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FUT Symposium 2012
Urban Freight for Livable Cities

Logistics sprawl in Paris, Atlanta and Los Angeles
Research objectives

- Understanding spatial patterns of the location of warehouses in large metropolitan areas
- Calculating indicators of logistics sprawl
- Analyzing the way local practitioners address freight transportation issues and logistics sprawl
• A rise in warehouses and distribution centers to serve an import-based economy and global supply chains
• A huge increase in the number of warehouses and DCs in large metropolitan areas
  – In Atlanta: +204% between 1998 and 2008
  – In Los Angeles: +207% between 1998 and 2009
  (number of ‘warehouses,’ NAICS 493)
• Mega distribution centers of up to 150,000 sq m
• Logistics sprawl
Logistics sprawl

- The spatial deconcentration of logistics facilities in metropolitan areas
- Differentials in land prices, needs for modern facilities and large parcels, availability of road infrastructure, need for connectivity with other major consumer markets
The location of cross-dock parcel companies’ terminals in the Paris region between 1974 and 2010

Paris, parcel transport industry, 1974-2010
Atlanta, warehouses 1998-2008
(NAICS 493)

Dablanc and Ross, 2012
Los Angeles, warehouses, 1998-2009 (NAICS 493)

Dablanc and Farr, 2012
• The average distance of terminals to their barycenter (center of gravity) has increased:
  • by 10 km in Paris (from 6 to 16 km)
  • by 5 km in Atlanta (from 28 to 33 km)
  • by 9 km in Los Angeles (from 42 to 51 km)
• The same sprawl indicator for all establishments (representing economic activities in general) has increased:
  • by 2 km in Paris
  • by 2 km in Atlanta
  • by 0.5 km in Los Angeles
• Logistics activities decentralized more than economic activities in general
• It may take more truck-km to connect urban destinations to and from freight terminals
• Calculation with actual truck traffic data data for the Paris case: net impact of +16,000 tonnes of CO2 due to logistics sprawl only
• (Dina Andriankaja, current doctoral research)
Warehouses in central areas
Sprawl - warehouses at the edge
Various local strategies towards warehouses

- Trying to prevent logistics growth in traditional manufacturing areas: the city of Vernon in Los Angeles
- Looking at logistics as a way to revitalize industrial areas: Fulton Industrial Boulevard in Atlanta
- Looking at logistics as a strategic sector for accelerated local economic growth: Henry County in Atlanta, Moreno Valley and Inland Empire communities in Los Angeles
- Looking past logistics: Gwinnett County, turning to office and hise rise development, in Atlanta
- Promoting clean freight activities back in the urban core: Paris
Transloading and warehousing activities in city centers
No regional approach

- Land use/building permit decisions from the local governments (cities and counties)
- Lack of metropolitan/regional coordination: “we love planning but other counties do not and are ready to accept anything without any care given to conflicts of use, environmental justice or transitional planning”
- No attention to regional consequences
- Scarce public resources are dispersed in local or redundant projects (highway interchanges, port dredging, intermodal facilities)
Way forward for a more comprehensive and regional planning of freight facilities

- Monitoring trends, informing decision-makers
- Promoting logistics parks and freight villages
- Promoting zoning ordinances that allow for logistics operations in residential/mixed use areas with careful architectural requirements
- Introducing a new level for promoting coordination: megaregions may be a better place to consider cooperative planning
  - where economic growth is concentrating, increasing the needs for logistics services and facilities
  - where political/local rivalries are more diluted
Megaregions in the U.S.

- Arizona Sun Corridor
- Cascadia
- Florida
- Front Range
- Great Lakes
- Gulf Coast
- North East
- Northern California
- Piedmont Atlantic
- Southern California
- Texas triangle

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