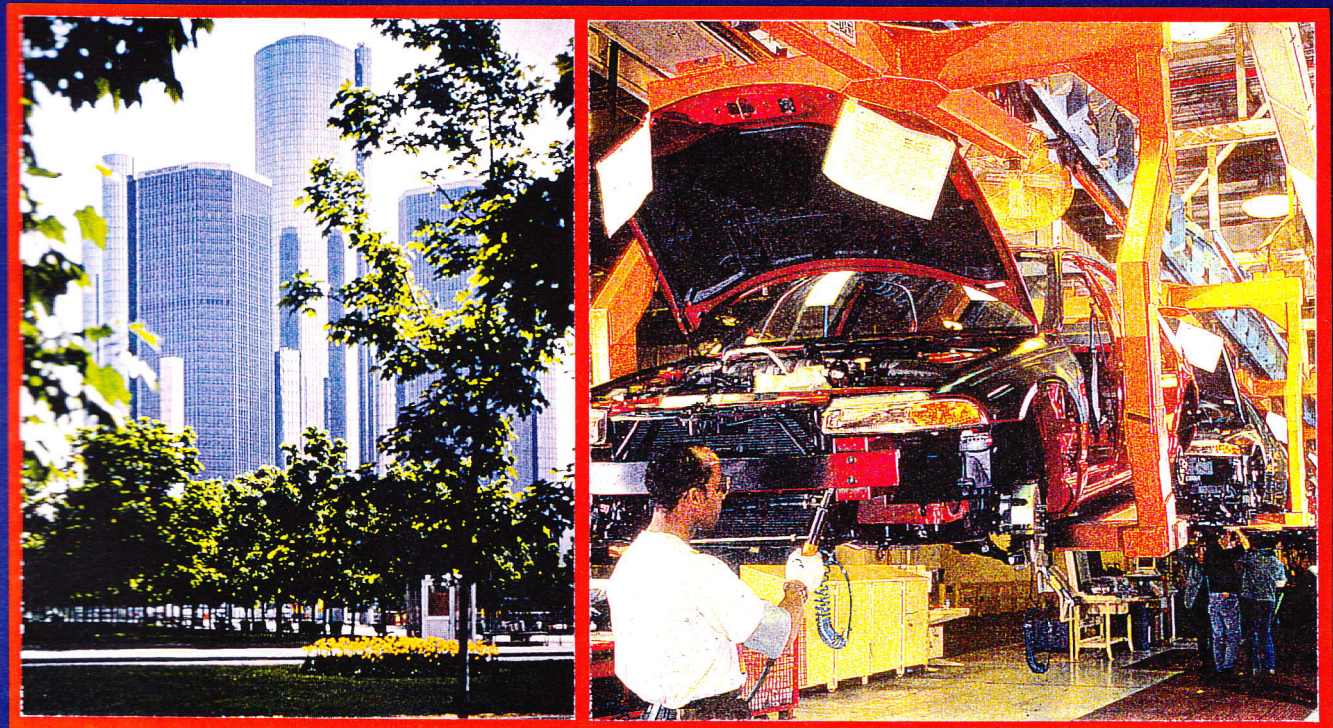

America's New Economy And The Challenge Of The Cities

A HUD Report On Metropolitan Economic Strategy

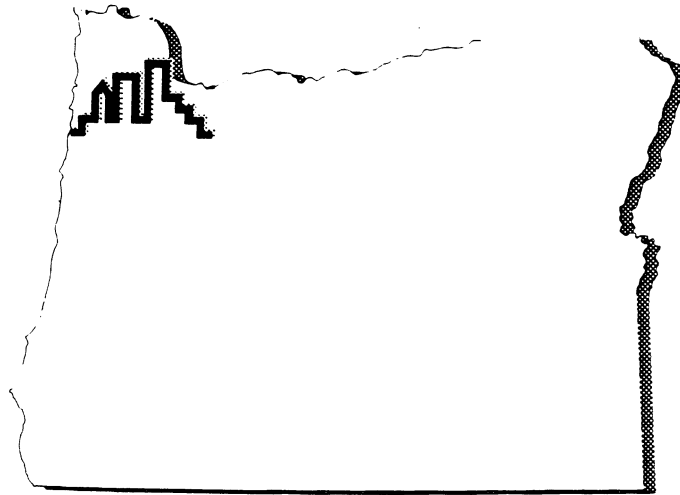


U.S. Department of Housing and Urban Development

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Overview

After a deep recession in the early 1980s, metropolitan Portland underwent a transformation from a slow-growing natural resource-based economy to an increasingly technology-based economy that is growing rapidly. The metropolitan Portland economy today is driven by a large and diverse Electronics and Communications industry cluster centered mainly around semiconductors and computer manufacturing. Industry clusters are groups of related firms connected by producer-supplier-distributor relationships, shared research bases, common technology, workforce skills, and other key elements used in producing goods and services.

Metropolitan Portland also serves as a transportation hub for products that are distributed throughout the western United States and Canada, as well as overseas to countries across the Pacific Ocean. The Electronics and Communications and Transportation and Trade Services clusters, together with a growing Business and Professional Services (Software) cluster, have helped fuel metropolitan economic growth over the past decade.

Metropolitan Portland's evolution to a new economy is due in part to a targeted strategy by regional leaders to invest in new industry clusters, while preserving the region's attractive environment and quality of life. Metropolitan Portland enjoys a unique geography that includes surrounding mountains, lakes, rivers, easy access to the Pacific Ocean, wine country and a favorable climate. Sustaining the metropolitan region's quality of life is a high priority for its residents.

The targeted strategy to attract and build a computer and semiconductor industry base has paid off for the metropolitan region. Metropolitan Portland also has benefited from growth in world trade, with its location on the west coast and a history of serving the Pacific northwest as a shipping hub. Trade through the Port of Portland has increased strongly in the past decade, along

with air freight, as the local economy has grown at a rate nearly double that of the nation, and as trade with the Pacific Rim has risen significantly.

Moreover, a well coordinated regional government, combined with a carefully planned urban growth boundary around the metropolitan region and a substantial investment in the public transit system, has helped to strengthen community life in older neighborhoods.

The region still faces challenges, however, such as the need to improve education and workforce development including higher education and research. Also population growth has brought increased congestion, and average wage growth has not risen as rapidly as job growth.

Metropolitan Portland's economic strategy includes:

- *Workforce development:* Expanding existing education and workforce development programs to support the higher skill requirements of the Electronics and Communications industry cluster and the other high skilled manufacturing and services clusters. This investment ranges from basic education and employment training to college education and advanced research.
- *Regional transportation systems:* Extending the metropolitan region's transit system to better serve outer parts of the region and improve urban access to jobs in technology-oriented industries in the surrounding counties. Investment in the Port of Portland and other key infrastructure projects increases global trade capacity and business opportunities.
- *Business attraction and retention:* Enhancing strategic investment initiatives designed to provide targeted tax incentives to attract and retain manufacturers from key industry clusters in metropolitan Portland.
- *Sustainable Environment:* Maintaining a good environment and quality of life helps attract skilled workers and entrepreneurs to the emerging technology-based growth clusters.

The federal government can assist Portland's public and private leaders by supporting key components of the metropolitan economic strategy:

- *Education and workforce development:* Strengthen higher education, technology research and workforce training programs through development of a stronger university presence in research and technology, and a more highly developed system of education and training for technology-based employment in both Electronics and Communications cluster, the Business and Professional Services (Software) cluster, and other high value service clusters.
- *Expand light rail transit:* Support expansion of the regional transportation system through assistance in the construction of a more extensive regional light rail transit system to make regional jobs in the expanding Electronics and Communications cluster more accessible.
- *Promote world trade:* Assist with export promotion and international trade by further opening opportunities in global markets.

1. What are the engines of the metropolitan regional economy?

1a. How is the metropolitan economy evolving?

For more than a century, with its location on the Pacific Ocean and at the confluence of the Columbia River and the Willamette River, Portland grew as a business center for commerce, trade, manufacturing, finance, medical care, and other services for the agricultural, forestry, and fishing industries throughout the region. It also exported lumber and wood products, grain, fruits and vegetables, fish, and other resource-based goods to wider national and international markets.

In the past several decades metropolitan Portland's economic mix has begun to shift dramatically. The region has seen a decline in the dominance of the old forestry-based businesses. After a prolonged economic recession in the 1980's, semiconductor and computer manufacturing, telecommunications, advanced business services, global trade, and other related activities are on the rise. While logging timber for export to Japan actually grew during the 1980s, employment in logging and timber has been falling. Nevertheless, forest products remain an important sector of the metropolitan Portland economy.

With the increasing competitiveness of the global economy, automation, and environmental awareness since the 1970s, employment in the timber industry and related manufacturing activities declined significantly. In the early 1980s, metropolitan Portland experienced serious economic recession. In recognizing the need to revitalize and diversify its economic base, the Portland region undertook to transform its economy from one based on natural resource extraction to one that is more technology driven.

Exhibit 1
The Portland Metropolitan Region

	Portland	U.S. Average
Population, 1995:	1,710,258	262,755,000
Population Growth 1975-95:	44.2%	21.9%
Long-Term Employment Growth, 1975-95:	84.3%	47.1%
Recent Ave. Annual Employment Growth, 1991-95:	2.8%	1.9%
Median Household Income, 1995:	\$41,380	\$33,144
Recent Ave. Annual Household Income Growth, 1991-95:	1.5%	-1.0%

Metropolitan Portland today is one of the leading high technology economies in the nation. Portland has become home to a concentration of technology companies, especially semiconductors, and a growing number of software companies. As a result, the region has been called the "Silicon Forest."

Metropolitan Portland's growing technology sector is only one part of the region's transformation from dependence on timber and agriculture. The Portland region is also spawning biomedical-technology, health-care, environmental technology, and multimedia firms, as computer software and hardware developers apply their knowledge and expertise to new industries. Many entrepreneurs have spun off from larger companies to become their former employers' suppliers. Addi-

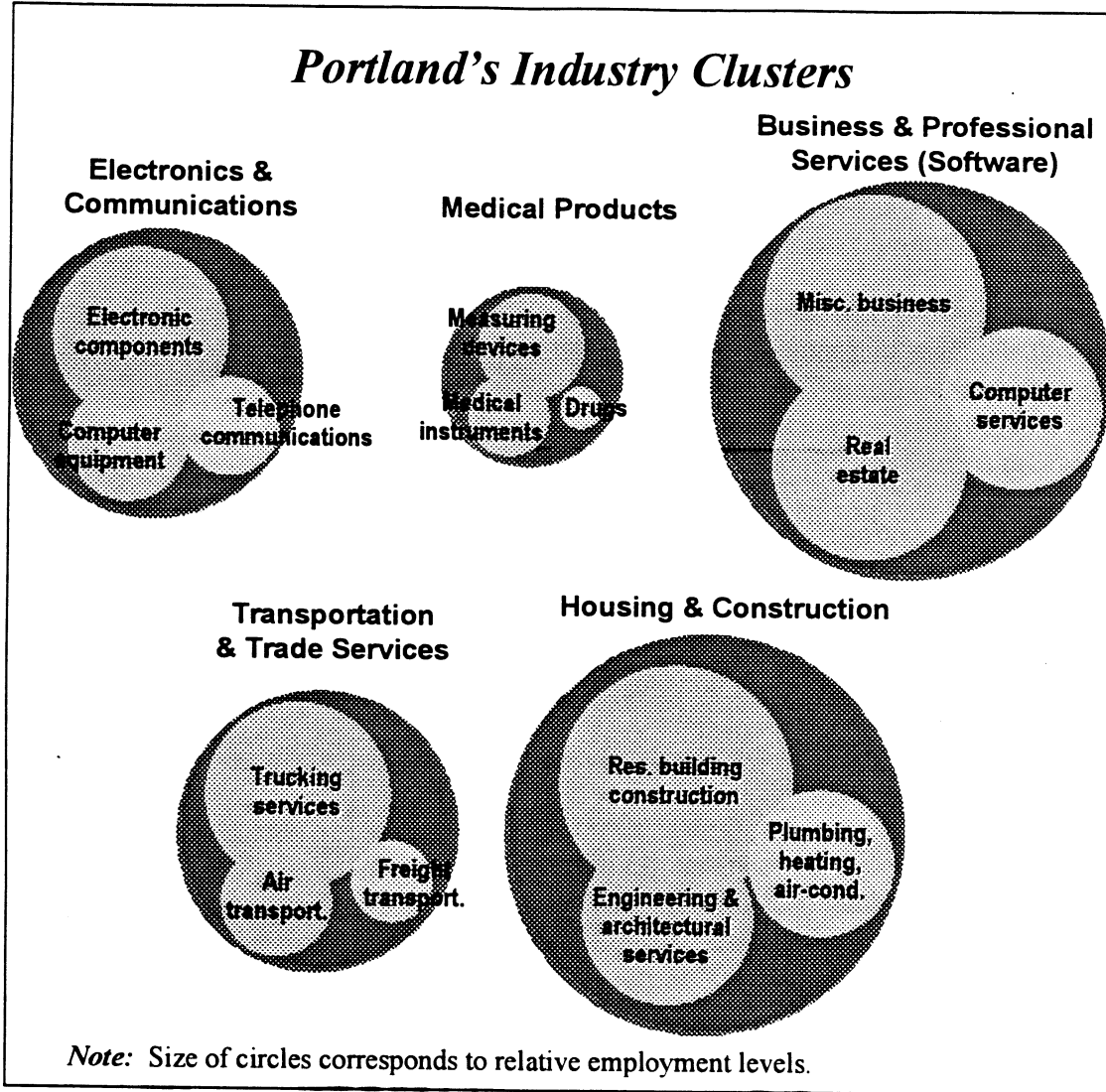
tionally, professional services that serve these burgeoning markets, such as public relations agencies, are also growing.

In spite of the growth, however, average wages have not kept pace. The region has seen modest income gains during a period of robust growth in the metropolitan Portland economy. From 1983-1993, the region experienced job growth at twice the national rate while unemployment dropped notably. As the U.S. saw over a half-million manufacturing jobs disappear, the region's manufacturing sector grew 25% as it attracted more high-technology manufacturing jobs. Nevertheless, metropolitan Portland's real average wage per worker increased little from 1983.

The general trend is clear—manufacturing is up, but with a much greater emphasis on computers and peripherals, semiconductors and other components of information processing and telecommunications equipment. Wholesale trade; finance, insurance and real estate; construction (to serve a fast-growing region); biomedical technology, health and hospital services; education and research; business services; legal, engineering, and professional services; and human services all show a three-decade trend of substantial economic and employment growth. Metropolitan Portland has proved to be an increasingly attractive location for direct foreign investment from and international trade with Asian and Latin American countries.

1b. What are the key industry clusters in the metropolitan region?

Exhibit 2



Today, the key clusters and sectors that contribute to the region's economic competitiveness include:

Electronics and Communications: Metropolitan Portland now has one of the largest concentrations of semiconductor-related companies in the United States. In addition, the region has attracted at least five of the ten largest semiconductor companies in the world to build manufacturing plants in the metropolitan region. With nearly 35,000 jobs in 1995, an investment of over \$7 billion and more than 4,600 new jobs, the rapidly-growing computer and communication industry is now an important engine of regional economic growth.

Medical Products: With close ties to the health care and food processing industries, the medical products industry in metropolitan Portland more than doubled its employment growth during the past decade. With over 8,000 jobs, this cluster is expected to expand 25% by the year 2000. Much of this cluster is made up of medical instruments, which includes measuring and controlling devices, and other medical instruments and supplies. Since many of the larger medical technology and scientific instruments manufacturers such as Hewlett Packard also are producing sophisticated

electronics equipment, building close linkages with these technology-based firms is a particular focus of the Oregon Health Sciences University and Portland's biomedical technology sector.

Business and Professional Services (Software): Business services is a fast growing cluster, with nearly 67,000 people employed in 1995, over 7% of the region's employment. Business services includes advertising, credit reporting agencies, data processing, legal services, accounting, management consulting and public relations, mailing and reproduction, personnel supply, and engineering and architectural services. Multimedia and software is an important growth segment of this cluster, which is a provider of information and telecommunication services to the large Electronics and Communications cluster.

Transportation and Trade Services: Metropolitan Portland has intermodal transportation connections with shipping, railroads, air transport, and interstate highways. Long distance bulk freight transportation through the port facilities, moving goods from ships to railroads and trucks, is key to the region's economic future. The Transportation and Trade Services industry cluster in Portland accounts for over 32,000 jobs and nearly 4% of the regional economy.

Housing and Construction: This cluster, which employs more than 67,000 in the region, includes a range of home and building materials, building services, trade contractors and related sectors involved in residential, commercial, industrial and road and highway construction. The Housing and Construction cluster has been growing strongly during the 1990s. The growth reflects the sustained demand for more housing and other physical infrastructure.

Other sectors of the metropolitan Portland economy, while smaller, are important sources of growth. These sectors include:

Logging and Paper: While employment in Logging and Paper industries have been on the decline in metropolitan Portland over the past two decades, they still represent an important sector in the regional economy. Logging and Paper currently accounts for over 6,000 jobs in the region.

An examination of the structure of national clusters compared to Portland's clusters indicates potential supplier gaps mainly in the Business and Professional Services (Software) cluster and the Housing and Construction cluster.

Exhibit 3

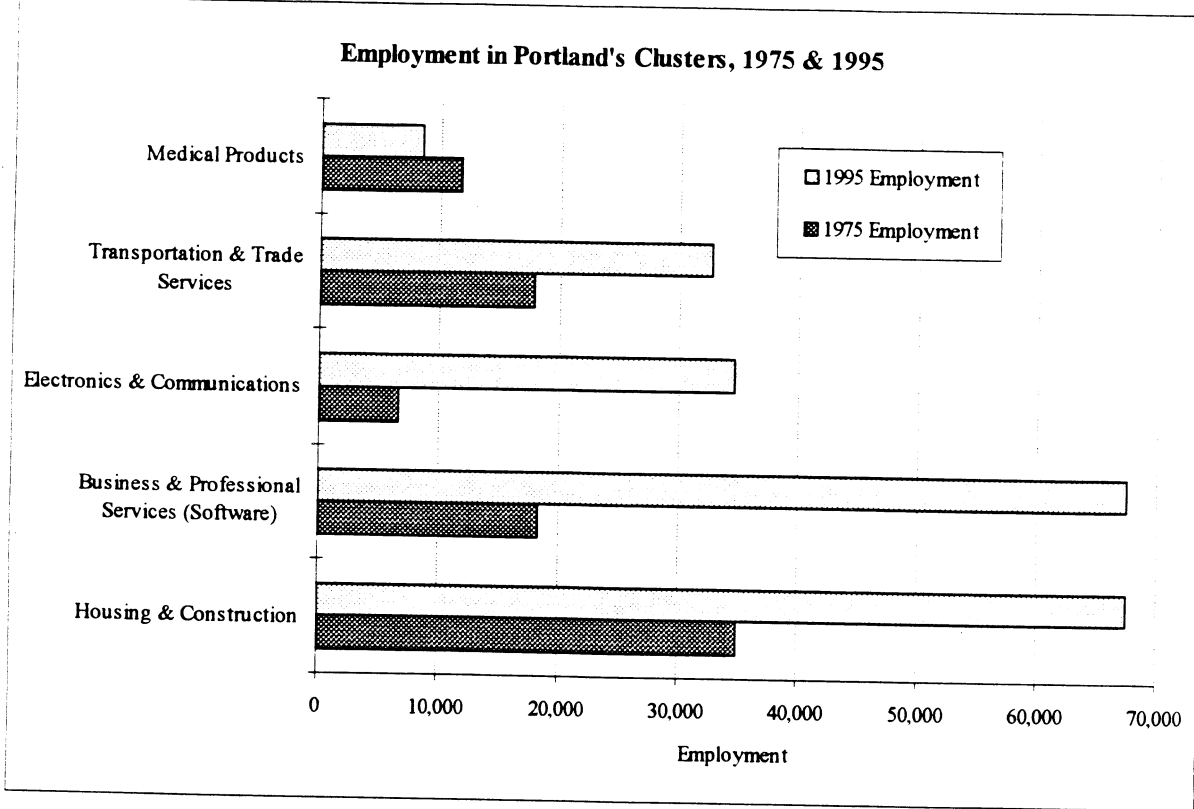


Exhibit 4

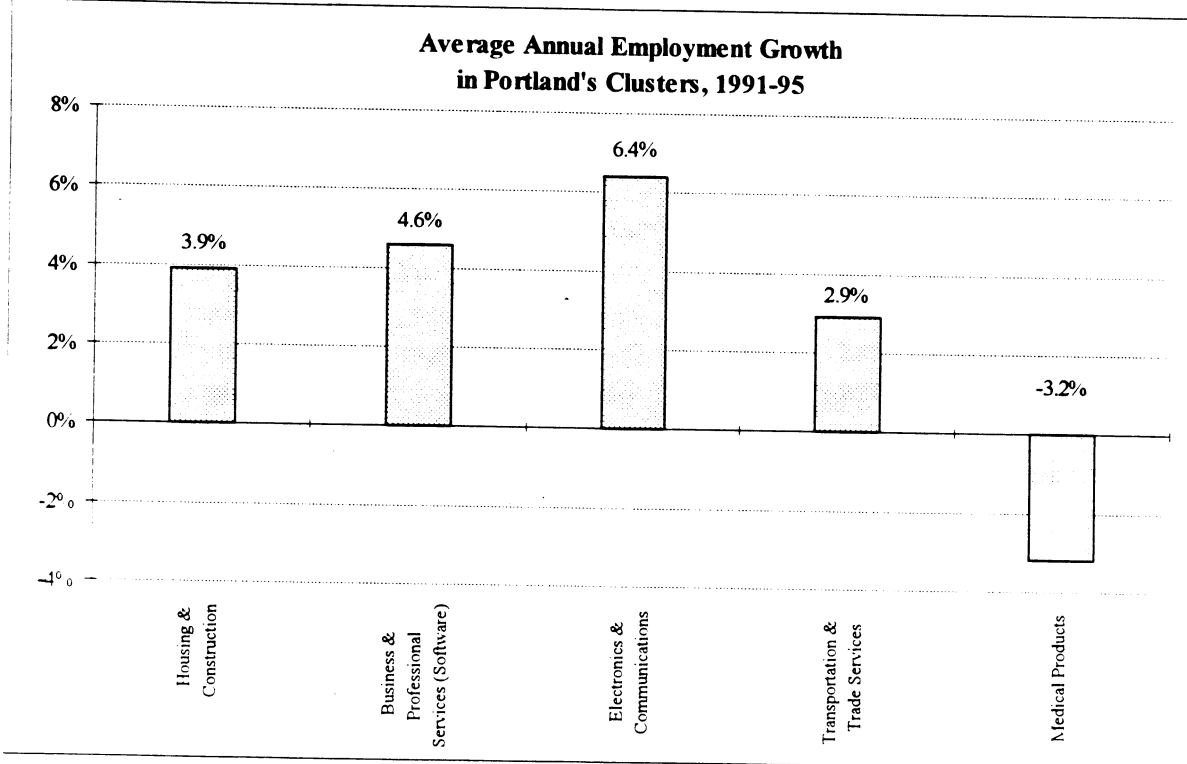


Exhibit 5

Portland's Industry Clusters: Selected Indicators

Cluster	Average Earnings/Employee 1995	% of MSA Employment 1995	Real Productivity Growth 1991-95	Employment Concentration Relative to U.S. (US ave.=1)
Electronics and Communications	\$35,342	4.0%	5.12%	1.76
Medical Products	\$26,483	1.0%	11.70%	1.27
Business & Professional Services (Software)	\$29,106	7.8%	-2.63%	1.22
Transportation and Trade Services	\$34,417	3.8%	3.78%	1.21
Housing and Construction	\$35,350	7.8%	2.06%	1.14

Exhibit 6

Important Suppliers to Portland's Industry Clusters

Supplier Industry Name	Req. Employ.	Supplier Gap or Surplus	Supplier Industry Name	Req. Employ.	Supplier Gap or Surplus
Business and Professional Services (Software)			Electronics and Communications		
Eating and drinking	3301	551	Motion pictures	1099	-1030
Construction	2939	-230	Misc.plastics prod.	901	-732
Commercial printing	1565	-1151	Advertising	522	-449
Services to buildings	1495	-1135	Computer services	414	-105
Insurance carriers	1414	-407	Eating and drinking	347	1633
Electronic components	1232	-301	Producers and entertainers	322	-286
Depository institutions	1178	59	Construction	285	1108
Hotels	1003	-374	Depository institutions	267	369
Auto rentals	967	-864	Nonferr. rolling	224	-213
Misc. plastic prod.	762	-434	Misc. business services	199	321
Housing and Construction			Transportation and Trade Services		
Sawmills	1296	-1105	Crude petroleum and gas	1634	-1632
Misc. business services	933	78	Eating and drinking	769	1097
Blast furn. and steel prods.	848	-714	Passenger transport	639	-566
Trucking and warehousing	754	557	Aerospace	364	-277
Misc. plastics prod.	578	-250	Computer services	334	-42
Misc. repair services	534	-371	Advertising	308	-239
Misc. wood products	458	-389	Auto rentals	232	-182
Misc. fab. metal prods.	448	-294	Construction	225	1087
Stone, clay, and mineral	439	-385	Depository institutions	219	380
Misc. equip rental	403	-278	Auto parking and repair	196	66
Medical Products					
Electronic components	616	-500	Misc. business services	109	16
Misc. plastic prod.	320	-279	Management and PR	94	-52
Advertising	274	-256	Metal forgings	88	-85
Acct., auditing, and other	245	-209	Misc. textile goods	85	-84
Research and testing	114	-92	Paper containers and boxes	78	-71

1c. Where is economic activity located across the metropolitan region?

Portland's Primary Metropolitan Statistical Area (PMSA) consists of six counties: Multnomah, Clackamas, Washington, Yamhill, and Columbia in the state of Oregon, and Clark in Washington state. The six-county PMSA population is over 1.6 million. But business activity is concentrated in the urban parts of the three Oregon counties (Multnomah, Clackamas and Washington) that together form the Metro Council and account for roughly 70% of Portland's PMSA population. The incorporated city of Portland, with a population of over 450,000, is located almost entirely within Multnomah County, and represents more than two-thirds of that county's 660,000 population.

The city of Portland contains nearly one-third of the population of the entire metropolitan region, and has more than six times as many residents as the second largest incorporated community. Two-thirds of all office space in the metropolitan region is located in downtown Portland, one of the highest such concentrations in the United States.

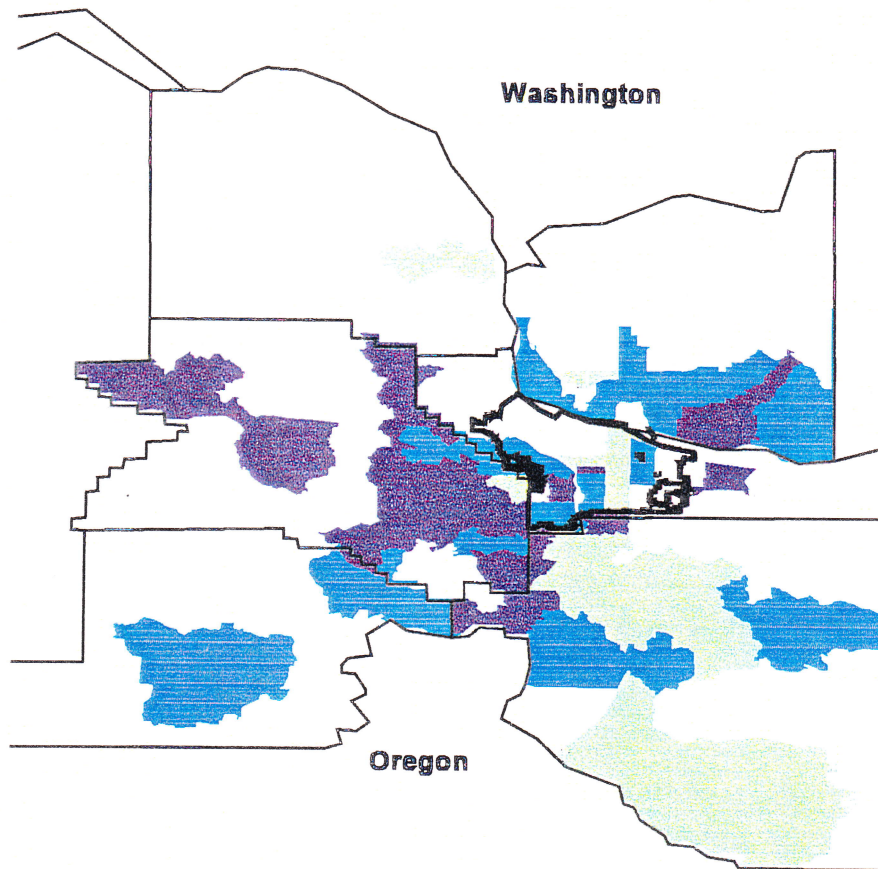
The concentration in Portland is partly due to the region's decision to set stringent growth boundaries. Overall, these urban growth limits have had the effect of keeping the metropolitan region's development principally in these three counties. The boundaries have led to a tighter configuration of economic activity in the region, with less sprawl than would have likely been the case without growth boundaries.




The Electronics and Communications cluster's semiconductor and other technology companies are clustered largely to the west of downtown Portland, in Beaverton, and Hillsborough along Highway 26 in Washington County, with some activity in Clackamas County to the east. In addition, newer companies in the cluster have been developing to the north in Clark County, Washington, along the new Highway 205 bypass that runs east of Portland and then back to I-5. These newer companies grew along the new bypass due to cheaper real estate costs and better access.

The Business and Professional Services (Software) cluster is mainly in the downtown area, but serves the other clusters that are both in the city of Portland and in the surrounding counties.

The Transportation and Trade Services cluster is centered around the Port of Portland which runs along the Columbia and Willamette rivers, spreading north of downtown. Within the city itself, north-northeast Portland, with a concentration of economically disadvantaged residents, has been designated a federal Enterprise Community to carry out a targeted neighborhood revitalization strategy.

Regional Employment Distribution Electronics & Communications Cluster Portland PMSA, 1995

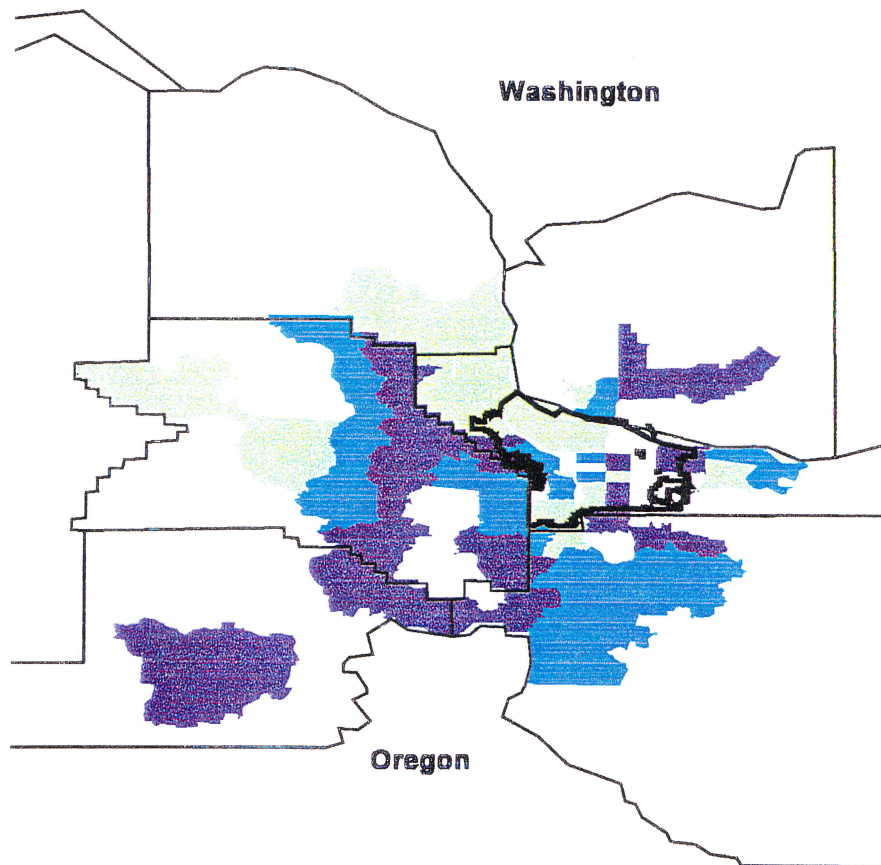





-  State Boundary
-  Portland
-  County Boundaries

Employment by Zipcode

- 1 - 10
-  10 - 32
-  32 - 352
-  352 - 5554

Regional Employment Distribution Medical Products Cluster Portland PMSA, 1995

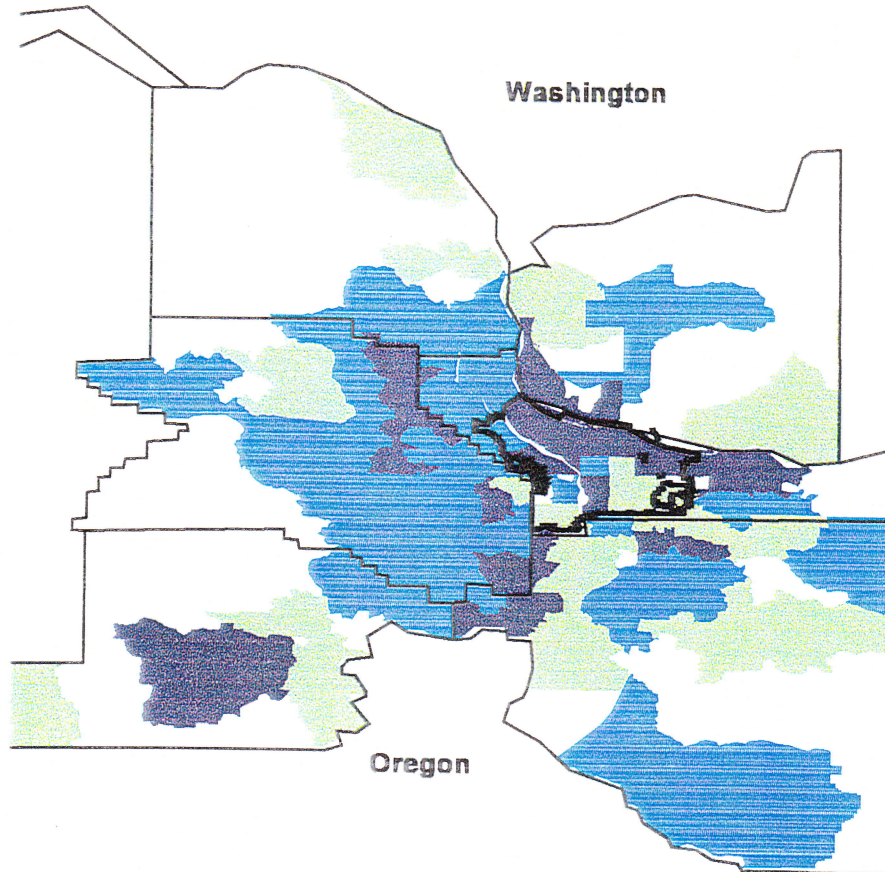





-  State Boundary
-  Portland
-  County Boundaries

Employment by Zipcode





- 1 - 8
-  8 - 22
-  22 - 95
-  95 - 2248

Regional Employment Distribution Transportation & Trade Services Cluster Portland PMSA, 1995



-  State Boundary
-  Portland
-  County Boundaries

Employment by Zipcode

-  1 - 43
-  43 - 109
-  109 - 314
-  314 - 2541

2. What is the metropolitan region's economic strategy?

2a. What economic development challenges and opportunities is the region facing, and how are they shaping the metropolitan economic strategy?

While Portland's economy has a diverse portfolio of competitive industry clusters, the region faces some obstacles and risks to future growth. The educational system appears to be operating at or near its full capacity. Voter-imposed restrictions on spending are constraining solutions to education problems. As a result, the ability to continue to attract and retain skilled workers may come under pressure.

A related challenge is the need to develop a more robust regional research university. Portland's government and business leaders have indicated that education and research links are important to support the increasingly technology-oriented industry sectors and clusters in the economy. Given the increasing importance of these knowledge-driven, information-based technology industries, growth in high value production activities will be limited if the region is unable to develop broader and deeper research and training capabilities to serve the competitive needs of Portland's computer, semi-conductor and software firms

2b. What are the main achievements and goals of the metropolitan economic strategy?

The people of metropolitan Portland have developed a comprehensive regional growth management plan and a metropolitan economic strategy. In order to mitigate competition between the City of Portland and its suburban neighbors, metropolitan Portland's business, government, and civic leaders have concluded that they must pursue a coordinated development strategy by cooperating in efforts to retain existing businesses and recruit new businesses for the entire metropolitan region.

In the 1980s, as the local economic base of timber and natural resource activities began to decline, efforts were developed by metropolitan Portland's leaders to diversify the economy and develop more technology based industries. The region launched a targeted high technology business attraction strategy that helped produce today's concentration of semiconductor and computer firms.

The strategy accounted for metropolitan Portland's ability to provide a relatively low cost environment for manufacturing. It also emphasized the region's good transportation infrastructure, including the Port of Portland, with the advantages that it provides as a gateway to the Pacific Rim and in goods distribution across the western U.S. and Canada. In addition, metropolitan Portland's quality of life contributed to efforts to attract and retain talented workers. As a result of considerable success in the 1990's, a great deal of domestic and foreign investment in new factories and plant expansion is taking place, and more is anticipated.

Today, with the successful development of the Electronics and Communications cluster and increasing trade activity, the region's economic strategy is focused on upgrading transportation infrastructure and education and training to enhance the competitiveness of the technology-intensive industry clusters.

The focus of these efforts is on building stronger connections to the global economy by attracting both domestic and foreign investors and businesses, especially within certain targeted industry clusters, and expanding international trade and commerce.

With help from the Oregon state government, metropolitan Portland is strategically targeting growth industries that will provide increasing numbers of high-paying jobs as well as entry-level “living wage” jobs, to diversify and strengthen metropolitan Portland’s economic base. The Portland Development Commission plays a major role in developing and implementing the targeted industries metropolitan economic strategy.

The strategy also aims to manage growth in order to maintain a sustainable environment and quality of life. For example, the Urban Growth Boundary controls development around metropolitan Portland in order to minimize environmental problems and maximize the investment efficiency of the current infrastructure.

Key aspects of the Portland region’s industry and employer-targeted activities to achieve economic growth include:

Education, workforce development, and placement. In order to support the region’s new technology industries, the metropolitan Portland has designed a workforce development effort to address the region’s need for more skills. Programs include targeted job training and placement for workers, such as “first source” hiring agreements with the public sector through a public-private partnership called JobNet. JobNet is run by the Portland Development Commission for employers and communities located within Multnomah, Clackamas, and Washington County.

Various community colleges, technical schools and institutes, vocational high schools, and universities all play a role in filling the growing needs for basic, advanced, and specialized workplace skill training and development. JobNet has been particularly effective in training minority workers from Portland’s inner city neighborhoods, many of them living in the Portland/Multnomah Enterprise Community. The program also helps place them with private employers in full-time jobs located throughout the metropolitan region, including many jobs in suburban communities. JobNet is preparing regional workforce development plans for various industry clusters, to be implemented by a partnership between educational institutions, community organizations, and the Private Industry Council.

Strategic business attraction. Firms in targeted industries that build new manufacturing plants or expand existing production facilities can receive a substantial 15-year city, county and state property tax abatement under the new Oregon Strategic Investment Program (SIP). This program permits counties to cap assessed property valuation at \$100 million, with no property taxes for 15 years on any additional value. Five manufacturing plants in metropolitan Portland have received Strategic Investment Program tax incentives. Similar incentives are available in North and Northeast Portland under the Oregon Enterprise Zone program.

Public transit system improvements. The Portland region’s commitment to preserving its natural environment by maintaining a relatively compact metropolitan core has led to a substantial investment in public transportation to reduce sprawl and encourage higher density development. Additionally, public transit investment plans include expanding the system to support the growth of the region’s Electronics and Communications cluster. Tri-Met, the transportation agency for

Multnomah, Clackamas, and Washington counties, provides bus service that is frequent, extensive, and well-managed, not just in the urban center but throughout the suburban areas.

Metropolitan Portland also is building and operating the MAX light rail transit lines. The first MAX line runs from downtown Portland to Gresham on the eastern edge of the metropolitan region. Several large high technology employers are located in Gresham. The second line will run west from downtown Portland into the "Silicon Forest"—through Beaverton, the world headquarters of Nike and Tektronix, to Hillsboro, the home of Intel, NEC, Toshiba, Epson, Matsushita, and other major plants manufacturing silicon microchips. Washington County between Beaverton and Hillsboro is the fastest growing area in Oregon. This second MAX line is currently under construction, and its first phase will be completed by 1997.

In addition, \$850 million of federal, state and local government funds have been set aside to begin building the South-North MAX line from Oregon City in Clackamas County to downtown Portland. This line may eventually be extended north from downtown Portland across the Columbia River to the city of Vancouver, Washington, if additional funding is approved.

Expand Metropolitan Portland Trade and Transportation Business and Facilities: The region is also making important improvements to its transportation infrastructure to enhance the region's emerging role as a trade and distribution hub. Rail and truck access to the Port of Portland is being expanded to support the growth in shipping and intermodal distribution. Partly to capitalize on geographic advantages in serving the Pacific Rim, the region is also increasing air capacity for freight and passenger traffic at the Portland International Airport.

2c. How well organized is the metropolitan region in pursuing its economic strategy?

Portland has developed a metropolitan growth management plan called *Region 2040*. This plan looks four decades into the future in projecting metropolitan Portland's development patterns. Metro is an elected regional planning body with seven geographic districts, each electing one Metro Council member. Metro covers three counties containing 24 incorporated cities, and is responsible for coordinating implementation of *Region 2040*.

Metro has established common regional performance standards and model ordinances for communities to follow in developing their own local land-use plans. For growth management to succeed, Metro, acting as a federal Metropolitan Planning Organization (MPO), also has generated an extensive regional transportation plan. This ambitious plan is being carried out by the Tri-County Metropolitan Transportation District (Tri-Met). Tri-Met is in the process of building the Metropolitan Area Express Light Rail Transit System (MAX) to create efficient housing and business development corridors within the Urban Growth Boundary.

The city of Portland, under the leadership of Mayor Vera Katz, and Multnomah County Chair Beverly Stein, worked together with the Oregon Progress Board and the Portland/Multnomah Progress Board to develop a series of performance-based benchmarks designed to guide future decision-making and public-private partnerships to meet community needs for affordable housing, education, employment, health care, and human services.

The city of Portland is working cooperatively with the surrounding counties, suburban communities, and the state government in support of a metropolitan economic strategy. The strategy is

centered on expanding and attracting key industries, including high-technology manufacturing facilities and related spin-off activities.

Portland's business community has also played an aggressive role in asserting strategic leadership for metropolitan economic growth. Their task has been made easier by the fact that the central city is still preeminent within the region. Modern public-private partnerships began at the city level under former Mayor Neil Goldschmidt in the early 1970s, producing the successful Portland Downtown Plan and later the Portland Central City Plan, with implementation now led by Mayor Vera Katz. Together these plans helped generate over \$2 billion in new private investment during the past two decades, leveraged by \$500 million in federal, state, and local public investment. Effective statewide leadership, spurred by 1000 Friends of Oregon and former Governor Tom McCall, was essential for creating Portland's metropolitan land-use planning, light rail transit, and growth management systems.

Business attraction and retention efforts are also coordinated by The Portland Development Commission, through agreements with the Multnomah, Clackamas, and Washington County. The Portland Development Commission operates a Regional Workforce Quality Committee to organize metropolitan-wide job training and placement.

Many civic organizations, community groups, and trade associations operate cooperatively across the region, bridging the gap between Portland and the suburban cities and counties. In addition, the state governments of Oregon and Washington collaborate, working through the counties and cities, to deal with regional concerns that cross the Columbia River and connect the Oregon side of metropolitan Portland with the city of Vancouver and Clark County, Washington.

Regional cooperation extends to the federal arena as well. In 1994, Vice President Gore and the heads of nine federal agencies--the Office of Management and Budget, the Department of Housing and Urban Development, the Department of Health and Human Services, the Departments of Education, Labor, Justice, Commerce, Agriculture, and the Office of Drug Control Policy--signed the "Oregon Option," a Memorandum of Understanding with the state of Oregon, the city of Portland, Multnomah County, the Oregon League of Cities, and the Oregon Association of Counties, to encourage federal interagency cooperation and regulatory flexibility in working with the state and local governments to support the implementation of performance-based benchmarks.

3. What can the federal government do to support the metropolitan economic strategy?

The federal government can assist metropolitan Portland in pursuing its economic objectives in a number of important ways. The federal government can support the region's strategies for strengthening its industry clusters through job training and job placement, expanding strategic investment, expanding the regional transportation system, and strengthening community leadership, through the following initiatives:

Strengthen the Communications and Computers cluster through higher education, technology research and workforce development programs. A stronger university presence in research and technology, and a more highly developed system of education and training for technology-based employment in both Electronics and Communications and high value service clusters is critical for long-term economic prosperity. The federal government can support this goal

through incentives for expanding research and development, and supporting educational programs that train workers with the skills in demand by the region's technology-intensive industry clusters.

Support expansion of the regional transportation system. The federal government can help support the construction of a more extensive regional MAX light rail transit system to make jobs in the expanding Communications and Computer industries more accessible. More federal funding is necessary to complete the second MAX line (west to Hillsboro) and to build the entire South-North MAX line. Additional transportation and infrastructure investments in airport, shipping, rail, trucking, water treatment, sanitation, and other facilities are essential to maintain and expand economic prosperity.

Support cooperative regional transportation, land-use, and environmental initiatives. The metropolitan region, through Metro, Tri-Met, the Port of Portland, and other public and private institutions, have effectively utilized the federal Intermodal Surface Transportation Efficiency Act (ISTEA) and the Clean Air Act to advance a proactive regional transportation, environmental, and land-use planning agenda. Additional federal support is needed in the coming years to ensure full implementation of the metropolitan Portland economic strategy. This can be facilitated by federal support for local efforts to identify transportation improvements needed by the region's clusters to remain competitive, as well as support to restore environmentally hazardous brown-field and redevelop it for productive use.

Encourage partnerships to revitalize neighborhoods, reinvest in communities, and strengthen public safety, health, human services, and quality of life for all residents. The federal government can provide flexible resources to enable the local public and private sector to reinvest in and improve communities. One such effort under way involves the Portland/ Multnomah Enterprise Community. This assistance can benefit the regional quality of life and facilitate the metropolitan region's high value added clusters to attract and retain skilled workers.

Flexible program grants and loan guarantees can assist Portland to rebuild its downtown, and support the metropolitan region's communities in ensuring an ample supply of affordable housing, better health care, stronger public safety initiatives, and improved human services. For example, both Portland State University and the Oregon Health Sciences University are implementing extensive community revitalization plans for parts of downtown Portland that require federal government assistance, including funds for affordable housing, economic and community development, transportation, recreation, and other public and private investments.

Assist with export promotion and international trade expansion. Portland has a strong export base both in natural resources and in technology-based products and services such as the Computers and Communications cluster. This is enhanced by major investments in the Port of Portland as an international distribution center. The federal government can make a strong contribution to the future health of the region's Transportation and Trade Services cluster and emerging technology clusters by strengthening global trading market opportunities, as well as maintaining the strong nationwide economic growth generated during the past three years.

Exhibit 7

Top 25 Employers in the Portland Metropolitan Region

	Employer	Industry Sector	Number of Employees
1.	Fred Meyer, Inc.	Retail Trade	7,800
2.	U.S. Bancorp/U.S. Bank	Financial Svc	6,700
3.	Kaiser Permanente	Medical Svc	6,500
4.	Tektronix, Inc.	Instrument Mfg	6,000
5.	Intel Corp.	Semiconductor Mfg	5,800
6.	Legacy Health System	Medical Svc	5,300
7.	Sisters of Providence Health Care System	Medical Svc	5,000
8.	Freightliner Corp.	Transportation Svc	3,500
9.	Consolidated Freightways	Transportation Svc	3,300
10.	First Interstate Bank of Oregon	Financial Svc	3,200
11.	U.S. West Communications	Telecommunications Svc	3,100
12.	Safeway Stores, Inc.	Retail Trade	3,100
13.	James River Corp.	Forest Products Mfg	2,900
14.	Nike, Inc.	Shoe and Apparel Mfg	2,600
15.	Hewlett Packard Co.	Computer Mfg	2,300
16.	Red Lion Hotels and Inns	Hotel Svc	2,300
17.	Meier and Frank Co.	Retail Trade	2,000
18.	Precision Castparts Corp.	Machinery Mfg	1,900
19.	Portland General Electric Corp.	Energy Scv	1,800
20.	PacifiCorp	Financial Svc	1,700
21.	PayLess Drug Stores Northwest, Inc.	Retail Trade	1,700
22.	Blue Cross and Blue Shield of Oregon	Medical Svc	1,700
23.	Boeing of Portland	Aircraft Mfg	1,600
24.	Nordstrom	Retail Trade	1,600
25.	McDonald's Corp.	Food Svc	1,600