

## V. Planning Area Characteristics

This section provides a review of existing or baseline conditions within the Planning Area that influence the development and operation of the transportation system.

### A. Political and Physical Characteristics

The Corvallis Metropolitan Planning Area is located in the Willamette Valley of western Oregon. The Planning Area is approximately 80 miles south of Portland, Oregon, and 45 miles north of Eugene, Oregon. It covers approximately 32.27 square miles (25,131 acres) that extends from Adair Village southward to the Corvallis Municipal Airport. The Willamette River is the eastern boundary and the City of Philomath is on the western edge of the Planning Area. The Cities of Corvallis, Philomath, and Adair Village are wholly within the Planning Area, as well as parts of unincorporated Benton County. All arterial and collector roadways within the Planning Area fall under the jurisdiction of the three cities, Benton County, ODOT, or Oregon State University. Major state highway facilities located within the Planning Area include US 20, US 20/OR 34, OR 34, and OR 99W. Figure I-1 depicts the Planning Area.

The topography is a mix of flat land in the eastern portion with rolling hills, and steeper terrain primarily located in the north and western portions. The Willamette River and Mary's River are the most prominent water features in the area. Several wetlands, as well as floodplains, are located near the rivers and creeks that run through the Area.

#### 1. Land Use and Zoning

It is critical that the Regional Transportation Plan be developed relative to the land use patterns of the area. Land use helps determine the development of transportation systems and infrastructure, while the transportation system also influences land use. For example, location of commercial, institutional/public, and industrial areas affect the destinations of workers, and therefore, travel patterns, traffic volumes and transit service needs. An understanding of the land use in the Planning Area offers context for patterns observed in the transportation data. Map V-1 shows the current city and county land uses.

The central areas of Corvallis and Philomath are characterized by compact grid street patterns, while much of the remainder of the Planning Area is less dense and features a more circuitous street pattern. In general, industrial zoning is concentrated to the west in the Philomath area, to the south near the Corvallis Municipal Airport, and east of OR 99W in Corvallis. Commercial zoning is concentrated along roadway corridors and in downtown Corvallis and Philomath. Public land includes parks and extensive Oregon State University land. Much of the Planning Area is zoned as residential.

##### a. City of Corvallis

Corvallis is the primary commercial center of the Planning Area. The major commercial areas of the city include the downtown central business district (CBD), the 9th Street, OR 99W corridor, the Philomath Boulevard corridor, and the Kings Boulevard/Walnut Boulevard area. Development in the Corvallis CBD is relatively compact and includes a mixture of uses, such as

restaurants, retail shops, gas stations, and banks. Many government and cultural uses are also located in the CBD. The roadway system in the downtown area is characterized by a series of one-way streets with pedestrian and bicycle facilities. The City of Corvallis transit center is located in the CBD. The Corvallis Comprehensive Plan identifies several major and minor neighborhood centers, which are located throughout the city, primarily along major arterials.

Much of the zoned industrial land in Corvallis is located in the southern portion of the city, north of the Corvallis Municipal Airport (located at the southern boundary of the Planning Area), the eastern edge of the city, or in the OR 99W corridor. Research Technology is a critical and unique zoning designation, located primarily in the Sunset Research Park and near the Hewlett-Packard campus.

Higher-density residential areas are generally located near major roadways, such as the southern portion of OR 99W, near Oregon State University or near other employment centers. Lower-density residential development characterizes much of the northern portion of the city, as well as the southwestern edge.

Most of the zoned agricultural land in the Planning Area is located west of Corvallis. Public Institutional zoning is another designation in Corvallis, and includes Oregon State University and the Corvallis Municipal Airport property. Most of the land designated as Open Space within the city is located near the Willamette and Marys Rivers, and on the west and north edges of the city.

#### **b. City of Philomath**

Development in Philomath is denser toward the center of town near Main Street (US 20/OR 34). Most commercial land uses and zoning districts are located adjacent to or near Main Street. All of the designated public land (including schools and parks) is located south of Main Street. The Philomath Rodeo Ground is also located south of Main Street. Industrial uses are located primarily in the northern area of the city. A significant industrial site is the mill property at the intersection of US 20 and OR 34, just west of the Philomath city limits. Most areas zoned for residential use are located in the northwest and southeast areas of town.

#### **c. City of Adair Village**

Adair Village was built on the site of a World War II military base, and its settlement pattern reflects that history. Development in Adair Village is primarily residential, with the exceptions of the Santiam Christian School, the Northwest Labor School, and the AV Market and Tavern. The 123-acre Adair County Park is located to the east of the city. The northern limit of the city is adjacent to the E.E. Wilson Wildlife Area. The Oregon Department of Fish and Wildlife (ODFW) Regional Office is located just south of the city limits. Since the 2000 Census, 122 housing units have been added to the jurisdiction's housing stock.<sup>1</sup>

#### **d. Unincorporated Benton County**

The unincorporated portions of Benton County between Corvallis and Philomath and between Corvallis and Adair Village are characterized by low-density residential development, including working and hobby farms. Most of these areas are zoned by Benton County as 2- 5- or 10-acre residential land. The Benton County Fairgrounds is located west of Corvallis with access from

NW 53rd Street. Valley Landfills operates a regional landfill at Coffin Butte adjacent to OR 99W, north of Adair Village.

## **2. Schools and Parks**

Within the Planning Area there are community focal points, such as schools and parks, which are important for understanding travel patterns. These facilities attract pedestrians, bicyclists, transit users, and drivers and have specific transportation needs (e.g., pedestrian safety around schools). Awareness of the location of these facilities that are essential to the community fabric is important for planning an effective regional transportation system.

### **a. Schools**

Trips to and from school by students and teachers – via bus, walking, bicycling, or driving – affects transportation patterns as well as transportation infrastructure planning and design. Schools also attract people outside of school hours for sports and extra curricular events, as well as for community events held at school facilities. There are 17 public schools located within the Planning Area. Eleven of the schools are inside the Corvallis city limits and include eight elementary schools, two middle schools and Corvallis High School. Two elementary schools, a middle school and a high school are within the Philomath city limits, and one elementary school and Crescent Valley High School are in unincorporated Benton County.

There are also several private schools within the study area, including Santiam Christian School in Adair Village, Ashbrook Independent School, Corvallis Montessori School, Corvallis Waldorf School, Willamette Valley Community School, and Zion Lutheran School in Corvallis. Corvallis is also home to an extension of Linn-Benton Community College – The Benton Center.

### **b. Oregon State University (OSU)**

OSU is located just west of downtown Corvallis, less than one mile from the Willamette River. The main campus is bounded by 9th Street to the east, Monroe Street to the north, Western Boulevard to the south, and 35th Street to the west.

The main OSU campus encompasses approximately 570 acres, including 153 campus buildings with over six million square feet of building space. The campus also has several athletic facilities, such as Reser Stadium, which has a capacity of approximately 45,000 people. The campus has 58 acres of parking, which provides space for approximately 7,714 vehicles. The campus also has approximately 5,800 bicycle parking spaces, one third of which are covered. In 2005, a multistory parking garage was constructed across the street from Reser Stadium.

OSU students and faculty make up a large portion of transportation users in Corvallis, and therefore affect regional transportation patterns and planning. OSU is the largest employer in the Planning Area with over 4,000 faculty and staff. Students are a significant portion of the Corvallis population. Approximately 19,000 students are currently enrolled at the university. Approximately half of Corvallis Transit System (CTS) transit rides are by OSU students or faculty/staff.

### c. Parks and Recreational Areas

Parks are important to the transportation system because they are popular destinations for residents and visitors. Parks sometimes need special transportation attention to serve particular park users, such as children.

There are 40 parks and open spaces in the Planning Area with approximately 1,562 acres of parkland. Most of these parks are managed by the City of Corvallis. Other recreational facilities in Corvallis are the Osborn Aquatic Center (located at 1940 NW Highland Drive) and the Corvallis Senior Center (located at 2601 NW Tyler Avenue).

## B. Demographics

The 2000 U.S. Census showed that the population of the City of Corvallis and the surrounding area had exceeded 50,000. Map V-2 shows population density in the Planning Area. Not surprisingly, the highest population densities (measured in people per acre calculated by census block group) are located in central Corvallis and central Philomath. This corresponds to the existence of OSU campus and the traditional grid street and housing patterns in those areas.

The population counts and estimates shown in Table V-1 are for years 2000 and 2004. The Planning Area figures include Corvallis, Philomath, Adair Village, and a portion of unincorporated Benton County.

**Table V-1: Population**

Jurisdiction	April 1, 2000, Census Count <sup>1</sup>	July 1, 2006, Certified Estimate <sup>2</sup>
<b>Planning Area</b>	<b>58,229</b>	<b>64,159</b>
Corvallis	49,322	53,900
Philomath	3,838	4,460
Adair Village	536	920
Unincorporated Benton County (within Planning Area) <sup>3</sup>	4,533	N/A
<b>Nearby Jurisdictions<sup>4</sup></b>		
Albany	40,852	46,610
Monroe	607	610

<sup>1</sup>2000 US Census.

<sup>2</sup>Portland State University Population Research Center

<sup>3</sup>Benton County population within the Planning Area is estimated (based on population of Planning Area minus populations of Adair Village, Corvallis, and Philomath).

<sup>4</sup>Albany and Monroe are not located within the Planning Area.

Table V-2 shows the number of households for each jurisdiction, based on numbers from the 2000 U.S. Census.

**Table V-2: Households – For the Purpose of Modeling**

<b>Jurisdiction</b>	<b>2000 Households</b>
City of Corvallis	19,630
City of Philomath	1,346
City of Adair Village	170
Unincorporated Benton County (within Planning Area) <sup>1</sup>	2,312
<b>Planning Area Total</b>	<b>23,188</b>

<sup>1</sup>*Benton County households within the Planning Area are estimated based on household number of Planning Area minus households of Adair Village, Corvallis, and Philomath.*

*Note: Household information for the Planning Area is based on allocation of households by Transportation Analysis Zone (TAZ). Because the TAZ boundaries do not line up exactly with the Planning Area boundary, the total households figure may be different from other estimates, depending on which TAZs are assumed to be included in the Planning Area.*

Below are general demographic characteristics for the Planning Area, from the 2000 U.S. Census. Where appropriate, the characteristics are compared to statewide or countywide data. Please note that figures for Benton County are for the entire county (not just the county area within the Planning Area boundary).

- The average **household sizes** for Adair Village (3.15 persons) and Philomath (2.85) are higher than the same statistic for households statewide (2.51 persons) and in Benton County (2.43 persons). The average household size for Corvallis is 2.26 persons, which is lower than statewide and countywide averages.
- The median **age** for residents in each of the jurisdictions within the Planning Area is lower than the statewide median of 36.3 years. The Benton County median age is 31.1, while Adair Village is 28.2, Corvallis is 27.0 and Philomath is 31.6 years. This likely reflects the large number of Oregon State University students in the Planning Area.
- 89.2 percent of Benton County residents, 93.3 percent of Philomath residents, 87.9 percent of Adair Village residents, and 86.0 percent of Corvallis residents identified themselves as “**White**”, compared to the statewide figure of 86.6 percent.
- 9.0 percent of Adair Village residents and 8.2 percent of Philomath residents were living below the **poverty** level in 1999, which is lower than Benton County (14.6 percent) and the state (11.6 percent) poverty levels. However, 20.6 percent of Corvallis residents were living below poverty level in 1999, a statistic likely heavily influenced by the university population.
- 42.8 percent of Adair Village residents aged 25 years or older, 31.6 percent of Philomath residents aged 25 years or older, and 53.1 percent of Corvallis residents aged 25 years or

older hold a **college degree** or higher. This is comparable to Benton County (47.4 percent) but is significantly higher than the statewide figure of 25.1 percent.

- Adair Village had the highest percentage (52.9 percent) of **households with a member less than 18 years** old. In Philomath, 49.7 percent of the households had a member 18 years old or less, compared to 25.1 percent of Corvallis households, and 29.9 percent of Benton County households. The statewide percentage was 33.4 percent.
- The Planning Area generally has a relatively lower percentage of **elderly residents** compared to the statewide percentage. 8.2 percent of Adair Village households reported the presence of individuals 65 years or older compared with 14.0 percent of Philomath households, 16.9 percent of Corvallis households, and 18.0 percent of Benton County households. The statewide percentage was 22.9 percent.
- **Housing vacancy** in the area is generally lower than the state vacancy level of 8.2 percent. The vacancy rates were: Adair Village, 5.6 percent; Philomath, 6.1 percent; Corvallis 6.1 percent; and, Benton County 5.7 percent.
- In the state of Oregon, **owner-occupied housing** units outnumber **renter-occupied housing** units 64.3 percent to 35.7 percent. In Philomath and Benton County as a whole, this trend is reflected (Philomath has 60.5 percent owner-occupied housing units and 39.5 percent renter-occupied housing units; Benton County has 57.3 percent owner-occupied housing units and 42.7 percent renter-occupied housing units). However, in Corvallis and Adair Village the trend is reversed. In Corvallis 44.9 percent of housing units are owner-occupied, while 55.1 percent are renter-occupied. In Adair Village 44.1 percent of housing units are owner-occupied, while 55.9 percent are renter-occupied. Figures in Corvallis reflect the influence of Oregon State University students on the demand for rental residences. Figures in Adair Village reflect housing stock and history. Adair Village was once a military base, and 75 percent of the original base housing is duplexes that were auctioned off in the late 1970s. However, since the 2000 census, 122 new homes have been built in Adair Village, which likely changed the owner/renter ratio.
- **Age of the housing stock:** Most of the housing stock (80.9 percent) in Adair Village was built between 1940 and 1959. Much of the housing stock in Philomath (29.9 percent) and Corvallis (29.1 percent) was built between 1970 and 1979.
- At OSU, there were 19,162 registered students for the 2004-2005 school year. According to OSU officials, approximately 70 percent of students live off-campus, and the rest are housed in the 12 University dormitories fall through spring. College dormitories and fraternity and sorority houses are considered “**group quarters**” for census purposes. Group quarters are not included in any housing, household, household income, family income, or non-family income statistics. Group quarters are included in per capita income and estimated earning statistics.

## C. Employment Characteristics

Employment characteristics are important to the understanding of travel patterns and particularly work trips. Peak hour periods are used for travel forecasting and determination of needed transportation improvements, facilities, programs and strategies, so employment numbers and employer locations have a significant effect on transportation planning outcomes. The following employment figures are for the year 2000.

**Table V-3: Employment by Jurisdictions**

<b>Jurisdiction</b>	<b>Employed</b>	<b>Employed – Percentage<sup>1</sup></b>	<b>Unemployed</b>	<b>Unemployed – Percentage<sup>1</sup></b>
Corvallis	23,881	57.7%	1,353	3.3%
Philomath	1,885	68.2%	81	2.9%
Adair Village	258	69.0%	21	5.6%
Benton County (Unincorporated within Planning Area)	5,998 <sup>2</sup>	Not Available	Not available	Not available
<b>Planning Area</b>	<b>32,022</b>	<b>Not Available</b>	<b>Not available</b>	<b>Not available</b>
Oregon	1,627,769	60.9%	112,529	4.2%

<sup>1</sup>Percent of population 16 years and older.

<sup>2</sup>Benton County employment within the Planning Area is estimated (based on Urbanized Area employment minus employment of Adair Village, Corvallis, and Philomath).

*Note: Employment information for the Planning Area is based on allocation of employment by Transportation Analysis Zone (TAZ). Because the TAZ boundaries do not line up exactly with the Planning Area boundary, the total employment figures for the Planning Area may be different from other Planning Area estimates, depending on which TAZs are assumed to be included in the MPO area.*

*Source: 2000 U.S. Census.*

In general, Adair Village has a higher unemployment percentage than other jurisdictions in the Planning Area. However, the difference is partially due to the fact that because Adair Village has a smaller population, small differences in absolute numbers cause large percentage changes. Corvallis has a relatively lower employment percentage when compared to other locations.

Median household incomes in 1999 for the jurisdictions within the Planning Area were generally comparable or higher than the state median household income, with the exception of Corvallis, which was significantly lower. The statewide median household income in 1999 was \$40,916. It was \$41,897 in Benton County, \$49,000 in Adair Village, \$41,461 in Philomath, and \$35,236 in Corvallis. The lower median household income for Corvallis is likely influenced by the presence of the Oregon State University student population.

In recent years, the Planning Area has seen an increase in service-related and education jobs and a decrease in resource-related jobs. Employment projections developed for the comprehensive plans of Benton County, Philomath, and Corvallis predict an increase in education, service, retail, and technology jobs, with a continued decline in resource-related jobs. Education is one of the most significant employment sectors for the Planning Area, due to the presence of OSU. The major employment sector in the Planning Area (as recorded in 2000) is the service industry, with 17,530 employees comprising over 50 percent of the work force. Other major employment sectors included manufacturing (6,744), retail (3,090) and government (1,470). There were no employees in the mining industry and agriculture and farming employed 586 people.

## D. Commute Patterns

Commute characteristics and patterns help determine where transportation system needs exist, and influence locations of future strains on the transportation system. Many commuters living in the Planning Area work in Corvallis. Other residents commute to Albany, Salem, Eugene, Lebanon, or other locations. Many residents outside of the Planning Area in Salem, Albany, and Lebanon travel to Corvallis for employment. Additionally, a portion of the OSU students live outside of the Planning Area. Interstate 5, (approximately 10 miles east of the Planning Area) US 20 and OR 99W are important north-south commuter routes. US 20/OR 34 is a principal east-west commuter route. Residents in the Planning Area, particularly those in the northern portion, also travel to Albany for shopping and services.

According to the 2000 U.S. Census, in all of Benton County (including Corvallis, Philomath, and Adair Village), 20,187 workers aged 16 years or older worked in Benton County, while 8,297 worked outside of Benton County. In Corvallis, 18,384 workers aged 16 years or older worked in Corvallis, while 5,091 worked outside of Corvallis. In Adair Village, 17 workers aged 16 years or older worked in Adair Village, while 237 worked outside of Adair Village. In Philomath, 405 workers aged 16 years or older worked within Philomath, while 1,472 worked outside of Philomath.

Table V-4 shows the times commuters leave home to get to work. Most commuters in the Planning Area leave home between 7:30 a.m. and 7:59 a.m. Between 7:00 a.m. and 8:30 a.m., approximately 30 to 35 percent of workers working outside of their home have departed for work (Benton County 31%, Adair Village 35%, Corvallis 32%, and Philomath 33%). Although the Census does not report departure time from work to home, it can be assumed that a similar commute peak occurs in the evening.

**Table V-4: Times Commuters Leave Home to Work**

Location	12:00 a.m. to 4:59 a.m.	5:00 a.m. to 5:29 a.m.	5:30 a.m. to 5:59 a.m.	6:00 a.m. to 6:29 a.m.	6:30 a.m. to 6:59 a.m.	7:00 a.m. to 7:29 a.m.	7:30 a.m. to 7:59 a.m.
Corvallis	497	326	582	777	1,559	2,387	4,121
Philomath	67	38	88	73	222	187	401
Adair Village	2	7	9	16	17	44	49
Benton County <sup>1</sup>	916	660	1,160	1,893	3,008	4,598	6,613
Location	8:00 a.m. to 8:29 a.m.	8:30 a.m. to 8:59 a.m.	9:00 a.m. to 9:59 a.m.	10:00 a.m. to 10:59 a.m.	11:00 a.m. to 11:59 a.m.	12:00 p.m. to 3:59 p.m.	4:00 p.m. to 11:59 p.m.
Corvallis	3,029	1,793	2,085	910	609	2,247	1,749
Philomath	203	116	106	39	21	87	162
Adair Village	35	13	8	10	0	10	22
Benton County <sup>1</sup>	4,638	2,570	2,878	1,194	740	2,841	2,386

<sup>1</sup>Benton County figures are for Benton County as a whole (Planning Area and non-Planning Areas of the County).

Source: 2000 U.S. Census

In Oregon as a whole, 7.5 percent of occupied housing units do not have a vehicle available. In Benton County, the percentage is 5.7 percent, in Corvallis the percentage is 7.9 percent, in Philomath the percentage is 2.7 percent, and in Adair Village all occupied housing units have at least one vehicle available.

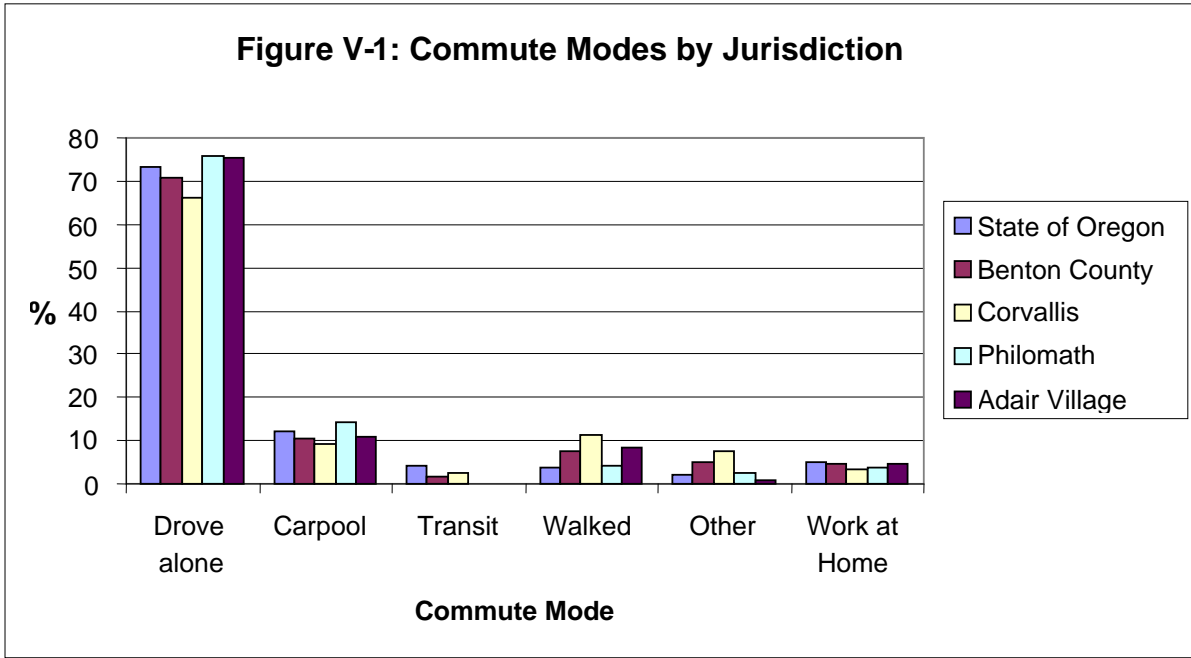
Statewide, 73.2 percent of workers 16 years and older drive alone while commuting to work. This compares with 66.2 percent in Corvallis, 75.2 percent in Adair Village, 75.8 percent in Philomath, and 70.7 percent in Benton County as a whole. Corvallis percentages may be affected by the presence and high quality of bicycle and pedestrian facilities and trails in the city, transit service, and the OSU group pass transit program. Rates can also be tied to income levels or demographics. A large student population can result in lower vehicle ownership and use. Factors that contribute to Adair Village and Philomath having higher percentages of workers that drive alone, compared to Corvallis and the state, may be that Adair Village does not have transit service, and Adair Village and Philomath are located further from stores and services available in Corvallis and Albany.

The mean travel time to work for all jurisdictions comprising the Planning Area is less than the State of Oregon mean travel time of 22 minutes. According to the 2000 U.S. Census, the mean travel time to work for Corvallis residents is 15.3 minutes. Commuters living in Philomath and Adair Village have longer commutes, with mean travel times of 16.9 and 18.0 minutes, respectively. The mean travel time to work for Benton County residents as a whole is 17.8 minutes.

Identifying major employers indicates where most employees are traveling to and from and where some of the peak-hour transportation needs may exist. Major employers within the Planning Area include the following (2005 statistics):

- Oregon State University (estimated 4,100 faculty and staff)
- Hewlett-Packard (estimated 4,200 total employees)
- Good Samaritan Hospital (1,400 total employees)
- Corvallis School District (760 total employees)
- Corvallis Clinic (570 total employees)
- City of Corvallis (430 total employees)
- CH2M HILL (420 total employees)
- Benton County (375 total employees)
- Summit Information (320 total employees)
- ATS Systems (300 total employees)
- Environmental Protection Agency (225 total federal plus contract employees)
- Evanite Fiber (130 total employees)
- Georgia Pacific Corporation (140 total employees)
- NYPRO Oregon (83 total employees)
- Consumers Power Inc. (65 total employees)

Figure V-1 (*next page*) shows the percentage of commuters by mode for jurisdictions (2000 U.S. Census data). Most commuters drove alone, followed by carpooling, walking, “other” (including bicycling), and transit.



Notes: "Other" category includes bicycling.

Transit figures do not reflect any transit usage in Philomath, as the Philomath Connection transit service was instituted after the 2000 Census. Source: 2000 U.S. Census.

**Oregon State University:** Because of its numbers of students and employees, OSU has a heavy influence on commuter patterns in the Planning Area. Students, faculty and staff comprise 49 percent of Corvallis Transit System (CTS) ridership. Table V-5 lists the number of parking permits issued at OSU for the period from 2000 to 2002. Approximately 25 percent of students had student-parking permits (assuming student populations similar to the 2004-2005 school year). Therefore, it can be inferred that approximately 75 percent of students commute to school by some way other than single-occupant vehicle (bicycle, walking, carpooling, transit, etc.). It has been noted that many OSU employees and students do not park on campus, but park within the neighborhoods adjacent to the university. According to the City of Corvallis, OSU has a heavy influence on traffic operations on Kings Boulevard, Harrison Boulevard, Monroe Avenue and other roadways.

**Table V-5: OSU Number of Yearly Parking Permits, 2000-2002**

	2000	2001	2002
Student Permits	4,552	4,647	5,270
Faculty Permits	2,842	2,992	3,160
Motorcycle Permits	93	154	154
Total Permits	7,487	7,793	8,584

Source: OSU Facilities Department.

Table V-6 shows the mode shares for OSU campus travel (year 2003). For from/to campus travel, the largest mode share is vehicle (driving alone), followed by walking and bicycling. The fact that 44 percent of total trips take place by means other than driving alone is significant.

**Table V-6: Mode Shares for Travel From/To OSU Campus (Year 2003)**

Mode	Number of Trips			Percentage		
	A.M.	P.M.	Total	A.M.	P.M.	Total
Car Drive Alone	7,064	4,534	11,598	61%	50%	56%
Walk	2,491	2,718	5,209	21%	30%	25%
Bicycle	1,071	1,057	2,128	9%	12%	10%
Carpool	414	567	981	4%	6%	5%
Bus	380	174	554	3%	2%	3%
OSU Shuttle	240	88	328	2%	1%	2%
<b>TOTAL</b>	<b>11,660</b>	<b>9,138</b>	<b>20,798</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

*Source: Oregon State University Campus Master Plan 2004-2015 (December 2004).*

