CITY OF MEDFORD COMPREHENSIVE PLAN

ECONOMIC ELEMENT

PREPARED BY
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I. INTRODUCTION

The purpose of the Economic Element of the Medford Comprehensive Plan is to determine the City's economic goals, policies and land needs concerning commercial and industrial development within the City limits and the Urban Growth Boundary.

E.D. Hovee and Company prepared for the City an Economic Opportunities Analysis for 2003-2004 that examines the past, present, and future economic opportunities for the City and surrounding region. This analysis is contained in the *"Medford Economic Market Analysis"* March 2003 and the *"Medford Commercial and Industrial Land Supply Goal 9 Supplement"* December 2004, collectively referred to as the "Hovee Report." In October 2006, the Hovee Report was incorporated into the Medford Comprehensive Plan Economic Element as an appendix and utilized to update and supplement the conclusions and policies of this document. In January 2007, the new DLCD Economic Development Rule (OAR 660-009) went into effect. In October 2007, the City of Medford contracted with Johnson-Gardner to extend the Hovee Report analysis and update the balance of the Economic Element to comply with the most recent DLCD rule.

Section II of the Element presents an economic history of the region. Sections III, IV and V provide an Economic Opportunities Analysis that includes: an analysis of significant national, state, and local trends; a forecast of employment and demand for employment lands; and an inventory of vacant and underutilized lands. Section VI presents an Assessment of Community Economic Development Potential. This section includes an analysis of Medford's competitive position and target industries. It examines the City's comparative advantages and disadvantages for economic development and reports on labor factors that influence current and future economic life. Hovee Report research and findings were integral in updating this Element. The final section, Section VII of the Economic Element, outlines the City's economic goals and policies that will guide the City through the twenty-year planning period (2008-2028).

This element is intended to satisfy the requirements of the Oregon Administrative Rules, Chapter 660, Division 9.

II. ECONOMIC HISTORY

Medford's economic history is one highlighted by the search for gold, the development of major natural resource-based industries involving forest products and agriculture and the evolution of the area as a major tourism center. As early as 1850, the settlement potential of the fertile land in the Rogue River Valley was recognized by the forty-niners on their way to the California gold fields. Soon thereafter, gold was discovered in Jackson County itself. The mining boom that resulted gave way eventually to the more stable economic bases of agriculture and lumber, which remain important elements in Medford's livelihood today.

One of the most exciting periods in Jackson County history was the gold mining boom. The area's "gold rush" lasted from 1850 to 1856. In 1851, the area's three houses provided residences for pilots of the ferryboats that carried early pioneers across the Rogue River. In 1852, gold placers were discovered. The settlers' population in the Valley numbered 28 in January 1852, but increased to 150 by March of that year. With the arrival of summer in 1852, the local population had soared to include 1,000 miners who were new residents of the Rogue Valley.

Jacksonville was the center of trade activity for the area's economy during this period. The prosperity that accompanied the gold rush was apparent. In 1884, a Wells Fargo agent testified to having forwarded $10,000,000 worth of gold from the company's Jacksonville office during the preceding two decades. He estimated that at least that much more had gone out of the area in other ways.

Meanwhile, some settlers began planting crops and moved to take advantage of the bountiful resources of the surrounding timberlands. In 1852, the area's first lumber mill was built. By 1854, there were two flour mills in operation, processing wheat and other grains planted by those hoping to make a living supplying the miners' demand for basic staples.

In 1855, Jackson County was the most populous and wealthiest county in the region of the Oregon Territory that was four years away from statehood. The boom prosperity brought by mining was destined to be short-lived, however. Marked declines in annual mining income and shipments were apparent as early as 1860. As miners left the area, the economy began to change. Without the market created by the miners residing in the area, the local demand for wheat fell. The farmers' markets deteriorated because of the lack of transportation to export goods to other regions on the West Coast. Farmers recognized that maintaining their incomes would require cultivation of higher-priced crops. They replaced wheat with apple and pear orchards, many of which were planted in the following two decades.

By 1884, the Medford settlement had grown into a community of some note in the region. According to an account written that year, there were about 40 wooden buildings, and the foundations of a brick building "of considerable size" were laid. Up until this time, Jacksonville continued to serve as the trade center for the Rogue Valley. When the railroad came to Southern Oregon, however, Jacksonville was bypassed. The decision was made to create a formally-established town at the middle ford of Bear Creek. The town was named by a railroad engineer from Medford, Massachusetts. Thus, in 1884, the town of Medford was incorporated, although residents of Jacksonville continued to refer to their new neighbor as "Chaparral City." Medford was to become the outbound shipping point for the agricultural and forest products of the Rogue River Valley. During the next few years, the community began to take shape. By 1885, a

school, a newspaper and a railroad station were in operation. In 1888, the city sold $5,000 worth of bonds to finance a water main, sewerage, fire apparatus, and the construction of a reservoir.

Another boom in growth and development began in Medford in the Gay Nineties and lasted until the Depression. In 1890, 967 persons lived in the town. By 1906, nearly 3,000 people lived in what had become the home of many wealthy easterners eager to invest in pear orchards. The same year marked the first effort to secure an integrated irrigation system for the area. Along with the completion of the Pacific and Redwood Highways, these milestones marked the direction Medford had taken after the gold boom ended.

In 1909, the Medford Commercial Club (forerunner of the Chamber of Commerce) published a brochure urging young men at universities on the East Coast to come west to a valley of fertile soil, beautiful scenery and wildlife, mountains with gold, copper and coal and "a contented, progressive people." Farmers claimed to clear $500 - $1,500 an acre yearly. Meanwhile, families on their way to California were urged by Union Pacific men to first consider the Rogue River Valley.

With the completion of the Gold Ray Dam in 1903, the city's inhabitants were assured a reliable supply of electricity. Rogue River Electric merged with Siskiyou Power and Light in 1913 to become the predecessor to Pacific Power & Light. In 1910, Main Street was paved. Medford pears were bringing premium prices in the markets of New York and London. The many orchards planted in response to these prices caused a short-term oversupply of pears. More export markets were developed and pear farming flourished. The shipping of fruit, in turn, created a demand for wooden boxes, and the expanding population needed housing. Pine and fir mills were built to provide the needed lumber. In the early 1920s, lumber businessmen arrived from the south with established lumber manufacturing businesses. Among them was James Owen, who established the Owen-Oregon Lumber Company, the predecessor of Medford Corporation.

The twenties roared in Medford as elsewhere. The population was nearly 11,000 by 1930, a 92 percent gain in 10 years. In 1929, the 3,660 carloads of pears that were shipped represented more than a fourfold increase during the decade. A total of $12,000,000 worth of various products was shipped in 1929, including 4,000 carloads of lumber. By this time, 21 fruit packing and exporting firms and five modern cold storage plants were in operation. There were 11,700 acres of pear trees in the district that year, which accounted for four-fifths of the world's production capacity of Bosc pears.

The county seat had been moved to Medford from Jacksonville in 1926. An airport serving the City and Rogue Valley was completed in 1930, one of the first in the state. Medford was advertised in travel brochures as the heart of the Southern Oregon recreation district, within a few hours' drive of Crater Lake, Diamond Lake, Crescent City and numerous other tourist attractions. Throughout the 1920s, the community prospered. Medford had four major banks with deposits of more than $7 million. The City also boasted five modern theaters, four with talking picture equipment. The town had established a reputation for being progressive, with plenty of diversions to attract both wealthy residents and tourists.

The lumber business did well during the post-World War I building boom of the early 20s, but construction activity slowed by 1927. In addition, the premium prices of the past ten years had created more competition within the industry. Difficulties in maintaining and expanding markets were compounded by the stock market crash in 1929, marking a sharp decline in the housing demand . The fruit industry suffered as well during the Great Depression. Harry and David, one of the area's major fruit processors, rescued their operation in 1933 by creating a new market for their products with gift packages. This proved to be a lucrative solution. To this day, Harry and David is

, world famous for its gift packages.

The onset of World War II brought another surge of prosperity and technology to the lumber industry. Several new factors began to affect the forest products business, including infusion of federal timber holdings in the lumber supply by 1944. At the same time, railroad logging became outdated and supplanted by the increased use of logging trucks. The market for lumber continued to be strong after the war as the demand for housing, stifled during the war, rose. For the first time this demand exceeded supply because many areas had been over cut during the war. Despite short term difficulties, the lumber and wood products industry continued its dominance of the area's manufacturing sector.

Between 1940 and 1958, the population in Medford again doubled to more than 23,500. A brochure published by the Jackson County Chamber of Commerce in 1958 listed Medford's attributes as a growing city. Effective buying income in the City was $1,717 per capita, compared to a $1,601 state average. New construction projects were underway to remedy a slight housing shortage. Bank deposits totaled nearly $51 million and loans exceeded $22.7 million. The community was in a stage of development that would allow the business and commercial sector to establish the growth patterns that persist today.

During the 1960s, the lumber industry was forced to diversify its production base to more fully utilize the available timber. Plywood mills sprang up and a growing volume of wood chips was exported to Japan. The emergence of new industries also began to influence the community during this time. Firms from the urban centers of California, the Mid-West and the Atlantic seaboard states began to recognize that the Pacific Northwest offered a desirable quality of life and could still provide ready access to western markets. This attraction drew many new firms of varying size and production to the region. The Rogue Valley shared in the Northwest's popularity and became a favorable locale for immigrants.

Tourism, strong on the heels of national prosperity, drew increasing numbers of visitors to the area. Completion of the Interstate through Medford 1964 further enhanced this trend creating more jobs for local residents. Today, tourism continues as a key element of the economies of Medford and the Rogue Valley.

In the past, the commercial sector of the community's economy functioned mainly in support of the manufacturing and industrial sectors. This changed during the 1960s. As with the nation as a whole, rising incomes set the stage for a decade of growth in trade and commerce, particularly in the service industries. By 1970, Medford had established a solid position as the commercial center for the Rogue Valley, as well as a broader market area that reached into northern California and north toward the Willamette Valley.

By the end of the 1960s, the evolution of the area economy away from its historical roots was solidly underway. The wood products industry, however, again brought a boom to the area. This occurred as a result of low interest rates which encouraged a strong long-term demand for housing nationwide. A 40 percent growth in the population of Jackson County during the 1970s further fueled the demand for goods and services, but the nationwide recession that began in 1979 exposed the area's heavy reliance on the timber industry. The early 80s saw a high unemployment rate, and people began to leave the area in search of jobs. Only continued growth in the retired population, drawn by the excellent health care services and quality of life, kept the area from losing population between 1979 and 1982.

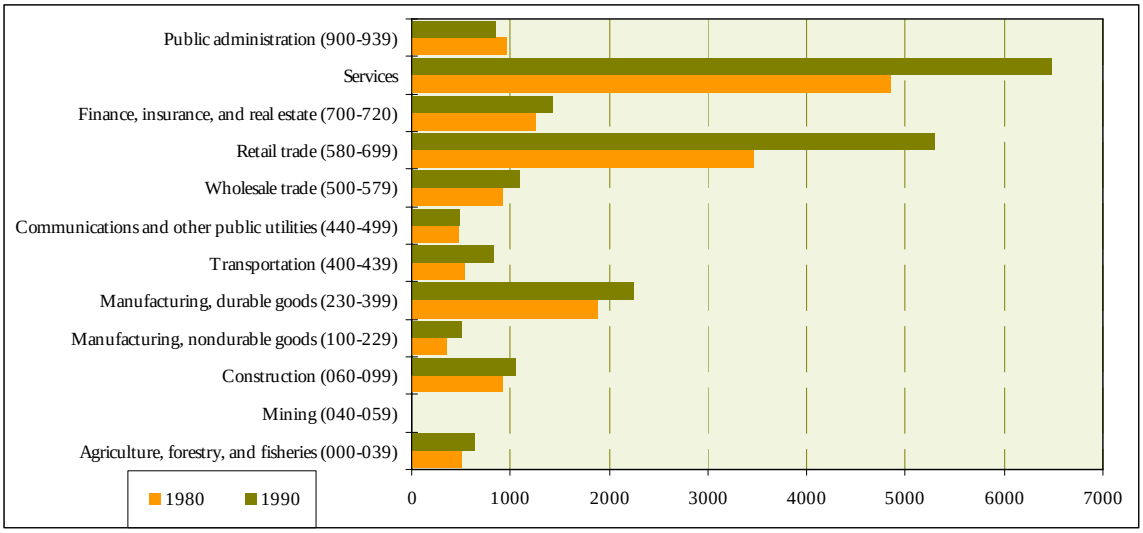
While the timber industry was still very significant, the 1980s was the first decade of fundamental

transition to a diversified economy. Medford's service and retail trade sectors experienced substantial growth. This transition was fueled, in part, by population growth and by Medford's growing role as a commercial, service and medical hub for a market of more than 500,000 people in Northern California and Southern Oregon. Medford began to establish itself as the region's retail trade hub with the construction of the Rogue Valley Mall. The financial sectors began to strengthen. Healthcare services were a growth industry that naturally clustered in Medford around the only two regional hospitals in the seven-county service area. Other professional services also concentrated in Medford for access to government and other professional services. Specific growth in key local companies and industries also set the stage for growth in the 1990s, including:

- *Sabroso Company completed the transition from a production company to a specialty processing company.*
- *Lithia Motors developed its corporate model for the retail auto dealership business.*
- *The Rogue Valley Manor was a pioneering company in the development of the Continuing Care Retirement Community concept that is now prevalent throughout the United States.*
- *The founding of the transportation brokerage Attaway Transportation.*

Figure 1 compares City of Medford employment in the 1980 Census to employment in the 1990 Census by the now obsolete SIC Code system. The comparison graph clearly depicts the large gains in Retail Trade and Services during this time period underscoring the structural changes occurring in Medford's economy during this period.

FIGURE 1: MEDFORD EMPLOYMENT BY SIC CODE



In the 1990s, the state and nation experienced significant expansion in information technology industries and healthcare industries and continued decline of the timber industry. In 1992, the area's historically dominant employer Medco closed its timber mill and ongoing timber operations in the area. Yet Medford benefited directly from the growth in healthcare because Medford is home to two regional hospitals. Asante Health Systems is now the largest employer in Jackson County. Information technology growth supported the development of many transportation brokerage companies. Medford also experienced growth in the instruments manufacturing sector. The

instruments sector is a cluster of niche industries that provide high tolerance measuring and monitoring devices to businesses and government.

Medford also solidified its position as the region's retail trade center in the 1990s with the development of the Crater Lake Shopping Center and the South Gateway area. The Crater Lake Shopping Center is located along Highway 62 where large format retail companies such as Lowe's, Costco, and Wal-Mart have operated successfully for many years. The South Gateway area is home to Fred Meyer, Winco Foods, and several franchise hotels.

Medford experienced the growth of several local companies into national and international leaders during that decade. Lithia Motors was offered to the public and grew to become one of the nation's largest retail auto dealership companies. Sabroso Company expanded into an international leader in fruit concentrates production. The Rogue Valley Manor was the catalyst in the creation of Pacific Retirement Services which now owns and/or manages retirement communities throughout the western United States. In the early 1990s, Attaway Transportation experienced financial problems despite a sound business model. Its collapse turned out to be fortunate economically, however, because the company had effectively trained a group of entrepreneurs with specialized skills. These entrepreneurs have since spawned a number of transportation brokerage companies that operate as a niche business cluster within the City.

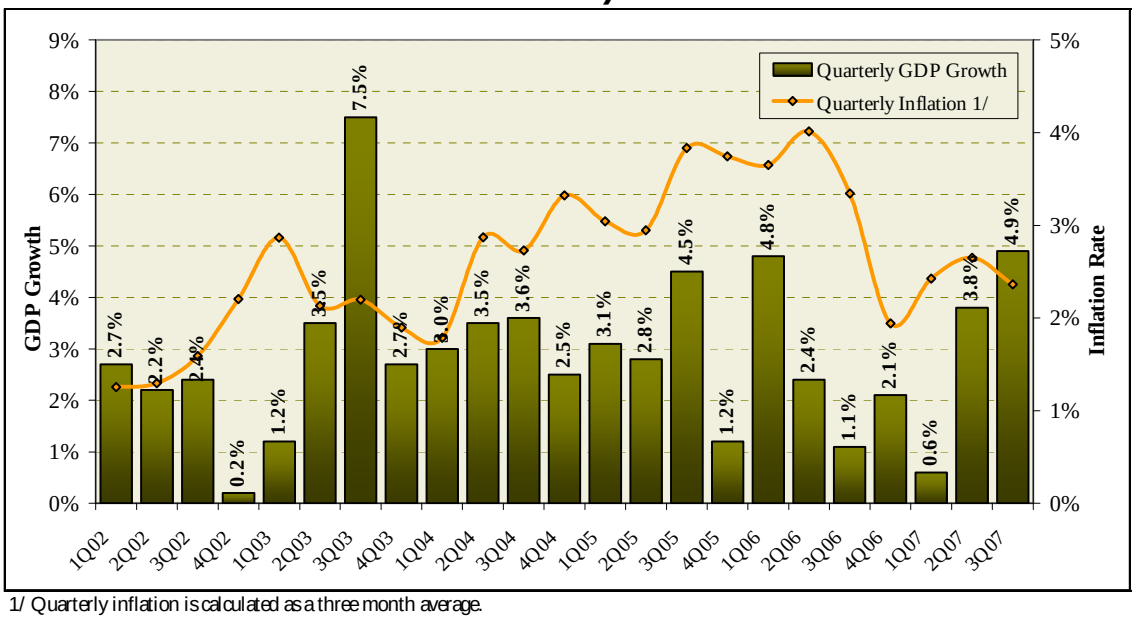
Medford was incorporated in 1884. By 1890, it had a population of 967. In 2007, the City was home to approximately 75,675 people. The economy has transitioned from gold mining to farming to harvesting and manufacturing of timber products. These natural resource-based sectors have given way in recent decades to services for the region of Southwest Oregon and Northern California. These include medical and professional services and regional distribution of goods. Traditional industries like fruit packing have matured into complex export-oriented manufacturers and retailers. Sabroso and Lithia Motors are examples of local companies that have grown into sophisticated national businesses. Food processing and manufacturing continue to be growth sectors for the while precision instrument and machine tool manufacturing are promising growth sectors for Medford in years to come.

III. REVIEW OF NATIONAL, REGIONAL AND LOCAL TRENDS

A. NATIONAL TRENDS

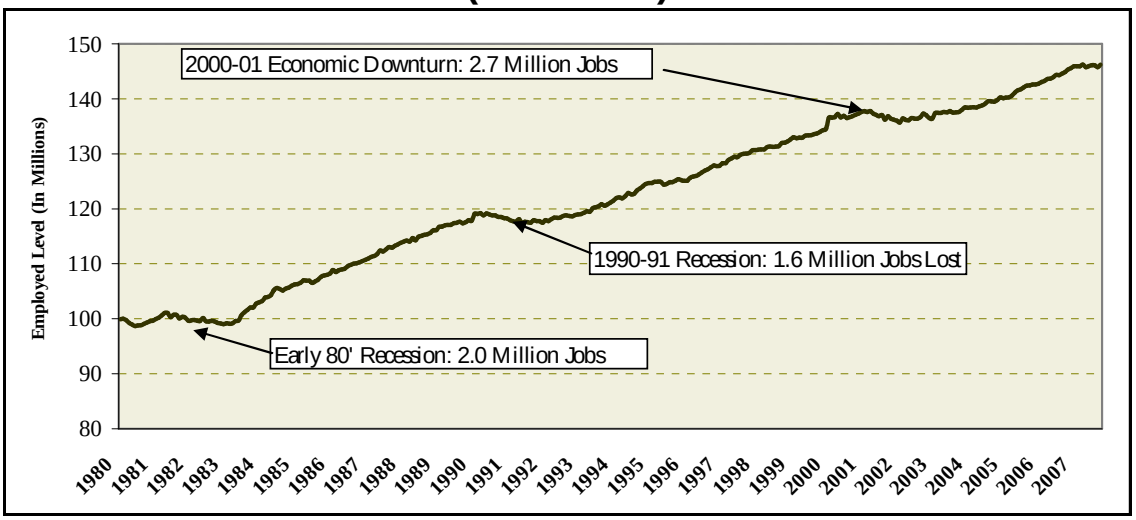
The National economy has been enjoying a sustained period of expansion since a modest downturn in 2000 and 2001. The Nation's economy experienced significant job losses in 2000 and 2001, followed by steady growth through 2007. While third quarter 2007 estimates of Gross Domestic Product (GDP) indicate that the economy remains robust, expansionary cycles as measured by sustained GDP growth, are limited in duration and the current cycle may be nearing an end.

FIGURE 2: REAL GROSS DOMESTIC PRODUCT AND INFLATION 1/ (2002-2007)



1/ Quarterly inflation is calculated as a three month average.
SOURCE: U.S. Bureau of Economic Analysis, U.S. Bureau of Labor Statistics

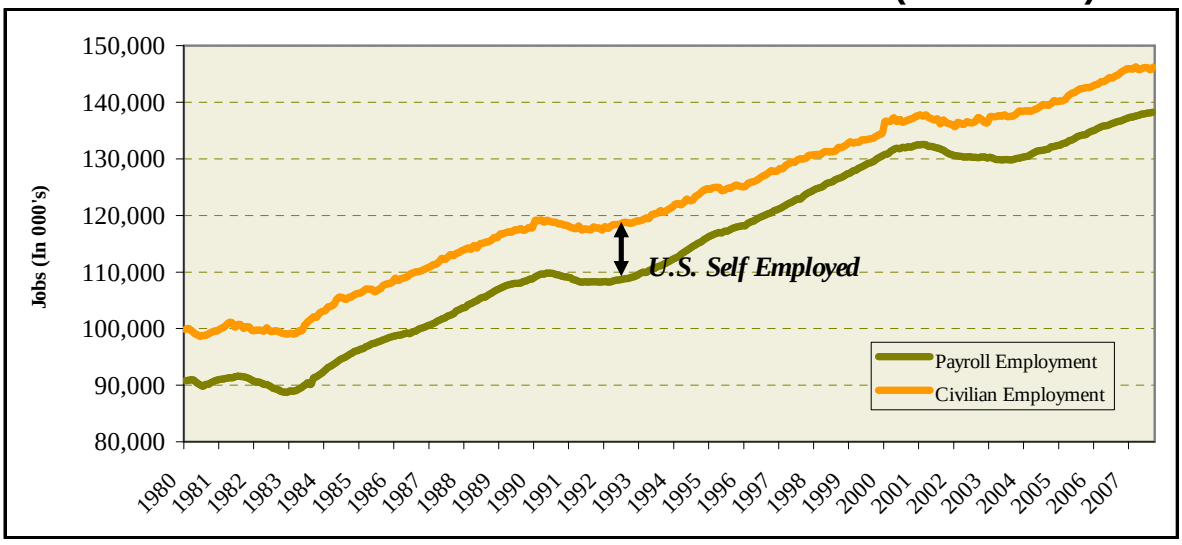
FIGURE 3: NATIONAL EMPLOYED LEVEL AND RETRACTIONARY PERIODS (1980-2007)



SOURCE: OLMIS

During periods of economic expansion, the independent and self-employed jobs can be expected to grow at a faster rate than payroll jobs. This is largely the result of entrepreneurial activity and derived from employment losses during the previous economic downturn. As the economy stabilizes, we find payroll jobs expanding at an accelerated rate as start-ups/independent operators sell out or ventures eventually fail. As Figure 4 indicates, the Nation tends to average an 8- to 10-million job differential between payroll and civilian employment[1]. With agricultural employment declining by 7% annually according to the U.S. Department of Agriculture, the self-employed will account for a greater majority of the difference over time.

FIGURE 4: U.S. CIVILIAN AND PAYROLL EMPLOYMENT (1980-2007)



SOURCE: U.S. Bureau of Labor Statistics

[1] Civilian employment is defined as all U.S. private employment, including sole-proprietors and self-employed. Payroll employment is defined as employees who are covered under unemployment insurance.

LONG-TERM INDUSTRY SPECIFIC TRENDS

Since 1980, the composition of the United States economy has undergone a dynamic transformation from manufacturing to service. The economy used to be heavily weighted toward goods-producing industries, which comprised more than 30% of national employment. But higher levels of educational attainment, technological advances, increased construction activity and contractual labor arrangements such as outsourcing, were largely responsible for the nation's economic shift[2]. Since 1980, service-oriented industries have experienced a 13.2% increase in its share of the national economy. Currently, service industries comprise 62% of national payroll employment. The NAICS broadly defines industry groups by these categories: 42 (Wholesale Trade), 44-45 (Retail Trade), 52-53 (Financial Activities), 54-56 (Professional & Business Services), 61-62 (Education & Health Services), 71-72 (Leisure & Hospitality Services), & 81 (Other Services), Furthermore, since 1980, roughly half the industries in the nation have displayed reductions in their share of national employment, led by the Manufacturing sector which fell from 20.7% of all employment in 1980 to only 10.2% today. The Nation's growth industries have included Education & Health (+5.5%), Professional & Business Services (+4.6%), and Leisure & Hospitality (+2.4%).

NATIONAL OUTLOOK

The national economy is expected to continue to expand, but at a rate below what was recorded during the last few years. Concerns over the national housing market coupled with problems in the sub-prime lending market appear to be significant factors creating uncertainty in the economy. Tight financing conditions are likely to continue into 2008. On the other hand, a higher likelihood for relaxed monetary policy and the combined effect of a lower dollar and global economic expansion will likely limit economic softening in the near term.

Over the next decade, the composition of employment in the national economy is expected to continue to transition towards more service-oriented jobs. Moving forward, service sector growth will be more demographically driven than the previous decade. For example, Health Service jobs are expected to lead all industries over the next decade, largely driven by the aging national population. Similarly, growth in Financial Activities and Leisure & Hospitality are also projected to grow significantly as the result of aging Baby Boomers.

NATIONAL SUMMARY

- Over the last quarter century, the United States economy has transitioned from a goods-producing to a service-oriented system. In the mid 1990s this caused new economy theorists to believe that the U.S. economy was effectively immune to boom and bust macroeconomic cycles. The bursting of the dot-com bubble prompted by high stock speculations for Internet-based companies and subsequent economic slowdown of 2000-2001 proved the theory incorrect. Yet the relative mildness of the 2000-2001 "recession"[3] coupled with recent economic resilience in light of the current credit crisis suggests that a service economy may be characterized by less economic volatility.

- Moving forward, service employment growth is expected to continue, with notable strength in Health Services and Professional & Business Services. Identifying industry growth sectors

[2] Simmering, Marcia J. Encyclopedia of Management, 2006, Garner, C. Alan. "Offshoring in the Service Sector: Economic Impact and Policy Issues." *Economic Review—Federal Reserve Bank of Kansas City* 89, no. 3 (2004). Goodman, Bill, and Reid Steadman. "*Services: Business Demand Rivals Consumer Demand in Driving Job Growth*." Monthly Labor Review, April 2002.

[3] The 2000-2001 recession is more appropriately classified as "economic downturn" as recessions are typically characterized by two consecutive quarters of negative GDP growth.

is important as employment in one industry can be affected by changing practices in another. For example, increased use of contractors and consultants has led to greater employment in the management, scientific and technical consulting services industry but to reduced employment in the many industries that previously hired management and technical analysts as employees[4]. This example is expected to continue into the next decade.

B. REGIONAL & LOCAL TRENDS

DEMOGRAPHICS

The City of Medford remains the predominant demographic and economic hub of the Southern Oregon Region[5]. Since the 2000 census, the City of Medford has remained the region's fastest growing municipality, adding 10,273 new residents at an annual rate of 2.5%. Over this interval Medford's share of regional population has grown from 15.1% to 16.5% in just six years.

In 2006, the Southern Oregon region continued its trend toward a larger retirement age population base relative to the state. Roughly 17.2 % of the regional population is aged greater than 65 years as compared to 12.9% at the state level. In contrast to the broader Southern Oregon region, the City of Medford is characterized by a relatively young population as compared to both state and regional distributions. In 2006, more than 52% of the local population was aged less than 35 years. Additionally, this composition is predominately driven by individuals under 19 years of age, indicating greater need for educational opportunities and entry-level employment and training resources. Failure to provide opportunities locally for a younger demographic base typically results in a "brain drain" condition, where a region's best and brightest seek advancement opportunities elsewhere.

An area's level of educational attainment is often used as a proxy for the skill level of the population base. From an economic development perspective, the City of Medford has a slight competitive advantage regionally, with a greater distribution of higher educated persons; 23.3% of local residents have a bachelor's degree or higher, compared to 19.4% at the regional level. The City of Medford is moving in the right direction with respect to the skill level of its residential base. Since 2000, the share of residents 25 years and older with at least a bachelor's degree grew from 21.1% to 23.3%. At the opposite end of the spectrum, the City's rate of high school drop-outs has fallen sharply from 16.7% in 2000 to 13.5% in 2006.

In Medford, the participation of residents in the labor force has grown significantly since the 2000 census as younger individuals enter the workforce. In 2006, the participation rate was 65%, up from 62% in 2000. A primary contributor has been a rise in the female participation in the labor force, which is up to 59% from 56% in 2000. The maturation of the City's younger demographic is another possible source of participation growth. With the gains in recent years, labor force participation in the City of Medford is now on par with rates at the State Level.

Over the previous two economic cycles (1982 to 1990, 1991 to 2001) unemployment in the Southern Oregon region has remained consistently higher than the broader State economy. In other words, regional volatility as measured by unemployment is significantly higher than at the State level. The same can generally be applied to conditions locally in Medford. However, in the current decade, diversification in the local economy has led to proven resiliency, and local unemployment has more closely followed State trends.

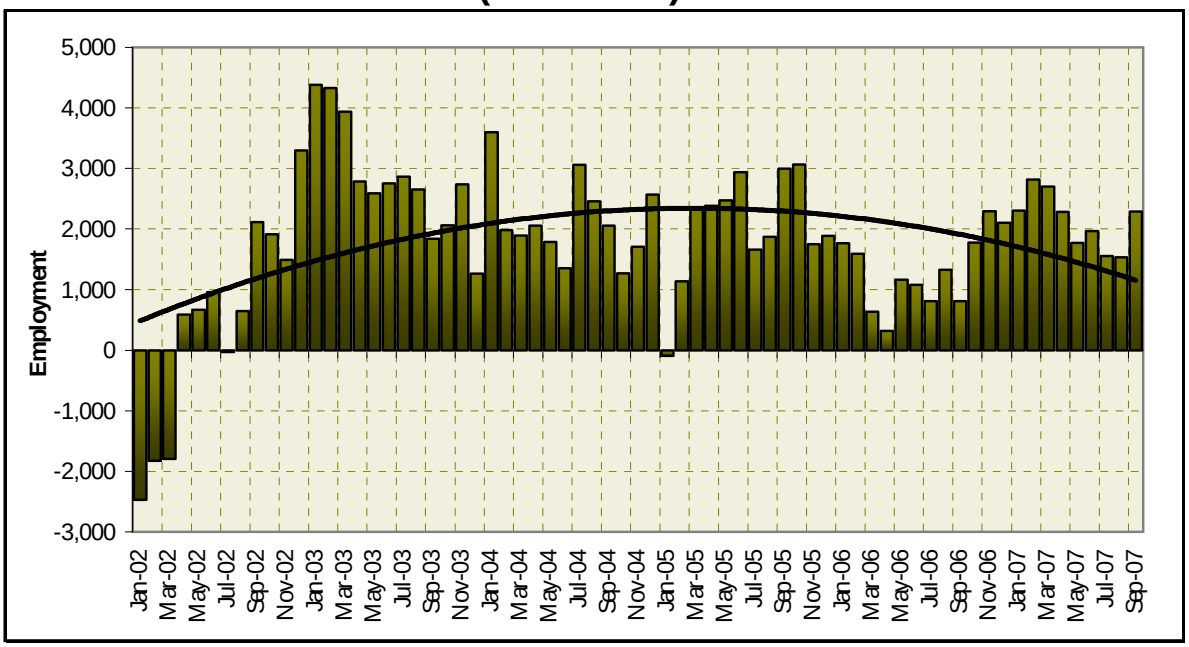
[4] US Department of Labor. Occupational Outlook Quarterly, Vol. 51, Number 3, Fall 2007

[5] Southern Oregon, or "the region" in this analysis, is defined collectively as Douglas, Jackson, Josephine, and Klamath Counties

EMPLOYMENT

Over the past five years employment growth in Jackson County has remained strong, with only seasonal variations in year-over-year employment growth. Since January 2002, the Jackson County economy has created an estimated 16,895 new jobs with growth months exceeding contraction months 74 to 7.

FIGURE 5: YEAR-OVER-YEAR EMPLOYMENT GROWTH, JACKSON COUNTY (2002-2007)

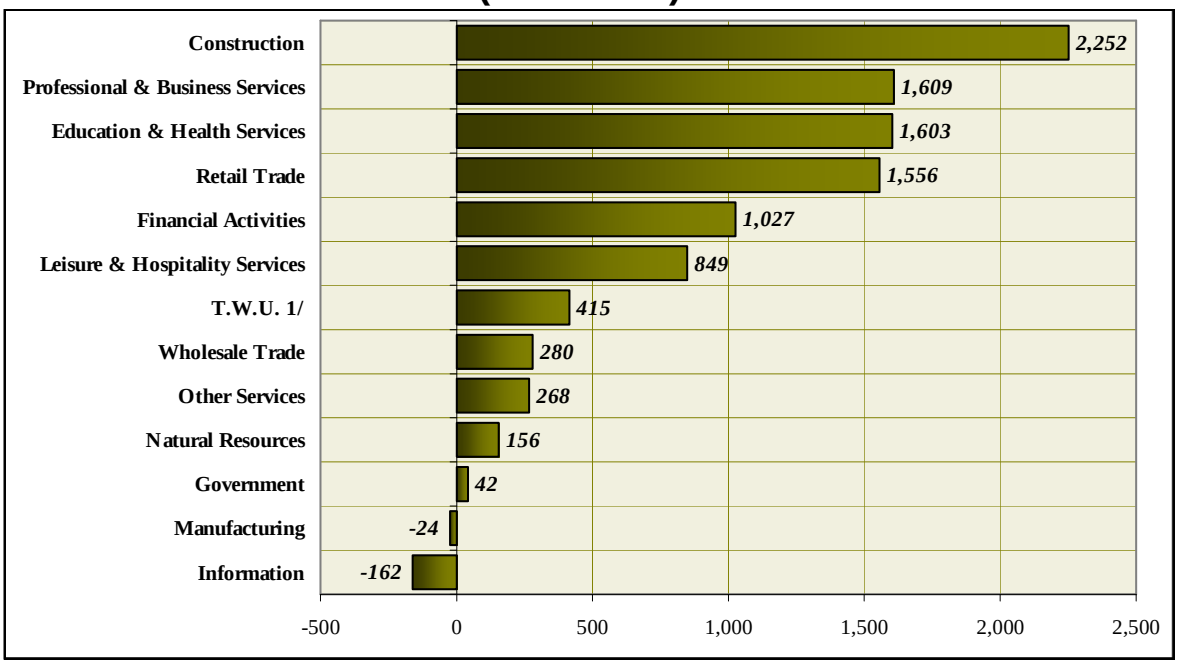


SOURCE: Oregon Employment Department (OLMIS)

The largest sectors of the Jackson County economy roughly mirror sector rankings at the State and Regional levels. However, the County diverges widely within some sectors. Most notably, Retail Trade in Jackson County accounts for roughly 17.4% of industry employment, significantly above the 15% in Southern Oregon and 11.5% statewide. This finding is implicitly a testament to Medford's position as a regional economic hub serving a four-county region. Conversely, Jackson County has a much smaller share of employment concentrated in Manufacturing (8.4% vs. 11.1% regionally) and Government (14.2% vs. 17.3% regionally).

Over the past five years only two sectors in Jackson County have failed to experience net economic growth as measured by employment. They are Manufacturing, with 24 fewer jobs and Information, with 162 fewer jobs). Among growth sectors, the housing boom fueled growth in construction employment which added more than 2,250 jobs or 61%. The next five growth industries are service oriented sectors which collectively created 6,643 new jobs in Jackson County since 2002.

FIGURE 6: EMPLOYMENT GROWTH BY INDUSTRY, JACKSON COUNTY (2002-2007)



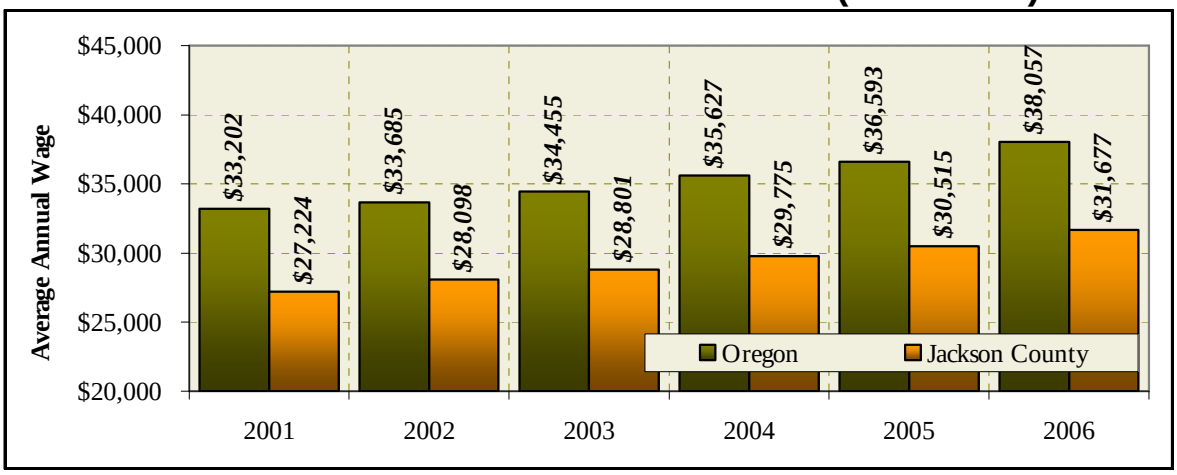
1/ Transportation, Warehousing, & Utilities
SOURCE: Oregon Employment Department (OLMIS)

WAGES

With the exception of Natural Resources, Retail Trade, and Education & Health Services, average wage levels by sector in Jackson County are significantly below wage levels statewide. Across all industries, Jackson County wages averaged $31,677, again 16.8% below the $38,057 Oregon average. Since 2001, wage levels in Jackson County have averaged 3.1% annual growth, slightly out pacing 2.8% annual growth at the State level.

In Jackson County, the highest paid industry sector is Transportation, Warehousing and Utilities ($39,738), closely followed by Information ($39,405) and Wholesale Trade ($39,190). The lowest paid industries are Leisure & Hospitality ($14,639) and Other Services ($20,564).

FIGURE 7: AVERAGE ANNUAL WAGE GROWTH (2001-2006)



SOURCE: Oregon Employment Department (OLMIS)

OTHER FACTORS FOR ECONOMIC DEVELOPMENT POTENTIAL

In addition to the economic indicator wage data analyzed in the Economic Element, other factors provide insight into the City's economic development potential. These factors, together with their challenges and opportunities, are discussed briefly below:

- **Amenity Values**: In land use planning parlance, amenity values are encompassed in the concept of *livability.* The term livability is rarely, if ever, used in economic terms. But amenity values are often characterized in the field of Economics and Economic Geography because amenity values have real economic consequences. For example, Jackson, Wyoming is located in a remote area and has few of the typical economic assets required for a vibrant economy. It does, however, have high amenity values that translate into a vibrant economy (Teton County has a median household income of $59,568 compared to $38,481 in Jackson County). Amenity values are qualitative and subjective in nature, which can make them challenging to effectively characterize in quantitative economic terms. But their real economic consequences make them worth identifying. Medford and the greater Southern Oregon Region have a number of amenity values that create potential for economic opportunities, including but not limited to:
  - ◊ *Excellent fishing and recreation activities on the Rogue River and Applegate River*
  - ◊ *Excellent mix of City, County, State and National Parks*
  - ◊ *The Bear Creek Greenway*
  - ◊ *Pleasant climate*
  - ◊ *Several fine golf courses*
  - ◊ *Pear Blossom Festival and Medford Cruise*
  - ◊ *Arts and Entertainment including the Medford Jazz Jubilee, Art in Bloom, the Rogue Valley Symphony, the Rogue Valley Chorale, Craterian Theater performances, the Shakespeare Festival and the Britt Festival*
  - ◊ *Mt. Ashland Ski Area*
  - ◊ *Beautiful mountain valley scenery.*

- **Production Inputs** (Non-Labor): In the past, major manufacturing in Jackson County has depended on a predictable and adequate supply of timber. Federal land management practices have changed since that time and have reduced the available supply of raw materials to the timber industry. Some efforts are underway to increase the viability of

small diameter timber as an industrial supply source for wood products. Small diameter timber is more readily available and could reinvigorate the timber industry by the addition of a material supply source that is not economically viable at this time.

The expanding wine industry is adding a significant new source of raw materials to the production processes in Jackson County. The region now produces products from boutique specialty wines to wine byproducts that can be refined into other food products.

Medford is expected to have access to an adequate supply of electricity and natural gas, both of which are considered relatively inexpensive as compared to the rest of the country. Recent trends in the energy industry and government initiatives regarding energy development and conservation present some new opportunities for the City of Medford and the region. Permit applications have been submitted for a new natural gas pipeline that would cross the northern portion of the County. The completion of this pipeline would provide new opportunities for industry to utilize this high-volume energy supply source. Also, there are a number of energy trust tax credits and other incentives that support a growing solar energy industry.

- **Economic Development Support Organizations:** The City has established an Economic Development Office to provide retention and expansion assistance to the local community, as well as support for new businesses. This Office provides one point of contact for development issues and inquiries.

  Southern Oregon Regional Economic Development Incorporated (SOREDI) is a non-profit organization formed in 1987 as a two-county organization (Jackson and Josephine) to cooperatively promote economic development activities. SOREDI is funded by local private and public monies. It is operated by a director and a small support staff, with a board of directors responsible for policy development. The director coordinates, implements and responds to the board of directors' marketing plan and organization mission for economic development activities.

  The Medford Urban Renewal Agency was formed in 1988 for the purpose of revitalizing the downtown core. The urban renewal area includes about 577 acres. The renewal agency's major project during the planning horizon is The Commons, a project that may contain Lithia's corporate headquarters, along with a mix of residential, retail and office uses. The agency has already experienced success in its façade improvement programs and has added significant parking capacity to the downtown core.

  The Chamber of Medford and Jackson County is the largest in the State of Oregon and is active in a variety of community affairs ranging from commercial development to tourism. The Chamber's mission is promoting growth and prosperity for community commercial and industrial endeavors. Local government agencies often call upon Chamber members to participate in community development issues and policy making. The Chamber is primarily composed of community business owners.

- **Environmental Constraints**: Future industrial development may be constrained by the inability of the City's air shed to tolerate additional contributors to air pollution. Medford is within a non-attainment area, a geographical area designated by the State as not meeting federal ambient air quality standards. The problem is particularly severe in the winter months when there is a strong tendency toward temperature inversions, which trap stagnant air in the valley. Carbon monoxide and particulate matter under 10 microns in size (PM10)

are the two pollutants targeted by health officials for adversely impacting public health in the valley. In the near future, additional regulations that restrict particulate matter under 2.5 microns in size (PM 2.5) will also be targeted.

The Department of Environmental Quality administers the Rogue Valley Air Quality Maintenance Area (AQMA) plan to address the region's non-attainment for air quality. This plan includes strict rules regarding new point source emissions and requires industrial activities to upgrade pollution control devices as required by amendments to the 1990 Clean Air Act. These pollution control requirements apply nationwide; therefore, there is no relative additional cost to industry in Jackson County. Even though pollution by these industries has been reduced, the air shed cannot tolerate additional emissions; therefore, any new industry coming into the area which emits over 5 tons/year of particulate matter must find a way to offset the emissions through the Title V permit process.

Stream flow and ground water pollutants are not as problematic in the City, as in other parts of the county. In any event, the DEQ enforces state and federal laws to ensure that acceptable recognized levels of pollution are not exceeded. Since effluent guidelines are set by the federal government, the only additional relative costs to an industry locating in Jackson County would be those associated with sewer system pretreatment standards set by the City.

- **Educational and Technical Training Programs:** Several institutions located in and around Medford provide educational and skills training, most notably Southern Oregon University and Rogue Community College. Rogue Community College (RCC) is an active vocational institution located in Medford and Grants Pass. RCC offers more than 50 different two-year degree and one-year certificate programs. Vocational programs at RCC include training in art, automotive technology, accounting, business, computer science, criminal justice, electronics, nursing, office administration, manufacturing, and human services.

  Southern Oregon University (SOU) is located in Ashland, about 15 miles south of Medford. SOU is a liberal arts institution. The seven schools span a wide range of disciplines and include 28 departments and 35 degree programs at the undergraduate and graduate levels including the M.B.A., M.S. in education and M.A. in liberal arts. The School of Fine and Performing Arts includes the departments of art, music and theater arts. The Schneider Museum of Art is also a center for the Southern Oregon arts community.

  The SOU Division of Continuing Education is designed to meet the demand for lifelong learning, including continuing professional education. The program is divided into five categories: off-campus programs (credit courses); non-credit programs; personal enrichment activities; conferences; institutes and international studies. Many of these programs are offered at the Mary Phipps Center in Medford.

  There are several organizations whose primary mission is to assess workers' skills and occupational preferences and then coordinate with the appropriate educational institution for placement in the area. One such organization is The Job Council. The Community Response Team is a coordinated effort of The Job Council, Rogue Community College and the State Employment Division. The main goal of the Community Response Team is to place workers in new industries or with new employers that are locating in the area. In the case of business failure, the Community Response Team attempts to either place workers in other jobs or direct them to training programs. The Job Council is also active in a

vocational rehabilitation program that mainstreams mildly disabled people in the work place. Another resource is The Jobs Advisory Board, formed by members from the State Adult and Family Services Division, Rogue Community College, and the State Employment Division for the purpose of placing welfare recipients.

COMPETITIVE POSITION AND TARGET INDUSTRY OPPORTUNITIES

In 2003, E.D. Hovee analyzed regional competitive position on a county-wide basis (For the details of this analysis, refer to Hovee 2003). The study first analyzed regional competitiveness because economic development opportunities available to Medford result in part from the region's overall competitiveness in attracting industries relative to other regions nationwide. Jackson County's competitive advantages were studied by applying a series of screening criteria to identified industry sectors.

Five sets of screening criteria were developed:

1. *Current and changing competitive position of the industry relative to the nation*
2. *Worker productivity and change in productivity over time*
3. *Percent of Output Value-Added (More than 50% is viewed as most desirable)*
4. *An employment multiplier above 2.0, meaning that at least two jobs are supported in the local economy for every new job directly created within the employment sector in question.*
5. *Wage levels including changes over time relative to other industries in the local area*

Nine industries met four of the five criteria. Taken together, one-fifth of the industrial sectors portrayed Jackson County as being strongly competitive. Industries meeting four or more criteria included:

- *Mining*
- *Construction*
- *Lumber and Wood*
- *Stone, Glass and Concrete*
- *Electronic Equipment*
- *Instruments*
- *Trucking and Warehousing*
- *Security and Commodity*
- *Real Estate*
- *Health Care*

Hovee extended the county-wide analysis to compare Medford's competitive position within the region and with the greater US economy. Similar to the regional analysis, the Medford specific analysis utilized a location quotient calculation to identify competitiveness. Based upon this analysis, Medford's competitive advantage employment opportunities can be divided into three tiers:

Tier 1 Tier 1 represents industries for which Medford is in the best position to realize opportunities due to its current and growing competitive advantage relative to other areas nationwide.

Tier 2 Industries in Tier 2 constitute employment sectors for which Medford has a current but eroding competitive position or sectors where Jackson County may be competitive but represents more of a challenge to Medford.

Tier 3 Tier 3 comprises sectors for which Medford is competitive relative to Jackson County, but is not competitive outside the Southern Oregon region.

TIER 1 **BEST POSITION**	**TIER 2** **STRONG BUT CHALLENGING**	**TIER 3** **LOCALLY COMPETITIVE**
Instruments	Mining	Food Products
Transit	Construction	Transportation Equipment
Transportation Services	Lumber & Wood	Air Transportation
Communications	Printing & Publishing	Wholesale Trade
Retail Trade	Stone, Glass & Concrete	Insurance Carriers
Banking	Electronic Equipment	Insurance Agents & Brokers
	Trucking & Warehousing	Business Services
	Electric, Gas & Sanitation	Legal Services
	Security & Commodity	*Leisure and Hospitality Services*
	Real Estate	
	Health Care	

As noted, Tier 1 industries represent the best opportunities for economic growth and diversification. Tier 2 and 3 sectors also are also important components of Medford's Economic Opportunities, but these sectors may require more local initiative to market the opportunities available. Both Tier 2 and 3 industries will be particularly affected by policies and strategies Medford employs to maintain a competitive industrial and commercial land base.

The analysis performed by Hovee of identify target industries in Medford was reviewed, but not replicated by Johnson-Gardner as part this Economic Opportunities Analysis. This review indicated that the sectors identified by Hovee still appear prevalent. However, Leisure and Hospitality Services was added as a Target Industry Opportunity. Medford has recently experienced significant hotel construction activity and 849 jobs have been added in this sector from 2002-2007. For these reasons, this sector has been added to target industry opportunities for the City.

REGIONAL & LOCAL SUMMARY

- As the prevailing economic and demographic hub of the Southern Oregon Region, Medford has economic trends and conditions that will direct the course of the regional economy in the foreseeable future. Relative to the surrounding region, the City maintains a younger demographic base, particularly individuals under the age of 19. This finding is important from an Economic Development perspective. Younger individuals will begin to enter the workforce in greater numbers. Failure to nurture entry-level employment and training resource opportunities could result in a "brain drain" condition locally.

- As evidenced by the previous two economic cycles, the Southern Oregon region has proven to be more susceptible to economic volatility. In other words, economic weakness at the national or state level is likely to be realized regionally to a greater degree. However, in recent years, the benefits of economic diversity in Jackson County have resulted in more measured economic movement locally.

- Across all sectors, wage levels in Jackson County are well below the statewide average. Low relative wage levels simultaneously increase the incentive for qualified workers to relocate as well as provide a disincentive for new workers.

IV. EMPLOYMENT FORECAST

A. INTRODUCTION

This analysis updates the employment forecasts within the City of Medford's Urban Growth Boundary. The employment forecasts were generated through 2028. The primary source of data on current employment patterns was derived from the State of Oregon Employment Department's ES-202 reports.

B. ANTICIPATED REGIONAL GROWTH

Figure 8 outlines the State of Oregon's most recent employment growth forecast for Region 8, which includes Jackson and Josephine Counties. The State's outlined growth rates were used as baseline estimates to forecast the rate of employment growth by industry in this analysis.

- *Over the forecast period (2006–2016), the region's employment growth is projected to average 1.5% across all industries.*

- *The Education & Health (2.6% AAGR) and Professional & Business (1.9% AAGR) sectors are expected to display accelerated growth at the regional level during the period. Only modest rates of growth are expected in the Natural Resources (0.2% AAGR), Manufacturing (0.7% AAGR) and Public Administration (0.7% AAGR) sectors.*

- *Modest projected growth in the Manufacturing sector reflects anticipated declines in many traditional industries, offset by expansion in other manufacturing firms. While current operations may decline in employment, a commensurate decline in land utilization is not anticipated, as these firms are not expected to reduce property needs.*

FIGURE 8: EMPLOYMENT PROJECTIONS, REGION 8 (JACKSON & JOSEPHINE COUNTIES)

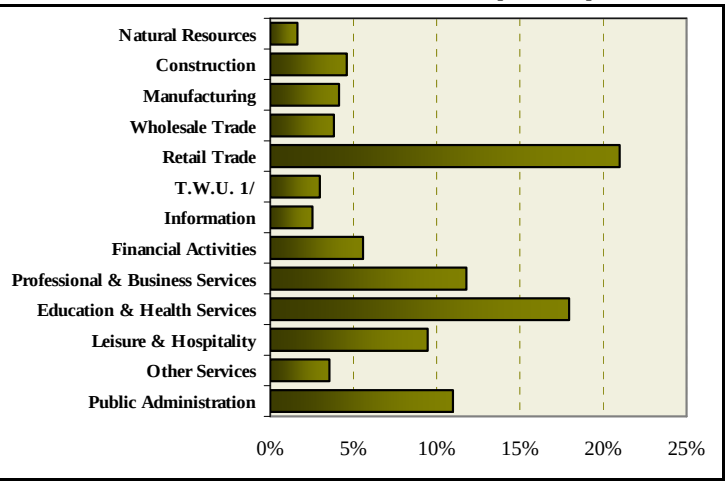
NAICS	Region 8 Employment 2006	Region 8 Employment 2016	Avg. Annual Growth Rate
Natural Resources	980	1,000	0.2%
Construction	7,590	8,800	1.5%
Manufacturing	10,420	11,220	0.7%
Wholesale Trade	3,540	3,950	1.1%
Retail Trade	18,300	21,160	1.5%
T.W.U.	3,200	3,630	1.3%
Information	2,010	2,170	0.8%
Financial Activities	6,090	6,870	1.2%
Professional & Business	9,580	11,550	1.9%
Education & Health	15,730	20,250	2.6%
Leisure & Hospitality	12,120	14,580	1.9%
Other Services	3,800	4,310	1.3%
Public Administration	15,530	16,590	0.7%
TOTAL	***108,890***	***126,080***	***1.5%***

SOURCE: Oregon Employment Department

Current employment within the Medford UGB is concentrated in the Retail Trade (21.0%), Education & Health Services (18.0%), Professional and Business Services (11.8%) and Public Administration (11.0%) sectors. The employment distribution is consistent with the City's position as the services hub for much of Southern Oregon and Northern California.

FIGURE 9: COVERED EMPLOYMENT BY INDUSTRY, MEDFORD UGB* (2006)

NAICS Industry	Employment Level Jobs	Employment Level % Dist
Natural Resources	829	1.6%
Construction	2,331	4.6%
Manufacturing	2,094	4.1%
Wholesale Trade	1,940	3.8%
Retail Trade	10,639	21.0%
T.W.U. 1/	1,518	3.0%
Information	1,291	2.5%
Financial Activities	2,833	5.6%
Professional & Business Services	5,971	11.8%
Education & Health Services	9,105	18.0%
Leisure & Hospitality	4,797	9.5%
Other Services	1,805	3.6%
Public Administration	5,562	11.0%
TOTAL	***50,713***	***100.0%***



1/ Transportation, Warehousing, & Utilities

SOURCE: Oregon Employment Department, ES-202 local data set

*UGB stands for Urban Growth Boundary, *see Statewide Planning Goal 14 for further information*

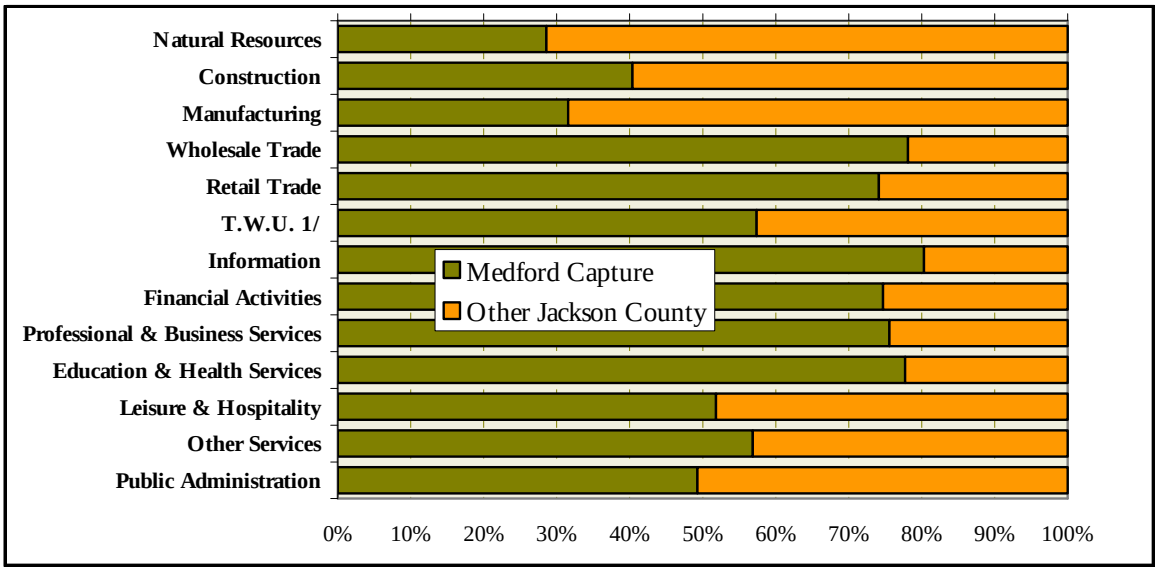
The City accounts for 60.7% of all employment in Jackson County, with dominant shares in the service and trade sectors (Figure 10).

FIGURE 10: LOCAL CAPTURE OF JACKSON COUNTY EMPLOYMENT, MEDFORD UGB (2006)

NAICS Industry	Employment Level		Medford
	Medford UGB	Jackson County	Capture
Natural Resources	829	2,898	28.6%
Construction	2,331	5,775	40.4%
Manufacturing	2,094	6,628	31.6%
Wholesale Trade	1,940	2,483	78.1%
Retail Trade	10,639	14,350	74.1%
T.W.U. 1/	1,518	2,645	57.4%
Information	1,291	1,608	80.3%
Financial Activities	2,833	3,792	74.7%
Professional & Business Services	5,971	7,903	75.6%
Education & Health Services	9,105	11,713	77.7%
Leisure & Hospitality	4,797	9,257	51.8%
Other Services	1,805	3,173	56.9%
Public Administration	5,562	11,286	49.3%
TOTAL	***50,713***	***83,511***	***60.7%***

1/ Transportation, Warehousing, & Utilities
SOURCE: Oregon Employment Department

FIGURE 11: MEDFORD SHARE OF JACKSON COUNTY EMPLOYMENT



1/ Transportation, Warehousing, & Utilities
SOURCE: Oregon Employment Department

Figure 9 reports covered employment, which reflects wage and salary employees who are covered under unemployment insurance. It does not reflect sole proprietors, officers of corporations or seasonal farm workers. Covered employment was converted to total employment shown in Figure 10. Medford's capture of the regular share of employment is depicted numerically in Figure 12 and graphically in Figure 11, using a data set for the State of Oregon and Jackson County derived from the U.S. Bureau of Economic Analysis (BEA).

FIGURE 12: CONVERSION OF COVERED EMPLOYMENT TO TOTAL EMPLOYMENT, MEDFORD UGB (2006)

NAICS	Covered Employment	Covered Share of Total Employment 1/	Total Employment
Natural Resources	829	82.1%	1,009
Construction	2,331	58.2%	4,008
Manufacturing	2,094	84.8%	2,468
Wholesale Trade	1,940	81.5%	2,379
Retail Trade	10,639	80.7%	13,191
T.W.U.	1,518	74.2%	2,047
Information	1,291	81.7%	1,580
Financial Activities	2,833	41.5%	6,818
Professional & Business	5,971	59.6%	10,023
Education & Health	9,105	71.5%	12,726
Leisure & Hospitality	4,797	78.3%	6,128
Other Services	1,805	43.1%	4,191
Public Administration	5,562	100.0%	5,562
TOTAL	***50,713***	***70.3%***	***72,130***

1/ Data from the Bureau of Economic Analysis for 2006, the most recent year complete data is available. Assumptions displays the percent of total wage and salary (covered) employment to total nonfarm employment in Jackson County.
SOURCE: Oregon State Employment Department, U.S. Bureau of Economic Analysis, and JOHNSON GARDNER

The 2006 employment totals derived from the ES-202 data and revised to include non-covered employment were converted to 2008 estimates based on available interim estimates of growth in the area.

FIGURE 13: CONVERSION TO 2008 BASE YEAR EMPLOYMENT ESTIMATE, MEDFORD UGB

NAICS	2006 Total Employment 1/	Short Term Annual Growth Assumption 2/	2008 Total Employment Estimate
Natural Resources	1,009	-1.0%	989
Construction	4,008	0.9%	4,084
Manufacturing	2,468	3.3%	2,636
Wholesale Trade	2,379	3.6%	2,554
Retail Trade	13,191	1.5%	13,578
T.W.U.	2,047	2.6%	2,154
Information	1,580	0.3%	1,589
Financial Activities	6,818	0.7%	6,909
Professional & Business	10,023	0.4%	10,101
Education & Health	12,726	2.1%	13,260
Leisure & Hospitality	6,128	3.8%	6,598
Other Services	4,191	1.9%	4,351
Public Administration	5,562	-0.2%	5,538
TOTAL	***72,130***	***1.5%***	***74,340***

1/ From Figure 4
2/ Based on 2006 to 2007 realized growth trend in the Current Employment Survey, Bureau of Labor Statistics. Growth rate revised for 2007-2008 growth year to reflect anticipated slowing in the national and regional economy.

Figure 13 presents a forecast of total employment within the Medford UGB between 2008 and 2028. The baseline forecast utilizes the State of Oregon's projected growth rates by sector over the next decade, and applies these rates of growth to the estimated current employment distribution within the Medford UGB. Two additional forecasts are also generated, referred to as the high and low growth scenarios. While a final reconciliation of need will be based on the baseline projection, it should be noted that employment forecasts are speculative, particularly over a twenty year horizon.

As shown, the baseline employment forecast anticipates an increase of 29,912 jobs, reflecting an average annual growth rate of 1.7%. The high growth scenario projects an increase of 35,404 jobs (2.0% AAGR), while the low growth scenario projects 23,871 new jobs (1.4% AAGR). Education & Health Services, Professional Services and Retail Trade are expected to account for over 61.7% of net new growth over the forecast period. Leisure & Hospitality and Financial Activities are expected to account for an additional 18.6%.

FIGURE 14: EMPLOYMENT FORECAST, MEDFORD UGB (2008-2028)

Baseline Forecast	Base Year	Employment Forecast				2008-2028 Growth	
NAICS	2008	2013	2018	2023	2028	Jobs	AAGR
Natural Resources	989	999	1,009	1,019	1,029	41	0.2%
Construction	4,084	4,441	4,829	5,251	5,711	1,626	1.7%
Manufacturing	2,636	2,735	2,838	2,945	3,056	420	0.7%
Wholesale Trade	2,554	2,752	2,965	3,194	3,441	887	1.5%
Retail Trade	13,578	14,601	15,700	16,883	18,154	4,576	1.5%
T.W.U.	2,154	2,294	2,443	2,602	2,771	618	1.3%
Information	1,589	1,651	1,716	1,783	1,852	263	0.8%
Financial Activities	6,909	7,411	7,949	8,526	9,146	2,237	1.4%
Professional & Business	10,101	11,201	12,420	13,772	15,270	5,169	2.1%
Education & Health	13,260	15,044	17,070	19,367	21,975	8,715	2.6%
Leisure & Hospitality	6,598	7,308	8,094	8,965	9,930	3,332	2.1%
Other Services	4,351	4,634	4,935	5,256	5,597	1,246	1.3%
Public Administration	5,538	5,724	5,916	6,114	6,320	782	0.7%
TOTAL	***74,340***	***80,793***	***87,883***	***95,677***	***104,252***	***29,912***	***1.7%***

High Growth Forecast 1/	Base Year	Employment Forecast				2008-2028 Growth	
NAICS	2008	2013	2018	2023	2028	Jobs	AAGR
Natural Resources	989	1,000	1,012	1,024	1,036	47	0.2%
Construction	4,084	4,497	4,951	5,451	6,002	1,918	1.9%
Manufacturing	2,636	2,750	2,869	2,994	3,124	489	0.9%
Wholesale Trade	2,554	2,783	3,031	3,302	3,598	1,043	1.7%
Retail Trade	13,578	14,759	16,043	17,439	18,956	5,377	1.7%
T.W.U.	2,154	2,315	2,489	2,676	2,877	724	1.5%
Information	1,589	1,661	1,736	1,814	1,895	306	0.9%
Financial Activities	6,909	7,488	8,117	8,798	9,536	2,627	1.6%
Professional & Business	10,101	11,374	12,806	14,419	16,235	6,134	2.4%
Education & Health	13,260	15,328	17,719	20,483	23,679	10,419	2.9%
Leisure & Hospitality	6,598	7,419	8,343	9,382	10,550	3,952	2.4%
Other Services	4,351	4,677	5,028	5,405	5,811	1,460	1.5%
Public Administration	5,538	5,752	5,974	6,205	6,445	908	0.8%
TOTAL	***74,340***	***81,804***	***90,119***	***99,393***	***109,743***	***35,404***	***2.0%***

Low Growth Forecast 2/	Base Year	Employment Forecast				2008-2028 Growth	
NAICS	2008	2013	2018	2023	2028	Jobs	AAGR
Natural Resources	989	997	1,005	1,014	1,022	34	0.2%
Construction	4,084	4,377	4,691	5,027	5,387	1,303	1.4%
Manufacturing	2,636	2,717	2,802	2,888	2,978	342	0.6%
Wholesale Trade	2,554	2,716	2,889	3,072	3,268	713	1.2%
Retail Trade	13,578	14,418	15,309	16,255	17,260	3,681	1.2%
T.W.U.	2,154	2,269	2,390	2,518	2,652	499	1.0%
Information	1,589	1,640	1,693	1,747	1,804	214	0.6%
Financial Activities	6,909	7,321	7,757	8,220	8,710	1,801	1.2%
Professional & Business	10,101	11,002	11,983	13,051	14,214	4,112	1.7%
Education & Health	13,260	14,719	16,339	18,137	20,134	6,874	2.1%
Leisure & Hospitality	6,598	7,179	7,812	8,500	9,250	2,652	1.7%
Other Services	4,351	4,583	4,828	5,085	5,357	1,006	1.0%
Public Administration	5,538	5,691	5,848	6,010	6,176	638	0.5%
TOTAL	***74,340***	***79,629***	***85,345***	***91,525***	***98,210***	***23,871***	***1.4%***

1/ High Growth Scenario assumes Medford's continued growth in share of Jackson County employment, exceeding region growth rates by 15%.

2/ Low Growth Scenario assumes Medford rate of growth is 82.5% of the baseline projection.

V. EMPLOYMENT LAND NEEDS ANALYSIS AND REQUIRED SITE TYPES

A. INTRODUCTION

This section summarizes the projected need for commercial and industrial land associated with the employment projections through 2028. Results are followed by a description of the methodology employed by JOHNSON GARDNER and CSA Planning to project the need for commercial and industrial space, and subsequently, commercial and industrial land.

Determining the City's required site types involves qualitative and quantitative analysis. The qualitative analysis describes the site characteristics expected to be demanded by firms during the planning period. There are three components to the quantitative analysis. The first describes the types of firms likely to locate in the City of Medford during the planning period. This component was completed through the target industry opportunities analysis completed in 2003 and incorporated into the Comprehensive Plan in October 2006. The second component involves projections of employment. These employment projections were summarized in the previous section. The third component combines these employment projections with the qualitative component of the site requirements analysis to project the demanded number of sites. The site requirements analysis completes the analysis of the land demand side of the Economic Element.

B. SUMMARY OF INDUSTRIAL AND COMMERCIAL LAND NEED FINDINGS

The results summarized in Figure 15 highlight projections of net new demand within the Medford UGB for commercial and industrial land between 2008 and 2028. Over the next twenty years, net new demand for commercial and industrial land is expected to range from 1,155 to 1,644 net buildable acres, contingent upon Medford's realized growth pattern through 2028. The "Medium Growth Scenario" indicates that Medford can expect aggregate commercial and industrial land need in the vicinity of 1,383 acres through 2028; additional acreage may be necessary to accommodate particular numbers and types of sites expected to be demanded.

FIGURE 15: PROJECTED AGGREGATE NEED FOR COMMERCIAL AND INDUSTRIAL LAND
MEDFORD UGB (NET BUILDABLE ACRES)

Use Type	Need For Land (Acres) By Scenario: Medium Growth	High Growth	Low Growth
OFFICE COMMERCIAL	**340.6**	**403.3**	**271.6**
INDUSTRIAL	**400.8**	**470.9**	**322.6**
RETAIL COMMERCIAL	**396.7**	**487.1**	**360.0**
CITY RESIDENTS	201.8	247.8	183.1
REGION/TOURISTS 1/	194.9	239.3	176.9
OVERNIGHT LODGING	***25.8***	***30.6***	***20.6***
SPECIALIZED USES 2/	***219.5***	***252.5***	***181.1***
TOTAL	***1,383.4***	***1,644.4***	***1,155.9***

1/ Based on current ratios between locally supported and total sales, CE Survey from the BLS and Census of Retail Trade.

2/ Hospitals, Clinics, etc. for employment not otherwise categorized.

These projections reflect ***net*** developable land, required only for building and impervious surface space requirements. Roads, rights-of-way, parks and public facilities, among other things necessary to serve projected land development, are not included. While the methodology is not based on a set density per acre assumption, the output reflects the following average jobs per net acre by broad land employment development categories.

AVERAGE JOBS/NET ACRE	
OFFICE COMMERCIAL	37.9
INDUSTRIAL	8.9
RETAIL COMMERCIAL	19.2
OVERNIGHT LODGING	10.9
SPECIALIZED USES 2/	20.0

In aggregate, the forecasts reflect a moderation in the pace of demand over the next twenty years, consistent with the moderation in employment forecasts. The following table compares the space developed during the 1990 through 2002 period with average projected space needs through 2028.

LAND USE TYPE	Avg/90-2002	Avg/08-2028
Industrial Space	304,984	223,582
Office/Commercial	65,210	157,176
Retail Commercial	344,505	216,000
Overnight Lodging/Specialized		147,674
Total	714,699	744,432

The forecast reflects an expectation that a significantly greater share of future employment space needs will be office/commercial development in the Medford area. In addition to projecting aggregate commercial and industrial needs, LCDC's Goal 9 rule also requires the City of Medford to project the demanded number of sites by type. This has been done according to the ratio of existing acreages and a typical site size and is provided below.

FIGURE 16: PROJECTED ACRES AND NUMBER OF REQUIRED SITES BY TYPE

Demand by Development Pattern						Planning Horizon		
			Number of Sites			Acres		
		Typical Acreage	Medium	High	Low	Medium	High	Low
Office	Large	5.00	9	11	8	47	56	38
	Medium	1.50	55	65	44	83	98	66
	Small	0.45	468	554	373	211	250	168
Industrial	Large	30.00	3	4	3	103	121	83
	Medium	6.00	21	25	17	126	148	102
	Small	1.50	114	135	92	172	202	138
Commercial	Large	20.00	7	8	5	134	158	108
	Medium	4.50	31	37	25	140	164	112
	Small	0.75	163	220	186	123	165	139

In addition to the demand for actual sites, the need for public rights of way and infrastructure must be estimated in order to project the total amount of land that would be required in the event the Urban Growth Boundary were expanded to provide land for needed employment sites. The DLCD Goal 9 guidebook recommends 25% for cities that would largely be extending infrastructure into new areas to serve new development. This would be the predominant pattern for the City of Medford for lands outside the UGB and so Figure 16 converts the acreages in above Figure 15 to net buildable land demand by category. Figure 17 projects the total gross land demand for the City of Medford UGB.

FIGURE 17: PROJECTED AGGREGATE NEED FOR COMMERCIAL AND INDUSTRIAL LAND
MEDFORD UGB (GROSS ACRES)

Use Type	Need For Land (Acres) By Scenario: Medium Growth	High Growth	Low Growth
OFFICE COMMERCIAL	**425.7**	**504.1**	**339.5**
INDUSTRIAL	**501.0**	**588.7**	**403.2**
RETAIL COMMERCIAL	**495.9**	**608.8**	**450.0**
CITY RESIDENTS	252.3	309.7	228.9
REGION/TOURISTS 1/	243.6	299.1	221.1
OVERNIGHT LODGING	**32.3**	**38.3**	**25.7**
SPECIALIZED USES 2/	**274.4**	**315.6**	**226.4**
TOTAL	***1,729.3***	***2,055.5***	***1,444.8***

1/ Based on current ratios between locally supported and total sales, CE Survey from the BLS and Census of Retail Trade.

2/ Hospitals, Clinics, etc. for employment not otherwise categorized.

C. INDUSTRIAL & OFFICE LAND NEED METHODOLOGY

Demand for industrial and office commercial land is a direct function of employment growth in industrial sectors that occupy this type of space. As a result, our projections of industrial and office demand are based on forecasted employment growth by the industrial sector within the City of Medford. Methodology for forecasting need for industrial and office commercial land follow a standard, multi-step process, summarized below. A number of appendices are referenced, which are found in the Technical Appendices at the end of the EOA document.

DEMAND FOR OFFICE BUILDING SPACE

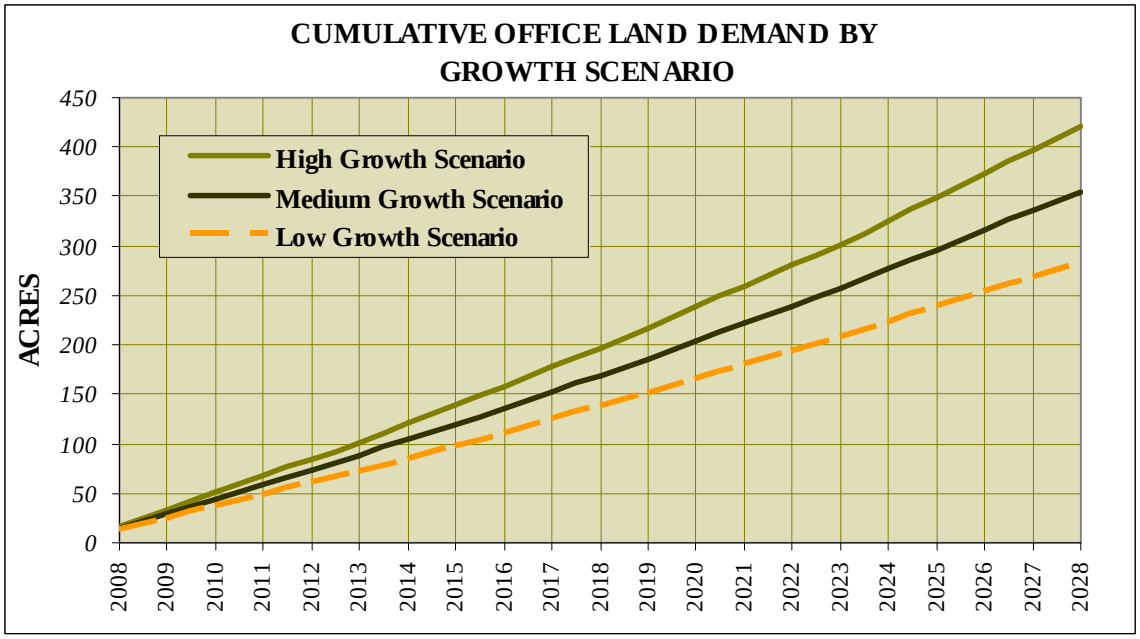
Sector employment growth for each of the three economic scenarios is converted into growth in office employment based on typical percentages of jobs, or capture factors, by sector that will be located in office development rather than industrial development. Employment density ratios, which is the average space in square feet necessary per office job, were utilized to calculate total office space demand given projected employment growth. Ratios and densities utilized are from the Urban Land Institute.

[EOA Technical Appendix A and B]

DEMAND FOR OFFICE COMMERCIAL LAND

Demand for office land is a conversion of demand for space by an office floor area ratio (FAR). FAR is defined as the gross leasable building area divided by the buildable land area used. For example, a 5,000 square foot office building on a 10,000 square foot site would be an example of a 0.50 FAR. For projections under each of the three Medford economic scenarios, JOHNSON GARDNER assumed a relatively conservative 0.30 FAR. While surface parked office space can be produced at a FAR up to 0.50, the historic pattern in Jackson County has included more single story structures at a substantially lower ratio.

FIGURE 18: CUMULATIVE OFFICE LAND DEMAND BY SCENARIO



DEMAND FOR INDUSTRIAL BUILDING SPACE

Medford industry employment growth for each of the three economic scenarios is converted into growth in industrial employment based on typical percentages of employment by sector that will be located in industrial space. Employment is then further stratified by type of space, including warehouse/distribution, general industrial and high-tech/flex space. Finally, employment density ratios, calculated as average square feet of space necessary per industrial job, were utilized to calculate total space demand by industrial space type given projected employment growth. These ratios and densities are based on industry standards.

[EOA Technical Appendices D, E and F]

DEMAND FOR INDUSTRIAL LAND

Demand for industrial land is a conversion of demand for space by floor area ratios (FARs) by industrial development type and the addition of non-industrial use demand for industrial land typical of business park space. Projections utilize the following FARs:

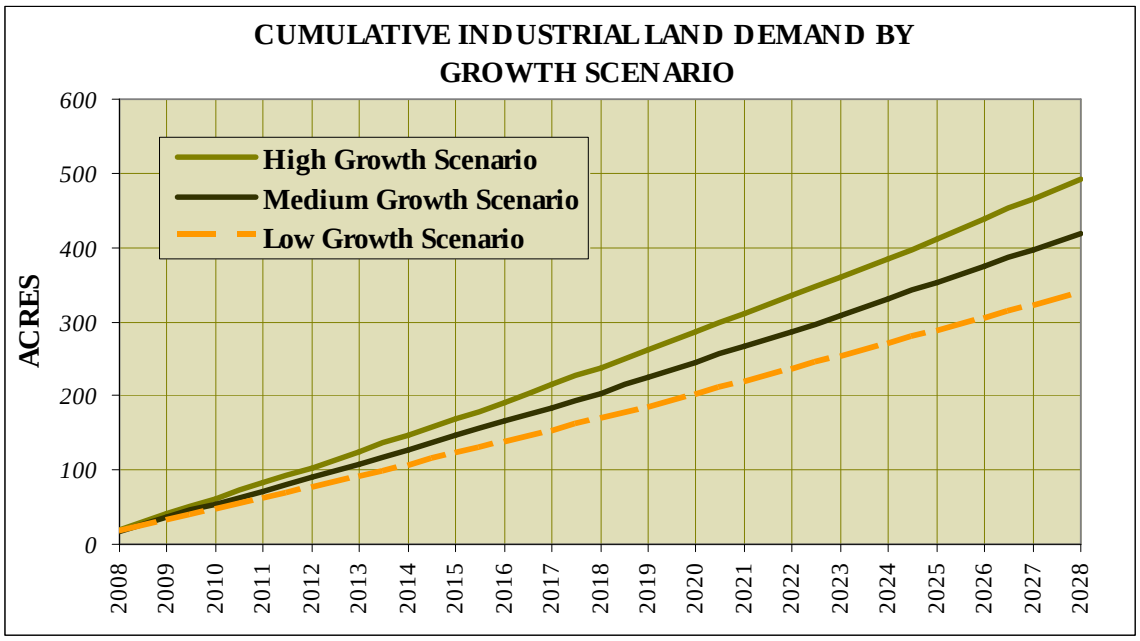
- *Warehouse/Distribution:* 0.31
- *General Industrial:* 0.30; and
- *High-Tech/Flex:* 0.26

Second, a 20% non-industrial use demand for land was assumed for industrial land projections.[6]

[EOA Technical Appendix G and H]

[6] Non industrial uses in industrial districts include office space as well as support retail.

FIGURE 19: CUMULATIVE INDUSTRIAL LAND DEMAND BY SCENARIO



D. RETAIL COMMERCIAL LAND NEED METHODOLOGY

Unlike industrial and office commercial land need, retail land need is a direct function of households moving into Medford, typical spending patterns of those households and visitor/tourist spending. Methodology for forecasting retail commercial land need is summarized below.

HOUSEHOLD GROWTH PROJECTIONS

For modeling growth in retail commercial land need driven by residential growth, JOHNSON GARDNER utilized the City's adopted population growth projections. Medium, high and low growth scenarios, and resulting household growth projections through 2028, were estimated as follows:

- Medium Growth Scenario: Assumes population growth rate of 2.0% annually.
- High Growth Scenario: Assumes population growth rate of 2.2% annually.
- Low Growth Scenario: Assumes population growth rate of 1.7% annually.

ESTIMATE MEDFORD CITY PER-HOUSEHOLD RETAIL SPENDING

JOHNSON GARDNER estimated per-household annual spending by retail category utilizing data derived from the US Bureau of Labor Statistics Consumer Expenditure Survey. Categories are as detailed in the North American Industry Classification System (NAICS), see EOA Figure 20.

ESTIMATE FUTURE CITY OF MEDFORD RESIDENT-DRIVEN RETAIL SALES

Future retail sales originating within the City of Medford were simply calculated as the product of future household counts under the medium, high, and low growth scenarios through 2028 and annual average retail sales by category.
[EOA Technical Appendix I]

DEMAND FOR RETAIL COMMERCIAL SPACE

Future retail sales are converted into need for developed retail space by calculating the product of future retail sales by category to a category-specific Sales Support Factor. The Sales Support Factor is the national average retail sales per square foot of space for each category of retail. Sales support factors are from the Urban Land Institute publication *Dollars & Cents*.

[EOA Technical Appendix J]

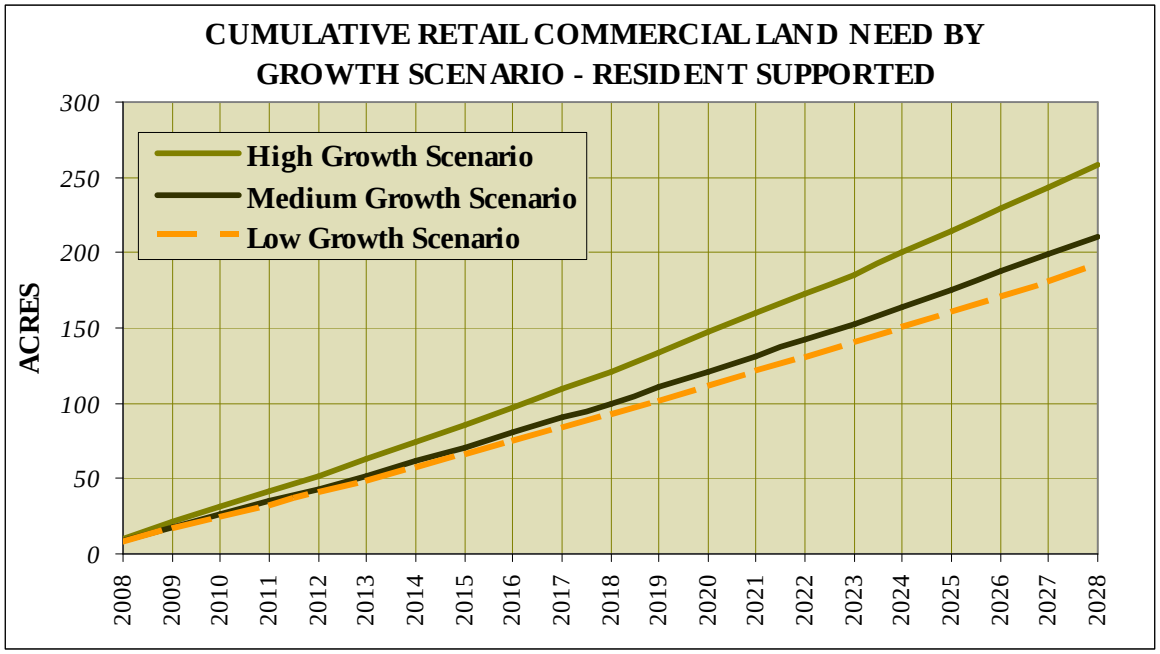
DEMAND FOR RETAIL COMMERCIAL LAND

Demand estimates for developed retail space at different time points was then converted into demand for retail commercial land by applying the industry-standard retail Floor Area Ratio (FAR) of 0.25. The FAR assumes standard suburban retail space requiring one parking space per 1,000 square feet of retail floor area.

[EOA Technical Appendix K]

Figure 20 summarizes the cumulative resident-supported need for retail commercial land under the alternative growth scenarios.

FIGURE 20: CUMULATIVE RETAIL COMMERCIAL LAND NEED BY SCENARIO, RESIDENT SUPPORTED



REGION/VISITOR SPENDING PROJECTIONS

The City of Medford's estimated retail sales exceed locally originating sales by a ratio of 2:1. This reflects the City's position as a regional commercial center, serving the broader region for many retail purchases, as well as the influence of tourist traffic. It was assumed within our analysis that this ratio would remain constant, and that regional/visitor spending would grow at an equivalent rate to locally-originating retail sales.

E. REQUIRED SITE TYPE DESCRIPTIONS

The qualitative component of the site requirements analysis identifies factors such as site sizes (acreage), loading, parking, storage, public facilities, utilities, ownership patterns, surrounding development patterns, proximity to labor, proximity to customers, access to transportation infrastructure, and other site amenities unique to the specific industry. The description of site requirements builds on the analysis done as part of the interim Economic Element update in 2006. The tables on pages 33-42 of the EOA identify typical site requirements according to four major land development pattern categories: Office; Commercial Retail; Industrial; and Campus/Institutional.

A detailed matrix of site requirements was produced and organized under the four major employment development patterns: Office; Commercial Retail; Industrial; and Campus/Institutional. The detailed matrix is included later in this section. The following table provides a general summary of the site types comprising demand.

	Building Size /SF	Typical Acreage Ranges
OFFICE		
Large	60,000-500,000+	3.5-20
Medium	12,000-70,000	0.5-3.0
Small	400-13,000	0.12-3.0
INDUSTRIAL		
Large	90,000-750,000+	20-200+
Medium	25,000-100,000	4.0-25
Small	500-30,000	0.5-5.0
COMMERCIAL		
Large	45,000-500,000+	7.0-100
Medium	12,000-50,000	3.5-15
Small	200-15,000	0.5-5

The level of specificity provided in the required site types will inform land demand and supply analyses and land use designation category development[7]. These general development pattern categories are not intended to be exhaustive, but rather are intended to capture the typical patterns observed in the market today and expected for the future[8]. By identifying and planning for typical patterns, the widest range of development patterns have been considered in an effort to analyze demand from many perspectives. Other than the Downtown pattern, which is unique in many ways, none of the patterns are intended to have a necessary geography or area associated with them. However, some areas of the City will contain more of certain archetypes and less of others, reflecting locational characteristics, historical development patterns, existing land use regulations and market forces.

[7] The typical development pattern presented in this section do not equate to land use districts; nor are they intended to function as *Uses with Special Siting Characteristics* (As that term is used in OAR 660-009-0025(8)), except where Economic Element policy language states otherwise.

[8] Site sizes actually continuous phenomena. The segmentation into size ranges is not statistically defined, but is nonetheless useful for analysis and planning purposes. Hybrid and overlapping development patterns already exist and are common; others hybrids and overlaps may emerge during the planning period.

The subsequent description of site requirements does not include extensive discussions of environmental constraints. Employment land development patterns are generally more sensitive to environmental constraints than residential development patterns. Generally, the described acreages assume sites that are largely free from environmental constraints such as slopes, wetlands and floodplains. This sensitivity of employment uses to environmental constraints occurs in part because they tend to be much larger on average. For example, an 8% slope can be addressed in a residential subdivision with streets that follow contours and houses with stepped foundations. An 8% slope for a 200,000 square-foot industrial building is going to result in massive cuts and fills in order to provide a flat building surface capable of siting a building of that size.

F. PROJECTED NUMBER OF SITES DEMANDED

The fourth and final step in establishing the City's land demand projections is to arrive at the number of sites expected to be demanded according to the above described development pattern types during the planning horizon. The first three steps included:

1. *Identify Target Industry Opportunities (Adopted as Part of Hovee Study in October 2006)*
2. *Employment Projections and Aggregate Land Demand by Type (Johnson-Gardner 2008)*
3. *Site Requirement Site Types Descriptions (CSA and Johnson-Gardner 2008)*

Thus, the final step in the process of estimating the demanded number of sites by type combines the information in Steps 2 and 3 to project the number of employment sites by type. Step 2 is a qualitative description of the types of sites that could potentially be demanded, based upon the City's target industry opportunities in Step 1. Geographic Information Systems (GIS) software was used to categorize employment lands according to the categories in the Site Requirement Type Descriptions. Because the site requirement descriptions are qualitative in nature, this is a laborious process and is subjective. The various factors utilized in categorizing lands include a review of aerial photography, assessor's data, the City's Buildable Land Inventory information, and local knowledge about the employment land base.

Because there are subjective components to this analysis, it is important to understand the assumptions utilized in the analysis. The principal assumptions relate to methodology for identifying and categorizing medium and large sites and these include the following:

- From the standpoint of total acreage, the vast proportion of the employment land base, approximately 83.5%, is consumed by sites larger than half an acre. Some of these are held for speculation and will be divided further, but the vast majority of these parcels are developed and used by going concerns.

- It is easier to divide employment land into small parcels to meet the needs of smaller users than it is to aggregate small parcels in fractured ownerships to meet the needs of a larger user.

- The third assumption is derived from the above two and is also one of analysis practicality. There are over 3,800 employment planned properties in Medford's UGB and almost 29 percent of them are less than .5 acre. About another third are between .5 and 1 acre. Categorizing each of these carefully would be extremely labor intensive and not very meaningful. For this reason, the most careful categorization is reserved for parcels larger than two acres. A slightly more simplified categorization is done for

parcels 1 to 2 acres. A simplified categorization is done for parcels between .5 and 1 acre. The analysis does not generally concern itself with parcels less than .5 acres; this is fully consistent with the parameters laid forth in OAR 660-009 that do not require inventorying of vacant lands less than .5 acres.

- Also important in this categorization process is the consideration of ownerships. As discussed above, parcels smaller than .5 acres are generally uncategorized. However, other factors in the analysis underscore where smaller parcels have been incorporated into larger sites. These are unlikely to be captured at 100 percent, but careful review of aerial photos and database analysis can capture many of these important acreages that are properly categorized as large and medium sites.

The GIS database provides an estimate of the existing acreage of developed large and medium office, large and medium commercial retail, and large and medium industrial sites in the UGB. If this acreage is divided by the existing employment demanding space estimated by Johnson-Gardner, then a ratio of existing developed acres per job is calculated for medium and large sites for developed lands in the Medford UGB.

This ratio can then be multiplied by the number of space demanding jobs estimated by Johnson-Gardner (High, Medium, and Low Scenarios) to arrive at the number of acres demanded for large and medium sites under each category under the High, Medium and Low growth scenarios during the planning horizon. This calculation represents the number of sites demanded at the current ratio of space demanding employment to existing large and medium sized development in the City for each category respectively. Finally, the number of demanded sites can be estimated by dividing the amount of additional demanded acreage by the typical site size for each category.

Once the estimate for large and medium sites is complete, then the estimate for small sites is derived by subtracting the acreage for large and medium sites from the total aggregate acreage estimated by Johnson-Gardner. This total acreage for small sites is then divided by a typical small site size to arrive at the potential number of small sites to be demanded depending on the supply levels of large and medium sites, see Figure 23 of the EOA Appendix for detailed calculation methods and discussion.

While these calculations provide a sound factual basis for the City to project the number of demanded sites, it is not appropriate to overstate the precision of this type of generalized analysis. For this reason the upper and lower extremes of the projections should be treated as a range of potential demand.

The demand projections provide a baseline guide upon which to project future demand for numbers of sites by development pattern type. During its review, the EOA subcommittee, recommended emphasizing the need for large and medium retail and office sites. The following explains the emphasis for these large and medium uses:

1. For large and medium office development patterns, a 210 percent emphasis on future distribution is captured in the demand projections. In other words, the planned employment growth from 2008 to 2028 will see more than a 2:1 increase in the ratio of large and medium office uses for each office-demanding employee.

2. For large commercial development patterns, a 140 percent emphasis on the future distribution over the existing distribution was projected. This distribution reflects a moderate strengthening of Medford's position as the region's retail center.

3. For medium commercial development patterns, a 160 percent emphasis on the future distribution over the existing distribution was projected. This distribution reflects a moderate strengthening of Medford's position as the region's retail center.

VI. EXISTING LAND SUPPLY AND SUITABILITY ANALYSIS

A. INTRODUCTION

The Land Supply and Suitability Analysis component of the Economic Element investigates the supply and suitability of employment lands in the City of Medford's UGB to serve employment land demands over the planning period. The analysis of employment land supply is an iterative analysis, where the iterations refine the supply estimates in relation to projected demand. The analysis includes both quantitative and qualitative dimensions. The quantitative dimensions are derived primarily from Geographic Information System (GIS) analysis using assessor's base maps and Buildable Lands Inventory information provided by the City Medford; some additional quantitative analysis utilizes value data provided by the Jackson County Assessor. The qualitative dimensions are derived from local area knowledge and development constraints analysis and are targeted to assess the suitability of particular sites to meet the needs of firms. The supply analysis includes assessments of both short-term and 20-year land supplies as required by OAR 660-009. The below list describes the iterative process to evaluate the City's employment land supply.

1. Buildable Land Inventory Base Maps: This task was completed by the City of Medford with an ending buildable lands date of March 2007. These GIS maps identifying vacant and potentially redevelopable lands were provided to CSA Planning and Johnson-Gardner and provided the preliminary data set for further analysis.

2. Vacant Lands Analysis by Existing Land Use Designation: Vacant lands are the least complicated supply source for employment lands and are, therefore, the first level of analysis. The vacant lands analysis is less complicated because it does not involve assumptions and policy choices about the viability of existing development patterns to be discontinued and replaced with new development patterns to serve future needs. This analysis then compares the amount of land available to projected demand. This is done in terms of aggregate land demand and by major development pattern type.

3. Redevelopable Lands: The second iteration of the analysis identified potential sites where intensification of use could occur that would allow higher employment densities and more efficient land use.

4. Comprehensive Plan Amendments: The third iteration of vacant land supply analysis considers the ability of map amendments and/or designation text amendments to address deficiencies in the land supply.

    a. Changes Under Existing Land Use Designations: This analysis contemplates changes in map designation descriptions and permitted uses to address identified deficiencies.

    b. New Land Use Designations: This analysis considers amending the City's land use regulations and maps to address balancing land supplies with projected demand.

B. ANALYSIS OF EXISTING VACANT LAND SUPPLY BY EXISTING GLUP MAP

This section presents the vacant land supply analysis and evaluates the ability of existing land supplies within the UGB to accommodate projected employment land demands. The analysis only evaluates lands larger than 0.5 acres consistent with OAR 660-009. Parcels larger than 2 acres are analyzed most carefully because these parcels are most capable of accommodating large and medium sites or being divided to serve the needs of smaller users. For this reason, significant qualitative as well as quantitative analysis of these parcels is presented. Parcels between 1 and 2 acres also include some qualitative assessments. Parcels between 0.5 and 1 acre are treated strictly from an aggregate acreage standpoint. Figure 24 in the EOA Appendix depicts the parcels of land classified as vacant and for which the balance of the analysis in this section is focused.

The vacant and potentially redevelopable lands map (EOA Figure 24) represents a minor revision to the City's draft Buildable Lands Inventory maps that were based upon Spring 2007 data. The map includes all parcels in the draft BLI, as well as the noted revisions. The extent and nature of the revisions are small and due to a number of factors. Some properties were reclassified because they have been developed. A few large properties contained residential development, but are planned and zoned for employment uses. These were generally treated as vacant under the assumption that relatively small acreages would be removed if the dwelling were retained. Or if the dwelling would be removed entirely over the 20-year planning horizon, these will function as vacant employment lands .

The *In-Process* lands are currently under construction and are expected to be substantially complete by the end of 2008. The employment growth associated with these sites will be captured by the base year employment projections and therefore the balance of the vacant land analysis does not include these sites since they will be consumed within the year.

While some targeted redevelopment efforts have the potential to accommodate future development to serve employment demands, the City's vacant land base is the largest supplier of sites for future employment development.

Vacant sites within the current UGB are largely clustered in a limited number of areas. One area is where the Northgate Centre project is planned as part of a Master Plan for that site. The other area is northeast of the airport. This area is experiencing development of an auto sales concentration. The Southeast Plan is awaiting a master plan effort for the commercial core area. The Stewart Meadows PUD has been approved on the south end of town and Wal-Mart is seeking approval of a Super-Store in that general area. Finally, the airport area is experiencing development with Navigator's Landing and the siting of a new Marriott Hotel. The new terminal at the Airport is under construction and this project may stimulate additional development in this area.

Figure 21 summarizes the supply of vacant lands by major development pattern type.

FIGURE 21: VACANT LANDS BY MAJOR DEVELOPMENT PATTERN TYPE

Sites Supply Summary									
		Sites		Net Buildable Acres					
		Number	Percent Short-Term	Total	Unconstrained	Percent Unconstrained	Short-Term Unconstrained Percent	Average Site Size
Office	Large	5	100%	21	21	100%	100%	4.18
	Medium	53	83%	80	66	82%	82%	1.52
	Small	93	89%	71	64	90%	79%	0.76
	Totals	**151**		**172**	**151**			
Industrial	Large	13	**38%**	256	207	81%	**40%**	19.71
	Medium	52	100%	223	206	92%	100%	4.29
	Small	107	98%	140	122	87%	97%	1.31
	Totals	**172**		**619**	**535**			
Commercial	Large	2	100%	59	52	89%	100%	29.27
	Medium	50	**22%**	133	102	77%	**46%**	2.67
	Small	66	92%	60	60	100%	93%	0.91
	Totals	**118**		**252**	**215**			
	Grand Total			**1043**	**900**			

The columns on the left in Figure 21 summarize the total number of sites by type that are vacant in Medford's UGB. The percent short-term indicates the percent of the number of sites that are available as short-term supply. These are sites that could potentially be made available for construction within one year (See OAR 660-009 for Short-Term Supply definition). The above supply summary also considers the amount of acreage available for each site type. The total acreage is the acreage when no environmental constraints or other development constraints are removed. The unconstrained acreage is the acreage that is deemed to be free from site constraints and is therefore developable. Most of the constrained acreage is due to environmental factors with minor adjustments, where known development pattern constraints were present. No sites were removed to address long-term public facilities constraints.

- It appears that most of Medford's supply is available for short-term supply. The exceptions are for medium commercial sites and large industrial sites. The constraints on the available short-term supply of medium commercial sites are caused by two sites in particular. One is the commercial site that is part of the Centennial Golf Course; this site has severe access constraints and is not viable as a short-term supply source. The other is the Southeast Medford Plan commercial core. This site requires Master Plan approval by the City. Until the master plan has been started, this site should not be counted as short-term supply. The large industrial short-term supply constraints are mainly northeast of the airport. These are largely public facility constraints due to storm drainage issues and capacity problems on Highway 62.

- From a constraint standpoint, most of the acreage for each category can be developed. The constraints analysis was fairly conservative and it will likely be possible that creative design components and engineering techniques will allow some of the constrained acreages to be developed. For long-range planning purposes however, these sites are not required to be inventoried as supply under applicable regulations.

It is important to understand how the previously outlined summary statistics relate to the existing GLUP Map and its associated designations. Figure 22 summarizes the relationship between the projected supply of sites and the land use designations under which they are projected.

FIGURE 22: SUMMARY OF SITE ACREAGE BY EXISTING GLUP MAP (NET BUILDABLE ACRES)

Site Acreage By Existing GLUP Map Summary						
		Commercial	Service Commercial	General Industrial	Heavy Industrial	Total
Office	Large	0	5	15	0	**21**
	Medium	1	28	51	0	**80**
	Small	1	18	52	0	**71**
	Totals	**2**	**51**	**119**	**0**	**172**
Industrial	Large	0	0	168	88	**256**
	Medium	0	0	109	114	**223**
	Small	7	0	91	43	**140**
	Totals	**7**	**0**	**367**	**245**	**619**
Commercial	Large	59	0	0	0	**59**
	Medium	129	0	4	0	**133**
	Small	64	1	0	0	**64**
	Totals	**251**	**1**	**4**	**0**	**256**

Figure 22 depicts the expected development pattern based upon recent development patterns, the map of vacant lands in EOA Figure 24, and existing GLUP map designations. The vast majority of commercial acreage is located in the Commercial GLUP Map designation. Most of the office acreage is split between the General Industrial and Service Commercial designations. The industrial acreage is located mostly in the General and Heavy Industrial designated areas.

ANALYSIS OF CONSTRAINED SITES

Goal 9 requires cities to consider the site constraints of their land supplies. Figure 23 provides some generalized assessments of constraints. It is important to keep in mind that the environmental constraints are limited mainly to water. In the Medford Air Quality Maintenance Area, which includes all of Medford, there are also significant air quality constraints that may make it difficult or impossible to site many types of industries that otherwise could locate here. Additionally, the analysis does not consider land quality problems, such as brownfield sites, because there was no readily available geographic data upon which to perform constraints analysis.

FIGURE 23: SUMMARY OF CONSTRAINED SITES TWO ACRES OR LARGER

Constrained Sites Two Acres or Larger			By Main Site Development Pattern			
			Environmental	Public Facilities	Development Patterns	Percent Moderate or Severe of Total
Office	Large	None	3	3	2	
		Potential	0	0	0	
		Moderate	0	0	**1**	
		Severe	0	0	0	**11%**
	Medium	None	6	11	7	
		Potential	3	0	3	
		Moderate	**4**	**2**	**3**	
		Severe	0	0	0	**23%**
	Small	None	22	22	22	
		Potential	0	0	7	
		Moderate	**7**	**7**	0	
		Severe	0	0	0	**16%**
Industrial	Large	None	3	2	1	
		Potential	1	3	1	
		Moderate	**2**	**1**	**4**	
		Severe	0	0	0	**39%**
	Medium	None	24	23	15	
		Potential	2	4	7	
		Moderate	**1**	0	**5**	
		Severe	0	0	0	**7%**
	Small	None	11	20	10	
		Potential	3	2	5	
		Moderate	**8**	**2**	**9**	
		Severe	**2**	0	0	**29%**
Commercial	Large	None	2	2	2	
		Potential	0	0	0	
		Moderate	0	0	0	
		Severe	0	0	0	**0%**
	Medium	None	8	7	11	
		Potential	1	3	5	
		Moderate	**15**	**3**	**8**	
		Severe	0	**11**	0	**51%**
	Small	None	24	25	23	
		Potential	0	1	5	
		Moderate	**4**	**2**	0	
		Severe	0	0	0	**7%**

As Figure 23 demonstrates, many Medford employment lands are relatively free from development constraints. However, a few employment categories are disproportionately burdened with site constraints. Again, it is primarily the large industrial sites and the medium commercial sites that are most constrained. Addressing the public facilities deficiencies on the industrial lands northeast of the airport and on commercial lands south of the Rogue Valley Manor would substantially improve the constraints limitations.

It is also important to consider that the environmental constraints analysis generally does not account for slopes. This is because very little of Medford's employment land base is sloped.

Nonetheless, sloped land is not usable for many employment development patterns and evaluation of future lands that are sloped should carefully consider whether those sloped lands can satisfy identified site requirements.

SUPPLY VERSUS DEMAND FOR VACANT SITES UNDER EXISTING GLUP

In addition to estimating acreages, OAR 660-009 requires cities to compare demand and supply for sites by type. The number of sites analysis does not generally exclude whole sites that have constraints; instead, site estimates considered the extent of the constraints and reduced the number or site type accordingly that could be accommodated. For example, if a commercial site was 12 acres but half the site was environmentally constrained, the inventory would assume the site could accommodate one medium commercial site and two small commercial sites, which is about half the number of sites that could otherwise be accommodated. In general, few sites were considered constrained to the point that eventual development during the planning horizon appeared impractical. The analysis assumes that access will be planned during the planning horizon to serve the commercial lands south of the Rogue Valley Manor.

Figure 24 depicts the supply of vacant sites in relation to the demand for the ***number of sites over the planning horizon***.

FIGURE 24: SUPPLY AND PROJECTED DEMAND FOR SITES OVER THE PLANNING HORIZON

Number of Sites by Development Pattern						Planning Horizon			
		Demand Projections					Balance		
		Typical Acreage	Medium	High	Low	Vacant Supply	Medium	High	Low
Office	Large	5.00	9	11	8	5	-4	-6	-3
	Medium	1.50	55	65	44	53	-2	-12	9
	Small	0.45	468	554	373	93	-375	-461	-280
Industrial	Large	30.00	3	4	3	13	10	9	10
	Medium	6.00	21	25	17	52	31	27	35
	Small	1.50	114	135	92	107	-7	-28	15
Commercial	Large	20.00	7	8	5	2	-5	-6	-3
	Medium	4.50	31	37	25	50	19	13	25
	Small	0.75	163	220	186	66	-97	-154	-120

The most significant deficiencies are for large and small offices and for large and small retail sites. The large retail site deficiencies are likely to be the most difficult to address from a supply standpoint, because the site needs of large commercial uses are so stringent. The deficits for small office and small commercial projects are a function of the deficits for large offices/campus developments and large retail centers. The small sites tend to cluster around the large projects where they provide services and interact with the large sites. The surplus of large industrial sites is mostly due to only a few large industrial sites sitting vacant.

Figure 25 reports the supply of ***acreage by site type for the planning horizon*** and reconciles the supply with projected demand.

FIGURE 25: SUPPLY AND PROJECTED DEMAND FOR ACREAGE OVER THE PLANNING HORIZON

Vacant Acres Reconciliation (Constrained Acres Removed)						Planning Horizon			
			Demand Projections				Balance		
		Typical Acreage	Medium	High	Low	Vacant Supply	Medium	High	Low
Office	Large	5.00	47	56	38	21	-27	-35	-17
	Medium	1.50	83	98	66	66	-17	-32	0
	Small	0.45	211	250	168	64	-147	-186	-104
	SubTotal		**341**	**403**	**272**	**151**	**-190**	**-253**	**-121**
Industrial	Large	30.00	103	121	83	207	104	86	124
	Medium	6.00	126	148	102	206	79	57	104
	Small	1.50	172	202	138	122	-49	-80	-16
	SubTotal		**401**	**471**	**323**	**535**	**134**	**64**	**212**
Commercial	Large	20.00	134	158	108	52	-82	-106	-56
	Medium	4.50	140	164	112	102	-37	-62	-10
	Small	0.75	123	165	139	60	-62	-105	-79
	SubTotal		**397**	**487**	**360**	**215**	**-182**	**-272**	**-145**
Other	Over Night Lodging	Not Estimated	26	31	21	Not Estimated	-26	-31	-21
	Special Uses	Not Estimated	220	252	181	Not Estimated	-220	-252	-181
	Grand Totals		**1383**	**1644**	**1156**		**-483**	**-744**	**-256**

The largest acreage deficits are in the Office and Commercial categories. Deficits are also reported for overnight lodging and special uses. The overnight lodging sites are usually accommodated in commercial zones and this total can be considered in addition to unmet demands for commercial lands in the aggregate. The supply of lands for special uses, such as campus development patterns, was not estimated because the needs of each particular type of special use are so specific that identifying supply sources would be impractical.

The surplus of industrial lands is not extremely large and one large industrial use could easily consume the entire potential surplus. It is also important to keep in mind that approximately two-thirds of the office site needs are projected to be met on industrial designated lands. This is based on recent trends in the Medford area. The 2004 Hovee study recommended making some adjustments to the land use designations that would allow more office needs to be met by the industrial land base. However, the projected office and commercial land deficits are too large to be met solely through conversion of industrial lands without putting undue pressure on industrial land pricing.

In addition to estimating adequacy of supply over the planning horizon, Goal 9 also requires the City to assess whether a sufficient supply of lands is available in the short-term. *The short-term supply of land refers to suitable land that is ready for construction within one year of an application for a building permit or request for service extension. Engineering feasibility is*

sufficient to qualify land for the short-term supply of land. Funding availability is not required. "Competitive Short-term Supply" means the short-term supply of land provides a range of site sizes and locations to accommodate the market needs of a variety of industrial and other employment uses (OAR 660-009-0005(10). In accordance with the State's definition, short-term supply analysis criteria are more stringent. They do not include lands as a supply source if they cannot be consumed through straightforward extension of infrastructure and/or land use permitting processes without requiring some change to applicable regulations or the Comprehensive Plan.

FIGURE 26: RECONCILIATION OF SHORT TERM SUPPLY (IMMEDIATELY AVAILABLE) AND PROJECTED DEMAND

Vacant Acres Reconciliation (Constrained Acres Removed)						Short-Term			
			Demand Projections				Balance		
		Typical Acreage	Medium	High	Low	Vacant Supply	Medium	High	Low
Office	Large	5.00	12	14	9	21	9	7	11
	Medium	1.50	21	24	17	54	33	29	37
	Small	0.45	53	62	42	51	**-2**	**-12**	9
	SubTotal		**85**	**101**	**68**	**125**	**40**	**24**	**57**
Industrial	Large	30.00	23	27	19	83	60	56	65
	Medium	6.00	28	33	23	206	177	172	183
	Small	1.50	49	58	39	119	70	61	80
	SubTotal		**100**	**118**	**81**	**408**	**308**	**290**	**327**
Commercial	Large	20.00	34	39	27	52	19	13	25
	Medium	4.50	35	41	28	47	13	6	19
	Small	0.75	31	67	9	56	25	**-11**	46
	SubTotal		**99**	**147**	**65**	**156**	**57**	**9**	**91**
Other	Over Night Lodging	Not Estimated	6	8	5	Not Estimated	-6	-8	-5
	Special Uses	Not Estimated	55	63	45	Not Estimated	-55	-63	-45
	Grand Totals						**343**	**252**	**425**

Over the short-term, the demand for small and medium industrial land does not appear to be an issue. Supply of adequate sites for a large industrial use is limited over the short-term, because the variance for site sizes for large industrial uses can be significant and one large industrial use that seeks a site could easily consume all available supply.

By combining the supply of acreage for Office, Commercial and other uses, the short-term supply could reach a critical masse because the only supply source comes from projected industrial sites. Essentially, the City has only 35 acres of vacant land left under the medium employment land demand scenario. This total includes Northgate Centre, Stewart Meadows PUD, and the balance

of the Delta Center, approved projects that may be developed relatively soon. If additional lands are not supplied shortly after these projects are constructed and absorbed, demand on vacant industrial lands could increase further in ways that could significantly diminish the City's employment land supply. While the City likely has two to six years before this condition could become reality, planning for additional land now is essential to avoiding a shortfall.

OWNERSHIP PATTERN ANALYSIS

In addition to evaluating acreages and development patterns, employment land supply analyses should also consider potential ownership pattern constraints. For the analysis, ownership patterns have been captured from several perspectives. Principally, ownership patterns were captured through the Buildable Lands Inventory classification of sites, both vacant and developed. The analysis of large, medium and small sites relies on the ownership pattern assumption that large ownerships can be divided to serve the needs of smaller users more readily than small and fragmented ownerships can be aggregated to meet the needs of large and medium users.

When developed sites were inventoried and analyzed, this process was informed by local knowledge to capture ownership factors. As a general rule, the site supply analysis placed lands in the largest development pattern site supply category for which a site could meet the minimum size requirements. Throughout the vacant lands supply analysis process, an attempt was made to capture adjacent parcels with related ownerships to place them in the larger supply categories. This was the case for numerous sites within the planning area. Ownership patterns were also captured in the redevelopment analysis components. The EOA Subcommittee analyzed ownership considerations for several sites.

In addition to the quantitative components, the site requirements discussion also includes typical ownership patterns for the various site type development patterns. When the qualitative components of the site requirements discussion are combined with the quantitative analysis of site supply, the City has a land use policy framework that captures more than just raw acreages; it captures the arrangement of acres by ownership patterns and the demand by firms looking to locate or expand within the City.

With respect to the applicable regulatory requirements, OAR 660-009-0025(7) permits cities to consider ownership constraints in assessing land availability to satisfy short-term supply requirements. This language is permissive and not mandatory. The best indicator of ownership constraints in the analysis is the land price evaluation. That analysis depicts expected market pricing for industrial land, but erratic pricing for commercial land. This suggests short-term supply constraints. As the City addresses its long-term deficiencies, short-term supply issues caused by ownership constraints will diminish as the city adds supply sources and as competition increases among various ownerships in the marketplace.

In summary, ownership constraints and opportunities are ephemeral phenomena because an ownership constraint or opportunity captured today can literally change overnight due to a change in land asset management strategies by individuals or corporations. The best that can be done is to make rational assumptions based on observed market patterns.

REDEVELOPMENT ANALYSIS

With the Vacant Lands analysis complete, the next step in the supply analysis is to estimate the amount of land that can be redeveloped to accommodate future demands. The City performed a buildable lands analysis to serve as the foundation for the land supply analysis with data from 2007. That buildable lands analysis identified vacant lands which were analyzed in the above

sections and potentially redevelopable lands analyzed in this section. The analyzed lands are depicted in blue in EOA Figure 24. Redevelopment analysis methodology can be challenging. Ownership patterns, existing development patterns, and particular site specific issues can significantly affect the likelihood that a site will redevelop to accommodate future demands.

Another challenge associated with redevelopment analysis for employment lands is estimating the amount of acreage necessary to replace the land being redeveloped. For example, if an automobile junkyard is redeveloped with a commercial use, the junkyard will still need to be located somewhere. This illustrates a re-organization of the City's land base, not a significant net increase in the land supply. The need for replacement lands is also highlighted by the statutes governing the formation and operation of urban renewal districts. Urban Renewal Districts are often catalysts for redevelopment, partly because urban renewal statues provide mechanisms to fund replacement sites as part of the renewal plan. This enabling language in the statutes speaks to the State Legislature's recognition there should be balance between community goals to redevelop core areas and the adverse impacts if the new firm is not a good fit for the urban renewal plan.

For the above reasons, redevelopment supply analysis within the UGB is most concerned with the ability of existing developed sites to redevelop in a manner that will function as net new supply. The approach taken to resolve this issue for the Medford Economic Element was to utilize a combination of mathematical analysis and local knowledge provided by the EOA Subcommittee. In the case of a city the size of Medford, the total number of parcels that are likely to supply significant net acreage through redevelopment is relatively small; these tend to be large and relatively few parcels, of which only a portion could be developed. The EOA Subcommittee evaluated each parcel larger than five acres on a case by case basis (See EOA Figure 38). Supply from parcels smaller than five acres was estimated mathematically, because there are much more of these. Still, the total acreage of potential redevelopment is comparatively small. EOA Figure 38 includes a summary of the analysis of potentially redevelopable parcels larger than 5 acres:

Parcels identified as potentially redevelopable and larger than 5 acres were examined on a site-by-site basis by the EOA Subcommittee.

With the main redevelopment potential from a total acreage standpoint assessed on a site-by-site basis, the balance of potential redevelopment was mathematically estimated. This estimation assesses the likelihood a site will redevelop and then estimates the amount of replacement acreage necessary to accommodate the displaced employment use. The analysis methodology to estimate the total redevelopment acreage for parcels less than 5 acres is as follows:

1. The City's redevelopable parcel base was used as a starting point (for those parcels that further analysis did not already treat as vacant and/or developed).
2. Real market value (land and improvements) was divided by square footage for individual parcels to establish an estimated value per square foot of the property.
3. The estimated real market value of improvements was depreciated over the 20-year period assuming a 40-year straight line depreciation schedule. The resulting estimate value per square foot of the property was then calculated.
4. Threshold values were established by major GLUP designation in 2008 dollars. The threshold rate for commercial land was set at $14 per square foot, service commercial at $10 per square foot and industrial at $5.00 per square foot.
5. Those parcels that were projected to have values depreciate below threshold rates (in 2007 dollars) are assumed to redevelop during the planning horizon.

Ultimately, the Economic Element is most concerned with total land supplies to meet projected needs. This means the total redevelopment acreage should be adjusted to account for some replacement of displaced employment uses that now exist to arrive at net redevelopment acreage estimates. This can be expressed as a percent. For example, redevelopment that is assumed to require a 20 percent replacement factor is 180 percent more efficient than the existing land use because the existing site becomes 100 percent developed and the displaced use is assumed to be able to be accommodated on 20 percent of the site on which the use now exists. The following estimates the replacement factors utilized in the Economic Element for sites less than five acres:

1. The replacement factor for Commercial Land is projected to be 20 percent. Thus, 20 percent of the land that is Commercial and projected to redevelop is planned to be replaced elsewhere in the planning area.

2. The replacement factor for Office land is projected to be 20 percent for land zoned Service Commercial and 30 percent for land zoned General Industrial. The higher percentage for general industrial was utilized because general industrial uses are often more space intensive and will require more replacement acreage.

3. The replacement factor for Industrial land is projected to be 50 percent. Industrial uses are often not efficient land uses and therefore they warrant a higher replacement acreage factor. On average, 50 percent is likely too high if all that acreage was going to be replaced within Medford's UGB. However, it is expected that some of the displaced industrial acreage will occur in White City, so the 50 percent factor assumes some displacement to the White City industrial area.

When large site and smaller site estimates are combined, it is possible to evaluate the final land demand relative to the final land supplies that include both vacant lands and net new lands available through redevelopment. Figure 27 reports sites demanded versus the supply of sites under the GLUP land use designations in effect at the time of this Economic Element update. The only assumed map change is as part of redevelopment around the Owen Drive/Highway 62 intersection.

FIGURE 27: SITES DEMANDED VERSUS SUPPLY OF SITES BY DEVELOPMENT PATTERN

Number of Sites by Development Pattern		Planning Horizon								
			Demand Projections					Balance		
		Typical Acreage	Medium	High	Low	Vacant Supply	Net New Redevelopment	Medium	High	Low
Office	Large	5.00	9	11	8	5	2	-2	-4	-1
	Medium	1.50	55	65	44	53	2	0	-10	11
	Small	0.45	468	554	373	93	17	-358	-445	-264
Industrial	Large	30.00	3	4	3	13	1	11	10	11
	Medium	6.00	21	25	17	52	9	40	36	44
	Small	1.50	114	135	92	107	9	1	-19	23
Commercial	Large	20.00	7	8	5	2	1	-4	-5	-2
	Medium	4.50	31	37	25	50	7	26	20	32
	Small	0.75	163	220	186	66	28	-69	-126	-92

The redevelopment analysis does not eliminate all the deficits that cannot be met by the analysis of vacant sites. However, it does reduce the totals somewhat. The EOA Subcommittee had an excellent observation with respect to the deficit of small office sites. Small Offices are one of the few types of employment development patterns that are really capable of *in-fill* development. Specifically, the typical site size of 0.45 acres is *actually less* than the minimum acreage analyzed for employment lands under the administrative rule at 0.50 acres. Moreover, small office projects are also a real-estate product that is often being bundled with housing in residential areas through the Planned Unit Development permitting process. Over the planning horizon, the calculated deficit may not be as substantial as the actual marketplace deficit which will trade office parcels in sizes demanded by the market that are not captured by the larger scale planning analysis presented in the Economic Element. The total demand versus supply of acreages is reported in Figure 28 below.

FIGURE 28: RECONCILIATION OF DEMAND AND SUPPLY BY DEVELOPMENT PATTERN TYPE

Supply Acres Reconciliation (Net Buildable Acres)						Planning Horizon				
			Demand Projections					Balance		
		Typical Acreage	Medium	High	Low	Vacant Supply	Net New Redevelopment	Medium	High	Low
Office	Large	5.00	47	56	38	21	10	-17	-25	-7
	Medium	1.50	83	98	66	66	3	-14	-29	3
	Small	0.45	211	250	168	64	8	-139	-178	-96
	SubTotal		**341**	**403**	**272**	**151**	**21**	**-169**	**-232**	**-100**
Industrial	Large	30.00	103	121	83	207	50	154	136	174
	Medium	6.00	126	148	102	206	37	116	94	141
	Small	1.50	172	202	138	122	19	-30	-60	3
	SubTotal		**401**	**471**	**323**	**535**	**106**	**240**	**170**	**318**
Commercial	Large	20.00	134	158	108	52	10	-72	-96	-46
	Medium	4.50	140	164	112	102	26	-11	-36	16
	Small	0.75	123	165	139	60	15	-47	-89	-64
	SubTotal		**397**	**487**	**360**	**215**	**51**	**-130**	**-221**	**-94**
Other	Over Night Lodging	Not Estimated	26	31	21	Not Estimated	Not Estimated	-26	-31	-21
	Special Uses	Not Estimated	220	252	181	Not Estimated	Not Estimated	-220	-252	-181
	Grand Totals		**1383**	**1644**	**1156**	**900**	**178**	**-305**	**-566**	**-78**

The inclusion of redevelopable acreage reduces the size of the acreage deficits, but does not eliminate them for the medium and high growth scenarios. Neither does the low growth scenario identify a surplus or deficit. It is important to keep in mind that the previous tables report net buildable acres. From the standpoint of UGB expansion, where lands are not generally served by infrastructure, 25 percent is typically added to arrive at the required gross acreage. Thus, the City would require an additional 382 gross acres under the medium growth scenario and 708 gross acres under the high growth scenario as part of an Urban Growth Boundary expansion.

PLAN AMENDMENT RESPONSE TO DEFICITS

As part of the Economic Element development, a technical memorandum was prepared to evaluate the potential of Comprehensive Plan text amendments and GLUP Map amendments to address identified deficiencies. The ultimate purpose of that technical memorandum work product is to provide the City with a foundation to initiate future legislative amendments to its Comprehensive Plan text and to inform policy development of the Economic Element. The

technical memorandum serves as a foundation for future major legislative action(s), but it should not be interpreted as having the same level of accuracy and/or precision as the analyses depicted in Figure 29. While the details of this technical memorandum are not recited entirely in the Economic Element, the results are provided below as a means to assess the potential magnitude of such Comprehensive Plan Text amendments and GLUP Map amendments to address supply deficits.

FIGURE 29: APPROXIMATE FINAL ACREAGE RECONCILIATION IF CONTEMPLATED GLUP DESCRIPTIONS CHANGES AND MAP AMENDMENTS WERE ENACTED

Final Acres Reconciliation Based Upon Revised GLUP Map Descriptions and Map Amendments									Planning Horizon		
		Demand Projections							Balance		
		Typical Acreage	Medium	High	Low	Vacant Supply	Net Redevelopment Acres	Net New GLUP Changes	Target NE MPED	Medium	High	Low
Office	Large	5.00	47	56	38	21	10	0	10	-7	-15	3
	Medium	1.50	83	98	66	66	3	0	10	-4	-19	13
	Small	0.45	211	250	168	64	8	0	20	-119	-158	-76
	SubTotal		**341**	**403**	**272**	**151**	**21**			**-129**	**-192**	**-60**
Industrial	Large	30.00	103	121	83	207	50	0	-40	114	96	134
	Medium	6.00	126	148	102	206	37	-34	-30	52	30	77
	Small	1.50	172	202	138	122	19	-10	-30	-70	-100	-37
	SubTotal		**401**	**471**	**323**	**535**	**106**	**-44**		**96**	**26**	**174**
Commercial	Large	20.00	134	158	108	52	10	30	30	-12	-36	14
	Medium	4.50	140	164	112	102	26	26	30	45	20	72
	Small	0.75	123	165	139	60	15	32		-15	-58	-32
	SubTotal		**397**	**487**	**360**	**215**	**51**	**88**		**17**	**-73**	**54**
Other	Over Night Lodging	Not Estimated	26	31	21	Not Estimated	Not Estimated	Not Estimated	Not Estimated	-26	-31	-21
	Special Uses	Not Estimated	220	252	181	Not Estimated	Not Estimated	Not Estimated	Not Estimated	-220	-252	-181
	Grand Totals		**1383**	**1644**	**1156**	**900**	**178**	**44**	**0**	**-261**	**-522**	**-34**

Again, the above acreage estimates net buildable acres, so the ultimate required acreage under the Medium growth scenario is 327 acres and 780 acres under the high growth scenario, when twenty five percent is added for infrastructure needs. The Net New GLUP Changes acreage is predominantly due to Map Amendments contemplated around the new South Medford Interchange and also the addition of more commercial land in the Airfront area west of the Airport along Biddle Road. The lands around the South Medford Interchange are planned Residential, so the City would need to either determine that land is not needed for residential development or find replacement acreage outside the Urban Growth boundary. The *Target NE MPED* is short for the targeted amount of acreage to be changed from Industrial to Commercial and Enterprise during the Planning Horizon as part of a Master Planned Employment District Northeast of the Airport.

Based upon the assessment of the Comprehensive Plan GLUP Map descriptions and identification of GLUP Map amendment opportunities provided in the Technical Memorandum, amending the City's GLUP Map descriptions and targeted Map Amendments could improve the City's land supply balances, but an urban growth boundary expansion would still be required under the high and medium growth scenarios.

VII. CONCLUSIONS GOALS AND POLICIES

A. ECONOMIC OPPORTUNITIES CONCLUSIONS

1. Like the nation as a whole, the City of Medford has experienced a shift away from industrial development toward service and trade development. This change in composition is expected to continue, but at a somewhat slower rate locally than nationally and statewide. The City of Medford's role as the region's service and trade center is expected to continue to strengthen over the planning horizon, driving an employment share shift toward service and trade sectors. Land demands for industrial development, however, may not change in direct proportion because some of that shift is due to improved manufacturing efficiency that reduces the number of employees without reducing the land demand.

2. Recent labor force trends point to economic underpinnings that support long-term economic development. These trends include:

    a) The City's population is getting younger and the City's population is young when compared to the region and the state.

    b) The percentage of the population attaining a college degree has increased, while the percentage of high school dropouts has decreased.

    c) Labor force participation rates have increased since 1990.

    d) Only 52% of employed City of Medford residents work in Medford; the remainder work outside the City. The City has an opportunity to capture a larger share of its employed

population with jobs in the City.

3. Medford is a regional employment center and a net importer of employees. Natural Resources and Manufacturing are the only two industries where Medford is a net exporter of a significant share of its workforce.

4. Most industries in the region have lower wage levels compared to earnings across the state with the exception of Natural Resources, Retail Trade, and Education and Health Services. The City of Medford is well situated to serve the Retail Trade, Education and Health Services sectors.

5. While other economic sectors may strengthen during the planning horizon, the City of Medford is well positioned for the following Target Industry Opportunities:

TIER 1 BEST POSITION	TIER 2 STRONG BUT CHALLENGING	TIER 3 LOCALLY COMPETITIVE
Instruments	Mining	Food Products
Transit	Construction	Transportation Equipment
Transportation Services	Lumber & Wood	Air Transportation
Communications	Printing & Publishing	Wholesale Trade
Retail Trade	Stone, Glass & Concrete	Insurance Carriers
Banking	Electronic Equipment	Insurance Agents & Brokers
	Trucking & Warehousing	Business Services
	Electric, Gas & Sanitation	Legal Services
	Security & Commodity	Leisure and Hospitality Services
	Real Estate	
	Health Care	

6. By 2028, the City of Medford is projected to add between 23,874 jobs under a Low Growth Scenario and *35,404 jobs under the adopted High Growth Scenario*.

B. EMPLOYMENT LAND DEMAND AND SUPPLY CONCLUSIONS

1. This analysis indicates that additional land in the UGB is required to satisfy the City's land needs over the planning horizon.

2. The City of Medford has selected the High Employment Growth Scenario under which the City is projected to need 1,644 net buildable acres over the 20-year planning horizon and 2,055 gross buildable acres, consisting of needed acres in the following categories:

    a. 504 net buildable acres of Office Commercial

    b. 589 net buildable acres of Industrial

    c. 609 net buildable acres of Retail Commercial

    d. 38 net buildable acres of Overnight Lodging

    e. 315 net buildable acres of Specialized Uses

3. The City has a supply of 900 acres of vacant employment land and an additional 178 ***net*** acres is expected to be available in the existing UGB to meet new demand through redevelopment. Based upon the adopted High Growth Scenario, the City of Medford has a

deficit of 566 ***net*** buildable acres which equals 708 ***gross*** acres of employment land. An assessment of the Comprehensive Plan designations and mapping indicates that map changes could reduce the deficit to approximately 522 ***net*** buildable acres and 653 ***gross*** acres.

4. Medford's employment base is shifting to a greater proportion of firms with a range of on-site activities that have traditionally been characterized as either commercial or industrial. The City's current GLUP map distinction between Heavy Industrial and General Industrial serves a limited purpose now in the local economy and this purpose is expected to diminish over the planning horizon. The diminishing distinction is due to environmental regulations that reduce the potential for land use conflicts.

5. The City's existing GLUP Map designation for employment lands also makes a strong distinction between commercial and industrial designations. This distinction has become less appropriate as the distribution of firm activities has shifted over time and a greater mix of commercial and industrial activities are found within individual firm operations.

6. The inadequate capacity of transportation facilities, including transit, may be a significant constraint to supplying adequate employment lands, especially commercial land.

7. Commercial uses on industrial lands are not effectively limited. The current MLDC regulates the size of individual commercial uses in industrial zones, but does not restrict the total area that can be devoted to commercial development on an industrially-planned site. Thus, it is possible to develop a large industrial site with a series of small commercial buildings and uses

8. In the future, more people will start or carry on businesses from their homes in ways that were impossible before electronic commerce. Successful home businesses sometimes expand in ways that produce employment opportunities and contribute to the City's tax base.

9. Businesses whose primary use is outdoor storage and outdoor sales uses, e.g., automobile sales, cover large commercial spaces, but they do not strain transportation facilities to the same extent as similar-sized indoor commercial retail land uses. The MLDC should be revised to reflect this fact.

C. ECONOMIC OPPORTUNITIES GOALS AND POLICIES

GOAL: TO ACTIVELY STIMULATE ECONOMIC DEVELOPMENT AND GROWTH THAT WILL PROVIDE OPPORTUNITIES TO DIVERSIFY AND STRENGTHEN THE MIX OF ECONOMIC ACTIVITY IN THE CITY OF MEDFORD.

Policy 1-1: The City of Medford shall strengthen its role as the financial, medical, tourist, governmental and business hub of Southern Oregon and shall build on its comparative advantages in the local and regional marketplace.

Implementation 1.1(a): Partner with the business, medical and educational communities to advance common objectives.

Implementation 1-1(b): Provide incentives for businesses that pay higher wages to expand or locate in the community.

Implementation 1-1(c): Provide incentives for businesses that produce value-added products to expand or locate in the community.

Implementation 1-1(d): Participate in joint public/private business development programs to identify opportunities for the growth of existing businesses and the attraction of new firms.

Implementation 1-1(e): Offer support to labor-training programs that match training with the personnel needs of firms now in the community or potentially relocating to the community.

Implementation 1-1(f): Provide incentives for entrepreneurial small businesses to start up and/or expand in the City.

Policy 1-2: The City of Medford shall encourage the redevelopment of underutilized employment sites.

Policy 1-3: The City of Medford shall, as appropriate under the Goal above, **s**upport the retention and expansion of existing businesses.

Implementation 1-3(a): Adopt code amendments that encourage the development of existing sites.

Implementation 1-3(b): When evaluating GLUP Map amendments, assess the potential impacts of those amendments on neighboring land uses.

Policy 1-4: The City of Medford shall strive to retain and attract firms with higher wage rates relative to other industries, as well as those with higher wage rates within their respective industry classification.

Policy 1-5: The City of Medford shall assure that adequate commercial and industrial lands are available to accommodate the types and amount of economic development needed to support the anticipated growth in employment in the City of Medford and the region.

Implementation 1-5(a): Place limits on commercial uses that are or can be permitted in industrial zones.

Implementation 1-5(b): Reduce projected deficits in employment lands by changing GLUP Map designations within the existing Urban Growth Boundary.

Implementation 1-5(c): Assist in the identification of sites for businesses that have unique site requirements.

Implementation 1-5(d): Ensure that demand projections for medium and large Commercial, Industrial and Office sites are captured in aggregate land demand projections during GLUP map amendments and/or UGB expansions.

Implementation 1-5(e): Explore adding a Master Planned Employment or Business Park overlay district or zone designation that will allow coordinated

planning of public facilities and provide unique design opportunities.

Implementation 1-5(f): Evaluate replacing the Standard Industrial Classification system of classifying permissible land uses with a system that emphasizes development pattern types (form based code) and/or broad land use categories.

Implementation 1-5(g): Consider amendments to the Municipal Code to encourage home-based occupations without negatively affecting residential areas.

Policy 1-6: The City of Medford shall maintain a competitive Short-Term (five-year) supply of employment land equal to at least one-quarter (25%) of the amount of land projected to be demanded over the twenty-year planning horizon.

Implementation 1-6(a): Conduct a Buildable Lands Inventory every five (5) years to ensure that Policy 1-6 is satisfied and the short-term supply of employment sites is adequate.

Implementation 1-6(b): Based upon the updated Buildable Lands Inventory in 1-6(a) above, complete any public facilities plan updates necessary to serve significant inventories of vacant and/or redevelopable employment lands.

Policy 1-7: The City of Medford will rely upon its High Employment Growth Scenario in the City's Economic Element twenty-year Employment Projections, Land Demand Projections, and Site Demand Projections when planning its employment land base.

Policy 1-8: The City shall balance the efficient use of public facilities, the conservation of limited land resources, the maintenance of air and water quality and compatibility with surrounding land uses.

Implementation 1-8(a): Designate land for regional commercial uses near Interstate 5 and other State Highways and designate land for community commercial uses near local arterial and collector streets.

Implementation 1-8(b): Require integrated commercial centers, rather than individual linear developments, whenever feasible.

Implementation 1-8(c): Develop location criteria and site development standards for commercial and industrial development that implement Policy 1-8.

Policy 1-9: The City of Medford shall re-evaluate existing industrial and commercial GLUP map designations to better fit current business practices.

Implementation 1-9(a): Establish a larger minimum parcel size for certain industrial zones.

Policy 1-10: The City of Medford shall identify the potential for renewable and sustainable energy - related industries.

Implementation 1-10(a) Analyze opportunities in the Medford area related to renewable and sustainable energy industries and businesses.

Implementation 1-10(b): Develop a partnership with regional educational institutions to provide technical assistance to renewable and sustainable energy-related industries.