Atlanta is hardly unique. If trends there hold true elsewhere in the United States, the continued nationwide increase in VMT should be a cause for concern among planners.

OVERVIEW OF JOBS-HOUSING BALANCE

Jobs-housing balance is a planning tool that local governments can use to achieve a roughly equal number of jobs and housing units (or households) in a jurisdiction. The notion of balancing jobs and housing goes well beyond trying to attain numerical equality. Ideally, the jobs available in a community should match the labor force skills, and housing should be available at prices, sizes, and locations suited to workers who wish to live in the area. Hence, there is a qualitative as well as quantitative component to achieving jobs-housing balance. Jobs-housing balance is a planning technique rather than a regulatory tool. Nonetheless, this report demonstrates the various ways that the concept of jobs-housing balance can be applied in local land-use regulations and large-scale development reviews.

A ratio of jobs to housing is most commonly used to express the concept of jobs-housing balance. Generally and simply stated, the jobs-housing ratio is a ratio between a measure of employment and a measure of housing in a given area of analysis. The most basic measure is the ratio of the number of jobs to the number of housing units in an area. To calculate this measure, divide the number of jobs by the number of housing units. For example, if 15,000 persons are employed in a city and 20,000 housing units exist, the city's jobs-housing unit ratio is 15,000 / 20,000 = 0.75.

What jobs-housing standard should be used, and what should the benchmark be? Table 4 provides common targets and target ranges for two jobs-housing measurements.

TABLE 4
COMMON JOBS: HOUSING MEASUREMENTS AND STANDARDS

Jobs-Housing Measurement	Recommended Target Standard (Implies Balance)	Recommended Target Range (Implies Balance)	Reference
Jobs to housing units ratio	1.5 : 1	1.3 : 1 to 1.7 : 1 or 1.4 : 1 to 1.6 : 1	Ewing 1996; Cervero 1991
Jobs to employed residents ratio	1 : 1	0.8 : 1 to 1.25 : 1	Cervero 1996

The recommended target standard and ranges for jobs-housing unit ratios are based on the assumption that the average number of workers per household is approximately 1.5. But this number can vary from community to com-

munity. Some households have two or more workers, while others have none. If possible, the standard should be based on an analysis of local data on workers per household. If communities try to match working residents (labor force) with employment in the community, a one-to-one (1:1) relationship is the ideal.

Typology of Jobs-Housing Imbalances

This report will analyze four possible types of imbalances of jobs and housing, as summarized in Table 5. Imbalances can differ depending on geographic location within a region (see Figure 1). The policies proposed can also differ depending on the type of jobs-housing imbalance.

TABLE 5. TYPOLOGY OF JOBS-HOUSING IMBALANCES

Type of Imbalance	Jobs	Housing Units	Example
Type 1	Too many low-wage	Too few low-end	Suburban employment centers [or: edge cities]
Type 2	Too many high-wage	Too few high-end	Downtown employment areas in central cities
Type 3	Too few low-wage	Too much low-end	Older suburbs and central-city neighborhoods
Type 4	Too few high-wage	Too much high-end	High-income bedroom communities

Type 1: The area is job-rich and needs more housing for low-wage workers. A city or county with lots of entry-level retail and service jobs but little or no low- to moderate-income housing might find it needs to correct its jobs-housing imbalance with a policy that ensures housing meets the price ranges of moderately skilled, low-wage workers. These imbalances are probably most likely to occur in suburban job centers. The provision of affordable housing within or close to the job center is needed to address this imbalance.

Type 2: The area is job-rich and needs more housing for executives, managers, and professionals (i.e., higher-wage workers). A community might find that it needs more high-end residences to house corporate executives and similar high-income professionals. Shortages of high-end housing are rare, however, because there is high market demand and developers achieve high profits from new subdivisions targeted at these professionals. In other words, market response is generally adequate to prevent frequent Type 2 jobs-housing imbalances. Where these imbalances are more likely to occur is in the downtown area of a central city (e.g., a banking, finance, and governmental center of a region), which for a variety of reasons (e.g., a lack of amenities, perceptions that public schools are inadequate, concerns about crime) has not established a residential market.

Shortages of high-end housing are rare because there is high market demand and developers achieve high profits from new subdivisions targeted at these professionals.

The policy responses appropriate to addressing a Type 2 jobs-housing imbalance will depend on the particular characteristics of the area. Planners addressing Type 2 imbalances should begin with an analysis of the likely reasons that market-rate housing has not been built.

Type 3: The area is job-poor and needs more employment opportunities for the resident, lower-wage, labor force. Planners might find that the area under investigation is predominantly residential, housing low-wage workers who don't have employment opportunities close by that match their skills. Type 3 jobs-housing imbalances beg for an "economic development" solution that brings lower-skilled jobs into or near the neighborhoods of lower-income resident workers.

PASSING EACH OTHER ON THE ROAD IN SOUTHERN WILLAMETTE VALLEY, OREGON

Coburg, Oregon, is a small, rural community approximately seven miles north of Eugene in Lane County. Coburg has ample industrial employment along I-5, which skirts its western edge. The city had 1,704 jobs and 388 housing units in 1998; its jobs-to-housing units ratio was therefore 4.39 to 1 (Lane Council of Governments 2000).
Studies of travel behavior conducted by the city of Coburg and the Lane Transit District illustrate the nature of Coburg's mismatch of jobs and residences:

- Among Coburg residents, 96 percent of workers or students commuted outside the Coburg area to work or school; only 4 percent of the respondents said they work in the Coburg area.
- Among workers in Coburg's industrial and highway commercial areas, 97 percent said they live outside the Coburg area.

These studies reflect the fact that there is not enough affordable housing in Coburg for the workers employed there. New single-family housing being constructed in Coburg is priced in the $200,000 to $400,000 range. Coburg's employment and housing characteristics illustrate a severe Type 1 jobs-housing imbalance.

Other small municipalities in the Eugene-Springfield Metropolitan Statistical Area have entirely different conditions. A number of small cities have more housing units than jobs. Homes in these small cities have substantially lower values than those in Eugene, which had an average value of $138,100 in 1996.

TABLE 6
COMPARISON OF SMALL CITIES IN THE SOUTHERN WILLAMETTE VALLEY, OREGON

City	Employment (1998)	Housing Units (1998)	Jobs-Housing Housing Unit Ratio (1998)	Average Housing Value (1996)
Creswell	991	1,396	0.71	$83,400
Oakridge	707	1,762	0.40	$65,900
Veneta	544	1,166	0.47	$99,300
Lowell	148	380	0.39	$65,600

Source: Lane Council of Governments (2000)

The more affordable homes in these smaller cities suggest that they are attractive to moderately skilled, low-wage workers (such as those who work in Coburg). These small cities illustrate a Type 3 jobs-housing imbalance.

Together, the jobs-rich, housing-deficient city of Coburg and the jobs-poor, housing-rich cities of Creswell, Oakridge, Veneta, and Lowell illustrate the significant imbalances that currently exist in the Southern Willamette Valley region. According to the Oregon Department of Transportation's report *Commuting in the Willamette Valley*, "the dispersion of jobs and housing has resulted in increased commuting within and between cities in the Willamette Valley, predominantly within a 30-minute commute distance of major employment centers" (quoted in Lane Council of Governments 2000, 7).

Type 4: The area is job-poor but has a highly skilled resident labor force. This type of situation would appear to be rare but is in fact common in many middle- and higher-income suburban parts of a region. This type of mismatch between residences and jobs is likely to result primarily from public policy (i.e., local land-use policy) decisions to maintain an area's predominantly residential character. If not constrained by policies that "zone-out" employment in order to maintain a bedroom community, the market is likely to correct this imbalance over time: employers study the strength of the local labor force in terms of their skills and education levels, and under many conditions will be eager to locate close to pools of skilled labor force. A change in local land-use policies (i.e., zoning for more employment) is the best policy response to this type of imbalance.

EDGE CITY: A TYPE 1 JOBS-HOUSING IMBALANCE

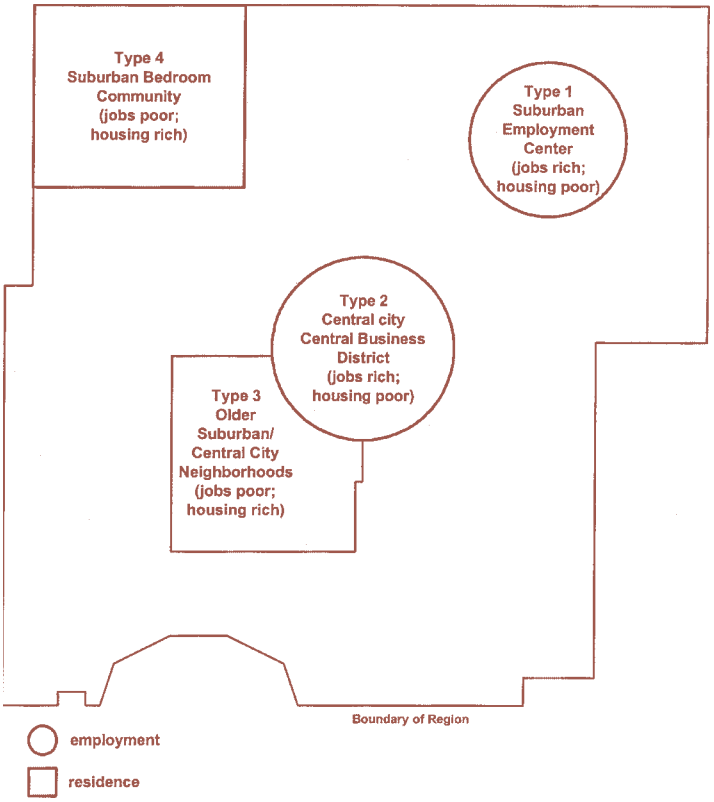
Peripheral clusters of activity in a metropolitan area, known as edge cities (Garreau 1991), bring together a mix of activities at a scale somewhere between central cities and low-density suburbs. Edge cities, which are spread across the United States, are major employment centers and entertainment nodes. They are also supposed to be self-contained, allowing people to live, work, and consume in the same place (Beauregard 1995).

By definition, however, edge cities are imbalanced. Joel Garreau (1991) has defined an edge city as having, among other characteristics, more jobs than bedrooms. A high degree of social homogeneity and exclusion occurs in edge cities, whose populations are predominantly white and middle class. Likewise, Robert A. Beauregard notes, "traffic congestion is irritating and hinders mobility, housing is expensive, [and] low-wage workers often are hard to find . . ." (Beauregard 1995, 712). The most pressing question that edge cities face, therefore, is whether they can overcome this Type 1 jobs-housing imbalance: "Can edge cities manage the contradiction between their need for low-wage workers in retail, entertainment, and personal services and for police and fire personnel, and the lack of affordable housing?" (Beauregard 1995, 716).

The Consequences of Jobs-Housing Imbalances

In areas where public transportation is not available and workplaces are located significant distances from neighborhoods, the only realistic alternative for workers who cannot work from home is to commute by car to their job location. The spatial mismatch between the locations of jobs and

FIGURE 1. FOUR TYPES OF JOBS-HOUSING-IMBALANCED AREAS IN A REGION RESULT IN LONGER COMMUTE TRIPS



When numerous employees live far from their work places and have to drive to work . . . traffic congestion, increased driver frustrations, reduced worker productivity, poor air quality, and reduced quality of life can occur as a result of such imbalances.

housing (see Figure 1) is considered one important reason for the longer commute trips and deteriorating traffic conditions in many metropolitan regions. When numerous employees live far from their work places and have to drive to work, the result is often longer commutes and greater vehicle miles traveled. Traffic congestion, increased driver frustrations, reduced worker productivity, poor air quality, and reduced quality of life can also occur as a result of such imbalances.

What Planners Can Do

Communities are increasingly realizing that their land-use plans and regulations have a major influence on whether workers can arrive at their job location on time and whether workers even have the choice of living close to their jobs. Planners must begin to address jobs-housing imbalances in their communities by investigating the types of mismatches that exist between the types of jobs in an area and the types and cost of housing. Understanding the four types of jobs-housing imbalances described above will help planners and policy makers to formulate appropriate policy responses. Each of the imbalances, however, is best addressed by providing better balances of jobs and housing in several different parts of the region or locality (see Figure 2). While correcting just one jobs-housing imbalance in a region can have benefits, the result of multiple jobs-housing balancing efforts throughout a region can be shorter commute trips and, in sum, a broad reversal of the negative consequences of imbalance.

FIGURE 2. A MORE BALANCED DISTRIBUTION OF JOBS AND HOUSING SHORTENS COMMUTE TRIPS