Corporate headquarters functions are now found in airports, with business travelers meeting in concourse-connected business class hotels.
- In addition to creating employment clusters for transport and warehousing jobs, traditional downtown employment sectors are also moving to airport areas.
- Future development of the aerotropolis will be driven by further global integration and the need for speedy connectivity.
- Success awaits those that can marshal the vision, planning skills, and coordinated actions to capitalize on the new opportunities created by aerotropolis development.

LINKING TO SODEXO'S QUALITY OF LIFE DIMENSIONS

- **Physical Environment:** Airports designed with comfort in mind contribute to a better travel experience for employees — one that enhances rather than detracting from their quality of life.
- **Ease & Efficiency:** The ability to work efficiently while traveling allows employees to complete their work with greater efficiency and less lost time.

Charles De Gaulle Airport

