

11 Economics of Transportation

11A Transportation and the Economy

Fact Sheet

Transportation and the Economy

Within a relatively small geographic area, Seattle’s Center City provides employment opportunities in many market sectors from industrial to retail. Center City businesses employ almost half of the workers in Seattle and 21% of all employees in King County.¹ The Downtown Seattle Association (DSA) compiles Puget Sound Regional Council employment data by Census Tract to calculate jobs by market sector in Center City as shown below:

Figure 1 2005 Employment in Seattle’s Center City

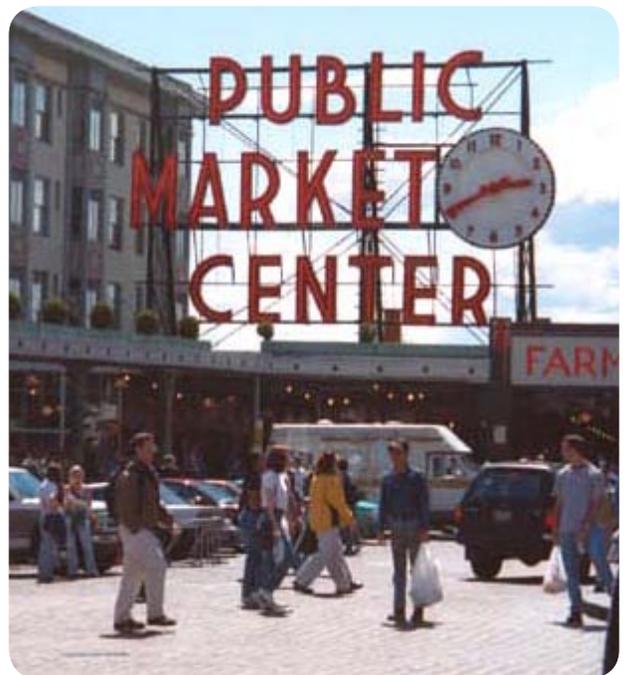
	Total Jobs	% of Total
Services	120,847	53%
Government	37,713	16%
Finance, Insurance, Real Estate	25,001	11%
Wholesale trade, Transportation, Utilities	19,476	8%
Retail trade	12,905	6%
Manufacturing	5,778	3%
Construction	4,495	2%
Education	3,245	1%
Total	229,460	100%

Note: DSA calculations total PSRC Covered Employment numbers for census tracts in Center City neighborhoods, including the CBD, Denny, Belltown, Pioneer Square, Waterfront, Uptown, South Lake Union, and parts of Capitol Hill, First Hill, and SoDo.

Data source: Downtown Seattle Association, “Economic Information: Workforce” <http://downtownseattle.com/content/businesses/Workforce.cfm> (accessed November 19, 2007).

These numbers reveal that the majority of jobs in Seattle’s Center City are in the service economy and government sectors, with employment opportunities for the City of Seattle, King County, and State of Washington agencies. Wholesale trade retains a strong market share, bolstered by the Port of Seattle and the industrial zones abutting downtown.

Seattle hosts two of King County’s four Manufacturing and Industrial Centers (M/IC), the Ballard Interbay Northend M/IC adjoining downtown to the north and the Duwamish M/IC to the south. The August 2007 Seattle’s Industrial Lands: Mayor’s Recommendations report characterizes Seattle as one of the few places in the U.S. where industrial jobs are on the rise, with flourishing warehousing, transportation logistics, aerospace, utilities, construction support, and software development sectors. King County industrial employment is projected to increase 35% between 2005 and 2035, from 359,000 to 474,000 jobs. A majority of these employees will likely work in industrial lands already located in M/ICs.



¹ Downtown Seattle Association, Seattle 2007: State of Downtown. <http://downtownseattle.com/content/download/transient/SOD2007Report.pdf> (accessed November 19, 2007)

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The DSA's 2007 *Street Level Retail & Services Inventory* finds that 65% of Center City street level businesses can be categorized as services. The downtown services reflected in job breakdowns and street level counts cater to visitors as well as employees who are already in the center for work.

Figure 2 Center City Seattle Street Level Businesses, 2007

Services at street level:	
Hotel/Inn	65
Human Services	69
Restaurant/Bar/Café	879
Other services	1,471
Total services:	2,484
Other street level businesses:	
Retail	1,228
Government	62
Education	53
Industrial	20
Total other:	1,363
Total street level businesses: (services + other)	3,847

Note: Totals calculated from "Profiles" for the CBD, Denny Triangle, Belltown, Uptown, SoDo, International District, Pioneer Square, Waterfront, Uptown, South Lake Union, and First Hill.

Data source: Downtown Seattle Association, "Downtown Neighborhood Profiles 2007," <http://downtown-seattle.com/content/businesses/NHoodProfile.cfm> (accessed November 20, 2007).

How does Seattle's changing market impact the transportation system?

Occupancy rates for downtown Seattle's 38 million square feet of office space improved 3.5% from 2005 to 2006.² With growing downtown office employment, morning and evening commute peaks will continue to drive the city's mobility needs. Seattle's mix of major industry sectors – services, maritime trade, retail, tourism, and high technology – combine to create varying levels and types of travel demand throughout the day and every day of the week.

Services

Service employment continues to gain market share nationwide. More than half of all Center City Seattle jobs and nearly two-thirds of street level

businesses are in the service sector. These jobs include health, legal, recreation, architectural/engineering, and human services. Office employees with standard business hour shifts place the greatest demand on transportation systems during peak commute times. Between these peaks, services that draw clients throughout the day create a lesser but steady flow on local streets.

Service businesses such as hotels and restaurants that open early, close late, or require multiple shifts present special commute and customer transportation challenges. Before and after peak commute times, the street network, transit systems, and the parking supply are less used, so this dispersed demand does not create the same level of congestion. However, fewer and less convenient choices for transportation are often available outside of main daytime periods and commute hours.

Maritime and industry

Trade and industry concentrates along the waterfront and the M/ICs north and south of downtown. Together, the Port of Seattle and Port of Tacoma make up one of the nation's premier container ports, channeling goods through the United States and Asia. Freight and delivery trucks here require dependable access points and wide rights-of-way to transfer cargo at docks and warehouses.

Warehousing and freight companies can include 24-hour operations. Large, heavy vehicles create road maintenance, design, and congestion challenges. In the SoDo district especially, industrial and warehouse uses neighbor large office buildings, including Starbucks' corporate headquarters. Delivery trucks, peak commute traffic, and employees on foot and on bikes share and compete for right of way. Transit service for commuters to these areas can be complicated to schedule and route. Low employment densities in many industrial areas limit transit's effectiveness.

The Duwamish M/IC is nestled in the flat river valley between I-5, Boeing Field, Elliott Bay, and the Beacon Hill and West Seattle/Delridge slopes; the Ballard Interbay Northend M/IC follows the Ship Canal from Elliott Bay, benefiting from maritime traffic along the Canal and bordered by Magnolia and Queen Anne hills. Geographic features and transportation structures supporting these industrial centers provide both a buffer from neighbor-

² Downtown Seattle Association, "Economic Information: Office Space," <http://downtownseattle.com/content/businesses/OfficeSpace.cfm> (accessed November 19, 2007)

ing land uses and key connections to highways and ports.

Retail and Tourism

Retail and restaurants, tourist spots, and hotels and conference centers draw customers to the transportation grid throughout the day. The DSA reports that in 2006, 94.9% of downtown’s 4.6 million square feet of retail space was occupied.

Major destinations from Pioneer Square and the International District through Pike Place Market and up to the Seattle Center draw out-of-town guests and residents year-round. Forty-four percent of the 9.1 million annual visitors to King County arrive by air and 48% by private automobile.³ Compared to commuters’ peak hour travel spikes, retail customers and tourists travel in and out of downtown throughout the day, tend to stay for shorter periods of time than employees, and create demand for short-term parking. Within Center City, these visitors become pedestrians or intra-downtown vehicle traffic cruising for parking.

The City of Seattle’s March 2002 *Waterfront Parking Strategy* included a visitor survey. Results indicate that prime arrival times are between 9 AM - 11 AM and 1 PM - 3 PM. The average waterfront visitor stays between two and five hours and is willing to search for parking for up to 22.5 minutes, generally passing up at least one available parking space because it is too far away or too expensive. The willingness to cruise for parking clearly has major impacts on downtown traffic volumes and travel patterns. Sporting events, concerts, and theater and dance performances at venues ranging from small local clubs to Benaroya Hall often create sudden congestion, overflow parking demand, and bottlenecks at highway ramps and garage entrances. This further underscores a market for high quality transit, particularly rail, to encourage visitors to arrive in and travel around downtown without private automobiles.

Technology

The greater Seattle area has long been known for its role in computer and aerospace technology. Today, Center City Seattle hosts communications and IT giants including Amazon.com perched on the edge of downtown at the intersection of I-5 and I-90. Biotechnology employment is increasing especially in South Lake Union, with Fred Hutchinson Cancer Center and Zymogenetics already strong employers. These expanding job bases act to intensify peak commute demand on arterials and highways, and shift traffic patterns to access new and growing technology campuses abutting downtown. Their locations on just outside the core make transit access more difficult, meaning their employees generate more auto trips.

With a Center City employment base ranging from maritime trade to service-based businesses, tourism, and retail, Seattle faces a mix of transportation needs into the future. In order to accommodate growing volumes of commuters, visitors, and freight, the transportation system must support a wide variety of modes, offer a diversity of routes, and carefully consider the disparate transportation demands of each major market sector.



³ Downtown Seattle Association, “Economic Information: Visitor” <http://downtownseattle.com/content/businesses/Visitor.cfm> (accessed November 19, 2007)

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Sources:

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