2000 Los Angeles Regional Worksite Analysis and Transit Implications

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This paper provides a brief analysis to update report findings from the 1980 Census with 2000 Census information regarding concentration of worksites. A report entitled *Travel Trends in Non-CBD Activity Centers* (Peter Gordon, Harry Richardson and Genevieve Giuliano of The Planning Institute, University of Southern California, April 1989) provided an in-depth analysis of journey-to-work travel patterns in the Los Angeles region. The report examined 1980 US Census data for the five-county region (Los Angeles, Orange, Riverside, San Bernardino and Ventura Counties) and drew conclusions on the type of transit that would best suit our region. Their investigation of Transportation Analysis Zones showed that the 19 largest work centers in the region contained only 17.5 percent of our work force. They concluded that our region is not as much "polycentric" as it is dispersed. This dispersion lends itself better to flexible transit, like buses, paratransit and localized services, than to rail transit that is better suited to highly concentrated cities.

Since 1980, Southern California has experienced significant changes in employment. The 1980's saw a plethora of new office buildings constructed in places like Irvine, Ontario, Glendale, and many other communities. We have also embarked on a massive rail transit construction program designed to encourage people out of their cars. Have spatial employment patterns become more conducive to rail transit? Data recently released from the US Census Bureau provides some information to assess whether we have become more polycentric or if worksites are still widely dispersed. The data is examined at the block group level. Block group level data is a finer level of data than the Transportation Analysis Zone (TAZ) data used in the former study.

Table 1 on page 2 shows the 19 largest concentrations of employment in our five-county region. These "work centers" were selected through a Geographic Information Systems (GIS) analysis of the 2000 US Census Transportation Planning Package Part 2 data. Concentrations were mapped and many were tallied to determine the number of workers in each. It should be noted that block group level analysis is imprecise. Many block groups are large and include worksites located a distance from where others in the same block group are concentrated. Moreover, selecting block groups to include introduces a certain degree of ambiguity. Delineating which block groups to include in a "work center" is arguable. Nevertheless, they were carefully selected and a consistent method of including or excluding block groups was applied. Given this imprecision and the brevity of this analysis, the results should be viewed in general, rather than precise terms, primarily useful for uncovering major trends.

Table 1: 19 Largest Work Centers in 5-County Region

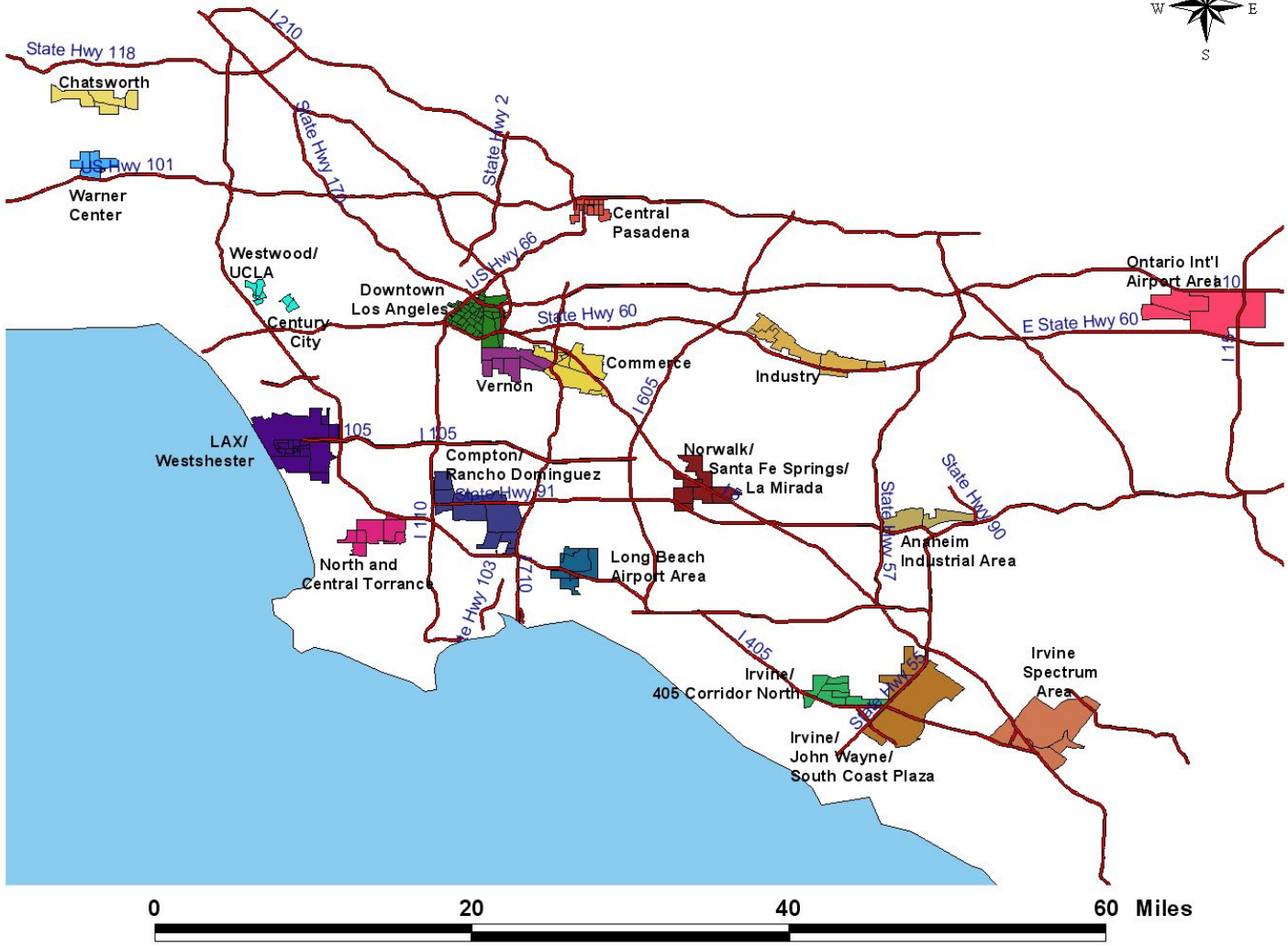
Source: 2000 US Census Transportation Planning Package Part 2

Work Center	# of Employees
Downtown Los Angeles	265,765
Irvine/John Wayne/South Coast Plaza	201,255
LAX/Westchester	119,115
Westwood/UCLA	88,420
Compton/Rancho Dominguez	68,695
Irvine Spectrum Area	57,585
Central Pasadena	56,170
Irvine 405 Corridor North	54,430
Commerce	53,045
North and Central Torrance	45,150
Warner Center	44,670
Anaheim Industrial Area	42,280
Century City	41,835
Chatsworth	39,940
Industry	39,865
Ontario Airport Area	39,460
Norwalk/South Santa Fe Springs/La Mirada	38,555
Vernon	37,525
Long Beach Airport	36,490
TOTAL EMPLOYEES IN 19 WORK CENTERS	1,370,250

The total number of employees in these 19 work centers comprises 20.3 percent of all workers in the region. Given that the block groups are different than the Transportation Analysis Zones evaluated from the 1980 Census, an exact comparison is not made. However, the data does not reveal a major shift from dispersion to concentrated transit-conducive urban centers. Moreover, as can be seen on the map on page 3, most of the work centers on this list aren't true urban centers that lend themselves to transit or walking to and from transit stops. The majority are large areas with sprawling office or industrial complexes. Downtown Los Angeles, Westwood/UCLA, central Pasadena (extending beyond downtown Pasadena), Warner Center and Century City are the only centers on this list that are truly like city centers. Some span as much as eight miles across.

Top 19 Work Centers in the Los Angeles Region

(Source: 2000 US Census Transporation Planning Package Part 2)



Thus, the conclusions of the Gordon, Richardson, and Giuliano report appear to remain valid, at least on the basis of dispersion of worksites. At this simple level of analysis, our region still seems to be suited to transit that can service dispersed worksites, like buses, paratransit and local services.

Journey-to-work travel trends also support this conclusion. The tables below show regional trends.

Table 2: 1980 Journey-to-Work Mode Splits

(Source: 1980 SCAG Travel Forecast Summary Year 1980 Travel Forecast, Memorandum No. 0/FM/8301.04; January 18, 1983)

	# Workers	% Drive Alone	% Transit Trips	% Shared Ride
SCAG Regional Totals	*7,041,422	74.08%	6.49%	19.43%

*Includes Imperial County along with the five counties in the 1990 and 2000 analysis.

Table 3: 1990 Journey-to-Work Mode Splits

(Source: 1990 US Census)

	% Drive Alone	% Carpool	% Bus	% Rail Transit	% Bicycle	% Walk	% Work at Home	% Other
Los Angeles	70.10%	15.54%	6.38%	0.06%	0.63%	3.25%	2.74%	1.30%
Orange	76.75%	13.66%	2.42%	0.07%	0.95%	2.23%	2.69%	1.23%
Riverside	73.77%	17.67%	0.88%	0.02%	0.66%	2.47%	3.00%	1.53%
San Bernardino	75.33%	16.88%	0.68%	0.02%	0.56%	2.87%	2.40%	1.26%
Ventura	76.00%	15.55%	0.61%	0.02%	1.09%	2.52%	3.02%	1.19%
5-County Region	72.36%	15.46%	4.47%	0.05%	0.71%	2.94%	2.73%	1.29%

Table 4: 2000 Journey-to-Work Mode Splits

(Source: 2000 US Census Transportation Planning Package Part 2)

	% Drive Alone	% Carpool	% Bus	% Rail Transit	% Bicycle	% Walk	% Work at Home	% Other
Los Angeles	70.89%	14.97%	5.83%	0.56%	0.60%	2.80%	3.35%	0.74%
Orange	75.95%	14.16%	2.51%	0.16%	0.78%	1.94%	3.61%	0.65%
Riverside	73.09%	17.14%	1.09%	0.07%	0.60%	2.22%	4.56%	0.96%
San Bernardino	73.92%	16.57%	1.34%	0.09%	0.47%	2.85%	3.58%	0.91%
Ventura	74.27%	15.89%	0.85%	0.04%	0.80%	2.32%	4.82%	0.77%
5-County Region	72.47%	15.15%	4.21%	0.38%	0.64%	2.57%	3.58%	0.75%

These tables show that the transit share of journey-to-work trips has dropped from 6.49 percent in 1980, to 4.52 percent in 1990 and 4.59 percent in 2000. This decrease has occurred despite an investment of approximately $10 billion since 1985 in rail transit. The Gold Line represents part of that investment, and wasn't

operational until after the 2000 Census, so its impact is not reflected. However, since the Gold Line carries fewer than 14,000 passengers daily (Los Angeles County Metropolitan Transportation Authority "Facts at a Glance" from July 26, 2003 estimate), including its ridership would have a negligible influence on this trend. Within Los Angeles County where the vast majority of this rail transit investment has occurred, transit's share of work trips dropped slightly from 6.44 percent in 1990 to 6.39 percent in 2000. Downtown Los Angeles has only 3.9 percent of the region's work force and 6.6 percent of Los Angeles County's employees. Yet, billions have been spent on a transit system that focuses heavily on downtown Los Angeles, as if that's where most people travel. This strongly suggests that our transit money has not been invested in projects that attract many new riders.

A transit system that serves worksites throughout the region, as well as dispersed residences, can capture many more passengers than capital-intensive infrastructure that only serves a few centers. Good transit along many of our city streets would reach more residents and take them much closer to their work, than a rail network that provides a bare skeleton of a system. An efficient system serving most residents and worksites would include:

- Localized shuttle and paratransit service
- Frequent regular bus service along our boulevards and arterial streets
- Rapid bus service along those lines with the heaviest ridership
- Freeway express buses for regional travel

By acknowledging present land use patterns, transit service using existing streets and highways also offers far more opportunities to create walkable, bikeable, transit-oriented communities throughout our region than a rail network that reaches a small number of communities. As the region grows, transit-oriented development (TOD) that concentrates new worksites, housing, schools and other land uses along bus lines has strong potential to attract large numbers of commuters out of their cars and onto transit, bicycles and foot.

The next decade will reveal more conclusive evidence of the trend of our spatial distribution of worksites and the implications for transit. At this point, the conclusions made by Gordon, Richardson and Giuliano regarding worksite dispersion in their analysis of the 1980 Census appear to remain valid 20 years later.

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