Central Oregon Large Lot Industrial Land Need Analysis

November 20, 2012

TABLE OF CONTENTS

I. Background 4

A. Oregon Department of Land Conservation and Development Grant 4
B. Regional Economic Opportunity Analysis 4
C. Ordinance 2011-017 and 1,000 Friends of Oregon Appeal 5
D. Oregon Land Conservation and Development Commission Rule Making 5

II. Project Introduction 6

A. Problem Statement 7
B. Framework for Central Oregon Regional Large Lot Employment Need Analysis 11

III. Community Vision 11

A. Regional Goal and Introduction 11
Regional Approach 11

B. Community Vision Statement 13

IV. Trend Analysis 13

A. National Economic Trends 13
Introduction 13
Short-Term Outlook 14
Long-Term Outlook 17

B. State Economic Trends 20
General Industry Trends 20
Risk Factors 25

C. Local Trends and Conditions 26
Economic Factors 26

V. Target Industry Analysis 29

A. Large-Lot Trends and Dynamics 29
Large-Lot Trends 30
Importance of Large-Lot Supply and Market Choice 31
Competitive Inventories 34

B. Strengths and Challenges in the Central Oregon Economy 35
Madras (Jefferson County) 36
La Pine (Deschutes County) 36
Prineville (Crook County) 37
Bend (Deschutes County) 38
Redmond (Deschutes County) 39
Sisters (Deschutes County) 39

C. Target Industry Opportunities in Central Oregon 40

D. Site/Resource Characteristics of Key Development Classes 41
Targeted Industries with Large-Lot Needs 42
Central Oregon Viability for the Data Center Industry 43
Central Oregon Viability for the High Technology Industry 45
Central Oregon Viability for the Warehouse and Distribution Industry 46

E. Regional Large-Lot Demand 47
Long Range Employment Forecast 47
Industry Placement Velocity 49

VI. Assessment of Potential 52

A. Site Need Characteristics 52
B. Gross Land Demand (Short-Term Only) 56

APPENDIX: Examples of Local Governments Proactively Planning for Industrial Development 63

I. Background

A. Department of Land Conservation and Development Grant

Deschutes County received two Technical Assistance Grants from the Department of Land Conservation and Development (DLCD) in 2010 to evaluate Central Oregon's opportunities, competitiveness, and ability to recruit new and locally grown firms requiring new large scale development models. Johnson-Reid LLC, was selected from a pool of consultants to develop a Regional Economic Opportunity Analysis (REOA). Over the course of eleven months, the REOA then went through several iterations with the assistance of a Regional Advisory Committee (RAC). The RAC consisted of Central Oregon cities, counties, Johnson-Reid LLC, Business Oregon, DLCD, Department of State Lands, Central Oregon Intergovernmental Council (COIC), 1,000 Friends of Oregon (1,000 Friends), Economic Development for Central Oregon (EDCO), Central Oregon Association of Realtors and private area developers. The RAC met officially six times and reviewed several iterations of the REOA before it was finalized on May 31, 2011.

B. Regional Economic Opportunity Analysis

In 2008, Bev Thacker, Industrial Lands Specialist with the Oregon Economic and Community Development Department (now Business Oregon) stated in a letter,

> *"Large, ready to go industrial sites have been the state's most significant development challenge and one of the most noticeable changes in real estate trends in [the] last few years."*

She specifically identified a statewide need of industrial lands of 100-200 acres in size. EDCO identified similar challenges for the tri-county (Deschutes, Jefferson and Crook) region. Executive Director Roger Lee and others have repeatedly stated that site selectors often will not even visit the region if only one or two sites are available. The arrival of Facebook and Apple, while unique in many regards, has put Central Oregon on the international map for data centers among other potential large lot employers. However, the region lacks a supply of sites and cities' traditional Economic Opportunity Analyses do not account for such a land demand.

The REOA project aimed to determine if such a land demand existed in Central Oregon and, if so, to identify the deficiency. The study concluded that there was an unmet twenty-year land need for large lot industrial sites in the region. It also concluded that competing as a cohesive region allows Central Oregon to market a larger available work force, the size of which is often a key locational criterion for firms. While geographically separate, the study concluded that the jurisdictions in the region can function in a manner similar to other metropolitan areas like Reno and Salt Lake City. According to the REOA, the shared economic function within Central Oregon supports a regional approach to economic development, particularly with respect to large traded sector industries.

C. Ordinance 2011-017 and 1,000 Friends of Oregon Appeal

Deschutes County exercised its statutory coordinating authority (ORS 195.025) to address an unmet regional need for large-lot industrial sites and adopted Ordinance 2011-017. Ordinance 2011-017 was intended to implement the REOA but was appealed to the Land Use Board of Appeals by 1,000 Friends. The appeal however, was stayed in early 2012 to allow Deschutes County, the Governor's Office, and 1,000 Friends to explore a settlement. Spanning three months, a settlement was ultimately reached in April. During that process, Deschutes County also collaborated with the RAC. The settlement consisted of an agreement that the technical document produced would not be called an Economic Opportunity Analysis (EOA) as that term is understood in Oregon land use law. 1000 Friends agreed that the region has a need for up to nine large industrial lots in Central Oregon and the parties agreed upon policy principles guiding how those sites could be incorporated into existing UGBs. The settlement consisted of policy concepts focusing entirely on Central Oregon's short-term need for large-lot industrial sites as well as a commitment from DLCD to initiate rule-making later in the summer.

D. Oregon Land Conservation and Development Commission Rule Making

Deschutes County received a commitment from DLCD that they would initiate the Oregon Land Conservation and Development Commission (LCDC) rule making process. Upon recommendations from an advisory group that consisted of the parties to the LUBA appeal, rule-making consisted of narrowly crafted amendments to Oregon Administrative Rules (OAR) Chapter 660 Division 24 that reinforces the short-term need for large-lot industrial sites and allows Central Oregon cities to utilize a regional large-industrial analysis as the justification. Documentation of the regional large lot employment need, cited in this report, is based exclusively on excerpts from the REOA.[1] Given the challenges that this project received last year at Deschutes County's initial adoption stage, rule-making now provides a clearer legal framework for local governments in Central Oregon to address a known deficiency of large-lot industrial sites. It specifically acknowledges in OAR 660-024-0040 and 660-024-0045, Central Oregon's short-term need for large lot employment land. After receiving support from a rule-making committee in August, a final draft was forwarded to LCDC for their consideration in November. LCDC adopted the rules at their November meeting and they became effective on December 10, 2012.

Utilizing the new OARs, Ordinance 2013-002 now emphasizes Central Oregon' short term need for a critical mass of competitive and diverse vacant, developable industrial sites. These sites can enable site selectors, representing potential industrial recruitment opportunities, to consider the region. COIC has agreed to pro-actively manage, through intergovernmental agreements, the short-term land supply of large-lot industrial sites to enable the region to become competitive in industrial recruitment. Participating local governments will review the

[1] OAR 660-024-0045(2)(a): "Analysis" means the document that determines the regional large lot employment land need within Crook, Deschutes, and Jefferson County that is not met by the participating local governments' comprehensive plans at the time the analysis is adopted. The analysis shall also identify necessary site characteristics of needed land.

program after the short-term supply of sites have been replenished or after ten years, whichever comes first.

II. Project Introduction

Deschutes County, in coordination with its regional partners, prepared this regional evaluation of the economic opportunities and constraints associated with users of large industrial parcels in the Central Oregon region. This approach recognizes the market reality that Central Oregon currently serves as an integrated economic unit.

A regional consensus has been agreed upon to establish and pro-actively manage a regional land supply of large-lot industrial sites to enable the region to become competitive in industrial recruitment. This regional strategy will include individual site infrastructure improvement assessment and implementation programs/requirements. Regional planning, management, and governance of a perpetual large-lot industrial vacant land supply will involve Central Oregon city and county governments (and staff) including advice and guidance from Central Oregon Cities Organization (COCO), EDCO and Business Oregon to assure an adequate, self-renewing regional supply of developable and competitive vacant industrial sites.

An outcome of regional significance requires a collective regional effort. This project proposes to create and manage a regional supply of vacant, developable large-lot industrial sites to accommodate stable, family-wage employment opportunities of local and regional significance. Although site development will be fundamentally implemented at the local jurisdictional level, the organization, coordination, promotion and governance of this regional industrial lands strategy and inventory is proposed to be implemented at a coordinated, collaborative regional level. The ultimate outcome of diversified and stable family-wage job creation will be advanced through provision of an adequate and competitive industrial site land supply to engage the global, national and regional industrial recruitment marketplace and successfully recruit major employers to the region.

The Central Oregon region needs a critical mass of competitive and diverse vacant, developable industrial sites in order for site selectors representing potential industrial recruitment to consider the region. One or two sites in one or two jurisdictions will not be adequate to generate regional interest or a visit according to industrial recruitment specialists from Business Oregon. Consequently, a multi-jurisdictional cooperative effort has been initiated to pursue a regional approach to establish a competitive supply of sites particularly designed to address those (unaccounted for) out-of-region (and state) industries that can locate in Central Oregon after shopping the globe for the best large-lot industrial development site they can find. This type of land need (or demand) is systematically missed and unaccounted for in local, conventional industrial land needs assessments in Oregon communities.

A. Problem Statement

During the 1990s the Central Oregon region undertook a dramatic transformation from a goods producing economy concentrated largely in wood products into a service based economy serving a growing and diverse tourism and household base. Accelerated in-migration and tourism growth gave way to rapid economic expansion, escalation in home prices, and a systematic shift in the local economy from goods producing activities to service oriented industries. While initially representing a diversification of the local economy, this shift has led to an over-reliance upon these types of industries. During the recent recession, the regional economy's vulnerabilities became apparent.

Central Oregon's traditional industrial base remains active in the local economy, and the region would like to increase its emphasis on industrial employment to strengthen that base. The region's supply of affordable land, low cost utilities, quality of life, and organized economic development landscape makes it an attractive option for growth in many traded sector industries. Central Oregon economic development efforts have been negatively impacted by a lack of readily available large-lot industrial sites. Manufacturing employment opportunities in particular are needed to establish a diversified and thereby more stable and balanced regional employment outlook. New manufacturing and other high value employment opportunities require an attractive supply of vacant industrial sites to be competitive in global industrial recruitment pursuits. New land supply methods are needed, too.

In a structural sense, globalization has changed the way manufacturers conduct business. Cost and efficiency are the central tenets of an increasingly competitive market. Firms are increasingly pressured to develop more capital intense production models, place a greater emphasis on economies of scale, as well as production efficiency and flexibility. Time-to-market for firms has become an even more crucial factor as they make decisions to locate new plants and facilities. The result has been the emergence of a clear real estate trend, creating a global demand for large development ready industrial sites, with the immediacy of utility services (both public and private sector) of critical importance. Through Oregon's statewide planning framework, this analysis is intended to evaluate Central Oregon's opportunities, competitiveness, ability, and willingness to accommodate recruited and existing firms requiring new large scale development models.

Successful local and regional industrial recruitment in the 21st Century must consider global competition factors. Communities, regions and states that focus primarily or exclusively on outdated governance paradigms are ill suited for keeping up with fast paced global economic and industrial marketplace changes. Industries must be nimble to be successful in the competitive global marketplace. Manufacturers must be able to quickly produce new products at expanded, renovated or new production facilities in "just-in-time" fashion. Often accomplished through on-site expansion on areas reserved for that purpose, industrial site selectors must choose sites large enough to build-in future expansion capacity. Government must be responsive to align its regulatory and process requirements to meet market demands if it wishes to capture the considerable benefits of high value industrial development.

Site selectors shopping the international marketplace of large-lot industrial sites determine the type of land supply product they will consider. For an individual vacant industrial site to be competitive, it must be large enough to offer future expansion on-site. It must be proximate to other competitive sites and governed by a regulatory structure that is responsive to the needs of industry.

Within this analysis a large lot industrial site is defined to be 50 acres or larger with specific site attributes and amenities that appeal to that industry and support its activities. This delineation is consistent with the State of Oregon's Certified Industrial Site program, which is Business Oregon's primary tool to certify and market industrial sites as 'project ready' within 180 days or less. The certified sites programs has had a distinct emphasis on large lots with an average size of 64 acres and more than half of the lots being in assemblages of over 50 acres. There have been 65 sites certified in Oregon since 2004 and there has been development on more than 50% of those properties. The importance of this inventory is attested by the number of employers that have located on certified sites, several of which are summarized in Figure 1. This activity took place despite the fact that the economy was experiencing one of the most severe recessions in history.

FIGURE 1: EMPLOYMENT ACTIVITY ON CERTIFIED SITES (2009-2010)

Company (Community)	Activity on Certified Site	Job Impact
Facebook (Prineville)	2010 New Facility Announcement	200 Construction/35 Permanent
Home Depot (Salem)	2010 New Facility Announcement	175 Jobs
Sanyo (Salem)	2009 Opening	200 Jobs by 2010
Solaicx (Portland)	2010 Expansion	60 Jobs
Ferrotec (Fairview)	2010 New Facility Announcement	30 Jobs
Genentech (Hillsboro)	2010 Fully Operational	300 Jobs
Crown Works Dental (Sutherlin)	2009 Facility Opens	125 Jobs

Source: Oregon Business Development

So why is lot size often a critical component of a company's site selection decision? Below are some technical and market requirements provided by Oregon Business Development that contribute to lot-size demanded by industrial users:

1) *On average, industrial sites are only 40% to 60% developable. While the footprint for a large facility might only be five or ten acres, requirements for setbacks, access, parking, and environmental mitigation and avoidance (i.e. wetlands) usually require more room than the facility itself.*

2) *Industries want buffering around their site for a number of very good reasons (security, storage, and noise). This has been the case for a number of the largest technology and green-industry related recruitments.*

3) *Many industries, particularly true in the fast growing clean-energy arena, require land for expansion for their long-term business plan. While expansion space is not always taken advantage of, it is an essential part of the site selection strategy due to the cost of future expansion and the flexibility offered.*

4) *Large parcels are also a good way to build a cluster of industries around a high profile anchor business, which proves the value of the location to other businesses that are less willing to trail-blaze or be first into a region. The anchor businesses often pull suppliers to the region, further enhancing their economic benefit.*

5) *Efficiencies can be obtained by clustering industrial users into large master-planned business parks. Land use efficiencies can be achieved when businesses are allowed to develop their facilities as needed, while also having the assurance that there will be nearby parcels available for future expansion. Energy, water, waste, and material flows can be streamlined in a park setting where multiple businesses can take advantage of common infrastructure investments and, in some cases, take advantage of each other's energy and waste streams.*

The emphasis of this analysis is on "sites" as opposed to land. Firms require sites that can accommodate their current and anticipated future needs. The traditional formula approach to industrial land needs determination is based upon population and employment projections applied to a square footage per employee ratio to arrive at a total acreage number. The necessary range of parcel sizes, lot configuration, required site attributes, land banking/growth options, and critical infrastructure factors are essentially de-prioritized, subordinated or ignored in this traditional static acreage calculation approach. This approach can work for residential and commercial projections, but is poorly suited to the calculation of industrial site needs.[2]

For a region to be attractive enough to motivate industrial site selectors to visit, investigate and recommend the region, it must offer a diversity of large-lot industrial sites (that are either served or serviceable) along with all of the other needed support factors including adequately skilled workforce, workforce training programs, worker housing, supportive local government, utility services and transportation, and quality of life. Facebook's recent move to Prineville was based upon an affordable and adequate water supply, affordable energy prices, year round cool nights to reduce cooling costs, and various local incentives. The Facebook site offered on-site expansion opportunity that is already being exercised.

[2] Unlike office demand, the need for most types of industrial space is difficult to determine using employment projections. Most industrial uses generate comparatively few jobs per square foot of leasable area, and space needs have little to do with changes in the number of jobs in production or distribution business…Warehouse and distribution demand (for example) is usually generated by changes in corporate logistics and freight volumes, not job growth." *Real Estate Market Analysis: Methods and Case Studies, Second Edition, ULI Press, 2009.*

Much of the recent demand for large lot industrial comes from rapidly growing industries that are building production and research capabilities to establish global scale. Additional demand comes from industry looking for regional production or as a result of specific logistical concerns (i.e. location near markets or suppliers, access to specific transportation modes). Warehousing and distribution is an important component of the economy that keeps international ports expanding and strengthens Oregon's export markets for consumer, industrial and agricultural products.

Major employers in traded sector industries (export industries) are the primary drivers of economic growth, providing the impetus for net growth in the regional economy and supporting a wide range of support industries. At the state and local level, policy makers understand the importance that large-scale employers can have on the local economy. In 2007 Central Oregon was home to three firms with 1,000 or more employees and an additional five with at least 500. The State's Industrial Site Certification Program has been a success in coordination with active recruitment efforts. Nevertheless, suitable land for today's industrial development forms has emerged as one of Oregon's most severe development challenges. As a region, Central Oregon has specifically targeted basic industries with large lot industrial needs to support the Region's economic development objectives.

Figure 2 is a list of some of the annual economic impacts of industrial lands that is based on operating payrolls and a multiplier that takes into effect spending by the company and its employees in the region. These impacts are substantial and dwarf the job and income productivity of alternative productive land uses (i.e. agriculture, forestry). This is particularly true in Central Oregon, which has relatively low agricultural yields per acre.

FIGURE 2: ECONOMIC IMPACT OF EMPLOYMENT LAND

Industry/Sector	Acres	Economic Impact Per Acre	Basis of Impact	Notes on Methodology	Source
Lowe's Distribution	205	$207,500	Payroll + Multiplier	Potential Impact of Large distribution Center in Lebanon	Business Oregon
Solar Cluster	179	$1,400,000	Payroll + Multiplier	Potential impact of three firms in Portland, Hillsboro, and Salem	Business Oregon
Genentech	75	$400,800	Payroll + Multiplier	Potential Impact Study Contracted for Incentives	Business Oregon
Title 4 Lands Hillsboro	3,388	$616,000	Payroll No Multiplier	Industrial Lands in Hillsboro based on Employment Data	Business Oregon

Source: Oregon Business Development

Central Oregon's efforts to identify and promote a number of large lot areas for industry is, in a national context, relatively modest and completely appropriate for its current size, level of support services, and current and planned infrastructure. Maintaining a portfolio of competitive sites ranging from 50 to over 200 acres should result in substantial economic benefits and land use efficiencies.

B. Framework for Central Oregon Regional Large Lot Employment Need Analysis

This report is designed to meet the requirements of Oregon Statewide Planning Goals 9 and 14 and the administrative rule that implements this specific program, OAR 660-0024-0040 and 660-024-0045. This report is a *Central Oregon Large Lot Industrial Land Analysis*, and is allowed under the provisions of OAR 660-024-0045(2a).

III. Community Vision

A. Regional Goal and Introduction

Regional Approach

The Central Oregon region (comprised of Jefferson, Crook and Deschutes counties) proposed regional coordination and cooperation to attract new industrial employers. Economic activity in the region crosses jurisdictional boundaries, as does the labor force. While geographically separate, the jurisdictions in the region function in a manner similar to other metropolitan areas, which often share boundaries. The shared economic function within Central Oregon supports a regional approach to economic development, particularly with respect to large basic industries.

Developing a regional short-term supply of large readily available industrial sites will allow Central Oregon communities to compete for a broader range of economic development opportunities than they are currently capable of. There are a substantial number of large firms regularly seeking sites that are not currently available within the region, precluding economic development organizations such as Business Oregon and EDCO from marketing the area to these prospects. As attracting this type of activity is not currently part of regional economic development efforts, providing an ability to appeal to this segment is seen as additive to existing economic development efforts. In other words, the region's jurisdictions have developed Goal 9 compliance based on projected growth reflective of traditional patterns, and the attraction of a large industrial user would be considered an exogenous impact to these projections.

The primary economic development objective of this analysis is to ensure that the regional industrial land inventory is adequate to support the specific needs of large lot industrial users. As a result, a substantial amount of attention is paid to the site selection process utilized by candidate firms. Large firms go through a methodical and deliberate site selection process for "development-ready" sites. Successful recruitment of these firms requires a competitive selection of "development-ready" sites meeting a variety of physical and locational requirements. A development-ready site, or a "shovel-ready" site, is defined as a property in which site improvement can begin within 180 days of purchase and development application. Such sites are either served or readily served by requisite infrastructure and utilities,

environmental and other constraints are known and documented, and permitting can be fast-tracked for rapid facility operations.

The geographic region evaluated in the analysis is the Central Oregon Counties of Deschutes, Jefferson, and Crook. More specifically, the primary urban areas within this broad geographic region include the Cities of Bend, Redmond, Prineville, Madras, Sisters, and La Pine. Consistent with Statewide Planning Goal 9, this process will outline the particular site needs and characteristics associated with potential targeted industries in the region. An in-depth inventory of potential suitable sites in the region to meet regional economic goals and opportunities will be a subsequent work task for the jurisdictions in the region.

While not all jurisdictions are likely to need and/or desire the large lot industrial sites necessary to accommodate these users, the regional availability of these sites is considered desirable for all jurisdictions. As an example, a major industrial employer locating in a jurisdiction with an appropriate site will provide employment opportunities for the regional workforce, as well as the opportunity for support industries in other jurisdictions. Competing as a cohesive region allows Central Oregon to market a larger available work force, the size of which is often a key locational criterion for firms.

The need for large lot industrial sites is a regional need, with the economic development benefits widely distributed regardless of the specific firm location. While individual jurisdictions could work towards establishing independent land inventories to meet this prospective need, a regional approach appeared most responsive to what is seen as a regional issue. The goal of this regional effort IS NOT to generate an acreage calculation of needed vacant industrial land supply BUT rather is to identify the variety and size range of vacant industrial sites needed to make the region attractive to site selectors and competitive in the global marketplace - a qualitative as well as quantitative outcome. This effort will provide an adequate supply of large industrial sites to support stable, family-wage jobs in traded sectors in the short-term and to build future job creation capacity in the long-term (through land banking and a renewing large-lot industrial land supply) so that established employers do not have to move out of the region to be quick, efficient, competitive and successful.

This large-lot industrial lands supply initiative exceeds the capacity of any single jurisdiction. It is an industrial recruitment reality that in order to be competitive, regional clout and appeal along with a critical mass of diverse, attractive sites is needed. The 21st Century site selection factors in the global marketplace of industrial recruitment and site development prioritize:

1) *Expedited site development with certainty and minimal time delay;*
2) *Opportunities to expand and/or diversify manufacturing activity on-site, taking advantage of existing infrastructure and facilities investment; and*
3) *Availability of a high quality work force and training programs.*

Central Oregon has the potential to compete well under these criteria as a region, but not as individual jurisdictions. It is due to the Central Oregon quality of life factor that so many people and businesses have relocated to the region in the past decade. This region has been the fastest growing in the state. The same quality of life amenities in Central Oregon that have attracted so many new residents is a major draw and appeal for new industries looking to locate a facility. These industries want to locate in an appealing living environment that will serve to attract and retain talented and valued employees.

B. Community Vision Statement

The project's Regional Advisory Committee developed a community vision, which summarizes what the region's economic development goals are as they particularly relate to large lot industrial demand. The following is the stated vision:

> *To build a strong and thriving regional economy by establishing and actively maintaining a competitive portfolio of large lot employment sites and coordinating public investments, policies and regulations to support regional and state economic development objectives.*

As outlined in the vision statement, the region is concerned with maintaining a competitive portfolio of large lot industrial sites. This is viewed as supportive of regional and statewide economic development objectives. In addition, the vision supports a coordination of investments and policies to this end. Consistent with this vision, the focus of this analysis is on the establishment and maintenance of a short-term competitive supply of large lot industrial sites that are "development ready," which are available to allow the region to compete for major industrial employers cross shopping the region against other potential locations.

IV. Trend Analysis

A. National Economic Trends

<u>Introduction</u>

The trend analysis section provides the foundation of economic information that will shape realizable economic opportunities potential for a jurisdiction, resulting potential job growth scenarios, and ultimately employment land need over the planning horizon. In the trend analysis, it is understood that the region, state, and nation as a whole are currently navigating economic conditions not seen in a generation. Ultimately, current economic conditions make it difficult to produce highly timely national trend analysis. Johnson Reid therefore, heavily utilizes the economic forecast "of record" by the federal government, the non-partisan Congressional Budget Office biannual economic forecast.

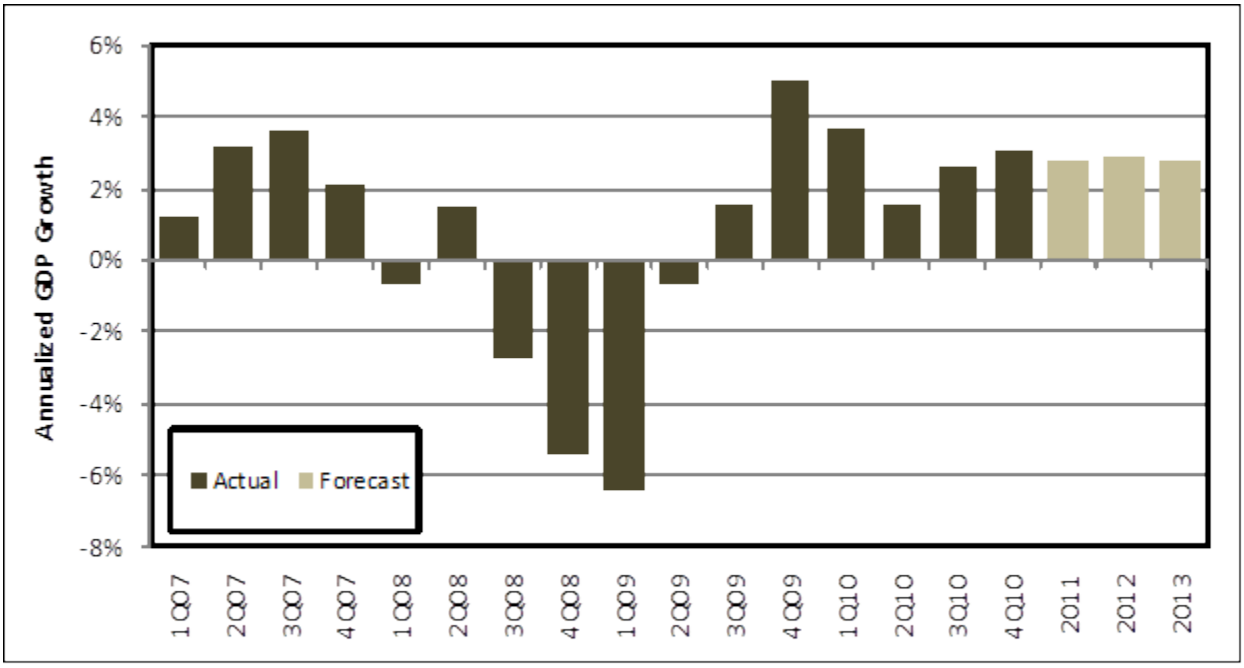
Short-Term Outlook

Gross Domestic Product

Over the previous two quarters, economic growth has stabilized with a noticeable rebound as federal stimulus spending has filtered into the economy and businesses inventory replenishment has spurred manufacturing activity. Growth in the first quarter measured a 3.2% increase following a 5.6% increase during the previous quarter. However, economic growth, as the recovery takes hold is likely to remain muted in the near term in light of existing economic turmoil, and continued uncertainly of financial markets. On the basis of previous recessions and recoveries, the following factors are also expected to contribute to a more measured recovery period.[3]

- Evidence from the United States and other countries suggest that recovery from recessions triggered by financial crisis and large declines in asset prices tends to be more protracted.
- Changes in federal stimulus: While federal stimulus spending associated with the American Recovery and Reinvestment Act (ARRA) may have helped moderate the severity of the recession in 2009, its effects are beginning to fade.
- Loss of investment income and more limited availability of credit are likely to limit growth in consumer spending in the near term.

FIGURE 3: NEAR-TERM GROSS DOMESTIC PRODUCT



SOURCE: Bureau of Economic Analysis, Congressional Budget Office

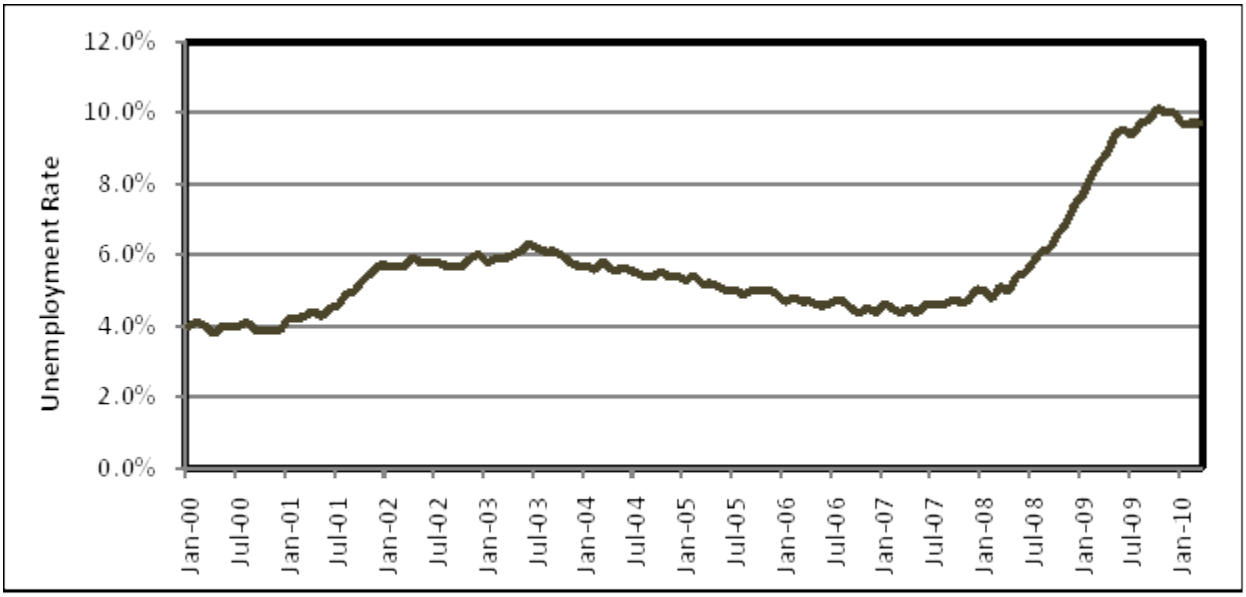
[3] Congressional Budget Office. "The Budget and Economic Outlook" January 2010.

GDP growth during 2010 averaged a 2.9% annualized rate of growth, and is projected to expand modestly in a range from 2.8% to 2.9% through 2013.

Employment

Since the beginning of the recession, payroll employment has fallen by greater than 7 million jobs, reflecting both the loss of employment and a drop in the labor force. A signature element of the current recession has been both the depth and duration of employment losses from the peak period of the economic cycle as determined by the National Bureau of Economic Research. As of June 2010 the current recession is expected to be the deepest and most lengthy period of sustained unemployment since the Great Depression.

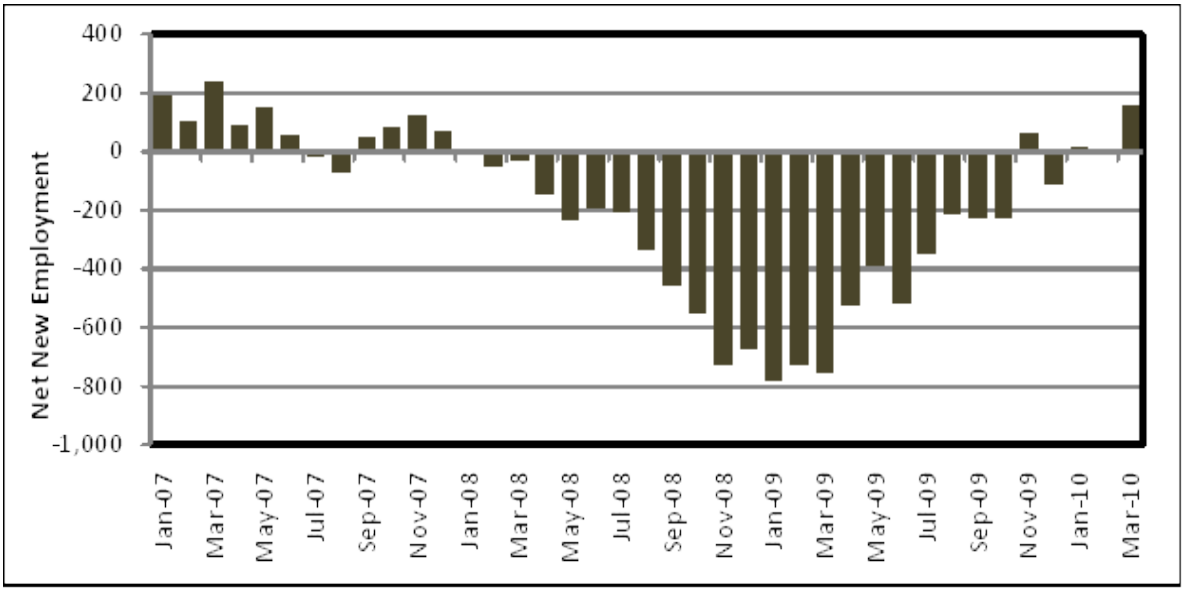
FIGURE 4: NATIONAL UNEMPLOYMENT TREND



SOURCE: Bureau of Labor Statistics

At current, unemployment remains at a seasonally adjusted rate of 9.5%, down slightly from its October peak of 10.1%. The unemployment rate is expected to remain high, and lag the broader economic recovery as there is significant slack in the economy. As the jobs situation begins to recover, workers who have quit pursuing employment are likely to reenter the labor force, delaying unemployment recovery. However, it appears that the national employment situation is stabilizing, with the pace of year-over-year job losses declining since the first quarter of 2009 and finally turning positive by the beginning of 2010.

FIGURE 5: YEAR-OVER-YEAR EMPLOYMENT CHANGE, UNITED STATES

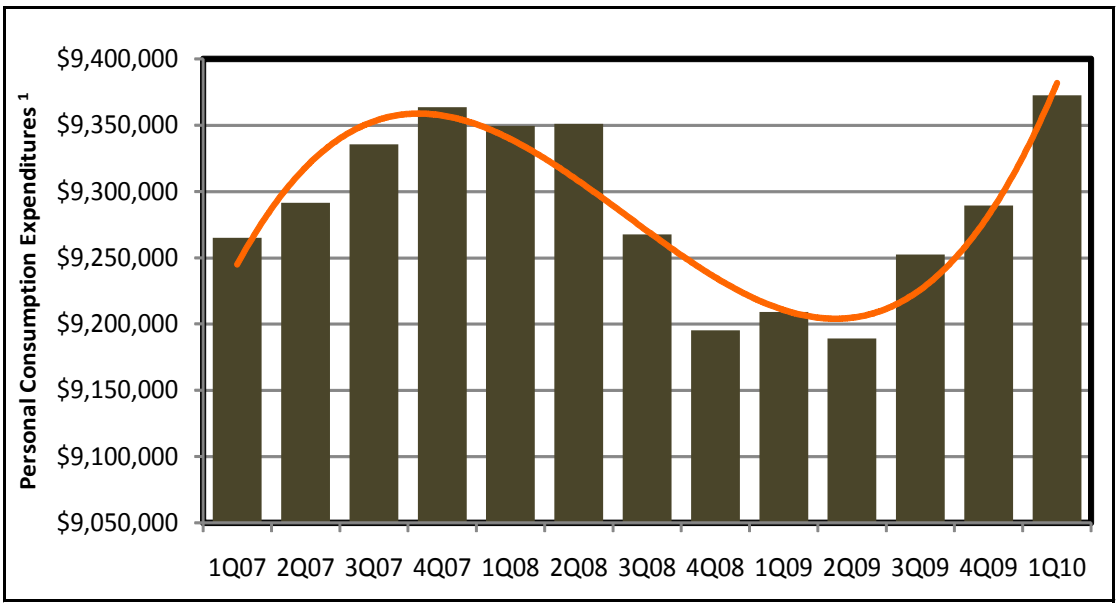


SOURCE: Bureau of Labor Statistics

Consumer Spending

While a recent upward trend is an encouraging sign of recovery, spending by households is likely to remain constrained by slow income growth, lost wealth, and limited credit availability. Similarly, the overbuilding of residential and commercial space and units exhibited during the real estate bubble created sizable vacancies in both sectors. Subsequently, a rebound in investment spending is likely to be much slower than in a typical recovery period. In the near term consumer spending growth is expected to come in below its long-term average.

FIGURE 6: PERSONAL CONSUMPTION EXPENDITURES



[1] In Millions of Chained (2005) dollars, Seasonally Adjusted

SOURCE: Bureau of Economic Analysis

Other Factors

- Housing Starts have remained stable since mid-2009 and were actually up 17% in the first quarter on a year-over-year basis. However, the current rate of housing starts remains noticeably weak and is just over a third of the 15-year average.

- Asset Prices remain highly volatile in light of broad based economic and to a certain extent political uncertainty. Since January of 2008 the Dow Jones Industrial Average has displayed a Hi-Low range of roughly 5,000 points.

- Inflation in the United States remains low. At 1.7%, change in the Consumer Price Index is low relative to historical averages. Reflecting a large amount of slack remaining in the economy, inflation risk is low, and is expected to, at best, remain unchanged, and possibly decline further in the near-term. If this trend holds true, the impact will likely be a stable monetary policy with the Federal Reserve keeping its target rate low for some time.
- Federal Debt held by the public as a percentage of total output has reached its highest level since World War II. Under current policies this condition is expected to exacerbate further. Persistent deficits can have severe economic consequences, including the crowding out of private investment, limiting the effective use of fiscal policy, and increasing the risk of a fiscal crisis.

<u>Long-Term Outlook</u>

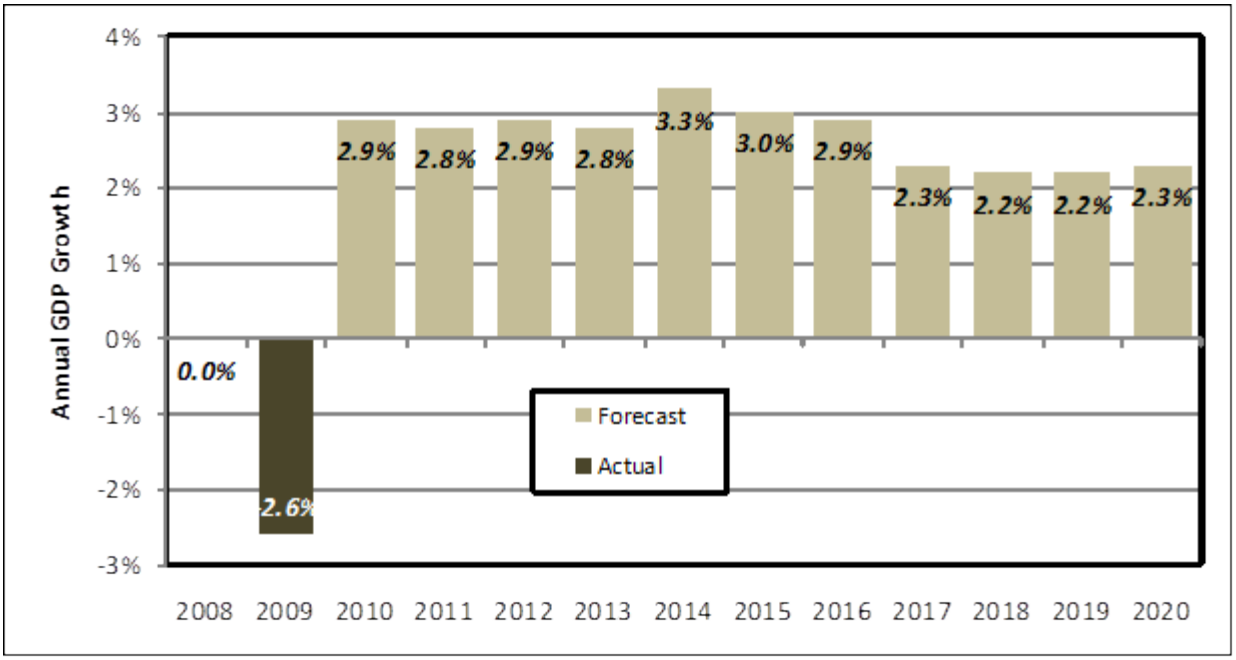
During the first half of the next growth cycle, GDP is forecasted to grow rapidly enough to close the considerable gap between existing and potential GDP. Beyond the near-term, the United States economy is expected to return to a typical growth cycle and growth at roughly the same pace as potential output, averaging 2.4% annual growth between 2015 and 2020. While growth patterns are expected to return to normal, economic growth in the coming decade is likely to be more measured relative to historical averages. Factors moderating long-term economic growth include:

- Demographic factors are expected to create a reduction in the potential labor force and potential hours worked, which account for three-fourths of the economy.

- Federal Debt will increasingly displace business investment and thus growth in capital services.

- Total factor productivity growth is forecasted to average 1.3% annual growth, slightly above its average rate of growth since the productivity slowdown of the 1970s but below the 60-year average.

FIGURE 7: LONG-TERM GDP FORECAST

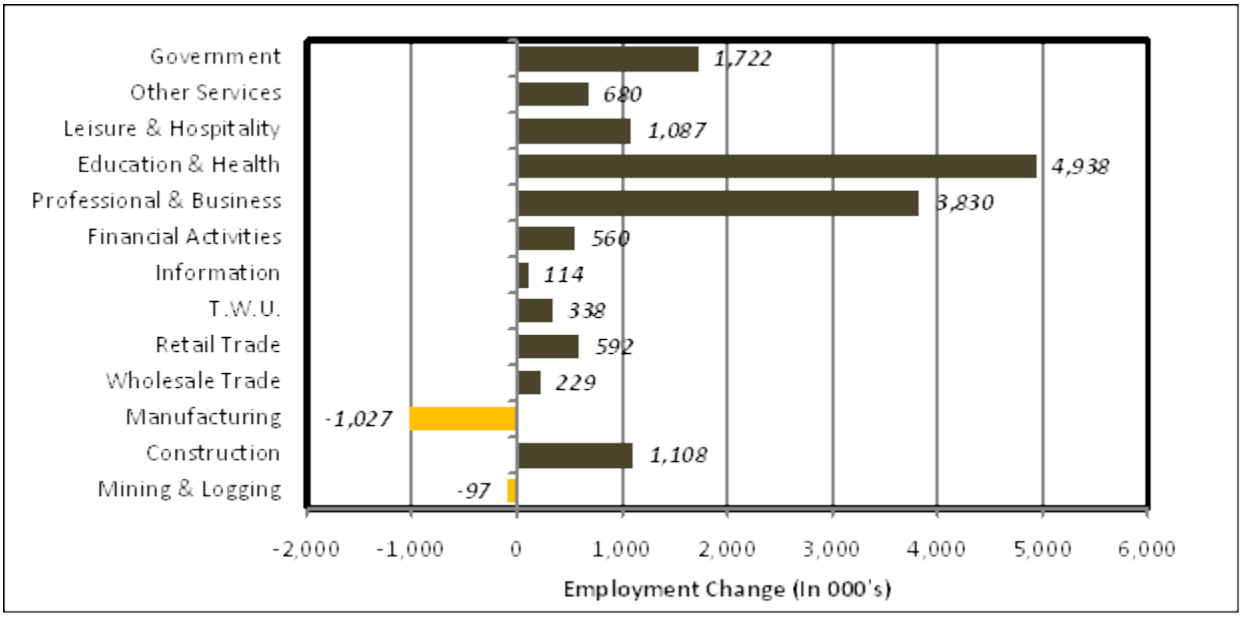


SOURCE: Congressional Budget Office and HIS Global Insight

Inflation, as measured by the PCE price index will average 1.7% annually during the latter half of the coming decade. The Federal Reserve will continue to use its monetary influence to control inflation risk in the next cycle. The Fed is expected to maintain the rate of PCE near the top of its target range.

Long-term unemployment is expected to average 5% during the latter half of the decade, roughly equivalent to what is considered to be the natural rate of unemployment. Over the next ten years, the U.S economy is expected to add over 14 million employment positions according to the Bureau of Labor Statistics (BLS). The national economy is forecasted to continue its exhibited trend toward more service oriented industries. A staggering 62% of new employment is expected to be concentrated in only two industries, Education & Health Services, and Professional & Business Services. Over the forecast-term, only the Manufacturing and Mining & Logging industries are expected to contract in size.

FIGURE 8: NATIONAL EMPLOYMENT FORECAST BY INDUSTRY 2010-2020



SOURCE: Bureau of Labor Statistics and JOHNSON REID

Factors affecting economic growth moving forward

- **Financial Markets**: The financial situation of many banks remains delicate; however, the risk of further deterioration is moderating. Ease and cost of credit is likely to be more limited moving forward, but far improved from current conditions.

- **Monetary Policy**: The Federal Reserve is likely to continue aggressive monetary support for the economic recovery until the risk of higher inflation outweighs the risk of economic deterioration. The recent economic crisis saw the Fed take a larger and more nontraditional role in its monetary influence, namely the purchase of large amounts of mortgage backed securities on the open market. This has created a more complicated view of Fed influence and monetary policy actions. With nearly twice its pre-recession asset holding, the Fed can now withdraw monetary influence by either raising its target Federal Funds Rate or reducing its asset holding.

- **Fiscal Policy**: The fiscal impacts of the ARRA have already begun to wane and are expected to turn negative by 2011. Moving forward, mounting federal deficits could limit the government's fiscal capabilities in the long-term while placing upward pressure on tax rates.

- **Investment**: Inventory levels are beginning to equalize, and firms are more likely to increase production to more closely match sales. However, the spread between housing vacancies and housing starts remains high, and a rebound in housing investment is unlikely until later in the cycle. Investment in durable equipment and software is expected to lead the recovery. Many industry sources predict a "pent up" demand for

facilities and equipment that will materialize in terms of companies seeking immediate, development-ready locations.

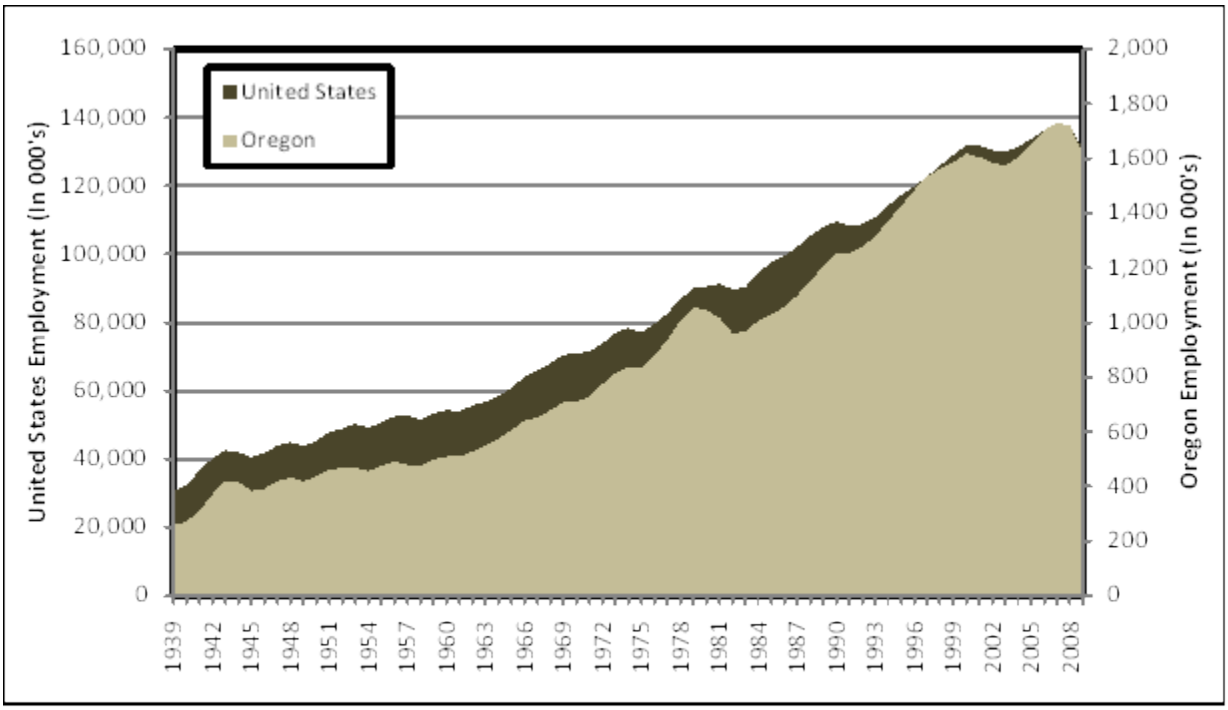
- **Consumer Spending**: Growth is expected to remain protracted through 2011. Persistently high unemployment will limit income growth and dampen consumer spending growth even further.

B. State Economic Trends

General Industry Trends

Oregon experienced exceptional employment growth between mid-2003 and 2007. Growth began slowing towards the end of 2006 and continued through 2007. The Oregon Employment Department's employment estimates for second quarter 2010 indicate that Oregon is following the U.S. economy with decreasing job losses and a turning point in the unemployment rate. Figure 7 demonstrates how closely tied the Oregon economy is to economic trends at the national level. Since 1939, Oregon has tracked the peaks and valleys of the U.S. economy. Also illustrated is improved diversity in Oregon's economy as evidenced by alleviation of the volatility that plagued Oregon during the 1980's recession.

FIGURE 9: U.S. AND OREGON HISTORICAL EMPLOYMENT TREND: 1939-2009



SOURCE: Bureau of Labor Statistics

Oregon's economic growth since 2005, but prior to the current precipitous slowdown, is due in large part to explosive growth in exports. For example, between first quarter 2007 and first quarter 2008, Oregon exports increased by 23.7%, more than six points higher than the U.S.

growth during the same period. Oregon's export growth is primarily due to export growth in agricultural products which grew by 82.2% and computer and electronics products which grew by 24.8%. Computer and electronics account for nearly 40% of total Oregon exports. Several other industries experienced high growth in exports during the same period: Waste and Scrap (+71.6%), Nonmetallic Mineral Products (+54.0%), Chemicals (+47.6%), Primary Metal Manufacturing (+31.0%), Miscellaneous Manufactured Commodities (+26.0%) and Wood Products (+23.8%).

Industry Analysis

The first quarter of 2010 represented the first positive quarterly job increase since 2008. Figure 8 outlines a breakdown of Oregon's primary industries, where they appear to be in the cycle, and forecasts of growth over the near-term. Almost all service sectors posted seasonally adjusted job growth in early 2010. Housing market dynamics are expected to continue dragging down the Construction and Financial Activities Sectors in the near-term, but growth should turn positive in 2011. A similar trend is anticipated for Oregon's Wood Products industry. Positive spots in the economy include High-Tech Manufacturing, Food Processing, and Education & Health Services.

FIGURE 10: OREGON ECONOMIC CONDITIONS AND ESTIMATES BY INDUSTRY

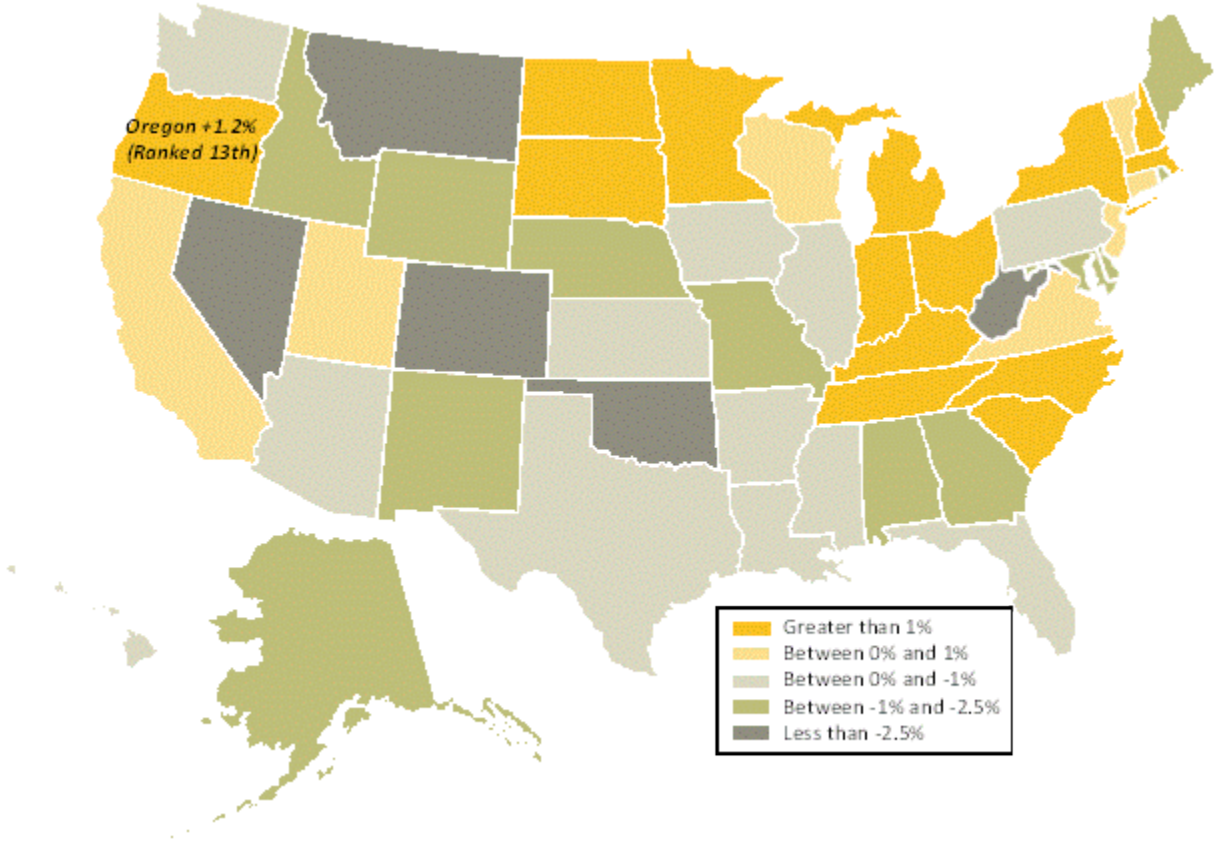
Industry	Recovery Signal	Growth Projections 2010	Growth Projections 2011	Comments
Wood Products	Stabilizing	-5.4%	5.7%	Slowly recovering but still feeling the housing market
Computer & Electronic Equipment	Positive	0.1%	3.7%	Good corporate earnings
Transportation Equipment	Contracting	-10.3%	4.5%	Still among Oregon's most troubling sectors
Metals and Machinery	Stabilizing	n/a	2.8%	Sector never got too bad
Food Processing	Positive	6.8%	0.8%	Among Oregon's strongest sectors
Construction	Contracting	-15.0%	1.3%	Commercial real estate extending the decline
Information	Flat Growth	0.0%	2.8%	Newspaper & publishers feeling a weak retail sector
Financial Activities	Stabilizing	-1.4%	2.2%	Weakness in real estate limits growth in 2010.
Professional & Business	Stabilizing	0.1%	5.9%	Stable sector poised for a robust 2011 recovery
Education & Health	Positive	1.9%	2.1%	Among Oregon's strongest sectors.
Leisure & Hospitality	Flat Growth	0.8%	0.7%	Performed poorly in 2009 with little near-term growth expected.
Government	Contracting	-0.5%	-0.3%	Negative state and local growth partially offset by Federal gains.

SOURCE: Oregon Office of Economic Analysis and Johnson Reid, LLC

Economic Recovery Prospects

In the State of Oregon, the consensus among economists is that the State economy is holding in a soft-patch period, as federal stimulus and inventory investment fade by the third quarter of 2010. Businesses are beginning to feel better about the economy, while persistently high unemployment has kept consumer sentiment down. However, the outlook for Oregon is positive relative to other parts of the nation. In the most recent publication of the Federal Reserve Bank of Philadelphia's Coincident Index of Economic Indicators, Oregon posted a 1.2% improvement, ranking 13th in the country and 1st in the West. Moreover, according to the Oregon Office of Economic Analysis (OEA), Oregon's risk of slipping into recession is now currently below the 50% mark for the first time since late 2007.

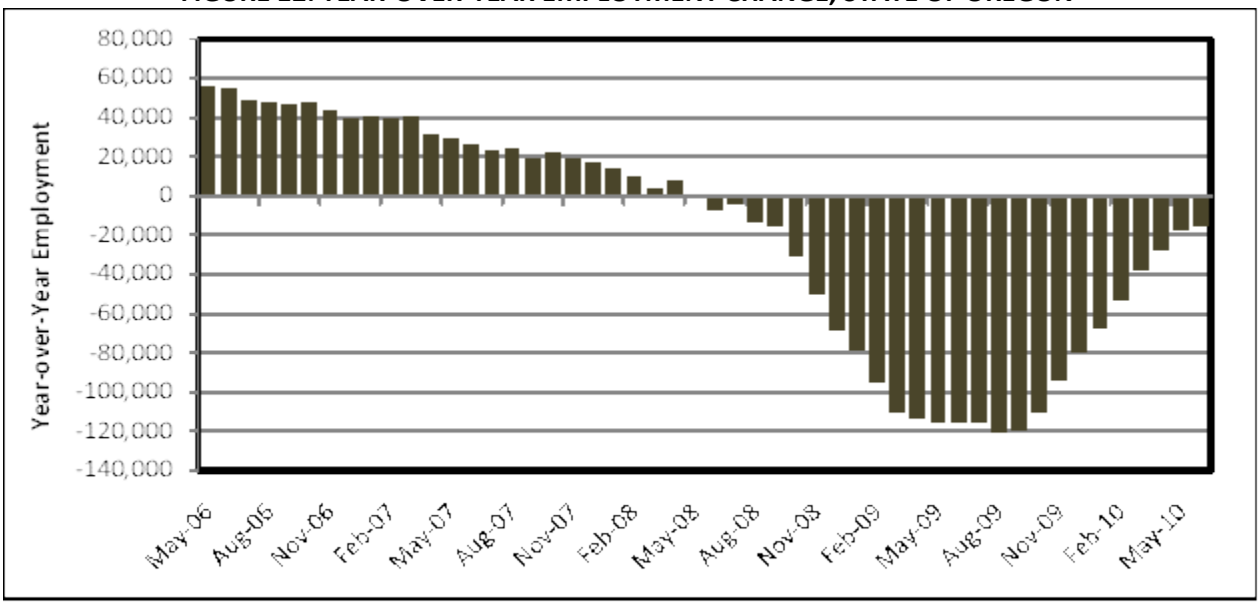
FIGURE 11: FEDERAL RESERVE BANK OF PHILADELPHIA'S COINCIDENT INDEX OF ECONOMIC INDICATORS



Employment Factors

Similar to trends at the national level, the State of Oregon began exhibiting a decrease rate of job losses (on a year-over-year basis) beginning by mid-2009. However, at the state level jobs have yet to turn positive but are certainly trending in a positive direction. The State's unemployment rate has moved in a positive direction, down to 10.5% from a 2009 peak of 11.6%, seasonally adjusted. Nevertheless, Oregon's rate remains elevated relative to the national average.

FIGURE 12: YEAR-OVER-YEAR EMPLOYMENT CHANGE, STATE OF OREGON



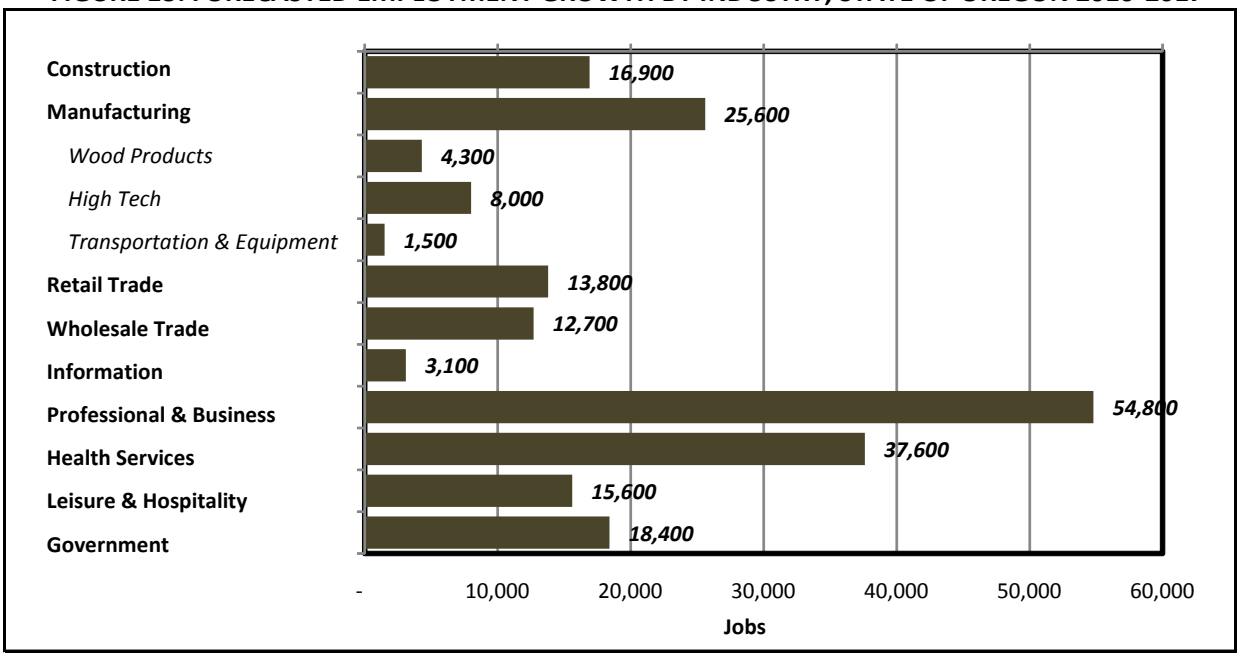
SOURCE: Oregon Employment Department

Over the longer-term, Oregon's economic growth is expected to outpace growth at the national level. By 2018, the State's employment is expected to grow by over 14% with Oregon's population growing by 9% over the same interval. Additionally, Global Insight, a national leader in economic forecasting, project's Oregon's Growth State Product to have the second highest growth rate in the nation in the coming years. Oregon's high growth prospects are due to a number of factors:

- ◊ Population growth, primarily due to net in-migration
- ◊ Relative location near Canada and Asian countries
- ◊ High commodity prices
- ◊ Export growth
- ◊ Business Cost Advantages
- ◊ Affordable housing
- ◊ Biotechnology and Clean Technology
- ◊ Renewable Energy and Sustainable Development
- ◊ Quality of life
- ◊ State tax incentives, including the Single Sales Factor Tax

Through 2017, the OEA forecasts 223,000 new jobs in the Oregon economy. Mirroring national forecasts, a significant share (41%) are expected to fall in Professional & Business Services and Health Services. The state is expected to add over 25,000 new manufacturing jobs based on the 2010 base, roughly 8,000 of which are expected to be high wage High Tech Manufacturing jobs.

FIGURE 13: FORECASTED EMPLOYMENT GROWTH BY INDUSTRY, STATE OF OREGON 2010-2017



SOURCE : Oregon Office of Economic Analysis (OEA)

Risk Factors

While signs of systematic economic recovery are emerging, the State of Oregon still faces notable downside risk in key sectors. Housing and real estate remain weak, and Oregon's dependence on the stability of export markets is a regular concern. Other factors which could affect the Oregon's economic outlook include:

- **Credit Markets:** While conditions are improving, consumers and businesses are still facing greater difficulty getting loans relative to the previous cycle. This is also a risk reflected nationwide.

- **Prolonged Housing Market Weakness:** While signs are emerging that the housing market has hit bottom, a full housing recovery remains several years off. However, Oregon has fared better than most western states, and if the economic recovery beats expectations, Oregon will be better off than most of the region.

- **Fading Inventory Cycle and Federal Stimulus:** Much like in the national analysis, these two metrics are credited with propping up the economy over the previous two quarters. With support broadly expected to wane, uncertainty is on the horizon.

- **Global Economic Conditions:** As mentioned previously, Oregon's economy is highly export based and Oregon has above average exposure to global economic conditions, particularly conditions among its major trading partners. Expectations for economic growth in Asian countries such as China are a positive sign for Oregon.

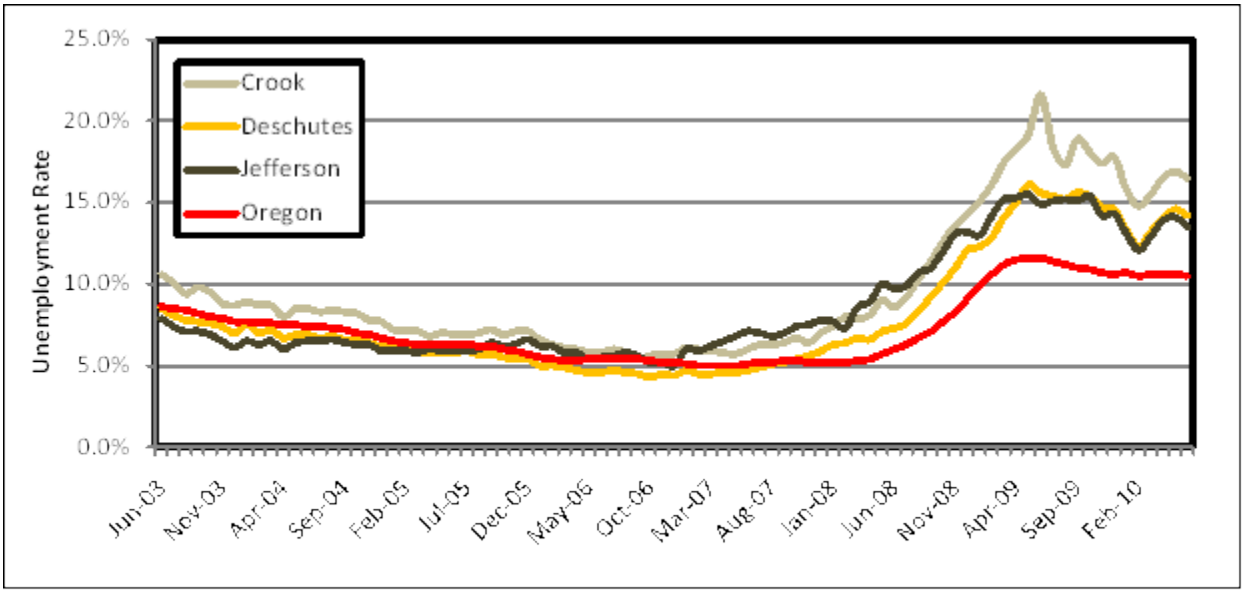
- **Energy Prices:** Currently low energy prices relative to the previous cycle will be a short-term boon for the economy, as businesses with the ability will chase cost savings. However, price increases are expected to return commensurate with broad based economic recovery, and maintaining a cost based competitive advantage is likely to be central to Oregon's economic development success.

C. Local Trends and Conditions

Economic Factors

The Central Oregon economy was historically dominated by Wood Products Manufacturing and Natural Resources. In recent decades, this changed dramatically as population influences and tourism activity spurred growth in service oriented industries and manufacturing diversity. Central Oregon became among the fastest growing regions in the West. Affluent new residents attracted to the region's quality of life brought wealth from outside the region, fueling demand for services and housing with the infusion of their disposable income. Central Oregon was among the hardest hit regions in the state during the current recession, with unemployment rates remaining near 15% in the current quarter, significantly higher than the statewide average.

FIGURE 14: COMPARATIVE UNEMPLOYMENT ANALYSIS 2003-CURRENT



SOURCE: Oregon Employment Department

Several key factors have contributed to both the depth and duration of Central Oregon's economic weakness. Firstly, industries that supplied goods and services to Central Oregon's real estate development market and served a rapidly growing population were largely responsible for its robust economic expansion. With the bursting of the housing bubble in 2007, the concentration of the regional economy dependent on real estate development created an

economic contraction as dramatic as its rise. Central Oregon has lost one in four construction jobs since the peak of the cycle.

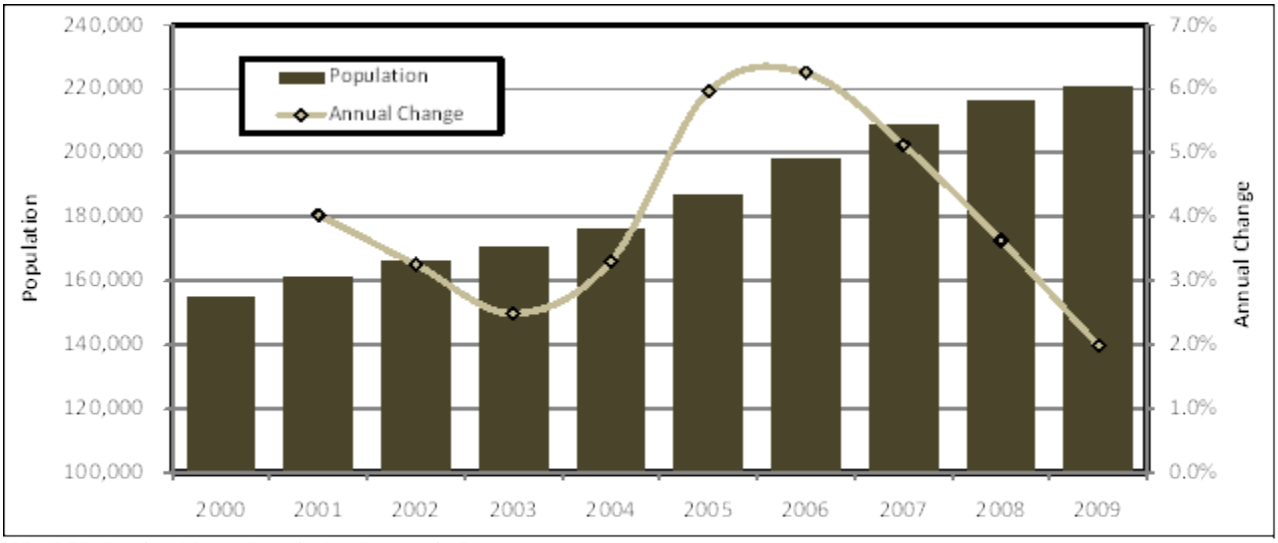
Secondly, Central Oregon's new service concentrated economy is far more susceptible to changes in consumer sentiment and disposable income. The national recession's impact on tourism markets, consumer spending, and the acquisition of vacation properties or second homes compounded Central Oregon's decline. The Central Oregon economy was highly dependent upon “discretionary” activity, which tends to be very cyclical.

Thirdly, unemployment in Central Oregon has remained persistently high in part as the result of continued population growth attracted to the region’s quality of life. Central Oregon maintained positive in-migration through 2009. Coupled with stagnated employment growth, this in effect has kept unemployment high by maintaining higher labor force levels.

Population

Central Oregon's dramatic Population rise was largely the effect of significant in-migration. During the 2000-2009 decade, Central Oregon averaged 4.0% annual population growth while adding more 65,500 new residents. Despite an influx of retirement age residents, 55% of residents are working age between the age of 25 and 64. This is consistent with the statewide average.

FIGURE 15: LOCAL POPULATION GROWTH TREND



SOURCE: Portland State Population Research Center

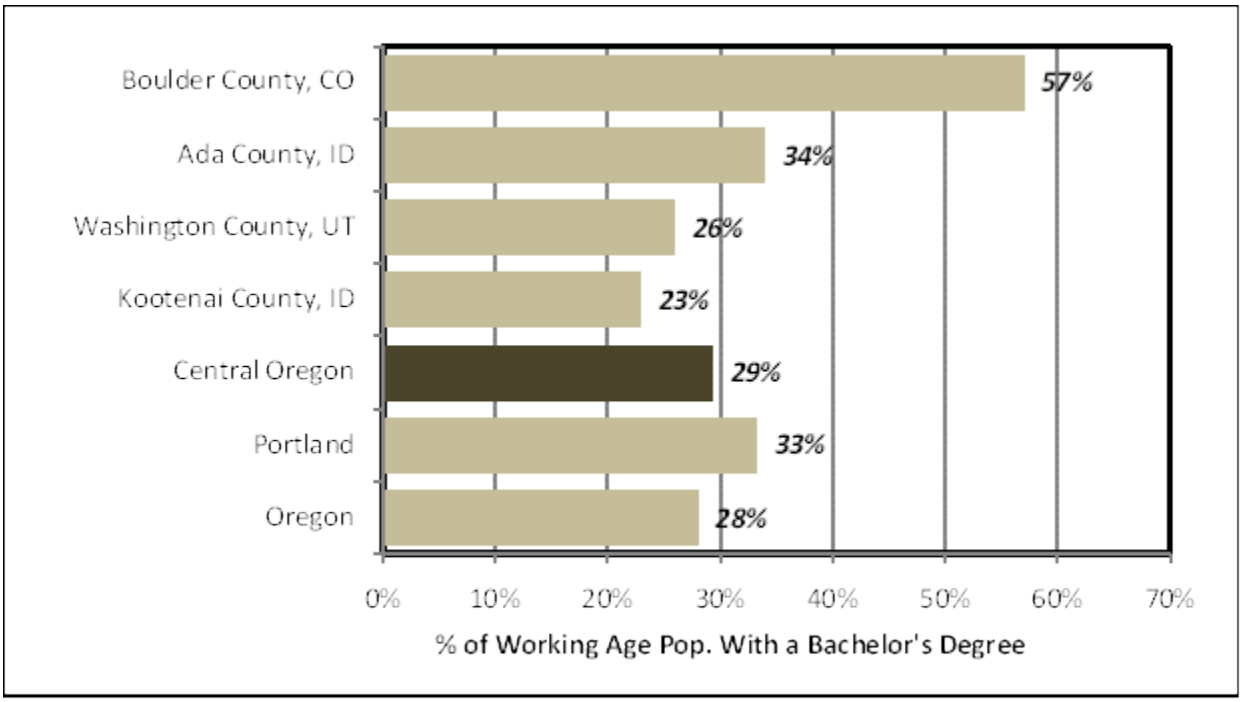
The City of Bend is the primary population hub in the region, accounting for 37% of the regional population and 44% of growth during the last decade. Over the next 20-years, the OEA estimates Central Oregon will continue demographic growth at a 2.1% annual pace adding 45,000 new residents by 2020. However, this State developed rate of growth may be slightly

conservative in nature, Deschutes County's 2004 coordinated population forecast is projecting 47,000 new residents in Deschutes County alone over the same interval.

Education

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, Central Oregon is consistent with regional averages, with 29% of the working age population having at least a bachelor's degree. However, a 2010 study of Central Oregon's (Deschutes County) competitiveness evaluated Central Oregon in light of a sample of competitive economic peers in the west. The study found Central Oregon to be in the middle of the road relative to its peers. An educated and skilled workforce is a competitive asset among Central Oregon's target industries. An inability to "stand out" in this metric may limit the region's ability to recruit employers within specific industries.

FIGURE 16: COMPARISON OF EDUCATIONAL ATTAINMENT

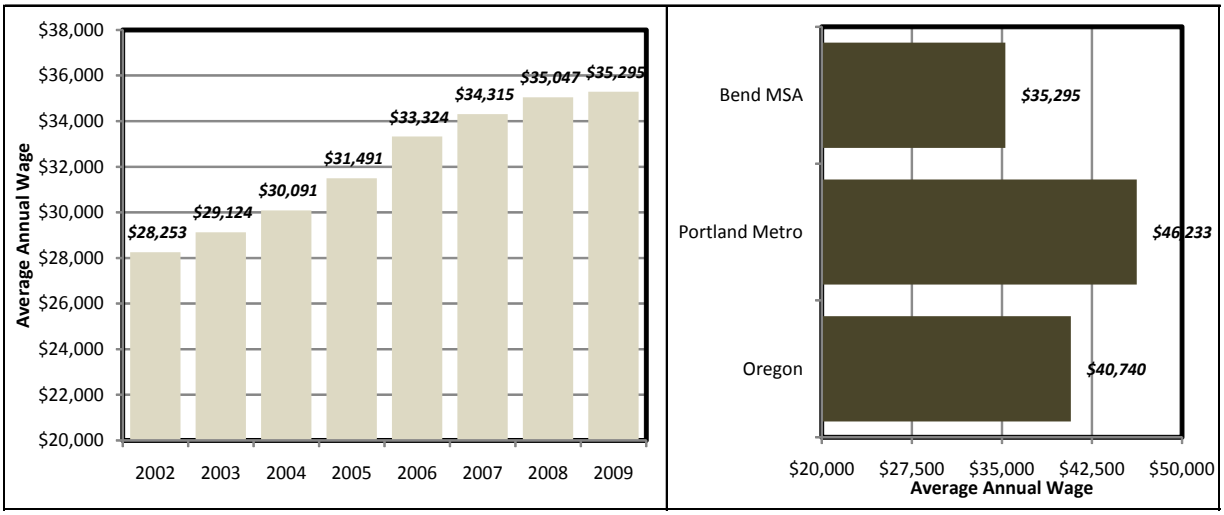


SOURCE: Headwaters Economics, U.S. Census Bureau, and Johnson Reid, LLC

Wages

Since 2002, wage levels in Central Oregon have averaged a 3.2% annual rate of growth, comparatively better than a 2.8% annual growth rate at the State level. Deschutes County's average 2009 wage level of $35,295 was well below the statewide average. Lower relative wage rates coupled with housing affordability concerns can limit the region's ability to attract a high quality workforce to the region.

FIGURE 17: CENTRAL OREGON WAGE TRENDS



SOURCE: Oregon Employment Department, Covered Employment Survey

V. Target Industry Analysis

A. Large-lot Trends and Dynamics

Changes in global business patterns have pressured firms to develop more capital intense production models, placed a greater emphasis on economies of scale, as well as production efficiency and flexibility. The result has been the emergence of a clear real estate trend, creating a global demand for large development ready industrial sites. As such, large, development ready sites have emerged as one of Oregon's most severe development challenges.

Workforce characteristics, quality of life, proximity to large U.S. West Coast markets, and coordinated public involvement and recruitment have landed Oregon "on the radar" of many large-scale projects shopping for sites in the United States. Many of these projects have been concentrated in cutting edge industries important to the State of Oregon's economic development targets. The state and region have had measured success in the placement of large-scale projects, with lack of suitable sites (size & infrastructure), lack of market choice, and time duration to entitle and develop sites commonly cited as development constraints.

Large scale global firms represent an important prospective economic development engine for the state and region. Global scale firms have the ability to open new markets, bring cutting edge technology to the region, are associated with high wage jobs, and expend significant capital investment. As an additional benefit, the high assessed value of these projects contribute significantly to the stability of the tax base that allows provision of necessary services to all residents of the region. Therefore, the goal of this process is to evaluate Central Oregon's opportunities for large scale economic growth in light of statewide planning goals and practices, as well as land and infrastructure availability.

Large-Lot Trends

Shifting global market factors have increased the need for large lot industrial sites over the last several decades. Warehouse properties have substantially increased in size as distribution reflects increasing returns to scale as well as the concentration of production in larger production facilities. Production facilities are also increasingly scaled for global as opposed to regional or national needs. The following are examples of recent warehouse projects that have located to the State of Oregon, as compiled by Business Oregon:

Jurisdiction	Tenant	Site Size	Square Footage
Albany	Target	175 acres	1.3 million
Hermiston	Wal Mart	200 acres	1.3 million
Lebanon	Lowes	204 acres	+1.3 million
Salem	Home Depot	50 acres	500,000

As shown in the preceding table, the emerging module for distribution facilities now regularly tops 1.0 million square feet of building area, with site sizes in excess of 200 acres. Over 55 projects have shopped the State of Oregon over the last ten years with site demand over 50 acres, averaging over 5 new projects per year. Business Oregon currently has 10 estimated outstanding leads in this size category.

Manufacturing has also shifted to larger site needs, with examples including Genentech, SolarWorld and Intel's new expansion in Hillsboro. Each of these required sites are in excess of 50 acres in size, with Intel's located on land held in reserve adjacent to a currently operating facility. While these projects show a need for large sites, they also speak to a desire for even larger sites than immediately needed to provide flexibility. While Intel didn't immediately need the land used for their recent expansion when building the initial Ronler Acres facility, the flexibility provided by this excess property made the site more competitive vis-à-vis alternative locations that had a greater probability of limiting future expansion options.

Business Oregon estimates that they see approximately 15 serious inquiries a year for large scale manufacturing sites. Combined with warehouse/distribution inquiries, Business Oregon sees over 20 annual inquiries a year statewide for large lot industrial sites. As not all leads are picked up by Business Oregon, one would expect the overall activity to be significantly higher.

Economic Development for Central Oregon (EDCO) is currently working with 72 companies seriously considering a location in Central Oregon, of which five would require a site 20-50 acres in size, while three would require a site in excess of 100 acres. Industries that have contacted EDCO for large acreage sites include the following:

- *Distribution and warehousing;*
- *Data centers;*
- *Renewable energy equipment manufacturing;*
- *Energy production facilities (biomass, solar, geothermal, synthetic fuels);*

- *High technology; and*
- *General durable goods manufacturing.*

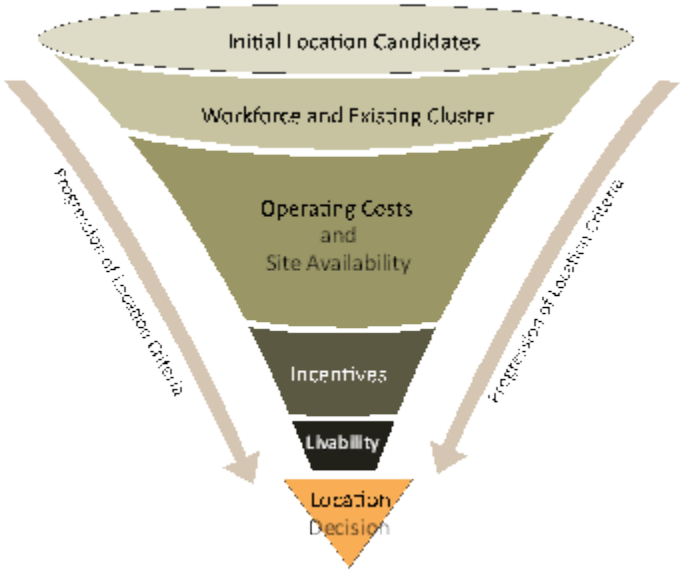
Johnson Reid completed a survey of industrial brokers active within the State of Oregon in 2010, asking a series of questions with respect to market activity for large lot industrial sites. These surveys revealed the following:

- Industrial brokers surveyed fielded an estimate of eleven 50+ acre parcel queries annually over the last ten years, largely by technology manufacturers and warehouse/distribution users.
- Technology manufacturers comprised 35% of all 50+ acre site queries over the last decade, indicating continued viability and continued growth potential for the cluster.
- For every public lead that generated a large site query fielded by a broker, private brokerages fielded nearly 3 large site queries independent of public economic development involvement.
- The State loses at least one large site query annually due explicitly to site unavailability, however Johnson Reid concludes more are also likely lost due to site unavailability but limited broker involvement and firm confidentiality prevent verification.
- Almost one of every three sites purchased by large users over the last ten years has not yet realized development. In other words supply capacity should include at least 33% land investment and "transaction demand" capacity to enable firms adequate choice for the large site market to function.

In summary, Business Oregon fields over 20 inquiries annually for large lot industrial land, while EDCO fields an additional amount. If the broker experience holds true, the actual volume of prospective site queries is in excess of 80 annually statewide.

Importance of Large-Lot Supply and Market Choice

Oregon is entering an increasingly competitive dynamic in the recruitment and retention of global large scale employers and producers. In their search for suitable site locations for business expansion, firms typically follow a site selection process and evaluation of regional characteristics and livability, workforce/industry dynamics, operating costs/incentives, and availability of a selection of sites ready for immediate development. A development-ready site, or a "shovel-ready" site, is one in which site improvement can begin within 180 days of purchase and development application. Such sites are served by requisite infrastructure and utilities, environmental and other constraints are known and documented, and permitting can be fast-tracked for rapid facility operations. Many large business location searches are conducted by hired site selectors; their task is to present their clients with a "short list" of feasible options. Because of their mandate, site selectors admittedly look for reasons to remove sites from consideration because of some inadequacy in characteristics; their job is not to keep sites in consideration based on promised improvements in any deficient condition.



Johnson Reid has organized this process into a simple model that follows the progression of firms' decision criteria in location analysis. In addition to identifying a progression of selection criteria, Johnson Reid have found land diversity and market choice to be of particular importance. Industrial recruiters at Business Oregon and other entities around the state strongly assert that a lack of sites puts Oregon at a distinct competitive disadvantage relative to competitor communities across the nation. The consensus has emerged that a general lack of development-ready sites to choose from eliminates a city or region from contention very early in the site selection process. Moreover, market choice among several sites further preserves price stability and transaction certainty that tends to deteriorate in a single-seller scenario, threatening placement of potential firm.

Additional industrial development and business trends affecting large-lot industrial demand include:

- Companies trending toward expanded portfolios.
- Among key industries such as high-tech/renewable energy manufacturing and biosciences, evolving production models requiring substantial capital investment and reinvestment have created a need for land capacity beyond current needs. Firms require land holdings with flexibility and expansion capacity. The value of this flexibility to a firm exceeds the marginal cost of holding land for many firms, leading to firms seeking sites often well in excess of immediate space needs.
- Higher fuel and energy costs are forcing firms into more regionally distinct operations for sourcing their raw materials and/or distributing their finished products.
- Large, available vacant structures are a popular commodity for some industries where time-to-market is a critical element of location decisions.
- Location incentives are playing an increasing role in location criteria, at least in the context of “leveling the playing field” among competitor locations.
- Low cost, high capacity *existing* utility infrastructure is emerging as a deterministic quality in site criteria for many targeted industries; if capacity does not currently exist it must be available within the project timelines for sites to remain in consideration.

For most companies making location decisions, land is a "means to an end"; that is, they need the land to locate some kind of facility so they can produce the product or service that is their primary business. They want:

- Diverse sites in a region to choose from in the early stages of their search; most companies want to pick and choose.
- A single point of contact/negotiation; companies are *not* interested in protracted negotiations with multiple parties; they want the process to be as quick and painless as possible.
- Prospects are very concerned how the land procurement process affects their project time lines and ultimate time-to-market of their product; often, in fact, the actual land price is of lesser consideration to the company than how quickly and easily the property transaction moves forward.
- Prospects are highly unlikely to be patient when it comes to services (water, wastewater, power); the availability of service needs to fit into the project timeline, and not be a roadblock issue.

Assembling multiple smaller parcels into a cohesive "large lot" product can be a very difficult task. Among the barriers to land assemblies are:

- Property owners unwilling to sell (for many reasons: price, tax impact, sentimental value, replacement costs, and viable alternative locations).
- The sheer cost of the land; owners have an inflated expectation, or perhaps only one ownership out of a larger site assembly is a problem.
- Ownership interests are fractured (often true in family inheritance situations); this issue often is combined with absentee ownership, so that owners don't really have a "stake" in the transaction and its impact on the community.
- Regulatory environment (zoning, environmental overlays, mandated parcel size).
- Infrastructure demands caused by land assembly, and the commensurate ability to finance necessary improvements.
- Legal issues, including clear title, easements, and encumbrances.

As these possible barriers are viewed from the standpoint of the business making a location decision, it is not difficult to perceive why multiple parcels often represent a "deal-killer" to companies who do not have the time, patience, or expertise to wade through a possible quagmire of issues.

The key to the site selection process is that it is essential for candidate sites to be truly development-ready instead of simply "buildable". A general lack of development-ready sites to choose from eliminates a city or region from contention early in the site selection process. In addition, firms in the site selection process prefer to have multiple options within a region that

meet their criteria. Ideally this would include multiple ownerships, as well as multiple jurisdictions. This allows for competitive pricing, a wider range of options, as well as making the area more attractive for site visitation.

Competitive Inventories

While the State's land use system is concerned with meeting demand over the next 20-years, of more critical importance is the availability and maintenance of a competitive inventory of readily available sites. As the Central Oregon region considers new, large industrial site supply, the region specifically seeks to provide a supply of large, development-ready sites that is competitive with other markets nationwide.

Johnson Reid prepared a number of surveys over the last several years, documenting the supply of *development-ready* site inventory (180-day) marketed by national competitors. Johnson Reid would underscore that at least two of the competitors shown – Albuquerque and Austin – have identified replacement industrial land supply exceeding a thousand acres according to officials interviewed. The City of Hillsboro is also actively working towards increasing its large lot industrial acreage inventory.

Competitive	50-100 Acre Sites		100+ Acre Sites		50+ Acre Sites	
Market	Site Count	Acreage	Site Count	Acreage	Site Count	Acreage
Colorado Springs	20	1,500	5	500	25	2,000
Raleigh	2	126	12	1,470	14	1,596
Austin (Round Rock)	5	380	6	855	11	1,235
Albuquerque	3	225	9	900	12	1,125
Hillsboro	1	78	0	0	1	78

SOURCE: Johnson Reid Survey (Feb. 2010)

Many site selectors will require the ability to review multiple options in the region in order to reduce the risks associated with varying levels of environmental mitigation, local government policy, site avoidance factors and planned levels of infrastructure utility investment.

Central Oregon competes with regions across the country that offer significantly greater development-ready industrial land supply, selection, diversity, and lower land cost. Continued inability to factor competitiveness as borne out by surveyed industrial broker activity, including diversity of large industrial site supply and competitive cost, sacrifices the region's long-term competitiveness for these key industries. As noted by EDCO, "with many options (depending upon the geographic scope of the search) we have seen a resistance by site selectors, corporate real estate professionals and company representatives to invest the time and travel to visit the region without more than just one or two large lots to consider."

B. Strengths and Challenges in the Central Oregon Economy

In June of 2010 Deschutes County and the consultant team moderated the Central Oregon Industrial Lands Forum. Participants in the forum discussed economic development trends at a national and regional level, as well as specific opportunities and challenges for Central Oregon. In this section, the findings of this session are summarized, as well as additional input from the Regional Advisory Committee and the consultant team. The Central Oregon region has a number of strengths with respect to economic development, including the following key attributes:

- Quality of Life – The region's extensive recreation amenities and commercial services base are a substantial advantage. While the concentration of destination resorts in the area attest to the attractiveness of these assets, their existence also supports a much more substantial services amenity base than the full-time population could support. This makes it easier to attract executives as well as a quality work force. With advancements in telecommunications, firms are more footloose now than traditionally, and quality of life criteria play a greater role in location decisions.
- Access – The Central Oregon communities serve as the commercial hub of a much broader rural area. In addition, Highway 97 provides a major north/south alternative to Interstate 5. Central Oregon's location makes it a natural commercial services hub for a very broad area. While Highway 97 is not perceived to be of equal value as Interstate 5 as a north/south link, its function is equivalent and sometime superior for many prospective firms.
- Commercial Air Service – The Redmond Municipal Airport provides commercial service links, while Bend, Madras and Prineville have general aviation airports. This is supportive of firms making location decisions for quality of life reasons, while still maintaining a functional and convenient link to major metropolitan areas.
- Rail – The region has made major investments in the Regional Freight Depot, supported by Connect Oregon grants.
- Natural Resource Proximity.

The primary challenges facing the area are related to scale and accessibility. While the region as a whole has a significant population base, none of the jurisdictions are considered large enough to meet many firms initial screening. In addition, Central Oregon's distance from the Interstate system is a major impediment for many prospective firms.

The competitive characteristics of Central Oregon can be strengthened through a regional approach. Individual jurisdictions in the region are too small to be considered viable candidates for many of the targeted firms. The region acts as a cohesive economic unit, sharing work force and commercial amenities, and should be marketed as such to increase its perceived scale in the market. The following is a more detailed profile of the individual strengths and challenges

facing each of Central Oregon's major communities with respect to the suitability for large-lot industrial.[4]

Madras (Jefferson County)

The City of Madras has some strong industrial sites near the airport, including large lot industrial properties with rail access. The City's position at the intersection of Highways 26 and 97 provides logistical advantages, particularly for firms needing access to the Portland metropolitan area and Interstate 84. The airport is also a major facility that provides an amenity for certain businesses. Within Central Oregon, the Madras area is at the northern edge of the population and economic base, placing it at a disadvantage for regional distribution as well as for firms looking for large work forces.

Strengths/Advantages	Challenges/Disadvantages
• Industrial airport	• The Oregon Transportation Planning Rule is an issue on Hwy 97
• Airport has improvements scheduled	• There is no a continuous 4-lane highway between Madras and Bend
• Available industrial sites proximate to rail	• Relative skill set of work force
• Opal Springs provides ample water	• Some areas do not have large surplus of gas and electricity
• Strong agricultural and manufacturing section businesses	
• Most proximate to the Portland metro area	
• Most proximate to I-84	
• Highways 97 and 26 run through middle of Madras	
• Development costs substantially than other Central Oregon cities	

La Pine (Deschutes County)[5]

La Pine is Oregon's newest City, incorporated in December 2006. La Pine has a state certified shovel ready site and is well-suited for the REOA short term plan. Past challenges with the water and sewer districts have been resolved by mutual agreement between the La Pine Water and Sewer Districts and the City of La Pine.

[4] Profiles gathered from the June 28, 2010 Central Oregon Industrial Lands Forum.
[5] During the adoption process for Ordinance 2011-017, stakeholders from La Pine wanted La Pine's strengths and weaknesses to reflect new information.

Strengths/Advantages	Challenges/Disadvantages
• State of Oregon Certified Shovel-ready 50+ acre industrial site available and proximate to rail	• Sewer and water districts – in transition to the city. To be absorbed by the City early to mid-2012
• Neighboring small and medium sites available for a variety of options	• Transportation challenges; TSP to be completed by mid-2012
• The most favorable electric rates in Central Oregon	• City codes adopted and scheduled to be implemented early 2012
• More than adequate water and sewer capacity for new industry	• Need large "keystone" employer
• A new flexible land use code and supportive city leaders	
• The county is in control of some industrial sites	
• Enterprise Zone, for tax relief for new or expanded industry	
• La Pine is well connected to 3 major economic hubs - Central Oregon, Eugene and Klamath County. Conveniently located near Highway 97 and Highway 31. Highway 58 is 27 miles to the south and is a direct route to I-5 and Eugene.	
• BNSF rail mainline thru industrial park. Near passenger rail line. "Best Rail Industrial site in Central Oregon."	
• Low housing costs. Riverfront homes, ranches, and community neighborhoods are available.	
• La Pine has a large labor pool of skilled labor and diverse population with extensive work experience as indicated by large amount of commuters traveling north.	
• Hub of Central Oregon's year-round outdoor recreation paradise. Gateway to Cascade Lakes National Scenic Byway, Newberry National Volcanic Monument and National Oregon Outback Scenic Byway."	

Prineville (Crook County)

While the City of Prineville is located at the eastern edge of the Central Oregon region, it has strong rail access and relatively easy truck/auto access to Redmond, Madras and Bend. The Regional Freight Depot represents a major public investment. The City has a reputation as being business friendly, and the recent siting of Facebook has raised the jurisdiction's profile in economic development circles. The area has excellent and affordable housing stock. While the City has a number of industrial sites, many of these are either poorly located or constrained. The City has historically competed well within the region as a relatively low cost location with a strong labor force, but this advantage has diminished somewhat with the declines in the region's real estate markets. Sites at the western edge of town are best located to serve regional needs.

Strengths/Advantages	Challenges/Disadvantages
• Ease of permitting	• Sites are a distance off Hwy. 97 and Hwy. 126 has limited capacity
• Rail access/freight depot – City owned and operated short line rail service and the Regional Freight Depot	• Grade differentials in sites make some easier to serve via rail (lower level) than others (higher level)
• General aviation airport adjacent to industrial properties with expansion underway	• Ochoco Lumber mill site bordered by 2 highways so "double indemnity" for any development activity triggering TPR issues. Recognized as future mixed use site.
• Larger, available workforce	• Potential large lot industrial lands not protected under current zoning from splitting into smaller parcels.
• Somewhat warmer climate, but cool evenings	• Water supply challenges
• Community welcoming of development/newcomers/jobs	
• Prineville is centrally located to Redmond/Bend with relatively lower priced land for industrial use to other Central Oregon area	
• Facebook data center under development at airport location causing high interest by other firms seeking future locations	

Bend (Deschutes County)

As the largest city in Central Oregon, Bend is most commonly cited as the desired location for new firms considering locating in the region. The City offers a wide range of commercial services and executive housing options, and as a result of recent trends, provides affordable housing as well. The current scarcity of industrial land in the city is the primary challenge to future economic development, with sites that are small, expensive and often facing substantial transportation problems. While Bend has the greatest level of services and scale, its vacant industrial land inventory is severely limited.

Strengths/Advantages	Challenges/Disadvantages
• Largest metro area in region	• Scarcity of industrial land
• Regional employment center	• Price of industrial land
• Most "urban" of regional cities	• Overall costs to develop
• Immediate access to natural amenities	• Relatively complex/sophisticated permitting process
• Central Oregon Community College main campus	• Water and sewer capacity limited
• Good communication infrastructure	• TPR is an issue
• Juniper Ridge master-planned mixed-use community	• Ongoing "discussions" with LCDC about UGB expansion (remand, negotiations, etc.)

Redmond (Deschutes County)

The City of Redmond serves as a major hub of the region, and the commercial airport provides a key advantage. The community has historically seen land prices somewhat below Bend, and is well situated to serve the region due to its central location. The area has some small and medium sized industrial sites, and the range of commercial services trails only Bend in the region.

Strengths/Advantages	Challenges/Disadvantages
• Commercial airport	• 465 acres located in the industrial area in the city limits currently in holding zone of Open Space Park Reserve – rezoning prevented by TPR.
• Available water/wastewater capacity	• Affordability of industrial land coming back into line with market
• Good telecom infrastructure	• Can large public entity land holdings (irrigation district and DSL) be brought into play?
• Central regional location allows workforce drawn from all over region	• TPR is always a factor when land is being considered for development
• Available small/medium sites	• The diverse public entities that own land might have different objectives
• COCC technology center	
• Family-centric, stable community	
• Enjoys a business friendly reputation; Ease and speed of permitting	
• BNSF rail mainline through town	
• Prineville freight depot/short line railroad	

Sisters (Deschutes County)

The City of Sisters is located at the western edge of region, and is poorly situated for serving the broader region and capitalizing upon the depth of the workforce. The community does offer a strong amenity base for its size, as well as extensive executive housing options nearby.

Strengths/Advantages	Challenges/Disadvantages
• Natural amenities	• Small community (2,000 population)
• Small airport	• Possible expansion land not in city limits
• Streamlined permitting process	• Transportation system needs funding, but some elements coming into place
• Large parcels abut city limits	• Available lots are plotted into small parcels in industrial parks
• Community is interested in/supportive of economic development	• 80 acre Forest Service site in town might become available which could trigger TPR issues
• Just joined Redmond's E zone	• Possible water/wastewater limitations (not really clear)

C. Target Industry Opportunities in Central Oregon

Led by the Economic Development for Central Oregon (EDCO) in participation with local leaders, the Central Oregon region has gone through the lengthy process of identifying specific industry sectors for business recruitment, retention, and entrepreneurial support. Several of these industries have had successful results to-date, while others are relative young in Central Oregon. In the summaries below, Johnson Reid draws largely from EDCO's evaluation of industries in Central Oregon as well as extensive research and evaluation produced as a part of the Oregon Business Plan.

Renewable Energy Development: Renewable or clean energy development is a global industry on the rise. In 2008 Global Insight forecasted U.S. employment growth related to "green industries" would reach 2.5 million over the next ten years. In Oregon, solar manufacturing has been an early entrant, taking advantage of Oregon's existing and highly related semiconductor industry and proximity to large U.S. West Coast markets. Central Oregon currently has a small but diverse cluster of renewable energy related industries ranging from solar power and fuel cells to wind power and biomass production.

Aviation/Aerospace: There is an existing concentration relating to Redmond's airport and Bend's metro area. Specifically, Lancair has been operating in Redmond since 1992. Oregon's aviation industry includes 200 firms providing manufacturing, first and second supply chain services, and product distribution. Oregon's kit plane manufacturers also provide over 70 percent of all of the kit planes sold within the U.S. each year to global customers.

Software: Oregon is home to more than 1,500 software companies, and is particularly strong in the areas of: electronic design automation, financial solutions, open source, educational and training software, embedded software and healthcare applications. Central Oregon itself is home to over two dozen established software engineering firms. Software development firms are typically smaller in scale, where quality of life and telecom infrastructure is important. However, the Central Oregon region and the State of Oregon face both human and financial capital challenges to further development of the Software/IT cluster.

Biosciences:
Oregon's bioscience industry has over 600 companies and research institutions. Biosciences include research and development, medical devices, medical diagnostics, human and animal therapeutics, pharmaceuticals, reagents, research services, bio-agriculture, bio-fuels, and medical software operations. Bioscience is a $2.5 billion traded sector industry in Oregon. While Oregon is not seen as a bioscience hub nationally, Central Oregon is home to a segment of Oregon's promising bioscience future, specializing in pharmaceutical research and development. However, biosciences are highly workforce dependent and are often related to large scale higher education resources, which are currently absent in the region.

Data Centers: Data centers are an emerging economic development engine in Oregon bringing significant capital investment to regional communities. The Central Oregon region offers key

critical components in the recruitment of data center projects, specifically affordable electric power, municipal water and sewer capacity, robust telecom infrastructure, ability to attract technical talent to operate data center facilities, and a climate that can significantly lower power usage. These factors were instrumental in EDCO's recruitment of both Bend Broadband's Vault project and Facebook's $188 million investment in Prineville.

Recreation Equipment: Oregon is home to some of the world's most recognized brands in footwear and sports apparel. Locally headquartered firms include Nike, Columbia Sportswear and the North American headquarters of Adidas. Additionally, hotbed recreational regions such as Hood River and Central Oregon have long seen start-up recreational equipment firms flourish into significant contributors to local economies. Central Oregon specifically is home to diverse range of mountain, river, and recreational vehicle and equipment manufacturers.

Higher Education: Central Oregon is just beginning the process of establishing planning efforts in the establishment of a higher education facility in the region. Local policy market and economic development professionals realize the broader importance of higher education on workforce quality, culture, and business development. Higher education facilities are typically campus style development requiring large affordable sites with good telecom and transportation infrastructure. Sites need to be proximate to population centers.

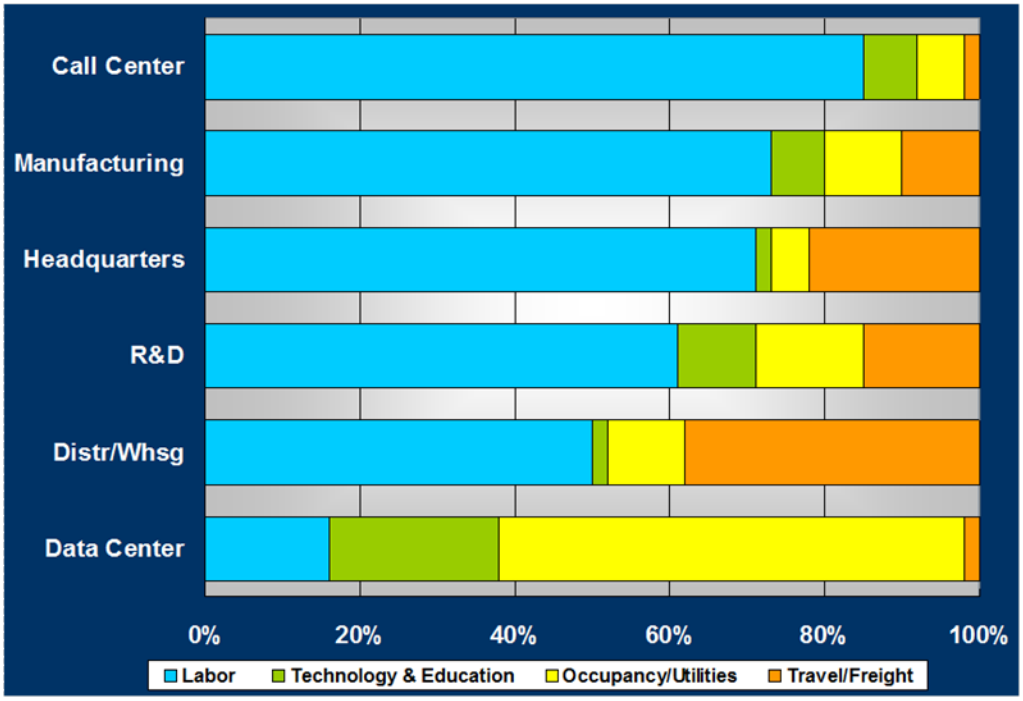
Regional Distribution Centers: Central Oregon can play a role in distribution, with Highway 97 representing an option to the I-5 Corridor. Option planning is taking a larger role in logistics and is expected to play a bigger role in diversifying risk away from a single supply route.

Wood Products: The Wood Products cluster is a long standing economic driver in Central Oregon. The cluster includes primary and secondary wood products, machinery manufacturing, paper & pulp manufacturing, wholesaling, and business management. Where Central Oregon was once a primary wood products region, secondary wood products manufacturing now accounts for 25% of all manufacturing employment in the region. While wood products have largely been a low growth industry over the last decade, the Central Oregon region is targeting additional value-added firms. Moreover, innovated new-age primary lumber production models have emerged in recent years of which Central Oregon would have a distinct competitive advantage.

D. Site/Resource Characteristics of Key Development Classes

Figure 18 highlights specific land, workforce, and operations characteristics among key industrial classifications in Central Oregon. For this stage in this analysis, Manufacturers fall under a single category, whereas subsequent drafts will explicitly underscore development site needs and characteristics of specific industries.

FIGURE 18: KEY INDUSTRIAL LAND/INDUSTRY CHARACTERISTICS



SOURCE: EDCO

The findings in Figure 18 reflect the findings in the progressive criteria "funnel model". With the exception of data centers which have highly unique utility requirements, availability of a qualified and ample workforce is of upmost importance. For some industries such as Distribution and Warehousing, access to transportation networks is a key concern.

Targeted Industries with Large-Lot Needs

While it is unlikely that several industries being targeted by communities within the Central Oregon region will generate significant demand for large-lot industrial land, some sectors have a demonstrated track record for creating enormous exogenous absorption of properly-zoned industrial sites. For example, software, recreational equipment and aviation/aerospace all have precedent for large corporate campuses: respectively Microsoft in Redmond, Washington; Thor Industries in Elkhart, Indiana; Cessna in Wichita, Kansas. Typical companies, however, require building footprints well under the 40-50 acre threshold we have defined as a large lot industrial site. These needs are generally met by the existing land use process in Oregon.

Industries requiring large acreages that hold promise for the Central Oregon region include:

- *Data centers*
- *Warehouse/distribution centers*
- *Select high technology/biosciences operations*

Changing economic conditions and global trends are impacting each of these industries, creating opportunities for rural and small metropolitan areas. The tri-county region already has established operations in each of these sectors and precedent for large-acreage users. The Appendix contains a summary of other geographic areas where each of these sectors has grown from a similar small foundation to become national leaders – some in a relatively short period of time. Additionally, any one of these sectors has the potential to create the exogenous demand that would trigger the need for additional large, industrial-zoned land in Central Oregon since so few of these sites exist – particularly in the region's largest cities.

Central Oregon Viability for the Data Center Industry

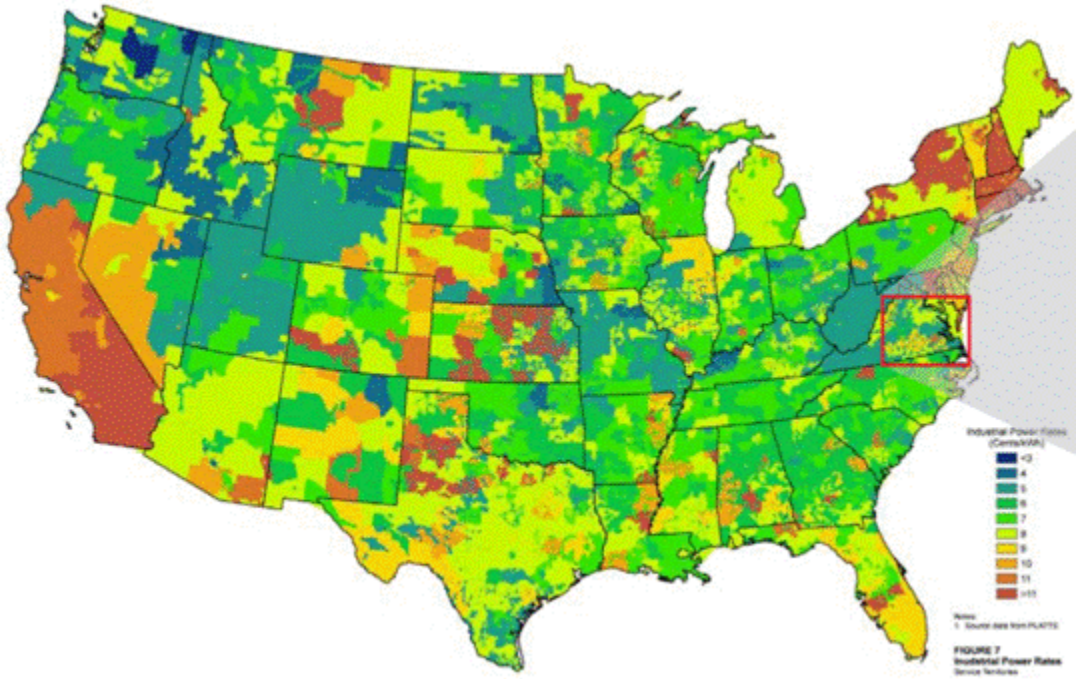
According to global data center site selector David Aaroe, (co-founder and principal, Fortis Construction), Central Oregon has all the elements to rival Central Washington as a top location for the data center industry in North America. Other site selectors from across the country are already focused on the tri-county area as a result of Oregon's largest data center project with the construction of the Facebook campus at Prineville (currently 125 acres, 300,000 sf).

> ***"The combination of low cost—not the lowest—reliable electric power, incentives, telecom capacity and the area's climate could make the Central Oregon area as competitive as any in North America for the data center industry."***
>
> 2011 presentation by David Aaroe, Principal, Fortis Construction
> A leading global data center site selection firm

A key component that could lead to explosive growth in the Central Oregon area is enormous Bonneville Power Administration power transmission lines that transport electricity from hydroelectric generation the Columbia Gorge to California. These transmission lines are located such that Prineville, Redmond, Bend, and La Pine all become viable locations for the data center industry. This steady, inexpensive base load electric power is in high demand by the data center industry.

Low cost, high capacity power is at the very top of the site location criteria list for the data center industry. The ability to quickly and reliably add load to the system is also critical. As quickly illustrated by the national district-by-district map below, tri-county rates are well below the national average for electricity in all sectors. For industrial customers, Central Oregon providers offer rates up to nearly 20% below the national average and 50% below neighboring California where considerable data center activity is currently centered.

FIGURE 19: INDUSTRIAL POWER RATES



Another key factor is the requirement for robust telecom infrastructure. Over the past 12 years, more than $100 million in infrastructure has been invested in the region, including a self-healing fiber loop for incumbent provider CenturyLink (formerly Qwest), numerous fiber rings by competitive local and regional providers and multiple Points of Presence (POP). With multiple telecom routes via San Francisco, Portland and Seattle, the tri-county region's access to markets in Asia is especially good.

Perhaps one of the greatest natural assets the area possesses for data centers is the significant year-round cooling factor offered by the high desert climate. Simply stated, cool nights year-round and low humidity enable data centers to use less power for cooling servers—making the center much more cost efficient. Reasonable power costs, power savings made possible by the region's climate, the lack of a sales tax in Oregon and meaningful incentives (property and incomes tax exemptions) all combine to make the Central Oregon region a globally competitive location.

Because of the significant investments characterized by data centers both in mission critical infrastructure and physical plant (typical cost per square foot is $1,000), most companies require large industrial sites for future expansion. The current inventory of appropriately zoned sites with proximity to needed infrastructure in Central Oregon is potentially uncompetitive, and as such could be a major impediment to further growth of the sector for next 10-15 years. The economic development community recognizes that most jobs come from existing companies, and fostering entrepreneurship and retention expansion of existing traded-sector companies is a major focus of regional efforts. Recruitment of new companies in new and existing industries, however, is an important component of any successful economic

development program and diversification strategy. New companies bring a different mix of professional and technical talent to communities that can spawn other businesses and technologies. Intel's expansion to Hillsboro in the late 1970s is a good example in Oregon. At that time it was a recruitment project, but in the subsequent decades the global leader in semiconductor technology and production spun off more than 100 companies that significantly contributed to the overall diversification of Oregon and of course many well-paying jobs.

Central Oregon Viability for the High Technology Industry

While the Central Oregon region clearly has different attributes than either the Hillsboro or Austin examples outlined in the Appendix, it does have some of the key components that make the high technology sector a viable option for industry targeting. Several important technology sectors have a foothold in the region including:

- *Semiconductor and peripherals manufacturing (Microsemi, TriQuint Semiconductor, Nanometrics)*
- *Renewable/alternative energy equipment and software (Advanced Energy, Idatech, PV Trackers, E1, InEnTec)*
- *Software (Vertex, GL Solutions, Navis, Manzama, AudetteMedia, Team Unify)*
- *Biosciences (Bend Research, MediSISS, Agere Pharmaceutical, Phillips, Accelrys).*

This small but successful and diversified group of high technology companies provides a foundation on which to build a broader industry, provided that other site location fundamentals are in place.

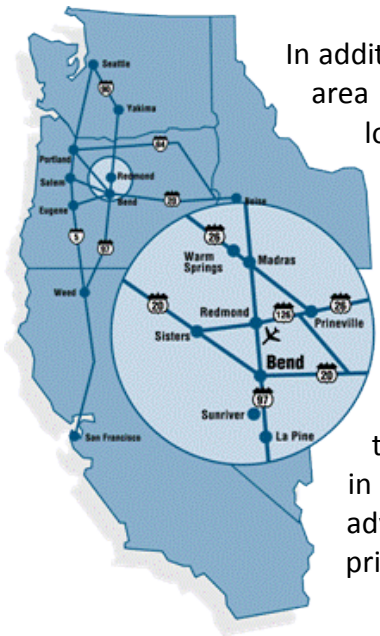
The Central Oregon region scores well on most critical location factors. Power rates are among the lowest in the nation and nearly half of those in neighboring California. Not all communities are equally prepared, but generally water and wastewater capacity is adequate to accommodate high technology industry needs. Oregon's property tax incentives offered through the Enterprise Zone program generally favor high technology projects with significant capital expenditures, much as it benefits companies in the data center industry. Higher education infrastructure to develop local scientific and technical talent needs improvement within the region, and is currently considered by site selectors to be a barrier, however many technology companies acknowledge that most talent recruitment today is done on a national or international basis. Access to local technical, engineering, and scientific coursework and degrees are a plus and can be a swing factor between one site or another, however an area with quality of life and some technical talent can attract other technology employers. It happened in Hillsboro and Austin not because of the university infrastructure there, but because other site location factors worked (access to power, water & wastewater facilities) and there were well educated people who chose to live there or could be recruited from other places.

A potentially significant barrier is the lack of large industrial lot options that have proper zoning and necessary infrastructure, specifically in Bend and Redmond which have been of greatest interest for companies, site selectors and corporate real estate professionals. That Bend, one of Oregon's seven largest cities and among the fastest growing (both in terms of net jobs the past decade and population), has no industrial-zoned lots over 20 acres would be inconceivable in most states.

According to EDCO, the sector with the most activity in terms of location decisions and new production facilities in the past five years has been renewable energy equipment and related manufacturers. Included are solar power panel fabrication (thin film and silicon) polycrystalline refinement, and solar power generation– all which require large acreages with appropriate zoning. Biomass and gas-fired electric power plants also have a need for large industrial acreage, but usually prefer a rural location if adequate infrastructure can be developed cost effectively. While existing computer and electronics manufacturers in the area have historically operated in facilities on acreages less than 40 acres, there are many examples in Oregon and across the country where once small high technology firms have grown into large campuses. Hewlett-Packard in Boise, ID and Corvallis, OR; Micron in Boise, Microsoft in Redmond, WA all serve as excellent examples of local companies that organically grew into large, multi-building campuses that greatly exceed the 40-50 acre threshold established by this REOA.

Central Oregon Viability for the Warehouse and Distribution Industry

Because of its removed location from major interstates, the tri-county has not historically been a target for the warehouse and distribution industry. Still, some significant distribution activities do occur – primarily tire distribution by the Les Schwab Company, which has over 2 million square feet under roof at its warehouse operations in Prineville. There, tires and auto components manufactured globally are consolidated and distributed to 400+ stores in a seven state area. The company is the #1 highest volume customer for the Port of Portland and operates one of the largest distribution operations in Oregon.



In addition to this warehouse, several durable goods manufacturers in the area have larger-scale distribution nationally from their Central Oregon location, including Bright Wood Corporation, Deschutes Brewery, Keith Manufacturing, Contact Industries, Jeld-Wen, and Advanced Energy (PV Powered). Online retailer Altrec.com also consolidates and distributes orders directly from its Redmond, OR warehouse and does so cost competitively vis-à-vis other west coast locations.

Over the past decade, consolidation has been the dominating trend in warehouse and distribution – fewer but larger DCs located in strategic geographic area – to achieve greater efficiencies and cost advantages offered by economies of scale. With the sharp rise in fuel prices in recent years, industry experts are predicting that the

industry could migrate to smaller facilities serving smaller distribution areas. Key to this more dispersed model is the availability of rail to more cost effectively transport goods (approximately ⅓) within the regional distribution area. Rather than the 11 or 9 state model, respectively, offered by Salt Lake City, UT or Reno-Sparks, NV the smaller 5 to 7 state model successfully utilized by Les Schwab for the past 50 years might prove more cost effective with $5-6 dollar per gallon fuel prices.

> ***"In general, companies will respond to the higher fuel prices by expanding their distribution networks to include additional DCs, but it remains to be seen just how big the impact will be. Some will tweak their networks by adding one or two DCs or relocating one or two of them in order to economize on freight-miles and fuel consumption."***
>
> 2010 report by ProLogis, a leading global provider of distribution facilities

Led by the Prineville Railway, the nation's only municipally-owned short-line railroad, Central Oregon has been working to expand its ability to provide logistics and freight connections between Class I railroads and traditional truck distribution models. Over the past several years, the Prineville Railway has invested nearly $10 million in a new freight depot, track, and railcar handling equipment to efficiently transfer rail freight to trucks either for final destination delivery or for warehousing. With ongoing global upward pressure on oil prices, these projects could be the beginning of a wave of investments in to accommodate a growing transloading facility. Planning is already underway for a unit-train switch yard upgrade adjacent to the UPRR/BNSF mainline just on the northern borders of the Redmond UGB and expanded warehouse and distribution facilities in Prineville.

E. Regional Large-Lot Demand

Long Range Employment Forecast

Figure 20 outlines estimated growth in employment projected by the Oregon Employment Department (OED) for the Central Oregon region. The OED's most recent projection estimates employment growth by industry over a 10-year horizon beginning in 2008. For the purposes of this analysis, Johnson Reid applied the State's 10-year growth rates to 2010 base year estimates of employment by industry and extrapolated growth through 2030.

FIGURE 20: BASELINE LONG RANGE EMPLOYMENT FORECAST

Industry	Base Estimate 2010	Year 2015	2020	2025	2030	'10-'30 Change	AAGR
Natural Resources	1,044	1,075	1,107	1,140	1,174	130	0.6%
Construction	4,093	4,123	4,153	4,183	4,213	120	0.1%
Manufacturing	5,493	5,747	6,013	6,290	6,581	1,088	0.9%
Wholesale Trade	2,238	2,287	2,337	2,388	2,440	202	0.4%
Retail Trade	10,138	10,804	11,514	12,271	13,077	2,939	1.3%
T.W.U.	1,605	1,735	1,876	2,027	2,192	587	1.6%
Information	1,437	1,433	1,428	1,424	1,420	(17)	-0.1%
Financial Activities	3,741	3,910	4,086	4,270	4,463	722	0.9%
Professional & Business	7,001	7,607	8,266	8,981	9,759	2,758	1.7%
Education & Health	10,099	11,478	13,045	14,826	16,850	6,751	2.6%
Leisure & Hospitality	9,981	10,643	11,349	12,102	12,905	2,924	1.3%
Other Services	2,533	2,687	2,851	3,024	3,209	676	1.2%
Public Administration	11,985	12,742	13,547	14,403	15,313	3,328	1.2%
TOTAL	***71,388***	***76,271***	***81,571***	***87,331***	***93,596***	***22,208***	1.3%

SOURCE: Oregon Employment Department and Johnson Reid, LLC

Over the next 20-years the Central Oregon region is expected to add roughly 22,208 new employees according to State projections. The bulk of projected growth is expected to fall within the Health, Leisure & Hospitality, and Professional & Business Services sectors. However, State level projections are often demographically driven methodologies, developed for long range budgetary and government planning purposes. They very rarely reflect the qualitative economic development goals of local jurisdictions and economic development agencies. For example, as mentioned above, EDCO and the tri-county region have committed to the broad based recruitment, retention, and organic expansion of the region's Software/IT industry, which is generally under the Information NAICS classification. However, this economic development goal is not reflected in the State's forecast of Information employment. In other words, aspirational goals, policies, and dedication of resources have real direct impacts on the path of economic development likely in a local geography.

More importantly is an inherent disconnect between any trended forecast methodology and the potential demand for large-lot industrial employers. By nature, large industrial placements are "game-changers", whereas a single placement can change the economic landscape of a community. The employment impacts are not reliably "forecastable." Communities are best served by providing a range and supply of suitable options for prospective recruitments in addition to organic expansions. This is particularly prevalent in today's landscape, where firms, products and even entire industries shopping Oregon for suitable sites did not even exist a cycle ago. The Facebook placement in Prineville is a prime example of a firm and industry that did not exist even 10-years ago. While large lot users may reflect growth of existing industries, they are more often reflective of a regional, national or global site selection process, and are competitive in nature. A survey of site selection professionals found that large firms go through a methodical site selection process for “development-ready” sites and that agencies seek to maximize quantity and selection of large “development-ready” sites for successful employer recruitment. A development-ready site, or a “shovel-ready” site, is one in which site

improvement can begin within 180 days of purchase and development application. Such sites are served by requisite infrastructure and utilities, environmental and other constraints are known and documented, and permitting can be fast-tracked for rapid facility operations. If all these conditions cannot be met in accordance with project time frames, sites will not be kept on the list for further consideration. The key to the site selection process, therefore, is that it is essential for candidate sites to be immediately development-ready instead of simply "buildable." Furthermore, a general lack of development-ready sites to choose from eliminates a city or region from contention early in the site selection process. Until sites win development-ready status, they are not truly effective supply for large industrial site demand as viewed by firms seeking to potentially locate in the region. It is critical to keep in mind that the site selection process begins as a process of elimination; it only becomes selection after a short list of potential sites that meet all pertinent criteria has been created.

Industry Placement Velocity

For the reasons cited previously, a matrix is included, showing recent target industry placements, large and medium nationwide, in addition to industrial recruitment activity in Oregon to demonstrate a snapshot of large-lot characteristics and the velocity of recruitments handled by Business Oregon.[6]

[6] Oregon Business Development , 2010

FIGURE 21: SELECTED LARGE LOT RECRUITMENTS IN OREGON AND SOUTHERN WASHINGTON

YEAR	PROJECT	LOCATION	LOT SIZE	BUILDING SIZE	COMMENTS
1996	Target	Albany, Or	175 acres	1.3 msf	
1997	Wal-Mart	Hermiston, Or	200 acres	1.3 msf	
2002	Dollar-Tree	Ridgefield, Wa	75 acres	800,000 sf	
2002	Familian (Plumbing)	Tri-Cities, Wa	75 acres	500,000 sf	
2002	Wal-Mart (Cold Storage)	Granview, Wa	100 + acres	900,000 sf	
2004	Lowes (certified)	Lebanon, Or	204 acres	1.3 msf to 2.2 msf	
2004	Olympic (Vanity Fair)	Shafter, Ca	100 + acres	900,000 sf	
2005	Amy's Kitchen	White City	50		
2006	October (cold storage)	Salem, Or Lost	145 + acres	1 msf	
2006	NOAH-PepsiCo	Albany	204 acres	2.5 msf	
2006	Private Project (Technology)	Northern Oregon I-5	100+	1 msf	
2006	Project GoForth	Salem Area	75-100	1 msf	
2006	Genentech (certified)	Hillsboro	50 range	500,000 sf	
2006	Apricus	N-Oregon	250	Very large	Went to Singapore
2006	Jindo-china	Oregon	100		
2006	Pacific Ethanol	Boardman	137		
2007	SolarWorld	Hillsboro	75 range	1 msf	
2007	NN2 Lost-Cal	Hillsboro	150	1.5 msf	Optisolar
2007	Crystal Lost Malaysia	Millersberg	100		Went to Malaysia
2007	HOT-lost	N. Oregon	100		
2007	Gold Rush	E-Oregon	350 est	Very large	
2007	Navitas	Oregon	150/200		EverGreen-lost
2007	Apricus	Northern Oregon	200	2.5 msf	REC
2007	Fed Ex	Troutdale	78	500,000 sf	
2008	Valancia	Northern Oregon	100	1 msf +	Delayed
2008	Schott	I-5	50+	200,000 sf, expansion to 800,000 sf	New Mexico
2009	SEH	Vancouver	75	1 msf +-	Leasing Space to HP.
2009	Cambridge	I-5	50	500,000 sf	Plainfield
2009	Facebook (certified)	Prineville	118	147,000 sf	Room for up to four datacenters.
2010	Home Depot (certified)	Salem	50 to 100	400,000+	50 Acres Plus Option
2010	Big Solar	Portland/I-5	250	1.4 msf	February 2010 Lead
2010	Green Manufacturing	Mid-Valley	100		December 09 Lead

Source: Oregon Business Development

FIGURE 22: MATRIX OF RECENT MAJOR TARGET INDUSTRY PLACEMENTS

Industry/Activity	Company	Location	Land/Site Size
Renewable Energy			
Solar; plant for solar panels and power systems	Xtreme Power/	Wixom, Michigan	320 acres
Wind: plants in Brighton-blades and nacelles Windsor-blades Pueblo-towers	Vestas	Colorado (3 locations)	Brighton= 176 acres Windsor=75 acres Pueblo= 800 acres
Wind: plant for concrete tower bases	Tindall	Newton, KS	144 acres
Solar: facility for R&D and panels	Green 2V	Rio Rancho, NM	124 acres
Wind: plant for nacelles	Siemens	Hutchinson, KS	108 acres
Batteries: plant for leaf batteries	Nissan Leaf Batteries	Smyrna, TN	72 acres
Solar: plant for solar receivers	Schott Solar	Rio Rancho, NM	80 acres
Aviation/Aerospace			
787 fuselage	Boeing	Charleston, SC	1.2 million sq. ft. (building only)
Parts depot	Lockheed Martin	Papillion, NE	85,600 sq. ft. (building only)
R & D	Lockheed Martin	San Diego, CA	158,000 sq. ft. (building only)
Service	Cessna	Valencia, Spain	152,000 sq. ft. (building only)
Drone production	General Atomics	Sabre Springs, CA	193,000 sq. ft. (building only)
Helicopter training academy	Bell Helicopter	Ft. Worth, TX	160,897 sq. ft. (building only)
Helicopter hangar addition	Bell Helicopter	Amarillo, TX	97,678 sq. ft. (building only)
Software/Information Technology			
Software testing	Galmont Consulting	Lexington, KY	4,000 sq. ft. (building only)
Global software development facility	HSBC	Burnaby, BC	146,000 sq. ft. (building only)
Company H.Q.	Projekt202	Austin, TX	8,500 sq. ft.
Software support	Microsoft	Austin, TX	10,000 sq. ft
Innovation and technology center	Microsoft	Reston, VA	63,000 sq. ft. (building only)
Computer lab	Microsoft	Redmond, WA	57,000 sq. ft. (building only)
Office space	Microsoft	Bellevue, WA	1.34 million sq. ft. (office lease)
Bioscience & Medicne			
Pharmaceutical development facility	Analytical BioChemistry Laboratories	Columbia, MO	90,000 sq. ft. (building only)
Corporate campus	Biogen Idec	RTP, NC	176 acres
Fill and finish facility	Genentech	Hillsboro, OR	75 acres
Insulin manufacturing facility	MannKind	Danbury, CT	251,875 sq. ft. (building only)
Mammalian cell culture proteins	Pfizer	County Cork, Ireland	130,000 sq. ft. (building only)
Contract manufacturing	Cook Pharmica	Bloomington, IN	250,000 sq. ft. (building only)
Data Centers			
Data center	E bay	South Jordan, UT	250,000 sq.ft. (building only)
Data center	Oracle	West Jordan, UT	200,000 sq. ft. (building only)
Data Center	National Security Agency	Camp Williams, UT	200 acres
Data Center	Cisco Systems	Allen, TX	140,000 sq. ft. (building only)
Data Center	Apple	Maiden, NC	500,000 sq. ft. (building only)
Data Center	Target	Brooklyn Park, MN	111,800 sq. ft. (building only)
Data Center	Equinix	El Segundo, CA	177,000 sq. ft. (building only)
Data Center	Advanced Data Centers	Sacramento, CA	500,000 sq. ft. (building only)
Data Center	Facebook	Prineville, OR	147,000 sq. ft. (building only)
Data Center	Microsoft	Quincy, WA	470,000 sq. ft. (building only)
Higher Education			
Innovation Center	Western Michigan U.	Kalamazoo, MI	69,000 sq. ft. (building only)
Aviation programs	Western Michigan U.	Battle Creek, MI	92,000 sq. ft building and 20 acres
Treyburn Corporate Park	North Carolina State U.	Raleigh, NC	256 acres
Biomedical campus	U of Arizona and A.S.U	Phoenix, AZ	28 acres
Campus expansion	University of Memphis	Memphis, TN	250,000 sq. ft. (building only)
Campus expansion for student housing	SMU	Dallas, TX	Redevelopment of bakery facility
Campus expansion	Duke	Durham, NC	1.3 million sq. ft. (building only)
Recreational Equipment			
Factory store	Danner Boots	Portland, OR	59,000 sq. ft. (building only)
Paddle craft production	Johnson Outdoors	Old Town, ME	N/A
Custom skis	Wagner Custom Skis	Telluride, CO	N/A
Sports research lab	New Balance	Boston, MA	3,000 sq. ft. (building only)

SOURCE: *IronWolf*

It should be noted that Business Oregon's database reflects only a subset of overall activity in this market, with many firms making decisions without contacting the agency, or working more directly with regional economic development agencies such as EDCO.

Over the previous two years Central Oregon has seen a total of 53 major recruitment leads evaluate the region. The majority of leads ended quickly as the region did not meet the firm's minimum criteria. Most commonly, the region missed on lack of Interstate highway transportation routes, lack of large acreage parcels, or specific infrastructure limitations. However, the region did make it to the visitation process in four of the 15 instances it passed the first criteria round with one, the Facebook placement, actually locating in the region.

FIGURE 23: SUMMARY OF INDUSTRIAL RECRUITMENT LEADS

RECRUITMENT LEADS FOR CENTRAL OREGON June 2008 -June 2010	
Total Leads	53
Central Oregon Did not Make Minimum Criteria	37 of 53
Made Minimum Criteria	15 of 53
Got to the Site Visit State	4 of 53
Firm Located in the Region	1 of 53

SOURCE: EDCO and Business Oregon

As noted previously in this report, Central Oregon's lack of appropriate sites largely precludes it from competing for many prospective leads at it is unable to meet the minimum criteria specified.

VI. Assessment of Potential

A. Site Need Characteristics

Site needs for the targeted large lot industrial users are inherently difficult to assess based on the high level of uncertainty in industrial recruiting. Site requirements for specific industries are discussed in this section, but there are a great number of site requirements that are generally common among most major industrial users.

Business Oregon maintains a matrix of site needs for major industry sectors that they are actively recruiting. While the matrix is not limited to large lot users, the requirements outline provide guidance with respect to site requirements by major industry group. The following table summarizes key site characteristics required and preferred by several major development types. While key characteristics are often listed as preferred, these may be required by specific firms or used as screening variables to differentiate competition. The Central Oregon region expresses a desire to maintain a competitive portfolio of sites, which would imply sites having preferred as well as required characteristics.

A more generalized summary column is included, showing large lot site requirements. This recognizes that while one may target specific industries, the nature of large lot demand and firm characteristics is highly variable. The generalized site requirements summarize key characteristics that are broadly valued by the identified industries.

FIGURE 24: INDUSTRIAL DEVELOPMENT PROFILE MATRIX[7]

	General Site	Clean Tech Campus		Heavy Industrial/ Manufacturing	General Manufacturing	Food Processing	High-Tech Manufacturing Processes	Campus Industrial/ Electronic	Warehouse/ Distribution	Call Center/ Business Services
		Regional	Global							
Physical Site Characteristics										
Net Contiguous Developable Area										
50-100 acres	x	x		x	x	x	x	x	x	x
101-200 acres	x	x	x	x	x	x	x	x	x	x
200+ acres	x	x	x	x	x	x	x	x	x	x
Maximum Slope	5%	5%	5%	5%	5%	5%	7%	10%	5%	12%
Infrastructure										
Transportation										
Auto/Truck	Req	Req	Req	Req	Req	Req	Req	Req	Req	Req
Interstate - Miles	10	15	10	10	20	30	15	10	5	NA
Trip Generation - ADT/Acre	65-192	76-106	76-106	42-58	76-106	76-106	76-106	76-106	65-86	144-192
Rail	Pref	Pref	Pref	Pref	Pref	Pref	NR	NR	Pref	NR
Marine	NA	Pref	Pref	Pref	Pref	Pref	NR	NR	Pref	NR
Airport - Regional Commercial	Pref	Pref	Pref	Pref	Pref	Pref	Pref	Pref	Pref	Pref
Max Distance - Miles	30	60	30	60	60	60	30	30	60	60
Airport - International	Pref	Pref	Pref	Pref	Pref	Pref	Pref	Pref	Pref	Pref
Distance - Miles	300	100	100	300	300	300	100	100	300	300
Water		x	x	x	x	x	x	x	x	x
Min. Domestic Line Size/inches	8	10	8	8	8	10	10	10	4	4
Min. Fire Line Size/inches	10	10	10	10	10	10	10	8	10	8
High Pressure Supply	Pref	Pref	Pref	Pref	Pref	Pref	Pref	Pref	NR	NR
Flow/GPD	50-75,000	74,300	74,300	36,100	17,000	24,900	65,300	74,300	11,700	4,600
Sanitary Sewer	Req	Req	Req	Req	Req	Req	Req	Req	Req	Req
Min. Size/inches	8-10	10	10	8	8	10	10	8	4	4
Natural Gas/Preferred Min./inches		6	6	6	4	6	6	2	2	2
Electricity		x	x	x	x	x	x	x	x	x
Min. Service Demand/kva	30-100 kva	50	100	30	30	30	30	30	10	30
Proximity to Substation	Pref	Req	Req	Pref	Pref	NR	Pref	Pref	NR	Pref
Secondary System Dependency	Pref	Req	Req	Req	NR	NR	Req			
Telecommunications										
High Capacity	Req	Req	Req	Pref	Pref	Pref	Req	Req	Pref	Req
Route Diversity	Pref	Req	Req	NR	NR	NR	Req	Pref	NR	Req
Fiber Optics	Req	Req	Req	Pref	Pref	Pref	Req	Req	Pref	Req
Location										
Workforce/50 Mile Radius	20,000-50,000	50,000	300,000	30,000	30,000	20,000	50,000	50,000	20,000	25,000
Executive & Workforce Housing	Pref									

Req Required
Pref Preferred
NR Not Required
NA Not Applicable

[7] Business Oregon and Johnson Reid

As outlined in the preceding table, site requirements can be grouped into several broad categories. The following is a brief summation of the basic categories of site requirements:

PHYSICAL

- Size – Large lot demand is defined in the context of this analysis as sites 50-acres or above. Sites of significantly larger size provide greater flexibility, as they can meet large site needs as well as providing the ability to be subdivided.
- Slope – Industrial development has a very limited capacity to deal with slopes. This is particularly true in areas such as Central Oregon, in which the geology makes grading costly.
- Configuration – Rectangular sites provide for the most efficient layouts. Sites with irregular configurations need to be larger to accommodate similar levels of development.

INFRASTRUCTURE

- TRANSPORTATION
    - Auto/Truck
        - Interstate
        - Highway
        - Major Arterial
    - Rail
    - Marine Port
    - Airport
        - General Aviation
        - Commercial
        - International
- UTILITIES
    - Water
    - Sewer
    - Natural Gas
    - Electricity
    - Telecommunications
        - Major communications capacity
        - Route diversity
        - Fiber optics

LOCATION

- WORKFORCE
    - Locations within acceptable distance of appropriately scaled labor market Housing options for workforce and executives

SPECIAL CONSIDERATIONS

- Availability - Owner willing to sell at market consistent price
- Ownership – Willingness to hold, front infrastructure investments
- Flexibility – Ability to meet a variety of demands
- Site Certification – Not necessary, but criteria should be at least inclusive of the certification criteria
- Funding – Viability of funding necessary infrastructure to support development

Sites designated to meet the regional demand for large lot industrial uses should be able to meet most of these criteria where practical. While physical and workforce issues cannot be addressed by actions of an individual jurisdiction, the remaining locational criteria largely involve infrastructure investments, which can be actively targeted to enhance the supply of competitive sites. Additionally, jurisdictions actively engaging property owners in discussions about land price, lot configuration, and investments necessary to make sites usable can provide a context for owners' readiness to sell their property.

Outside of size and configuration, the following are key characteristics associated with a competitive land supply for Central Oregon, which should be considered as the criteria under which sites are evaluated to meet identified needs. This list of criteria reflects input from EDCO.

Availability: The site must be under ownership of an entity that is willing to sell the site at market-appropriate pricing. Sites controlled by unmotivated or unrealistic owners are of little use for the stated community economic development objectives.

Infrastructure:

Utilities – Municipal water and sanitary sewer, electric power, natural gas and telecom in capacities needed for specific companies or industries are critical. The ranking and magnitude needed for each varies from industry to industry. If nearly all utilities noted above are not in place or proximate to the site, and without some existing unused capacity, most companies will not consider a community (or that site at least) further. Most private businesses, even large ones, are not coincidentally experienced developers, and even with experience their timelines for projects are such that they are unwilling and/or unable to wait while major infrastructure projects are executed by public sector entities.

Transportation – Most projects, with a few exceptions, have significant transportation and logistics aspects. It is important to note that the current access approval process in Oregon (whether on a state highway or not) is a significant barrier to economic development in general and large lot development specifically. The Transportation Planning Rule (TPR) and relationship with LCDC approval is specifically creating the greatest problems for land development in the Central Oregon region.

Workforce: Throughout the tri-county area, the question for larger projects is first and foremost about quantity of available workers. Bend or the Deschutes County MSA is often the smallest area in the field of consideration during a site selection process. Quality can also be an issue, but at the end of the day, communities have little influence on either, at least at the point when companies come looking. The current unemployment statistics, which indicate an available workforce, could indeed make Central Oregon attractive to prospective employers if there are available sites to accommodate them.

Education & Training: Some companies are keenly interested in higher education opportunities both for the overall workforce and continuing education of their employees. That the Central Oregon region has been underserved for both higher education and training opportunities is a factor noted by several large projects in the past as a concern.

Incentives: While Oregon is not a "big player" in the incentives game nationally, the state does have in place several incentives that favor large, capital intensive projects. Specifically, few areas have the type of property tax incentives Oregon offers that can exempt these taxes for 3-15 years. Nearly all Central Oregon industrial areas have access to these incentives through the enterprise zone and/or Strategic Investment Program. At the same time, Oregon does not have the type of payroll or jobs-based incentives available as in other places in the country.

B. Gross Land Demand (Short-Term Only)

From an economic development perspective, Central Oregon seeks to offer a range of readily developable sites that are supportive of regional and statewide economic development objectives, as well as competitive with alternative regions.

The demand for large industrial sites within Central Oregon cannot be derived using typical employment projections by industry, extrapolating future anticipated growth patterns based on historical patterns. Establishing and maintaining a competitive large lot industrial inventory is intended to expand upon the range of potential economic development opportunities that Central Oregon can compete effectively for. Central Oregon as a region will be competing for large lot recruitments within a broader context that will likely include Idaho, Washington and Northern California. The following table provides a profile of firm changes by size of enterprise within this broader area over a one year period.

FIGURE 25: BIRTHS, DEATHS, EXPANSION & CONTRACTION OF FIRMS, 2006-2007

		Employment Size of Enterprise					
	TOTAL	1-4	5-9	10-19	20-99	100-499	500+
WESTERN UNITED STATES (California, Idaho, Oregon, Washington)							
Initial year establishments	1,067,847	469,155	172,870	109,832	112,019	51,354	152,617
Change in establishments	30,002	14,386	2,955	1,882	4,423	3,175	3,181
Percent change in establishments	2.8%	3.1%	1.7%	1.7%	3.9%	6.2%	2.1%
Establishment births	156,065	92,869	16,242	9,816	12,751	6,771	17,616
Establishment deaths	126,063	78,483	13,287	7,934	8,328	3,596	14,435
Establishment expansions	298,061	98,603	52,935	37,671	41,205	17,966	49,681
Establishment contractions	296,885	65,083	64,334	47,564	49,639	20,493	49,772
Percent change in establishments due to births	14.6%	19.8%	9.4%	8.9%	11.4%	13.2%	11.5%
Percent change in establishments due to deaths	11.8%	16.7%	7.7%	7.2%	7.4%	7.0%	9.5%
Initial year employment	18,258,562	970,374	1,124,249	1,406,925	3,444,532	2,756,375	8,556,107
Change in employment	37,174	179,815	31,231	2,741	-43,809	-76,264	-56,540
Percent change in employment	0.2%	18.5%	2.8%	0.2%	-1.3%	-2.8%	-0.7%
Change in employment due to births	1,176,589	162,490	101,728	110,507	234,975	173,062	393,827
Change in employment due to deaths	-1,031,368	-133,995	-82,878	-93,033	-192,320	-134,396	-394,746
Change in employment due to expansions	1,918,836	234,651	147,836	154,902	334,050	252,161	795,236
Change in employment due to contractions	-2,026,883	-83,331	-135,455	-169,635	-420,514	-367,091	-850,857
Percent change in employment due to births	6.4%	16.7%	9.0%	7.9%	6.8%	6.3%	4.6%
Percent change in employment due to deaths	-5.6%	-13.8%	-7.4%	-6.6%	-5.6%	-4.9%	-4.6%
Percent change in employment due to expansions & births	17.0%	40.9%	22.2%	18.9%	16.5%	15.4%	13.9%
Percent change in employment due to contractions & deaths	-16.7%	-22.4%	-19.4%	-18.7%	-17.8%	-18.2%	-14.6%

SOURCE: US Census Bureau, Statistics of US Businesses

As shown in the table, firms with 500 or more employees represented 14% of total firms in 2006, but 47% of total employment. Firms over 100 employees represented 19% of firms and 62% of total employment. While the net change in establishments in these size ranges is significant, the number of births (new firms) exceeds the net change in establishments by 384%. For firms with 500 or more employees, births exceed the net change by 554%. Firms primarily become prospective recruitment targets when they are formed or find their existing facilities or business environment inadequate. As a result, the number of births (which can include new firms as well as firms expanding into a new classification) is a key indicator of the depth of potential market demand. The following table summarizes a profile of firms by size range in the Western Unites States in 2008. This shows close to 27,000 firms with 100 or more employees, of which 10,800 are in industries that are historically considered to be industrial oriented. The nature of industrial space usage is highly variable, and many industries not historically associated with industrial space now utilize this type of space. An example of this would be industries previously categorized under information, which would include major employers that have recently located on industrial space such as Facebook and Google.

FIGURE 26: PROFILE OF FIRMS BY SIZE RANGE AND INDUSTRY, WESTERN UNITED STATES, 2008

WESTERN US (CALIFORNIA, IDAHO, OREGON, WASHINGTON)	Total	Firms by Size Range								
Industry code description	Firms	1-4	5-6	10-19	20-49	50-99	100-249	250-499	500-999	1,000+
Forestry, fishing, hunting, and Agriculture Support	5,315	3,592	698	486	319	134	65	15	3	3
Mining, quarrying, and oil and gas extraction	1,332	566	216	242	186	60	49	8	3	2
Utilities	1,849	841	284	223	220	124	97	35	13	12
Construction	124,560	78,572	20,929	12,801	8,204	2,571	1,169	237	55	22
Manufacturing	58,383	22,430	10,621	9,214	8,547	3,846	2,609	734	268	114
Wholesale trade	78,309	41,552	14,795	10,505	7,408	2,415	1,221	284	91	38
Retail trade	154,392	68,746	38,164	23,342	14,340	5,642	3,380	736	39	3
Transportation and warehousing	31,667	16,963	5,261	4,004	3,158	1,226	740	185	87	43
Information	27,199	15,027	3,728	3,325	2,696	1,231	750	265	114	63
Finance and insurance	73,237	43,916	13,712	8,657	4,517	1,284	728	236	134	53
Real estate and rental and leasing	66,337	48,318	9,997	4,989	2,074	605	270	60	17	7
Professional, scientific, and technical services	148,273	103,085	21,137	12,653	7,382	2,316	1,199	303	107	91
Management of companies and enterprises	6,786	2,380	1,047	1,018	1,082	530	432	167	83	47
Administrative and Support and Waste Mang and Remediation Srvs	60,140	33,713	9,437	6,532	5,285	2,419	1,869	578	204	103
Educational services	15,693	7,259	2,690	2,379	2,044	716	418	101	40	46
Health care and social assistance	132,605	68,873	29,995	17,375	10,057	3,321	2,094	417	199	274
Arts, entertainment, and recreation	25,090	16,820	2,823	1,991	1,874	886	494	120	47	35
Accommodation and food services	106,050	34,423	19,804	23,497	21,531	5,135	1,371	185	76	28
Other services (except public administration)	99,577	61,316	20,480	10,516	5,422	1,246	475	73	35	14
TOTAL FOR ALL SECTORS	1,219,028	670,528	225,897	153,763	106,351	35,707	19,430	4,739	1,615	998
PERCENT OF TOTAL		55.0%	18.5%	12.6%	8.7%	2.9%	1.6%	0.4%	0.1%	0.1%
TOTA FOR INDUSTRIAL-ORIENTED SECTORS	354,908	194,071	61,327	43,279	32,822	12,601	7,705	2,053	718	332
INDUSTRIAL-ORIENTED PERCENT OF TOTAL		54.7%	17.3%	12.2%	9.2%	3.6%	2.2%	0.6%	0.2%	0.1%

Source: U.S. Census Bureau

A similar profile for Central Oregon shows a total of 70 firms with more than 100 employees. This represents 0.9% of total firms in the area. If the regional profile was consistent with the Western United States, with 2.2% of firms having 100 employees or more, the region would have a total of 162 firms of this size. For firms having 500 employees or more, this number would increase the firm total from 7 to 17 in Central Oregon.

FIGURE 27: PROFILE OF FIRMS BY SIZE RANGE AND INDUSTRY, CENTRAL OREGON, 2008

CENTRAL OREGON (CROOK, DESCHUTES & JEFFERSON COUNTIES)	Total	Firms by Size Range								
Industry code description	Firms	1-4	5-6	10-19	20-49	50-99	100-249	250-499	500-999	1,000+
Forestry, fishing, hunting, and Agriculture Support	54	43	7	1	1	2	0	0	0	0
Mining, quarrying, and oil and gas extraction	11	6	2	1	2	0	0	0	0	0
Utilities	38	23	5	4	4	2	0	0	0	0
Construction	1,398	1,046	194	101	44	10	3	0	0	0
Manufacturing	366	173	77	48	35	18	11	2	2	0
Wholesale trade	310	184	58	42	21	5	0	0	0	0
Retail trade	984	477	238	131	90	34	10	4	0	0
Transportation and warehousing	161	103	26	14	10	3	4	0	1	0
Information	143	82	24	19	7	7	2	1	1	0
Finance and insurance	412	256	94	40	17	3	2	0	0	0
Real estate and rental and leasing	447	355	51	28	11	0	2	0	0	0
Professional, scientific, and technical services	722	550	89	51	31	0	1	0	0	0
Management of companies and enterprises	29	13	7	2	4	3	0	0	0	0
Administrative and Support and Waste Mang and Remediation Srvs	371	238	59	32	33	7	2	0	0	0
Educational services	74	37	13	11	11	2	0	0	0	0
Health care and social assistance	614	322	128	85	43	24	9	2	0	1
Arts, entertainment, and recreation	128	75	21	9	16	3	3	0	1	0
Accommodation and food services	593	184	116	165	105	17	3	2	1	0
Other services (except public administration)	515	313	127	52	19	4	0	0	0	0
TOTAL FOR ALL SECTORS	7,370	4,480	1,336	836	504	144	52	11	6	1
PERCENT OF TOTAL		60.8%	18.1%	11.3%	6.8%	2.0%	0.7%	0.1%	0.1%	0.0%
TOTAL FOR INDUSTRIAL-ORIENTED SECTORS	2,644	1,767	419	241	147	45	20	2	3	0
INDUSTRIAL-ORIENTED PERCENT OF TOTAL		66.8%	15.8%	9.1%	5.6%	1.7%	0.8%	0.1%	0.1%	0.0%

Source: U.S. Census Bureau

Firms sized at 500 employees or larger can be a general proxy for large lot industrial site demand. The Central Oregon region currently accounts for 0.27% of firms of 500 employees or more in the Western United States. The ratio of large firms in Central Oregon relative to the overall number of firms (0.09%) is less than half the ratio in the broader Western United States (0.21%). Using the current profile of firms by size in the Western United States and Central Oregon, combined with birth and expansion patterns summarized in Figure 25, Johnson Reid can generate a model of annual large firm location activity in the region.

FIGURE 28: ESTIMATED ANNUAL LARGE FIRM LOCATION ACTIVITY

	Central Oregon	Western US
Total Firms	7,370	1,219,028
Firms - 500-999 Employees	6	1,615
% of Total	0.08%	0.13%
Share of Western US	0.37%	100.00%
Firms - 1,000+ Employees	1	998
% of Total	0.01%	0.08%
Share of Western US	0.10%	100.00%
Firms - 500+ Employees	7	2,613
% of Total	0.09%	0.21%
Share of Western US	0.27%	100.00%
PROJECTED ACTIVITY		
Estimated Annual Birth Rate 1/	11.5%	11.5%
Expansion Annual Rate 1/	32.6%	32.6%
Annual Births	1	302
Annual Expansions	2	851
Estimated Annual Activity	3	1,152

1/ Assumes patterns consistent with Western US data summarized in Figure 21.

Assuming Central Oregon retains its current mix of firms, one could expect average annual large firm activity of 3 location decisions per year, or 15 over a five year horizon. Not all of these will require new sites, as many will be able to expand at existing locations or locate in vacant or underutilized existing facilities. If Central Oregon's share of large employers mirrored its share of overall employment, the level of annual estimated activity would increase to 7 firms. It should be noted that the demand for large lot industrial land is also a function of supply. In other words, if no sites are available to accommodate these users the region will get none of these users. What is modeled is a prospective demand, assuming that a competitive inventory is available and maintained, allowing the region to capture a "fair share" of market activity.

Economic recruitment benefits from some degree of market choice. Firms evaluating prospective locations are a more likely to consider Central Oregon if multiple appropriate sites can be seen in a single trip. As outlined in the vision statement, the region is hoping to establish and maintain a "competitive portfolio" of large lot industrial sites. This would include an inventory of readily available and appropriate sites consistent with baseline criteria, allowing the region to clear the initial site selection screening. To the extent that multiple prospective sites are available in the region, Central Oregon's competitive position would be enhanced as

site selectors prefer to have multiple options before physically visiting an area such as Central Oregon.

Business Oregon is mandated by ORS 197.717 (2) to "*provide a local government with state and national trend" information to assist in compliance with ORS 197.712 (2)(a).*" The department has reviewed the Central Oregon area, and made the following recommendations:

> *Given its current size and expected growth, it is not unreasonable to assume that the region being examined as part of the current Central Oregon Large Lot Economic Opportunity Analysis should have a mix of large lot sizes for potential employers and site selectors to choose from. Such a mix would have at least multiple ready sites in the 200, 100 and 50-acre plus acreage ranges in order to meet expected 20 year land supply needs.*

Working with EDCO and Business Oregon, the following matrix of large-lot site needs has been developed.

FIGURE 29: RECOMMENDED COMPETITIVE LARGE LOT INDUSTRIAL INVENTORY

	50-100 ACRES	100-200 ACRES	200+ ACRES	TOTAL
SHORT TERM				
Number of Sites	3	2	1	6
Jurisdictions	3	2	1	

The preceding table summarizes what has been determined to be a regionally and nationally competitive portfolio of large industrial lots. A readily available and developable inventory of six large sites in at least three separate jurisdictions will provide for choice to prospective industries or site selectors.

Maintaining an appropriate short-term available lot supply that is readily developable is a key priority for the region, and strongly affirmed in the community vision. Projecting the demand for industrial land in this size range is inherently highly speculative, as it is a thinly traded and highly competitive sector. In other words, with fewer transactions and multiple areas competing for these transactions, there is an unusually high degree of uncertainty in any forecast. The degree of uncertainty can be offset by emphasizing short term ready supply, with a mechanism to replace supply in a timely manner when needed. While this may be achieved during a periodic review, there should also be provisions for more rapid response if the market supports it.

In the professional opinion of the economic development professionals contributing to this analysis, a competitive portfolio of industrial sites would include a collection of large industrial parcels in some selected communities, and a major, centrally located large-scale development near the region's geographic and workforce center, and where key infrastructure is in place and has excess capacity. This would be optimally located on the north end of Bend, but infrastructure challenges will make this choice problematic for at least the short-term. The next

most optimal location is on the southern end of Redmond, east of Highway 97. The area has few neighbors, possible secondary transport access and most of the municipal and franchise utilities with excess capacity.

Another three large lot parcels available throughout the region is also recommended as part of a competitive portfolio. These sites would be 100 to 200 acres in size, and located in three distinct jurisdictions. Recommended jurisdictions include Bend, Prineville and La Pine. The City of Madras has available land within its current UGB for a large lot industrial user. What is important from an economic development perspective is maintaining a short-term inventory of appropriately sized and located lots available to the market in any given period. From a market perspective, sites need to be readily developable with infrastructure in place or readily available, controlled by a willing seller and appropriately priced.

The following are additional factors that should be considered in establishing and maintaining a short-term competitive supply:

- It should be noted that while Johnson Reid is evaluating large lot site needs as independent of the need for smaller sites, the targeted employers are often "game changers", which will generate a range of associated site needs within the region for suppliers and support businesses. While likely smaller in scale, the ability of the region to serve associated industrial growth is seen as critical.

- Land banking is a relatively common pattern in large lot industrial land use. Firms often seek sites that are well in excess of their immediate needs, but capable of supporting later expansion of their operations. While land is being "banked" by an employer is not developed, this sequestered land is *not* available to the market and subsequently of limited use in economic development efforts. In effect, banked land should be treated as though it were held by an unwilling/uncooperative seller, as per earlier discussions in this report. While it may serve longer term needs, it should not be counted towards meeting short term needs.

- The ability to cost effectively serve sites with adequate infrastructure should be a key determinant in their usefulness for economic development. Industrial land is characterized by relatively low values per square foot, providing limited ability to be burdened with off-site infrastructure costs. In addition, even when fiscally viable, infrastructure provision may only be available in a time frame that is inadequate to meet identified needs. Certain industrial users can have significant offsite impacts associated with their operations. These operational externalities may make cause conflicts with neighboring uses, limiting the appropriate locational options for these types of firms.

- While the research indicates a range of large lot site sizes and characteristics are needed within Central Oregon, a degree of flexibility should be maintained. A property that would allow for a range of partitioning options for large lot industrial would be

considered to be highly desirable. As an example, a 400 acre site that can be subdivided into parcels as small as 50 acres would have the ability to accommodate either a very large user, or a series of smaller users. This would provide more flexibility in terms of potential configurations than two 100 acre sites and four 50 acre sites.

Maintaining a competitive short-term inventory of sites in the region will require regular replacement of sites as consumed, with modifications made to determinations of appropriate inventory based on available information and periodic reviews. The short-term available inventory is most critical in economic development efforts.

APPENDIX: Examples of Local Governments Proactively Planning for Industrial Development

INDUSTRY FOCUS: DATA CENTERS

Community: Quincy, Washington (Grant County)
Population: 2000: 5,044 | 2010: 6,750 | % Change: +33.8%
Number of 50+ acre industrial sites absorbed 1990-2000: 0
Number of 50+ acre industrial sites absorbed in past decade: 5
Number of 50+ acre industrial sites now available: 6

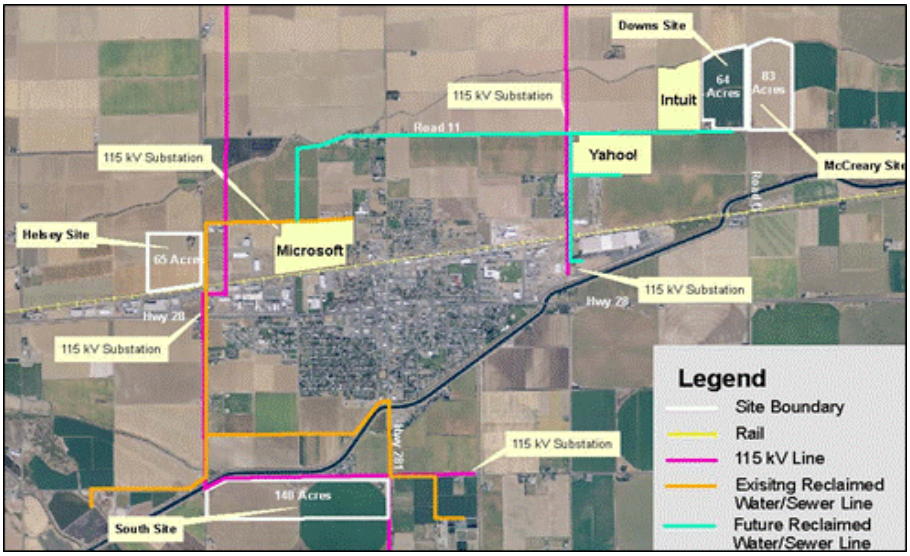
Key Industry Site Location Factors:

- Proximity to large capacity, low cost power
- Access to municipal water and sewer (large capacity)
- Mission critical telecom infrastructure (speed and capacity)
- Large acreage industrial sites (with proximity to utilities)
- Climate conducive for lower cost cooling
- Meaningful incentives, tax climate

Economic Outcomes

In 2004, the rural town of Quincy, WA was essentially 100% agriculturally based economy in a county with some of Washington's highest chronic unemployment rates. The community had no technology companies operating there and, as a result, no local technology jobs. Poverty rates also ranked among the highest in the state. A key asset the community did have that aligned well for the data center industry was the fact that it had over 500 megawatts of stranded electric power capacity resulting from closure of several foundries within Grant County. Rates set by the local PUC were also very attractive for large users – among the lowest in the country. The community and county overall had numerous large industrial sites that could accommodate significant projects such as Microsoft's 1.5 million square foot data center facility.

Today, there has been an *8 percentage point improvement in the unemployment rate* and *six major technology companies* (Yahoo!, Microsoft, Dell, Intuit, T-Mobile & Ask.com) have a presence in Quincy.



While critics (most of which are outside community) make arguments that the jobs produced for the electric power used is a poor economic development tradeoff, the reality is that these centers would be built somewhere to accommodate market demand for mobile devices, online computing capacity and Internet-based software and professional services. The community, via its local and professional economic development organizations, had tried to attract other industries with little success. The data center industry has brought sustained economic activity that is benefiting most residents.

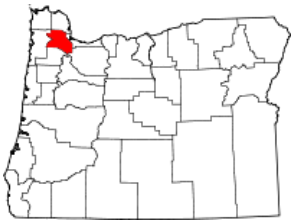
Other economic impacts in Quincy and Grant County, WA include:

- *$2.9+ billion in facility construction and IT infrastructure investment*
- *275 average construction jobs since 2004 (peaks exceeding 600)*
- *200 full time direct hire positions with technology companies*
- *250 full time contract employees for facility maintenance (ongoing)*

Capital investments alone from data center development have added considerably to the local property tax base, which supports local government, schools and special districts.

Of importance was the fact that Washington's land use system was able to accommodate six new large acreage industrial users in a very concentrated timeframe. Oregon's current land use law would never allow a community of 6,000 residents to have such an inventory, especially given a historical lack of demand for such development property. Nonetheless, the availability of this inventory was integral in the area attracting major new employment concentrations.

INDUSTRY FOCUS: HIGH TECHNOLOGY



Community: Hillsboro, Oregon (Washington County)
Population: 2000: 70,187 | 2010: 91,611 | % Change: +30.5%
Industry Target: **High Technology**
Number of 50+ acre industrial sites absorbed 2000-2010: 6
Number of 50+ acre industrial sites now available: 5

Key Industry Site Location Factors:

- Proximity to large power capacity at low cost
- Access to municipal water and sewer (large capacity)
- Large acreage industrial sites (with proximity to utilities)
- Proximity to technical, scientific talent (existing critical mass & higher education)
- Meaningful incentives, tax climate

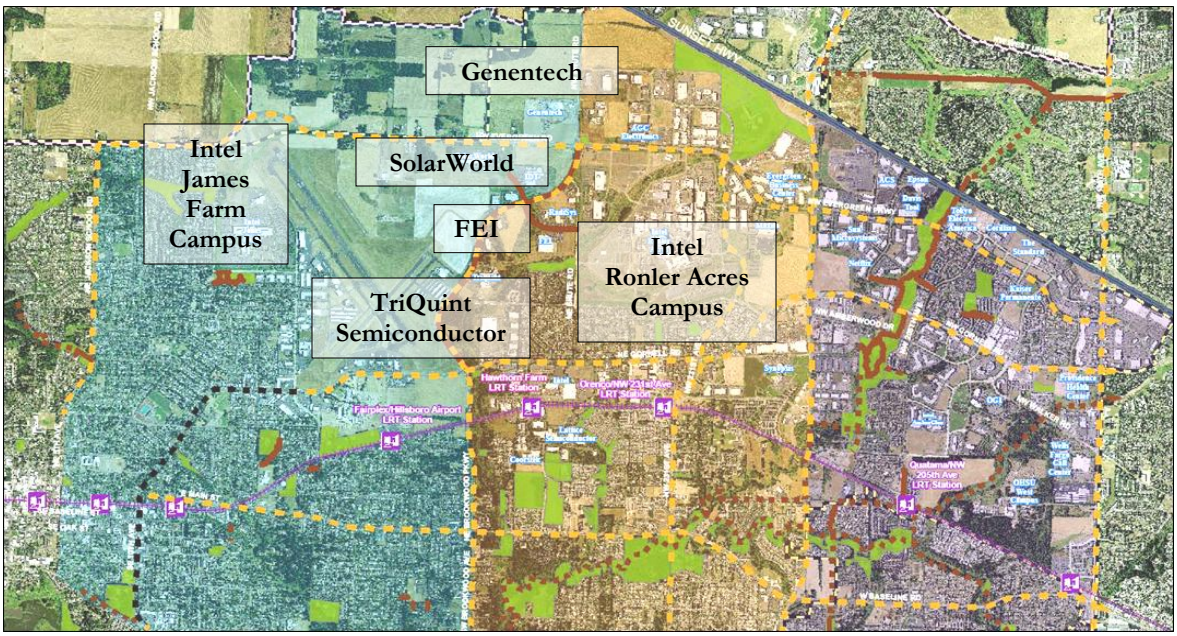
Economic Outcomes

Home to Intel, Hillsboro has been planning for and working toward growth of its high technology employment base for more than 25 years. Utilizing a large and renewable resource

from its Coast Range watershed, Hillsboro offers the semiconductor, bioscience and renewable energy equipment manufacturing industry a valuable resource for process water. Additionally, the community is strategically located to tap significant electric power transmission capacity in the Portland metro area, which is also another common thread in high technology manufacturing.

Intel opened its first Hillsboro facility, Hawthorn Farm in 1979. This campus was followed by the opening of the Jones Farm location near the airport in 1982 and the Ronler Acres location in 1994. The Ronler Acres development was the result of a substantial effort by the City to assemble a site with multiple ownerships to provide for a large lot industrial opportunity. Along with several smaller campuses, Intel Oregon had approximately 15,500 employees, making it the largest Intel site and the largest private employer in Oregon. Intel is directly or indirectly responsible for more than 100 spin-off high technology companies and has played a leading role in attracting other national and international high technology manufacturers to the Hillsboro area (TOK America, Tokai Carbon, Lattice Semiconductor, FEI Company, Sun Microsystems, Epson, etc.).

Significant capital investments in infrastructure and physical plant characterize these high technology companies. For these reasons, large, well-served industrial sites are required. Recent examples include pharmaceutical giant Genentech (75 acres), Solar World (93 acres), and TriQuint (32 acres). In 2007, SolarWorld AG acquired the Komatsu silicon wafer production facility in Hillsboro. The Komatsu site is approximately 93 acres total, and included 480,000 sf manufacturing and approximately 60 acres of excess land for additional fabs or support buildings. SolarWorld has since built an additional 500,000 sf module manufacturing facility on the site. TriQuint Semiconductors has a 32-acre corporate campus in Hillsboro, which manufactures semi-conductors (4" to 6" wafers) and offers integrated technologies for wireless and base station communications applications. Complete engineering design, manufacturing, testing, research and development are included at this facility. TriQuint has completed thee expansions at their Hillsboro HQ since 2006.



Hillsboro has continued to plan for future industrial development of its high technology cluster. The City has strategically focused industrial development efforts in the northern section of the City and is supporting that decision through zoning, industrial infrastructure, and transportation access. Despite having approximately 850 additional buildable acres within the City's North Industrial Area (Shute, Evergreen, and Helvetia Industrial Areas), the sites have been hampered by multiple ownership patterns, wetlands and natural resource issues, and lack of infrastructure.

The City has completed a strategy intended to prepare approximately 700 acres of vacant land in the North Industrial area for development. The strategy addresses the key challenges to development in this area including infrastructure concept design and funding; mitigation of wetlands and environmentally sensitive lands; and land assembly (with the goal of providing a 100 acre site that is truly "shovel ready"). The city also realizes that high quality and reliable infrastructure (roads, water, sewer, electricity) is necessary. Millions of dollars are being invested, or are programmed for investment by local utility suppliers in phases over the next 10 years to accommodate development of these key industrial lands.

While Hillsboro is one of the best positioned communities from an industrial land perspective, only two or three other options exist for large lot users in within cities in the greater Portland area, a metro with nearly 2 million residents. That Hillsboro is preparing for the future with an inventory of large-lot industrial land positions it for future success. It is hard to imagine how the community could accommodate additional large technology-based companies (either through recruitment or from organic growth of existing businesses) without such an inventory.

Community: Austin, TX (Austin County)
Population: 2000: 656,562 | 2010: 790,390 | % Change: +20.4%
Number of 50+ acre industrial sites now available: 11

Key Industry Site Location Factors:

- *Proximity to large power capacity at low cost*
- *Access to municipal water and sewer (large capacity)*
- *Large acreage industrial sites (with proximity to utilities)*
- *Proximity to technical, scientific talent (existing critical mass & higher education)*
- *Meaningful incentives, tax climate*

Economic Outcomes

Austin is considered to be a major national center for high technology development and manufacturing. Among its largest employers are Dell, Freescale Semiconductor, IBM, Apple, Advanced Micro Devices, Silicon Labs, Hewlett-Packard, Google, AMD, Applied Materials, Cirrus Logic, Cisco Systems, eBay/PayPal, Bioware, Intel, Samsung, Silicon Laboratories, Oracle and

Rackspace. The proliferation of technology companies has led to the region's nickname, "the Silicon Hills", and spurred development that has greatly expanded the city. Austin is also emerging as a hub for pharmaceutical and biotechnology companies; about 85 companies in the bioscience industry are based in Austin. While the presence of some of the companies noted occurs in more intensive developments (high rise buildings in a downtown location), the majority of technology employers in the Austin area have considerable space for their operations.

INDUSTRY FOCUS: WAREHOUSE & DISTRIBUTION

Community: Hermiston, Oregon
Population: 2000: 13,154| 2010: 16,795 | % Change: +27.7%
Number of 50+ acre industrial sites now available: 8

Hermiston is a progressive, growth-oriented urban center for an area based economically on distribution warehousing, agriculture, food processing, utilities and other light industry. Centrally located, Hermiston has become a transportation center accessed by Interstate Highways I-84 (east to west) and I-82 (north and south) as well as rail and river transportation systems. As well as large properties up to and including a 300-acre site that is subdividable with railroad spur frontage. The City will work with developers of industrial and commercial business that create job opportunities for local citizens to assist with location of infrastructure to appropriate sites. The Port of Umatilla has helped in the development of industrial parks in the area, and has recently attracted a new Amazon facility on their nearby McNary property.

Key Industry Site Location Factors:

- *Clean water*
- *Economical power*
- *Transportation access (Interstate and Columbia River)*
- *Advanced communications*
- *Room to grow*

Economic Outcomes

The City of Hermiston strong locational attributes and readily available industrial land supply has supported growth in agricultural processing, utilities and distribution/warehousing. Major employers include:

- *Wal-Mart Distribution Center – 850 employees*
- *Lamb Weston – 700 employees*
- *Hermiston Foods (NORPAC) - 500 employees*
- *Marlette Homes – 450 employees*
- *Union Pacific Railroad - (315 employees)*
- *Good Shepherd Health Care System - (358 employees)*

Community: Morrow County, Oregon
Population: 2000: 10,995 | 2010: 11,175 | % Change: +1.6%
Number of 50+ acre industrial sites now available: 2,500 subdividable acres

The Port of Morrow has led economic development efforts within Morrow County. The Port serves the industrial community by continually developing its three industrial parks, and offers assistance with financial services. Connections to the local labor market are also provided. The Port offers industrial building sites from 1 to 2,000 acres in size as an economical alternative to metropolitan areas.

Key Industry Site Location Factors:

- *Clean water*
- *Economical power*
- *Transportation access (Interstate and Columbia River)*
- *Advanced communications*
- *Room to grow*

Economic Outcomes

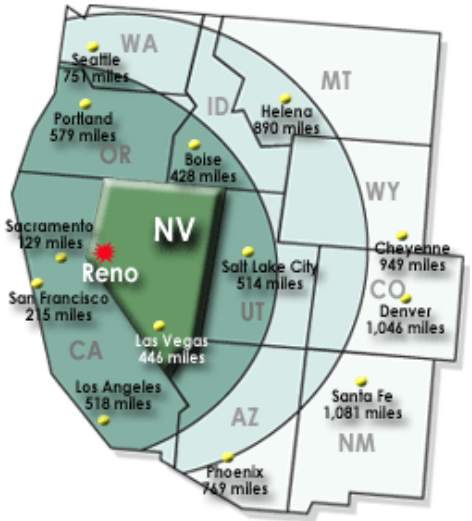
Building on its reputation as a prominent food processing center, the Port is also home to fiber and seed processing industries, lumber processing and transportation facilities. Port tenants include:

- McGinn Brothers Trucking
- Morrow Cold Storage
- Devin Oil
- Oregon Hay Company
- Oregon Potato
- Pacific Rock Products
- Portview Ranches
- Rivercrest Farms, Inc.
- Tidewater Terminal Services
- Vanco
- Watts Brothers Re-Pack Facility

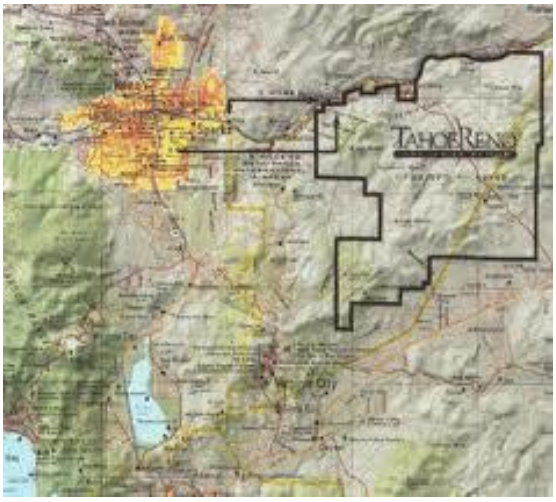
Community: Reno, Nevada (Washoe County)
Population: 2000: 180,480 | 2010: 225,221 | % Change: +24.8%

The greater Reno, NV area has grown over the past two decades into a significant regional distribution center for the West Coast. Its geographic location provides optimal service to a six to nine-state area, but most strategically to California – the most populous and largest state economy in the United States. Warehouse and distribution is a major industry and source of employment in the Reno-Sparks area, comprising nearly 13% of all jobs. The area has established a large Foreign Trade Zone (FTZ) of nearly 7,500 acres and many large-scale distribution centers have a presence in the Reno-Sparks area including:

- PetSmart (990,000 sf)
- MEPT USA (700,000 sf)
- Kmart
- JCPenney
- Toys R Us (300,000 sf)
- Barnes & Noble (642,000)
- Husqvarna
- US Ordinance
- Patagonia (171,000 sf)
- Walmart (890,000 sf)
- Urban Trends (clothing) – 430,000 sf
- Sherwin-Williams
- Starbucks (160,000 sf)
- Snap-on Tools (120,000 sf)



The area shaded dark green represents
1 day truck service
The area shaded light green represents
2 day truck service



Several of the large scale distribution centers have located in the Tahoe-Reno Industrial Center (TRIC), a 110,000 acre industrial park is among the largest in the nation. Since 2000, TRIC has attracted 83 companies and construction of nearly five million square feet of warehouse and industrial buildings. The park also markets that it has 900 megawatts of power available for companies. The development is well served with rail and highway access, but prior to its conception, the rural area east of Reno had no historical industrial development – giving credence to the "build it and they will come" strategy employed more famously at the 7,000 acre Research Triangle in North Carolina.

Community: Salt Lake City, Utah (Salt Lake County)
Population: 2000: 898,387 | 2010: ,029,655 | % Change: +14.6%

Key Industry Site Location Factors:

- Strategic geographic location for target metropolitan markets
- Access to multiple interstate and rail transportation systems
- Availability of low cost, large acreage land
- Meaningful incentives, tax climate

The Salt Lake City, UT area is geographically positioned to serve an eleven-state area in the Western U.S. with one day truck service – making it a hub for the nation's distribution industry. Key factors supporting Utah's status as a distribution destination include an extensive freeway system with more than 43,155 miles of highways and roads; a major rail system with more than 1,400 miles of railroad track stretching throughout the state; an international airport handling over 550 million pounds of air cargo and air freight annually. Salt Lake City is also a Customs Port of Entry, serving as a full-service port city. Utah's low operating costs and available labor force make Utah an attractive location for the distribution industry. Over 1,500 trucking companies have a presence in the state.

A long list of companies have large scale distribution operations in the greater Salt Lake City area, including:

- The Hershey Company (chocolate food products) – 600,000 sf warehouse
- Overstock.com (consumer products) - 950,000 sf warehouse
- Sephora USA (beauty products) - 320,000 sf warehouse
- U.S Foodservice (wholesale food products) – 265,000 sf warehouse
- Huish Detergents (private label detergents) – 200,000 sf warehouse
- Icon Health & Fitness (exercise equipment mfg. & distribution) – 300,000 sf facility
- Lifetime Products (sports equipment mfg. & distribution) - 2.6 million sf complex
- Nestle USA (packaged frozen foods)
- Merit Medical Systems (medical devices, supplies)
- Nu Skin Enterprises (beauty products) – est. 400,000 sf warehouse

- RC Wiley Home Furnishings (furniture manufacture and distribution) 860,000 sf warehouse
- ICU Medical (medical devices and supplies) – 450,000 sf facility (140,000 sf distribution)
- Walmart (large scale retailer)
- Easton (sporting goods) – 140,000 sf distribution

Salt Lake City and surrounding communities have planned for growth of this industry, which has seen considerable expansion in the past two decades. Nearly all of the distribution centers noted above require large scale industrial parcels for initial buildings and future growth.