Regional Economic Opportunities Analysis for the Southern Willamette Valley

PURPOSE OF THIS REPORT

This report addresses the demand-side elements of an Economic Opportunities Analysis for the Southern Willamette Valley Region. This Economic Opportunities Analysis (EOA) is being conducted by ECONorthwest as part of the Region 2050 study, a collaborative regional planning effort for the Southern Willamette Valley over the next 50 years. As part of the Region 2050 study, this EOA uses a 50-year planning period and examines economic opportunities for the Region. This EOA describes the comparative advantages of communities in the Region to reach broad conclusions about the need for commercial and industrial land in the context of expected economic conditions. The analysis in this report is designed to meet the requirements of Oregon's *Statewide Planning Goal 9: Economic Development.*

The draft Regional Growth Concept[1] prepared as part of Region 2050 proposes a pattern and distribution of growth in the Southern Willamette Valley Region over the next 50 years. The methods and assumptions used to develop the Regional Growth Concept are detailed in the *Regional Growth Management Strategy Technical Report*.[2] The draft Regional Growth Concept identifies Potential Future Growth Areas for each community in the Region. The Land Capacity Model estimates the capacity of land in the Region for employment growth based on assumptions about the use and density (employees per acre) of buildable land in existing Urban Growth Boundaries (UGBs) and Potential Future Growth Areas, and assumptions about the constraints to development of the land.

To this point, development of the Regional Growth Concept has focused on the capacity of land to accommodate employment growth without conducting a forecast of expected employment growth in the region. This report conducts a forecast of employment growth in the Region and discusses the implications for development and land demand to answer two critical questions:

> *Will the Region have enough land to accommodate expected employment growth over the next 50 years as portrayed in the Regional Growth Concept?* ***The conclusion of this Economic Opportunities Analysis is that the Regional Growth Concept provides enough land to accommodate expected employment growth, given assumed densities of future development.***

[1] As of April 18, 2006.

[2] Lane Council of Governments, ECONorthwest, and the Region 2050 Regional Technical Advisory Committee. *Southern Willamette Valley Regional Growth Management Strategy Technical Report.* January 31, 2006.

Is land designated for employment growth in the Regional Growth Concept in the right place and of the right type to accommodate expected employment growth? ***Yes—for now. Most employment growth is expected in industries that are flexible when it comes to land use, and the Region appears to have enough land to allow businesses with special site needs to find a location in the Region. Special attention is needed for the subset of employment growth that will occur in industries with special site needs, particularly institutional and heavy industrial uses. Monitoring in the Region is also needed to give jurisdictions more timely and accurate feedback on actual development patterns.***

This report examines historical and expected market trends and conditions to estimate the level of employment growth by sector in the Region, the resulting demand for commercial and industrial development, and the likely pattern of that development in the Southern Willamette Valley. The results of this analysis will be used to assess the reasonableness of the Regional Growth Concept as a whole and of the methods and assumptions used for creation of the Concept.

This draft report examines demand for employment growth in the Region and the likely distribution of this growth by community and type. The demand for employment growth is compared to the capacity of land by community in the Region to make a preliminary assessment of the draft Regional Growth Concept. ECONorthwest is currently conducting work on a buildable lands inventory in Lane County as a separate project—the results of this inventory will affect the supply and capacity analysis in the Regional Growth Concept. In addition, ECO is conducting additional work on the density of commercial and industrial developments that will be used to make a more detailed assessment of the Regional Growth Concept to further answer the second question posed above. The Regional Growth Concept may be modified based on the findings of this report to arrive at a final Regional Growth Concept for the Southern Willamette Valley.

ORGANIZATION OF THIS REPORT

The reminder of this report is organized into five main sections:

Framework for Economic Development Planning in Oregon describes the land use planning goals and administrative rules that establish guidelines for economic development planning in Oregon, and the analysis needed to meet these guidelines.

Methods of Analysis describes our methods and assumptions for the analysis in this report.

Indicators of Future Employment Growth in the Southern Willamette Valley describes historical trends, existing conditions, and expected future conditions that will indicate the amount and type of employment growth we expect to see in the Region.

Implications for the Regional Growth Concept uses our estimates of total employment growth by sector in the Region, factors affecting the location

decisions of businesses, and assumptions about growth by community to describe the likely distribution of growth in the Region. We compare this outcome to the capacity of land by community make a preliminary assessment of the Regional Growth Concept.

Key Considerations in Planning for Employment Growth in the Southern Willamette Valley identifies other key issues that the Region will face in planning for employment growth.

FRAMEWORK FOR ECONOMIC DEVELOPMENT PLANNING IN OREGON

The content of this report is designed to meet the requirements of Oregon Statewide Planning Goal 9 and the administrative rule that implements Goal 9 (OAR 660-009). The Land Conservation and Development Commission adopted amendments to this administrative rule in December 2005.[3] The amendments are effective on January 1, 2007, but a provision of the amended rule allows cities and counties to voluntarily comply with the amendments. The analysis in this report is designed to conform to the requirements for an Economic Opportunities Analysis in OAR 660-009 as amended.

The framework for economic development planning in Oregon is defined by OAR 660-009, which requires three key elements:

1. *Economic Opportunities Analysis (OAR 660-009-0015).* The Economic Opportunities Analysis (EOA) requires communities to review national and state trends, assess their community economic development potential, identify industries reasonably expected to expand or locate in the area, and identify site requirements for these industries. The EOA must also include an inventory of lands available for commercial and industrial development.
2. *Industrial and other employment development policies (OAR 660-009-0020).* Cities subject to the provisions of OAR 660-009 are required to develop policies based on the EOA. The policies must state the objectives for economic development in the community and identify types of industrial and commercial uses desired by the community. Cities must adopt policies to designate an adequate number of development sites with the sizes, types, and locations that are suitable for industrial and commercial uses desired in the community. Cities must also ensure through their public facilities plan that public facilities necessary for development are available in the planning area.

   Cities within a Metropolitan Planning Organization (which includes Eugene, Springfield, and Coburg) must adopt policies that identify having a competitive short-term supply of land for desired industrial and other employment uses as an economic development objective.

[3] The amended OAR 660-009, along with a Goal 9 Rule Fact Sheet, are available from the Oregon Department of Land Conservation and Development at http://www.oregon.gov/LCD/econdev.shtml. Analysis in this chapter is based on documents accessed on this site January 10, 2006.

3. *Designation of lands for industrial and other employment uses (OAR 660-009-0025.* Cities must adopt appropriate implementing measures including: (1) identification of needed sites; (2) assessment of the long-term supply of land available for commercial and industrial uses; and (3) evaluation of the short-term supply of serviceable sites.

This report presents all of the elements of an Economic Opportunities Analysis, the first key element required by Goal 9, for the Southern Willamette Valley Region. The only element of an Economic Opportunities Analysis missing in this report is an inventory of lands available for commercial and industrial development. ECONorthwest is currently completing an inventory of these lands in Lane County for a separate project and the results will be incorporated into development of the Regional Growth Strategy.

Cities participating in the Region 2050 project can use the results in this Economic Opportunities Analysis as the basis for findings in their economic development and urbanization planning, but additional analysis will be needed at the local level by each jurisdiction to adopt specific economic development policies, establish and apply plan and zoning designations, and expand their growth boundaries to assure a long-term supply of land for commercial and industrial uses.

METHODS OF ANALYSIS

Development of a 50-year forecast of employment growth involves a high degree of uncertainty. Unforeseen events can have a significant impact on national economic conditions and employment growth in the Region. Annual employment growth in any area can vary widely from year to year, with gains in some years and losses in others. Over the long run, however, employment growth in an area tends to average out to a rate of 1% to 3% per year depending on the period being examined.

This report uses a long-run average annual growth rate to forecast total employment growth in the Region. This forecast does not attempt to model the year-to-year fluctuations of employment growth that will occur in the future.

Development of a forecast requires us to make assumptions about future conditions and their effect on employment growth. The analysis in this report explicitly identifies the assumptions for key conditions that drive the estimates of employment growth. But there are also more fundamental conditions that can affect employment growth. In a short-run forecast, these types of assumptions are often unstated because fundamental conditions do not change rapidly—the implicit assumption is that the future will look much like the past. In a long-run forecast, however, fundamental conditions are more subject to change. For this forecast, ECO assumed that there will be:

- No internal or external shocks to the economy, such as a stock market or currency collapse, military or terrorist attacks, war, or rebellion.

- A continuation of the business cycle that will generate periods of expansion and recession that will average out to net growth over the long run.

- Increased costs for energy and natural resources that will compel conservation measures and diversification of energy sources.

- Continued innovation in electronics and communication technology, and its application to production.

- Continued growth in global trade and the globalization of business activity.

- Increasing mobility of households and businesses, and the importance of quality of life in their location decisions.

- Continued investments in infrastructure to support growth and maintain quality of life in the Region.

These assumptions have several implications for this forecast, including that:

- Population and employment in the Southern Willamette Valley will continue to grow over the long run.

- Households and businesses will continue to move to the Southern Willamette Valley, resulting in net in-migration that will be the predominant driver of population in the Region.

- The regional economy will be increasingly focused on the production of goods and services that are specialized, that must be produced locally, or for which the Region has a comparative advantage. Outsourcing of large-scale production and generalized tasks to low-cost regions will continue.

- Increased energy costs will increase the share of income spent on transportation. Changing prices will affect transportation choices by households and businesses, including travel mode and travel patterns in the short run and vehicle purchases and location decisions in the long run. Given people's preferences and value of time, these responses to prices and technological innovations will allow the private motor vehicle to continue to be the primary means of personal and freight travel in the Region.

- Education will be increasingly important for higher-wage jobs, and income disparities will probably increase as a result.

There are a wide variety of factors that can affect employment growth in the Southern Willamette Valley and a variety of methods that can be used to forecast employment growth. The method used in this report is based on a key observation of economic conditions: the ratio of employment to population in an area tends to

change slowly over time. As a result, employment growth is closely correlated to population growth.

This is particularly true for regions such as the Southern Willamette Valley, where net in-migration from outside the region is both the result and cause of employment growth in the region. Employment growth attracts workers to a region, resulting in net in-migration. And the migration of skilled workers, professionals, and entrepreneurs to a region results in employment growth when they bring their job with them, start businesses in the region, and attract employers to the region. Both of these mechanisms of growth will be occurring in the Southern Willamette Valley over the next 50 years.

The ratio of employment to population in an area tends to change slowly over time because a fairly stable share of the population must work for a living. People working or actively looking for work are considered to be in the labor force. Labor force participation can be affected by the age distribution in an area, because people younger than 18 and older than 65 generally do not work for a living.

The ratio of employment to population has been increasing in Lane County since the 1970s, primarily due to increasing labor force participation by women. There are several trends, however, that suggest the Region's ratio of employment to population in 2050 will be slightly less than it is today:

- Evidence suggests that the level of labor force participation has leveled off in recent years.[4]

- Population forecasts by age group for Lane County[5] show that the share of the population that is of working age will peak in 2010 then decline by 2040 to a level just below that in 2000 as the baby boom generation retires.

- Personal income data from the Bureau of Economic Analysis shows that the share of personal income from earnings (wages, salaries, and proprietor's income) has declined slightly since 1980, while the share of income from dividends, interest, rent, and transfer payments has increased. We expect this trend to continue.

Based on these trends, we expect that the aging population and an increasing number of people living off of investment and other income will reduce the share of the Region's population in the labor force, and thus the ratio of employment to population in the Region.

The Region 2050 project adopted a population forecast for development of the Regional Growth Concept. This population forecast, combined with our

[4] Eric Moore and Johnny C. Vong. "Labor Force Participation Rates—What are They and Why Should I Care?" Oregon Labor Market Information System. Published September 3, 2004. http://www.qualityinfo.org/olmisj/ArticleReader?itemid=00002917&print=1

[5] State of Oregon, Office of Economic Analysis. *Forecasts of Oregon's County Populations by Age and Sex, 2000–2040.* April 2004.

expectation that the ratio of employment to population will decline slightly in the Region, means that total employment in the Southern Willamette Valley must grow at an average rate slightly below that for population in the Region. This is our method for forecasting total employment growth in the Region.

Once we estimated total employment growth, the next step in our analysis was to estimate employment growth by sector and by community in the Region. To reach conclusions about the distribution of employment growth by sector, we considered factors including:

- Historical shifts in employment by sector and industry in Oregon and Lane County.
- A review of forecasts of population and employment growth for Oregon, Lane County, and the Region from various sources.
- The outlook for growth in specific industries and sectors that have a significant share of current or future employment in the Region.
- The implications of long-run conditions described earlier in this section.

To reach conclusions about the distribution of employment by community in the Region, we considered factors including:

- The location needs of businesses in different sectors of the economy.
- Comparative advantages of individual communities.
- Growth patterns in communities with a population similar to those projected for communities in the Region.
- The expected pattern of land supply and population growth in the Region's communities.

We reach conclusions about the likely density of future development associated with employment growth by considering factors including:

- The likely amount of employment growth by type, and its distribution in the region.
- Recent development patterns observed in the Region and in other larger areas that are indicative of patterns we expect in the future.
- The effects of changing economic conditions and public policy on the availability and price of land and services to support development.

There is uncertainty in any forecast of future growth, particularly for a long-term forecast where a wide variety of factors can affect the level, type, and distribution of future growth in the Region. In this Economic Opportunities Analysis, we will identify key factors affecting future employment growth in the

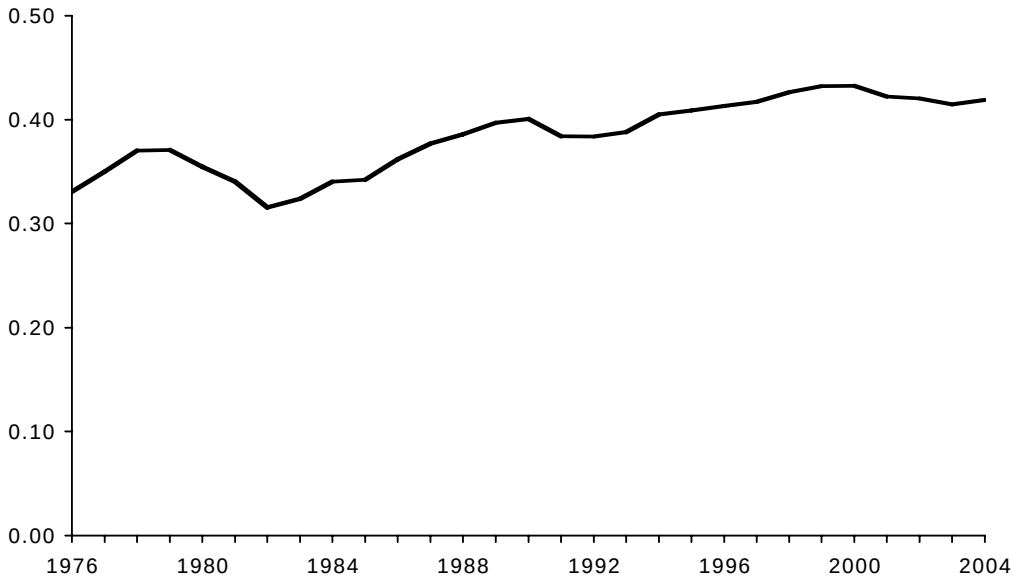
Region and the most likely conditions for these factors based on indicators and analysis described in this report. We apply these expected conditions to develop a single forecast of employment growth in Region for this EOA. This forecast represents the most likely amount and type of growth given our expectations for future conditions. Actual employment growth in the Region, however, may be higher or lower than forecast in this report. We discuss a range of potential employment growth rates for the Region, and the implications for the amount of growth, near the end of this report.

INDICATORS OF FUTURE EMPLOYMENT GROWTH IN THE SOUTHERN WILLAMETTE VALLEY

HISTORIC POPULATION AND EMPLOYMENT GROWTH RATES

Data from the Oregon Employment Department shows that total employment in Lane County grew at an average rate of 2.3% per year between 1976 and 2000. Population in Lane County grew at an average rate of 1.1% per year in the same period. Since employment grew faster than population in Lane County, the ratio of employment to population increased over this period. The primary reason for this trend, as noted earlier, has been the increased participation by women in the labor force. Another contributing factor may be that more people in Lane County were working multiple part-time jobs in 2000 than in 1976. Figure 1 shows the trend in the ratio of employment to population in Lane County over this period.

Figure 1. Ratio of total covered employment to population in Lane County, 1976–2000



Source: Total employment from Oregon Employment Department, Covered Employment and Payrolls. Population from the Population Center at Portland State University. Ratio calculated by ECONorthwest.

The ratio of covered employment to population in Lane County increased from 0.33 in 1976 to 0.42 in 2004. As noted earlier, we expect this ratio in 2050

to be slightly less than the level in 2004 due to an aging population and smaller share of the population working for a living.

TRENDS IN EMPLOYMENT GROWTH BY INDUSTRY

Table 1 shows the annual average covered employment by sector in Lane County in 1976 (the earliest year for which data is easily available) and 2000 (the latest year for which comparable data is available). Table 1 shows that total employment in Lane County grew by over 58,000 jobs in this period, with an average growth rate of 2.3% per year. Employment growth in the County was led by Services, Retail Trade, and Government, which together accounted for over 75% of net employment growth in the County over this period.

Table 1. Covered employment by sector in Lane County, 1976–2000

			1976-2000			
Sector	**1976**	**2000**	**Growth**	**%Growth**	**% of Total**	**AAGR**
Total All Industries	**81,366**	**139,697**	**58,331**	**72%**	**100%**	**2.3%**
Agriculture, Forestry and Fishing	569	2,101	1,532	269%	3%	5.6%
Mining	130	154	24	18%	0%	0.7%
Construction	3,815	6,834	3,019	79%	5%	2.5%
Manufacturing	19,754	23,658	3,904	20%	7%	0.8%
Trans., Comm., and Utilities	3,137	3,845	708	23%	1%	0.9%
Wholesale Trade	4,489	6,422	1,933	43%	3%	1.5%
Retail Trade	16,742	28,758	12,016	72%	21%	2.3%
Finance, Insurance and Real Estate	3,105	6,198	3,093	100%	5%	2.9%
Services	13,137	39,236	26,099	199%	45%	4.7%
Nonclassifiable/all others	65	37	-28	-43%	0%	-2.3%
Government	16,423	22,453	6,030	37%	10%	1.3%

Source: Oregon Employment Department, Covered Employment and Wages.
http://www.qualityinfo.org/olmisj/CEP

Table 1 shows that employment grew in all sectors of Lane County's economy between 1976 and 2000. While all sectors grew, some grew faster than employment as a whole, gaining in their share of total employment. Conversely, some sectors grew more slowly than employment as a whole, thus declining in their share of total employment.

Table 2. Share of total employment by sector in Lane County, 1976 and 2000

Sector	1976	2000	Change
Total All Industries	**100%**	**100%**	**0%**
Agriculture, Forestry and Fishing	1%	2%	1%
Mining	0%	0%	0%
Construction	5%	5%	0%
Manufacturing	24%	17%	-7%
Trans., Comm., and Utilities	4%	3%	-1%
Wholesale Trade	6%	5%	-1%
Retail Trade	21%	21%	0%
Finance, Insurance and Real Estate	4%	4%	1%
Services	16%	28%	12%
Nonclassifiable/all others	0%	0%	0%
Government	20%	16%	-4%

Source: Calculated by ECONorthwest with data from the Oregon Employment Department, Covered Employment and Wages. http://www.qualityinfo.org/olmisj/CEP

Table 2 shows the share of total employment by sector in Lane County in 1976 and 2000. Data in Tables 1 and 2 is summarized by sector for brevity. Within each sector are multiple industries. The Manufacturing sector, for example, is composed of industries that include Food Processing and Lumber and Wood Products. Examination of employment data at the detailed industry level allows us to describe some shifts by industry within the sectors shown in Table 2:

- Manufacturing in Lane County declined from 24% of total employment in 1976 to 17% in 2000:
    - The share of total employment in Lumber & Wood Products declined from 17% in 1976 to 5% in 2000.
    - The share of total employment in Transportation Equipment, Industrial Machinery, and Electronic Equipment together grew from 1% in 1976 to 6% in 2000.
- Services increased from 16% of total employment in 1976 to 28% in 2000. Just over half of employment growth in Services was in the Business Services and Health Services industries.
- Retail has remained about 21% of total employment, with only small shifts in the distribution of employment by industry within this sector.
- The share of total employment in Government declined from 20% of total employment in 1976 to 16% in 2000. Federal, State, and Local Government all had a declining share of the County's total employment in this period.
- Other sectors have retained a stable share of total employment and are a relatively small share of the economy.

OUTLOOK FOR GROWTH IN THE SOUTHERN WILLAMETTE VALLEY

There are several forecasts of population and employment growth in Lane County that are conducted by State and local agencies. The State of Oregon's Office of Economic Analysis publishes a long-term forecast of population growth by county that that can be used for coordinated planning by jurisdictions in Oregon. The current long-term forecast for Lane County[6] shows that population is expected to increase from roughly 335,000 in 2005 to 470,000 in 2040, an increase of 135,000 or 40%. This growth yields an average growth rate of 1.0% per year over this period. Population in Oregon, by comparison, is expected to grow at an average rate of 1.2% over the same period.

For the Region 2050 project, LCOG projects that population in the Southern Willamette Valley Region will increase from roughly 305,000 in 2000 to 480,000 in 2055, an increase of 175,000 or almost 60% over this period. This growth yields an average growth rate of 0.8% per year over the forecast period.

The Oregon Employment Department publishes a ten-year forecast of employment growth by industry for Workforce Analysis Regions in Oregon. For Lane County, the Employment Department expects total covered employment to grow from roughly 145,000 in 2004 to 165,000 in 2014, an increase of 20,000 or 15% over this period. This growth yields an average growth rate of 1.4% per year over the forecast period.

While these forecasts cover different periods and areas, considered together they show that there is an expectation of continued growth for Lane County and the Southern Willamette Valley. Population growth in the County and Oregon has been driven by net in-migration of households from other areas, which has historically been about 70% of population growth over the previous three decades. Population forecasts for Lane County are based on the expectation that this trend will continue.[7] This expectation fits with two fundamental conditions we expect over the forecast period:

- Increasing ability of firms and households to move.
- Increasing importance of quality-of-life in the location decisions of households and firms.
- Continued generation and expansion of businesses in the region.

Growth generated by these underlying conditions will lead to more growth. Population growth leads to more demand for retail goods and personal services. Growth also increases the overall scale of the economy, allowing it to support

[6] State of Oregon, Office of Economic Analysis. Long-Term County Forecast. April 2004. http://www.oregon.gov/DAS/OEA/demographic.shtml#Long_term_County_Forecast

[7] State of Oregon, Office of Economic Analysis. "A brief description of long-term population forecast procedure." April 2004. http://www.oregon.gov/DAS/OEA/demographic.shtml#Long_term_County_Forecast

businesses offering more specialized goods and services that were previously available only in larger areas.

EMPLOYMENT GROWTH BY SECTOR IN THE SOUTHERN WILLAMETTE VALLEY, 2000–2055

The Region 2050 project adopted a population forecast for development of the Regional Growth Concept. This forecast shows population in the Southern Willamette Valley increasing from roughly 305,000 in 2000 to 480,000 in 2055, an increase of 175,000 people or almost 60%. This amount of growth yields an average growth rate of 0.8% per year. This population forecast, combined with our expectation that the ratio of employment to population will decline slightly in the Region, means that total employment in the Southern Willamette Valley must grow at an average rate slightly below that for population in the Region.

We will assume an average growth rate of 0.7% per year for total employment growth in the Southern Willamette Valley. Applying this average growth rate to the Region's total employment causes it to grow from roughly 135,000 in 2000 to 200,000 in 2055, an increase of 65,000 or 47%. This growth results in the ratio of employment to population in the region to fall from 0.44 in 2000 to 0.41 in 2055.

To estimate the amount of employment growth by economic sector in the Region, we made assumptions about the share of future total employment in each sector based on trends in share by sector described earlier in this report. These assumptions:

- The share of total employment in Services will continue to increase but at a less rapid rate than in the recent past, increasing from 28% in 2000 to 30% in 2055.
- The share of total employment in Retail Trade will remain at 21%.
- The share of total employment in Government will decline slightly, from 16% to 15%.
- The share of employment in Manufacturing will continue to decline, falling from 17% in 2000 to 15% in 2055.
- Other sectors will retail their relatively small share of total employment in the Region.

The result of applying these assumptions to the projected level of total employment in the Region is shown in Table 3.

Table 3. Employment growth by sector in the Southern Willamette Valley, 2000–2055

	2000		2055		
Sector	**Emp**	**Share**	**Emp**	**Share**	**Growth**
Agriculture, Forestry and Fishing	2,025	2%	3,950	2%	1,925
Mining	148	0%	200	0%	52
Construction	6,586	5%	9,880	5%	3,294
Manufacturing	22,800	17%	29,640	15%	6,840
Trans., Comm., and Utilities	3,706	3%	5,930	3%	2,224
Wholesale Trade	6,189	5%	9,880	5%	3,691
Retail Trade	27,715	21%	41,490	21%	13,775
Finance, Insurance and Real Estate	5,973	4%	7,900	4%	1,927
Services	37,813	28%	59,080	30%	21,267
Nonclassifiable/all others	36	0%	0	0%	-36
Government	21,640	16%	29,640	15%	8,000
Total	**134,631**	**100%**	**197,590**	**100%**	**62,959**

Source: ECONorthwest.

While we expect the Manufacturing and Government sectors to lose some of their share of total employment in the Region, each of these sectors will have employment growth over the forecast period. Since these sectors are a relatively large share of the regional economy, they will contribute a significant amount of employment growth in the Region.

Table 3 shows that employment growth in the Region will be led by growth in Services, Retail Trade, Government, and Manufacturing, which together will contribute almost 80% of the Region's employment growth. Based on industry trends, the location needs of firms, and expected economic conditions, specific industries with employment growth opportunities in the Region include:

- Retail Trade of all types.
- Continued growth of all Service industries, led by Business Services and Health Services
- Local Government, particularly K-12 Education, Police and Fire services, and Public Works.
- Manufacturing of specialized goods, including:
    - Transportation and industrial equipment
    - Recreation equipment and apparel
    - Food processing—organics and specialty products
- Potential for large warehouse/distribution facilities

Industries that will probably not have substantial employment growth in the future can still represent an employment opportunity for a specific community and generate demand for commercial and industrial land. For example, we expect

employment in Lumber & Wood Products to be relatively flat over the forecast period despite increased harvests due to continued increases in labor productivity in the industry. But modernization of equipment and consolidation of the industry into more urban areas with access to supplies, workers, and markets will create demand for Lumber & Wood Products mill sites in the Region over the forecast period.

In addition, growth in the Region over the next 50 years will create opportunities for the creation and expansion of businesses across the economic spectrum. Some of these opportunities will be significant to the Region but may not have a large share of employment growth. For example, we expect that local production of agricultural products for local consumption and food processing will be a growth industry because of the increasing demand for local and organic products and increasing energy costs. This activity will be important to the Region because it will enhance the Region's quality of life, but employment in the Agriculture sector will remain a small share of the Region's employment.[8]

DISTRIBUTION OF EMPLOYMENT GROWTH WITHIN THE REGION

The location needs of firms in various sectors of the economy will affect the distribution of employment within the Region. Key location factors for businesses that are likely to generate employment growth in the Region include the following:

- Small manufacturers, professionals, and entrepreneurs are attracted to communities with quality of life.
- Access to shipping services is critical for many businesses in Manufacturing and Services.
- Retail trade, banking, real estate, insurance, and similar services for the local market will grow and locate along with population.
- Growth in Business Services and Health Services will concentrate in the larger urban areas of the Region.
- The availability of suitable sites is crucial for businesses with special site needs such as a large parcel, vehicular access, railroad access, visibility, separation from other uses, or high utility demands. Some of these businesses will be in Retail Trade, Services, or institutions that are tied to the local market; these uses will compete for key sites in the Region. Some of the firms with special site needs will be in Manufacturing, Services, and Wholesale Trade businesses that are not tied to the Region; the availability of suitable sites can attract or retain these businesses, and the lack of suitable sites may cause them to avoid or leave the Region.

[8] Covered employment data does not include most farmers or temporary farm workers, and so it underrepresents the importance of this sector in a regional economy. Regardless, this sector has a small share of total employment and most of this activity will occur outside of UGBs in the Region, so we do not attempt to include all Agriculture workers in our analysis of employment growth or land demand.

As these factors show, the pattern of population growth and the availability of buildable land in the Region will have an effect on the distribution of employment growth in the Region. The analysis of buildable land for the Regional Growth Concept, however, has been based on community's visions for growth and economic development and the supply of land needed to support that vision, rather than demand for land resulting from employment growth in the Region.

This report will assess demand for employment growth by community assuming that the only constraints on buildable land for commercial and industrial development are physical constraints such as wetlands, water bodies, steep slopes, and location of potential expansion areas. We will also consider the expected population growth by community as a factor for assessing the likely distribution of businesses serving local markets. Finally, while we expect investments in transportation infrastructure to increase its capacity, we do not expect substantial new highway routes or railroad lines to be constructed in the forecast period.

The distribution of total employment by community in 2055 will be affected by the assumptions and factors described in this section, the location needs of businesses as discussed earlier in this report, and the level of Regional employment growth by sector.

In addition, we made assumptions about the relative growth rates of communities and the resulting distribution of employment in the Region. As a first-pass estimate of employment growth by community, we applied the employment growth rate for the Region to the level of employment by community in the Region. A result of this method is that the distribution of employment by community in the Region would be the same in 2055 as in 2000. We do not think this outcome is likely. Instead, we expect growth by community will vary for the following reasons:

- We expect employment in Eugene to grow more slowly than the Region. Because Eugene is the largest city in the Region, we expect its growth rate to mature and the growth rate of outlying communities to accelerate as growth moves outward in the Region. In addition, Eugene is surrounded by steep slopes, forest land, farm lands, and wetlands that make its options for expansion difficult from a policy perspective and less attractive than other communities in the Region from a market perspective. For these reasons, Eugene's share of total employment in the Region will fall over the forecast period.

- We expect employment in Springfield to grow more rapidly than in the Region as growth shifts outward from Eugene. In addition, growth in the International Way, Marcola Road, and Jasper-Natron areas, and potential redevelopment of the Mohawk and Glenwood areas of Springfield, will cause its growth rate to exceed that of the region.

- Given their large size, the mix of employment growth by sector in Eugene and Springfield will look much like the mix of employment growth in the Region.

- We expect total employment in all of the smaller communities to grow at an average rate as high or higher than for the Region as a whole. Communities that are centrally located and that appear to have good options for expansion to create buildable sites will have the highest growth rates. These communities are Coburg, Cottage Grove, Creswell, Junction City, Goshen, and Veneta.

- While we expect growth in each of these communities, we also expect that the relative ranking of Coburg, Cottage Grove, and Junction City in terms of size will not shift substantially in the future. That is, these cities will remain the largest communities in the Region outside of Eugene and Springfield.

- We expect strong employment growth in Veneta that will cause its size to levels just below those in Coburg, Cottage Grove, and Junction City. This growth will be a mix of retail, commercial, and industrial that roughly matches the mix of growth in the Region.

- We expect Coburg and Goshen will have strong demand for industrial growth because of their location on I-5, proximity to Eugene and Springfield, and relative isolation from residential and commercial development. These communities will have the characteristics of industrial enclaves, with large concentrations of industrial employment and relatively smaller shares of retail and commercial, and a relatively small number of residents as compared to employees. In Coburg, this growth will cause its employment to remain at about the same level as Junction City and Cottage Grove. In Goshen, this employment growth will cause it to grow substantially faster than the Region and to reach an employment level similar to that in Veneta.

- Population growth will drive employment growth in the smaller communities in the Region: Lowell, Oakridge, Westfir, and Pleasant Hill. We expect total employment in each of these communities to grow faster than in the Region as a whole, except in Oakridge where its relative isolation will limit growth to a rate below that for the Region. This employment growth will be primarily in retail and commercial businesses that serve the local community.

- For consistency with Oregon's Land Use Planning Goals, we are not planning for any substantial employment growth in rural areas of the Region.

A result of applying these assumptions to the amount of total employment forecast for the Region is that Eugene's share of total employment in the Region will fall from 66% in 2000 to about 60% in 2055. Despite this decline in Regional share, Eugene will still lead the Region in employment growth with over 31,000 jobs or about 50% of the Region's growth in the period. After Eugene, employment growth (amount, not rate) in the Region will be led by Springfield, followed by significant but smaller amounts of growth in Coburg, Cottage Grove, Creswell, Junction City, Veneta, and Goshen.

Table 4 shows the capacity of land for commercial and industrial development in the Region as currently estimated in the Regional Growth Concept. As discussed earlier in this report, an updated inventory of buildable land in Lane County will cause the estimates of capacity to change, making a comparison between demand and capacity premature.

Table 4 shows that the estimated capacity of land in the listed communities for employment growth (240,357) is less than the expected demand for employment growth in the Region (197,590). Given the capacity of communities in the Region compared to overall demand in the Region, it appears that the capacity of land in the Regional Growth Concept is sufficient to meet demand for employment growth in the Region.

Table 4. Capacity for employment growth by community

Community	Capacity
Eugene	132,761
Springfield	36,788
Coburg	5,204
Cottage Grove	14,045
Creswell	11,875
Junction City	11,681
Lowell	670
Oakridge	4,203
Veneta	8,590
Westfir	91
Goshen	6,227
Pleasant Hill	290
Rural	7,932
Total	**240,357**

Source: Lane Council of Governments.

Given the capacities shown in Table 4 and our expectations for the distribution of employment growth by type and community in the Region, it appears that most of the communities in the Region have enough land for expected employment growth except for Coburg.

Given this result, one option would be for Coburg to add more land for development. But another option is for public policy to shift demand for employment growth away from communities without capacity to those that will have capacity. Thus, a key question is whether demand for employment growth in Coburg, or any other communities that may lack capacity for development, can be shifted to other communities in the Region, or will this growth be lost to other regions. We believe that this demand can be shifted to other communities in the Region for the following reasons:

- A substantial share of employment growth we projected for Coburg would be for industrial uses that would be attracted to Coburg for its proximity to the metropolitan area and freeway access combined with its relative isolation from nearby residential uses. Much of this industrial employment will be willing to accept other locations in the Region as long as they are

of sufficient size, have sufficient access, and are reasonably buffered from other uses.

- Retailers in communities will compete for the most accessible and visible locations. To the extent that land is not available for all of the retail development in demand, this development will shift to other communities to capture these sales.

IMPLICATIONS FOR THE REGIONAL GROWTH CONCEPT

EMPLOYMENT GROWTH AND DEVELOPMENT PATTERNS BY COMMUNITY

The analysis in this section has several implications for the type of growth by community:

- Small local retail and services will locate in commercial centers or stand-alone stores and offices in all communities in the Region.

- The largest employers in Retail Trade and Services will continue to concentrate in the larger urban centers.

- There will be demand for some large retail uses in centrally located communities outside of Eugene and Springfield, particularly in Veneta, Junction City, Coburg, Creswell, and Cottage Grove. This demand will include community grocery stores, hardware and building supply stores, and discount/general merchandise stores.

- Smaller communities in the region such as Goshen, Pleasant Hill, Lowell, Oakridge, and Westfir will have additional demand for small grocery and spaces for other local retail and services. Pleasant Hill, Lowell, and Oakridge may be able to accommodate this demand with redevelopment in their existing downtowns; other small communities will need to plan for a town center for these uses.

- Small specialty manufacturers will locate in flexible light industrial space in all communities in the Region.

- Distributors and large manufacturers will need to locate near I-5, rail, suppliers, and the Region's labor force, favoring central locations in the Region. The location of these uses is heavily influenced by the availability of suitable sites.

Applying these implications leads to several conclusions about the amount, type, and pattern of development by community.

For Small Outlying Communities: Pleasant Hill, Lowell, and Oakridge, employment growth opportunities and needed sites include:

- Retail and local services will grow along with population
    - Strip and stand-alone commercial
      0.25–10 acre lots
    - Opportunity for redevelopment in existing downtowns/centers
- Some specialty manufacturing and construction businesses are attracted to small towns and rural communities with a high quality of life
    - Industrial park or stand-alone developments
      0.25–10 acre lots

Implications for Central but Smaller Communities: Junction City, Veneta, Coburg, and Creswell:

- Retail and local services will grow along with population
    - Strip and stand-alone commercial, some larger uses or big-box
      0.25–20 acres
- Some specialty manufacturing and construction businesses are attracted to small towns and rural communities with a high quality of life
    - Some opportunity in these communities for larger manufacturers
    - Industrial park or stand-alone developments
      0.25–50 acre lots
- Traffic congestion between Veneta and areas to the east may limit the type of businesses that locate in Veneta.

Implications for employment growth and development in Eugene:

- Same as for smaller communities, plus
    - Potential for larger manufacturers
      50+ acres
    - Potential for larger commercial centers and big-box retail
      10-30 acres
    - Demand for suburban office locations: i.e. Chad Drive
      5-30 acres
    - Growth creates opportunity for redevelopment of brownfields, retail, and nodal development.

DENSITY OF DEVELOPMENT AND CAPACITY OF LAND FOR EMPLOYMENT GROWTH

The Regional Growth Concept calls for increases in the density of employment uses on land in the Region. In concept, employment density is measured by the number of employees per acre of land designated for commercial, industrial, or public use (other than parks and open space). Table 5 shows existing employment densities as of 2000 and future employment densities assumed in the Regional Growth Concept for 2055.

Table 5. Employment density in the Southern Willamette Valley, 2000 and 2055 (employees/acre)

		Regional Growth Concept, 2055			2000Š2055	
Area	Existing Conditions, 2000	Existing UGB	Future Growth Areas	Net Density	Increase	Percent Increase
Eugene	14.1	17.6	20.3	18.1	4.0	28%
Springfield	7.1	11.4		11.4	4.3	61%
Coburg	7.9	17.4	20.2	17.7	9.8	124%
Creswell	5.8	14.1	18.6	16.8	11.0	189%
Junction City	10.8	11.0	11.5	11.2	0.4	3%
Lowell	6.8	13.6	24.0	19.4	12.6	185%
Oakridge	2.8	10.5	6.0	9.9	7.1	254%
Veneta	5.2	17.1	20.8	18.3	13.1	251%
Westfir	0.3	6.5		6.5	6.2	2067%
Goshen			23.0	23.0	n/a	n/a
Pleasant Hill			10.1	10.1	n/a	n/a
Rural				6.0	n/a	n/a

Source: Lane Council of Governments, Employment and Employment Densities, 2055 Regional Growth Concept and Existing Conditions, May 30, 2006. Summarized by ECONorthwest.

Table 5 shows that relatively modest increases in density are assumed for Eugene and Springfield, the largest urban areas in the Region. Higher increases are expected in several smaller communities in the Region: Veneta, Lowell, Creswell, and Coburg. Each of these cities are expected to reach an employment density in 2055 that exceeds the current density in any city in the Region.

Table 6. Employment density assumptions by development type

Development Type	Net Density (emp/acre)
High Density Employment	35.0
Medium-High Density Employment	25.0
Medium Density Employment	15.0
Low Density Employment	6.0
Mixed Use Employment	21.6
Mixed Use Residential	9.7

Source: Lane Council of Governments, Regional Growth Concept Development Type Assumptions.

The future employment density in communities in the Region are the result of assumptions about the mix of development in existing UGB areas and future growth areas by community in the Region. Table 6 shows the employment density assumptions by development types that were applied to buildable areas in the Region. Table 6 shows that High Density Employment, Medium-High Density Employment, and Mixed-Use Employment have employment densities higher than the existing average densities observed in communities in the Region.

It is reasonable to expect employment densities in the Region to increase in the future as land prices increase and with employment growth in industries with relatively dense employment, such as services and retail trade. To test the reasonableness of the density assumptions in Table 6 and the resulting average densities in Table 5, we would like to get actual measures of employment densities in larger cities and for developments that represent the future pattern of development we expect in the Region.

Unfortunately, there is very little empirical data on employment densities. Our review of employment density studies found few studies on this topic. The studies that are available often do not uses comparable groupings for reporting employment density—it may be by industry, land use type, or development type. Moreover, most studies report density in terms of square feet of built space per employee; few studies report employees per acre.

Our review of literature shows that there are many problems faced when trying to measure employment density:

- Employment data for individual employers or employers at specific sites is scarce or confidential.
- Measures vary depending on the base, which may include square feet of building space or acres of land.
- Measures using land as a base can vary depending on the land area being measured. Using land by plan designation, for example, might include land developed for residential or other non-employment uses.

- Measures of employment density for a specific employment site can vary widely even within industries, due to some businesses having longer hours and shift work as well as from differences in production and function.

- Measures of employment densities within a land use type, such as shopping centers or light manufacturing, can vary widely for the same reasons.

- Employment density is dynamic; it is common for a site to develop at a relatively low density that increases over time from infill development. For example, many shopping centers add structures to their site over time, increasing employment density.

- Studies based on the existing pattern of development may not reflect future conditions.

With these problems as caveats for looking at employment density studies, we present some illustrative examples of studies that report employment density in terms of employees per acre. Table 7 shows estimates of employment densities in Eugene measured by ECONorthwest in 2002. Table 7 shows employment density for a variety of retail and service industry uses for which data was available. Table 7 shows that many of these uses have a relatively high density, including restaurants, convenience stores (7-Eleven), law offices, health services, miscellaneous services, and grocery stores. Since we expect development of this type in all communities in the Region, this development will help increase the employment density in the smaller communities in the Region.

Table 7. Employment densities in Eugene, 2002

	Employees per Acre	Sq. Ft. per Employee	Employees per Acre				
			Min	25%	Median	75%	Max
7-Eleven	30.0	531	16.4	21.5	34.2	38.6	87.6
Grocery Stores	14.5	1,030	3.2	6.0	10.5	20.0	103.6
Misc. Retail	17.8	2,525	1.2	7.6	13.6	28.4	99.5
Health Services	20.5	2,257	0.6	4.1	9.9	23.5	1,947.4
Restaurants	43.8	1,055	2.8	17.7	35.3	75.4	594.3
Banks	9.7	2,320	1.4	4.9	14.9	46.5	82.6
Law Offices	26.0	1,920	2.0	7.0	15.1	35.0	275.7

Source: ECONorthwest.

Table 7 also shows the distribution of employment density measures for each type of use; this table shows that there is substantial variation in the measures, which illustrates some of the problem with measuring existing employment densities to use for planning future densities in a region.

Table 8. Employment density in the greater Los Angeles Region, 2000

Land Use	Records	FAR	EPA	Efficiency	SF/Emp
Regional Retail	27	0.29	15.0	0.80	1023
Other Retail/Svc.	1013	0.28	13.5	0.85	585
Low-Rise Office	349	0.36	22.9	0.90	466
High-Rise Office	46	1.19	116.3	0.90	300
Hotel/Motel	16	0.61	11.0	na	1804
R & D/Flex Space	70	0.31	18.1	0.95	527
Light Manufacturing	1047	0.36	11.6	0.95	924
Heavy Manufacuring	0	--	17.1	na	--
Warehouse	121	0.42	10.6	0.95	1225
Government Offices	32	0.37	16.2	0.90	672

Source: 2001 Employment Density Study, Southern California Association of Governments.

Table 8 shows the results of an employment density study in the greater Los Angeles region. The EPA column reports Employees Per Acre. Table 8 shows that many types of land uses in the Greater Los Angeles area have employment densities in the 10–20 employees per acre range. Even manufacturing land uses, which are generally thought of as low-density uses, has an employment density of 11–17 employees per acre. Low-rise office development has a density of almost 23 employees per acre, which is roughly equivalent to the future employment densities expected in many of the future growth areas in the Southern Willamette Valley.

While the data in Tables 7 and 8 do not provide a direct comparison to the average employment densities expected in the Regional Growth Concept, they do suggest that those densities are achievable.

POTENTIAL VARIATION IN FUTURE EMPLOYMENT GROWTH

Up to this point, we have presented a single forecast of employment growth by industry and discussed the implications of that amount and type of growth for the Southern Willamette Valley region. The actual amount of employment growth, however, may be lower or higher then the amount we forecast in this report. There are a wide variety of factors that will affect future employment growth in the Region, many of which cannot be foreseen in a forecast. But there are indicators that suggest a range of potential future growth rates for employment in the Region.

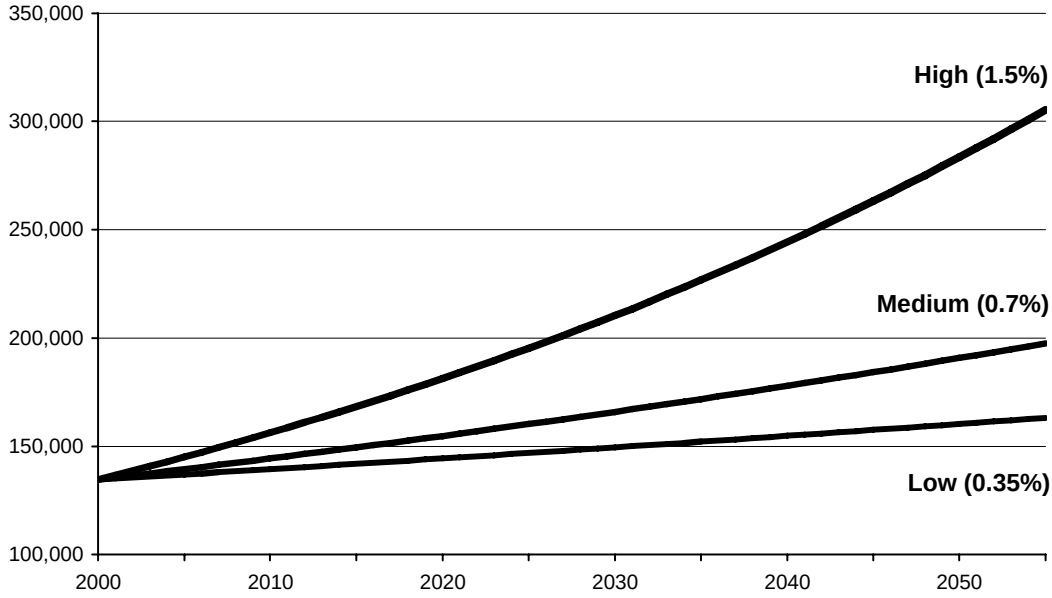
Between 1976 and 2000, population in Lane County grew at an average rate of 1.1% per year while employment grew at an average rate of 2.3% per year. Population and employment between 1976 and 2000 grew at these rates despite the recession of the early 1980s that caused negative employment growth in some years. These historical growth rates are higher than the average growth rate for population in the Regional Growth Concept (0.8% per year) and for employment in this report (0.7%).

We do not expect employment growth in the Southern Willamette Valley to continue at the historic rate of growth in Lane County due to expected lower rates of net in-migration (as anticipated by population forecasts for Lane County and the Region) and an aging population through most of the forecast period. But the historic rate of population and employment growth suggests that future net in-migration and employment growth in the Region could occur at rates higher than forecast in this report. To show the impact of a higher employment growth rate in the Region, we applied an average growth rate of 1.5% per year to the Region's employment in 2000.

Employment in the Southern Willamette Valley could grow at an average annual rate below the 0.7% level assumed in this report. Possible reasons for this outcome include national and international economic conditions, rising fuel costs, climate change, constrained resources, conflicts, or natural disasters. While these conditions are difficult to predict, historic growth rates suggest that the chance for employment growth 0.7% on average is low. To show the impact of slower employment growth in the Region we used an average growth rate of 0.35% per year.

Given these considerations, actual employment growth in the Region is more likely to be higher than to be lower than the level we forecast in this report. This conclusion is reflected in the growth rates we selected to represent the range of potential employment growth rates in the Region, and the level of employment growth resulting from these growth rates. Figure 1 shows the result of applying a high, medium, and low average annual growth rate to the 2000 level of employment in the Southern Willamette Valley. The medium scenario in Figure 1 shows the result of the 0.7% rate assumed for the forecast in this report. The high and low scenarios in Figure 1 show the result of the potential range of employment growth rates discussed in this section.

Figure 1. Employment in the Southern Willamette Valley at high, medium, and low rates of growth, 2000–2055



Source: ECONorthwest.

Figure 1 shows that employment growth in the high scenario—with an annual rate of 1.5%—results in over 100,000 more jobs in 2055 than the medium scenario. The medium growth scenario, with represents the forecast presented in this report, results in total employment in the Region of roughly 200,000 in 2055. Under the high growth scenario, the Region would surpass that level of employment by 2030, 25 years earlier. Under the low growth scenario, employment in the Region would reach only 165,000 by 2055.

While the assessment in this section suggests that there is potential for employment growth in the Region at rates higher than the forecast in this report, this does not mean that the employment forecast needs to be revised. There is uncertainty in any forecast of future employment growth, for the reasons identified in this report. In addition, the employment forecast presented in this report will eventually be revised by subsequent long-term forecasts used for planning in the Region. Like most forecasts, these future forecasts will incorporate expectations of growth based on recent experience. If, for example, employment grows at a higher rate than that used in this report, future forecasts are likely to revise expected employment growth upward and jurisdictions will need to adjust their land use planning accordingly.

The fifty-year employment forecast in this report and the Regional Growth Concept will not determine land use planning in the Region over the next fifty years. Instead, it will provide a context in which jurisdictions in the Region can plan for growth. In some cases, jurisdictions will be able to use information in the Region 2050 study to reduce their need for analysis to support local plans. These local plans generally have a twenty-year planning horizon for land supply, but even these plans get revised more frequently than twenty years.

In this context, the key question for economic development is not whether the Regional Growth Concept will provide enough land for employment growth over the next fifty years. Instead, the key question for economic development is whether the Regional Growth Concept is adequate for jurisdictions in the Region to use in their local plans for growth. We believe the answer to this questions is yes, based on this Economic Opportunities Analysis.

There is a need for monitoring of land development in the Region to provide current information on growth rates and land supply. Jurisdictions in the Region currently do not track land development and supply in a way that allows a quick and current update of development trends or land availability. Getting a current inventory of buildable lands in the Region has historically required jurisdictions to coordinate in launching an expensive planning project to develop that inventory. Given the expense and trouble of launching such a project, jurisdictions often do not have timely information on development trends or their buildable land supply. If this information were readily available, it would reduce the time needed for jurisdictions to notice a need to revise their plans for growth.

KEY CONSIDERATIONS IN PLANNING FOR EMPLOYMENT GROWTH IN THE SOUTHERN WILLAMETTE VALLEY

Additional considerations for planning for employment growth in the Southern Willamette Valley that are not addressed in this report are as follows:

- The Region needs to consider site needs of institutions including hospitals, schools, utilities, government agencies. These institutions will need to grow and relocate in order to serve the growing population and employment in the Region.

- While we assume that the private motor vehicle will remain the primary means of transportation for people and freight, there will be an increasing share of personal and freight travel made by alternative modes: walking, bicycling, transit, and rail. Jurisdictions in the Region will need to adopt policies to create development that facilitates walking, bicycle, and transit use, and make investments in infrastructure to support these modes. Establishing separate right-of-ways for transit is particularly important to allow transit vehicles to bypass congested roadways. While rail freight service is primarily provided by the private sector, planning for rail spur extensions in heavy industrial areas and for inter-modal connections will also be important to facilitate the use of rail for freight shipments.

- Large employers desire high-amenity sites for campus-like developments. The number of these sites is limited in the Region, and designation of a high-amenity site for this type of development could be an economic development strategy for a community.

- There is a need for redevelopment in urban areas. Communities in the Region may want to create sites for the relocation of industrial uses to more suitable locations to allow redevelopment to occur.

- The need for redevelopment suggests a strategy to restrict the supply of greenfield development sites to encourage redevelopment of under utilized sites. Developers of retail and office commercial uses have shown their ability and willingness to redevelop areas in Eugene-Springfield. Industrial redevelopment is more difficult because many underused industrial sites are contaminated from previous use. Public policy to reduce the costs of industrial redevelopment may be needed to encourage this activity.

- We do not expect strong growth in heavily polluting industries in the Region. There will be a need, however, for heavy industrial sites in the Region for existing businesses and to support future growth. Examples include chemicals, adhesives, recycling facilities, and fuel depots. These sites are often large, on highways and railroads, and buffered from surrounding uses.

- In Oregon's land use planning system, cities can aspire for employment growth they may or may not get. There is no requirement that employment forecasts for planning be coordinated at the regional or County level. To avoid allocating too much land in the Region for potential employment growth, plans and forecasts will need to be periodically revised to reflect actual employment growth in the recent past.