Measuring Progress...

2002 Tillamook County Benchmarks Update

Tillamook County Futures Council
February 2003

Growth & Development

Natural Environment

Society & Culture

Economy

Tillamook County Futures:

Measuring Progress: 2002 Tillamook County Benchmarks

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EXECUTIVE SUMMARY

Tillamook County, Oregon

Located on the Pacific coast of northwest Oregon, Tillamook County is a land dominated by natural features**,** including coniferous forests, farmland, rivers, bays, and shoreline. Its population of just over 24,000 is concentrated primarily in small communities that dot the north-south coastal artery of Highway 101. Incorporated communities range in size from Nehalem with 203 residents to the county seat, Tillamook, which has a population of roughly 4,350. This relatively small population lives a rural lifestyle, and the economy is based in great part on natural resource-driven industries. Demographics have changed in recent years, however, as Tillamook County becomes increasingly recognized for its high standard of living for second homeowners and retirees. Such shifts are having an impact on the economy, which is diversifying and becoming increasingly service-oriented.

The Tillamook County Strategic Vision

In February of 1999, the Tillamook County Futures Council released the Tillamook County Strategic Vision. Based on extensive resident and landowner input, the Strategic Vision sets forth a shared vision of the desired condition of Tillamook County in the year 2020. Specifically, the Vision establishes community goals and strategies concerning the county's growth and development, natural environment, economy, and society and culture.

Benchmarks

This benchmarks report—the second edition of the Tillamook County Benchmarks—is a follow up effort by the Futures Council to assess the condition of Tillamook County by quantitatively evaluating the Vision's goals. Its purpose is to establish baseline data and trends, which will aid policy makers in working toward Tillamook County's Strategic Vision. As a significant portion of the data presented here is derived from the 1990 and 2000 U.S. Census, the Futures Council will continue to track these and other benchmarks to update the publication and further establish county-wide trends.

Like the Vision, this report is divided into growth and development, natural environment, economy, and society and culture. The following summary provides an overview of this report's findings. Arrows indicate positive or negative countywide trends and/or comparisons to statewide figures.

Growth and Development

The Growth and Development section evaluates goals relating to concentrated growth, improved infrastructure, affordable housing, and alternative transportation. Key findings include:

- ↑ Between 1993 and 2000, Tillamook County approved only 17 dwellings on forestland. The low number of dwelling approvals annually on both forest and farm lands indicates that Tillamook County is successfully directing development away from resource lands.
- ↑ In 1990, 71.3% of Tillamook County residents owned their homes (outright or with mortgage). This figure increased to 71.8% in 2000. Statewide, 64.3% of residents owned the homes in which they resided.
- ↑ The conditions of state-owned roads in Tillamook County have improved. In 1997, approximately 37% of state-owned roads were in very good or good condition. This increased to nearly 52% in 2001.
- ↔ Between 1988 and 2001, approximately one percent of all on-site wastewater disposal (septic) systems failed in Tillamook County, or an average of about 45 failures per year. The impact of failures is largely a function of the proximity of septic systems to surface and underground water bodies.
- ↔ In 1990, 26.4% of Tillamook County households experienced cost burden (defined as households that spend more than 30% of their household income on housing). This decreased to 25.3% in 2000. At the same time, the total percent of cost-burdened households in the state of Oregon increased 8.6% from 22.6% to 31.2%. However, while the overall proportion of cost-burdened households decreased in Tillamook County from 1990 to 2000, the proportion of owner-occupied households that are cost-burdened increased 5% while it dropped 1.3% for renters.
- ↓ Between 1987 and 1997, Tillamook County lost and/or converted over 4,300 acres of farmland to other uses. This represents a decline of just over 10% of its farmland during the last ten-year span for which data were available. The state of Oregon as a whole has been much more successful in preserving its farmland**,** with a ten year loss of just over two percent of the state's farmland.
- ↓ In 1997, only 66% of Tillamook County residents were served by community-based water systems that met health-based standards. Statewide, 89% of residents were served by systems meeting standards. The Environmental Protection Agency and the state of Oregon have established a goal of 95% by 2005.
- ↓ The percentage of residents commuting by carpool or alternative means dropped from 30.3% to 29.2% between 1990 and 2000.

Natural Environment

The Natural Environment section evaluates goals relating to the management of riparian zones, water quality, forest habitats, the abundance of salmonids and wildlife, and recycling. Key findings include:

- ↑ The Oregon Water Quality Index (OWQI) data set from 1991-2001 listed five of Tillamook County's eight rivers as "fair" in condition. The DEQ OWQI North Coast Basin Report concluded that in many cases, "Good summertime water quality recedes to Fair in the fall, winter and spring. Where data were available, trends all show an increase in OWQI ratings with the exception of the Wilson River, which had neither a positive nor negative trend.
- ↑ In Tillamook County, wild Coho populations suffered the greatest declines between 1992 and 1998 but have started to increase in numbers since the 2000 Benchmarks Report. The Nehalem River has had the most dramatic increase in its Coho populations since 1998—with an increase from an estimated 1,190 Coho in 1998 to a preliminary estimate of 22,334 Coho in 2001.
- ↔ Currently, the Wilson-Trask-Nestucca sub-basin contains 11 water bodies listed on 303(d) status and the Nehalem sub-basin has 18 water bodies listed on 303(d) status. The majority of water quality issues in the Wilson-Trask-Nestucca sub-basin are related to dissolved oxygen content, while pH and iron content are also listed as concerns for specific locations.
- ↔ Sediment and bacteria loading continue to degrade Tillamook County's surface water bodies**,** causing frequent closures to shellfish harvest and the degradation of fish and wildlife habitat. Recent data were unavailable to update this benchmark.
- ↓ Tillamook County's pounds of solid waste generated and disposed of per capita have steadily increased between 1992 and 2000, while the amount of waste recovered has increased only slightly. Between 1992 and 2000, Tillamook County's per capita solid waste disposal has increased 62% from 904 to 1466 pounds per capita during this time period.
- ↓ Between 1992 and 2000, recovery of solid waste in Tillamook County declined from 31% in 1992 to 26% in 2000, away from its goal of 30%. During this same time period, the state's recovery rate rose from 27% to 39% towards its goal of 50%.

Economy

The Economy section evaluates goals relating to the maintenance, expansion, and diversification of business and industry; per capita income; and the inclusion of youth in economic development activities. Key findings include:

- ↑ Per capita income per covered worker increased from $15,490 in 1991 to $22,269 in 2000.
- ↑ The percentage of the total population below the poverty line in Tillamook County increased from 9.7% in 1990 to 15.0% in 1996. The poverty rate decreased to 12.0% between 1996 and 2002.
- ↑ Travel spending in Tillamook County increased 4.4% annually from 1991 to 2001. In 2001, $169 million were spent in Tillamook County as the result of travelers.
- ↑ The number of tourists visiting the Tillamook Creamery has continued to increase steadily. In 2001, the Creamery saw more than one million visitors.
- ↔ Employment in timber manufacturing has improved gradually over the last five years after dropping below 500 in 1996. In the last few years, employment has leveled off around 550 jobs as have wages in timber manufacturing.
- ↔ Per capita income as a percentage of US per capita income remained constant at 76% between 1990 and 2000.
- ↔ Tillamook County is not one of the 19 Oregon counties that is designated a distressed area. There are three cities, however, in Tillamook County which are considered distressed: Garibaldi; Nehalem; and Tillamook.
- ↔ Tillamook County is ranked 18th out of Oregon's 36 counties in terms of the diversity of its employment opportunities. When compared with the US as a reference base, Tillamook is ranked 22nd out of the 36 counties.
- ↓ Since the 2000 Benchmarks Report, the average net job growth rate has dropped slightly for Tillamook. On average from 1990 to 2000, Tillamook County added 9.2 jobs per 1,000 eligible workers; statewide, approximately 12.1 jobs were added per 1,000 eligible workers.
- ↓ Total farm employment and agricultural employment have decreased somewhat since the 2000 Benchmarks Report. In 1991, farm employment comprised approximately 33 percent of total employment in Tillamook County. By 2001, this figure dropped to 25 percent.
- ↓ The percentage of Tillamook County students receiving free lunches fluctuated significantly between 1990 and 1998. However, from 1998 to the present, the total percent of Tillamook County students receiving free or reduced-cost lunches has increased by 4.4%.
- ↓ The average unemployment rate in Tillamook County and in the state of Oregon fluctuated throughout the 1990's and has recently risen. In 2001, the County's unemployment rate was 5.5%, while the state's was 6.3%.
- ↓ The number of students in vocational preparatory and supplementary courses increased from the 1995-96 school year through the 1997-1998 school year. There has been a decline in the total number of students over the past several years.

Society and Culture

The Society and Culture section evaluates goals relating to the health and welfare of county youth, community involvement in schools, and citizen participation in local government. Key findings include:

- ↑ The *2000 Benchmarks Report* showed a dropout rate of less than five percent of students through the 1997-98 school year. The dropout rate continued to decline, with some fluctuation, from the 1997-98 school year to the 2000-2001 school year and is now below four percent.
- ↑ Six schools have improved their overall quality ratings from satisfactory to strong between 2000 and 2002. Only one school regressed from an overall rating of strong to satisfactory during this time period.
- ↑ In 1990, the pregnancy rate for Tillamook County was higher than the state rate for Oregon with almost 25 of every 1,000 females age 10-17 becoming pregnant. However, since 1990 Tillamook County's pregnancy rate has remained below the state rate. As of 2001, the pregnancy rate remains below state average at 8.5 youths per 1,000.
- ↑ Based on 2000 data, the percentage of students in Tillamook County using alcohol, cigarettes, and illicit drugs has declined. Of particular note is the sharp decline in cigarette use from 26.8% in 1998 to 14.0% in 2000.
- ↑ Since the *2000 Benchmarks Report*, juvenile arrests declined across the state, and declined dramatically in Tillamook County. By 2001, juvenile arrests in Tillamook County were at state levels for behavioral crimes and below state levels for person and property crimes, indicating substantial improvement.
- ↑ In the most recent general election (2002), 71.7% of registered Tillamook County voters participated. This is higher than the state average of 69.1%. Overall, voter participation in Tillamook County has remained higher than state averages from 1990 to 2002.
- ↔ The percentage of eighth graders who achieve established skill levels shows mixed results. Proficiency in reading has improved, but is still below the achievement rate of the state as a whole. However, Tillamook County eighth graders are improving in math and show increases relative to other rural counties.
- ↔ Between 1990 and 1998, both the number of registered voters and the total number of voters who voted in non-presidential election years has increased. The *percentage* of those registered who actually voted has decreased, however.

Table S-1. Summary of 2002 Benchmarks

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	Trend
Growth and Development Benchmarks														
1.1 Agricultural Land Preservation								89.1%						No update
1.2 Dwelling Approvals in Farm and Forest Land														
Exclusive Farm Use Zones								4	0	1	1			Improving
Forest Land				2	1.0%	2	2	2	3	2	3			No Change
1.3 Buildable Lands Supply														Data Not Yet Received
1.4 Residents Served by Safe Drinking Water								66%				69%		Improving
1.5 Wastewater Disposal System Failures	26	37	67	60	32	47	30	48	51	53	48	56	35 to-date	No Change
1.6 Road Conditions														
1.7 Commuting by Carpooling and Alternative	30.3%										29.2%			Declining
1.8 Owner-Occupied Households	71.3%										71.8%			Improving
1.9 Cost-Burdened Households (Total)	26.4%										25.3%			Improving
Owners	16.7%										21.7%			Declining
Renters	32.9%										31.6%			Improving
Natural Environment Benchmarks														
2.1 Stream Water Quality Index														Improving
2.2 Water Quality Limited Streams and TMDLs														
Waterbodies listed as Water Quality Limited													29	
Number of TMDLs approved													2	
2.3 Bacteria and Sediment Entering Bay														No Update
2.4 Wild Coho Populations	3,996	9,934	4,229	5,560	5,043	5,666	4,508	3,890	3,628	10,135	19,629	28,234		Improving
2.5 Materials Recovery Rate			31%	27%	28%	27%	26%	26%	26%	28%	26%			No Change
Solid Waste per Capita			904.0	1041.2	1191.5	1132.3	1316.5	1208.9	1269.5	1454.4	1465.6			Declining
Economy Benchmarks														
3.1 Net Job Growth per 1,000 Eligible Workers	15.5	15.5	1.0	6.1	18.9	10.9	13.8	1.5	4.1	10.8	2.6			Improving
3.2 Forest Industry Employment														
Jobs	389	410	434	491	516	536	498	518	541	555	548			Improving
Wages in 2000 Dollars	$31,205	$30,883	$32,070	$30,421	$32,751	$31,128	$33,578	$34,591	$34,820	$34,969	$34,714			Improving
3.3 Farm Sector Employment		3000	2940	2970	3280	3110	3110	2820	2880	2731	2849	2652		Declining
3.4 Average Annual Payroll per Covered Worker in 1995 Dollars		$18,409	$18,374	$18,958	$19,195	$19,349	$19,485	$19,598	$20,182	$20,690	$21,267	$21,787		Improving
3.5 Per Capita Income as a Percentage of US Per Capita Income	76%	77%	75%	75%	77%	76%	78%	77%	77%	77%	76%			No Change
3.6 Population Below Poverty Level	9.7%	9.7%	14.1%	15.0%	15.0%	15.0%	15.0%	13.2%	12.8%	11.6%	11.7%	13.6%	12.0%	Improving
3.7 Students Receiving Free or Reduced-Cost									37.91%	38.31%	43.26%	42.34%		Declining
3.8 Unemployment Rate	5.9%	6.0%	6.8%	6.4%	4.9%	5.0%	6.0%	6.6%	6.3%	5.3%	4.4%	5.5%		Improving?
3.X Distressed Status of Tillamook County													Not Distressed	
Number of Distressed Cities													3	
3.XX Employment Diversification									0.4023					
3.9 Tourism Spending and Employment														
Spending (In Millions of 2000 $)		$142.1	$148.8	$152.4	$152.8	$154.7	$158.5	$160.9	$164.5	$165.6	$169.8	$169.0		Improving
Tourism-Generate Employment		3,330					3,540	3,480	3,660	3,590	3,630	3,630		No Change
3.10 Tourists Visiting Tillamook Creamery					893,944	900,331	814,537	878,295	906,208	900,666	917,185	########		Improving
3.11 Students in Vocational Training at TBCC							955	1294	1394	1251	1195	1229	1051	Declining

Table S-1. Summary of 2002 Benchmarks

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	Trend
Society and Culture														
4.1 High School Dropout Rate	5.6%	3.8%	4.1%	3.2%	3.5%	4.8%	5.9%	5.5%	4.4%	4.9%	3.7%	3.8%		Improving
4.2 8th Graders Achieving Skills Levels														
Reading		84.2%	91.5%	81.4%	82.5%	90.9%	85.5%	49.5%	47.3%	44.3%	63.8%	56.9%		Improving
Math		67.5%	89.8%	85.9%	82.3%	81.5%	84.8%	46.1%	48.8%	52.6%	56.1%	51.6%		Improving
4.3 School Report Cards (# of Schools Listed as Strong or better)										1	2	6		Improving
4.4 Teen Pregnancy Rate	23.8	19.6	16.7	13.7	7.2	15.9	17.8	15.5	19.0	21.1	7.8	8.5		Improving
4.5 Alcohol and Drug Use Among 8th Graders in														
Alcohol									34.3%		32.1%			Improving
Drug Use									23.1%		19.3%			Improving
Cigarette Use									26.8%		14.0%			Improving
4.6 Juvenile Arrests per 1,000 Juveniles (Total)	60.1	47.5	65.1	81.0	98.8	89.8	96.3	87.5	94.9	62.3	46.2	37.6		Improving
Behavioral	35.5	25.7	37.8	46.8	48.4	52.7	63.4	59.7	61.4	44.4	33.7	26.6		Improving
Crimes Against Persons	2.8	4.2	3.9	6.6	7.1	6.4	5.3	8.7	8.3	5.7	3.2	1.5		Improving
Property Crimes	21.8	17.3	22.7	27.9	45.6	32.7	27.0	17.7	23.9	10.8	9.3	9.5		Improving
4.7 Voter Participation	81.1%		86.8%		76.6%		77.1%		69.9%		80.0%		71.7%	No Change

TILLAMOOK COUNTY, OREGON

From the "Land of Many Waters"...

Used by the Killamuck tribe to define the richness of a land shaped by water, today the word "Tillamook" defines not just a place but also an identity. When, in the mid - eighteenth century, European settlers first arrived in the Native Americans' "land of many waters," they encountered a region of apparently endless natural resources. Coastal rivers, which teemed with salmon, roared down the western slope of coastal mountains dominated by towering coniferous forests. Where they met the sea, these rivers fed fertile valleys and estuaries rich with aquatic and terrestrial life. These resources, and the water that continues to sustain them, have characterized this place and its inhabitants for centuries.

… to "Cheese, Trees, and Ocean Breeze"

Since its settlement by Europeans in 1853, Tillamook County has used its abundant supply of natural resources to build its economy and carve a special way of life into the coastal lands of Northwest Oregon. Logging and fishing have provided long term economic benefits to Tillamook's communities, but in a county where cows outnumber people, it is dairy farming that defines this region. Made fertile through centuries of rich river deposits, settlers found Tillamook County's lowland areas ideal for pastureland and small dairies. In 1909, seven local cheese factories allied to create a cooperative known as the Tillamook County Creamery Association. Today, the "Creamery", as it is known locally, is a mainstay of Tillamook County's economy and has become nationally recognizable for its high quality cheeses and other dairy products.

A direct link to Tillamook County's past, ironically the Creamery also provides a look at the county's future. In addition to providing high quality dairy products, the Creamery has also become one of Oregon's most-visited tourist destinations—often ranking only behind Multnomah Falls, Crater Lake, and/or tribal gaming casinos, depending on the year. This fact reflects an important trend in Tillamook County's economic and cultural development. Over the past decade or so, the county has witnessed a gradual shift from an economy comprised primarily of resource extraction industries to one that also maintains a growing service industry.

What spawned this change? First, although resource-based industries have almost single-handedly developed the county economy, it has not come without cost. Many salmonid runs have been in steep decline for decades, diminished water quality often closes bays to recreational and

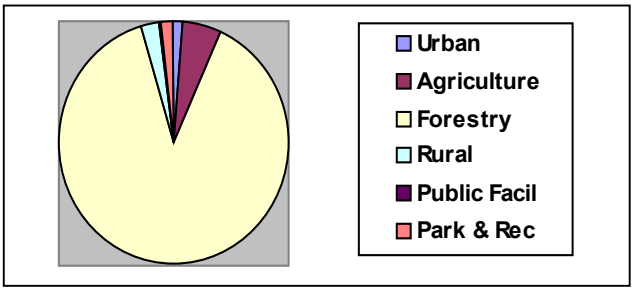
commercial shellfish harvesting, and resource-based industries have declined under increasing scrutiny from the environmental community and government regulators. Second, throughout the West, many will explain that "the secret of the Oregon coast is out." Breathtaking coastal vistas combined with moderate winters and warm, sunny summers have made Tillamook County increasingly popular for seasonal tourism, second home development, and retirement living. Together, these factors continue to transform the county's economic, political, and cultural landscapes. Like the steady breezes that blow off its coast, these trends will continue to bring change to Tillamook County and its residents.

The Land…

Located west of Portland, Tillamook County comprises 1,125 square miles of forests, farms, and small communities. The majority of Tillamook County is zoned for forest use followed by agriculture, rural residential, parks and recreation, urban zones, and public facilities.

Coniferous forests dominate virtually all of the land found within the Tillamook County coast range. The Oregon Department of Forestry owns roughly 310,000 acres of forestland within the Tillamook State Forest. A large portion of these lands were held in trust for the county after they were burned in a series of fires known collectively as the "Tillamook Burn." The four major fires occurred at six-year intervals between 1933 and 1951. Virtually all of the lost forest has regenerated, and much of it stands ready to harvest.

Land Use, Tillamook County



Source: Tillamook County Department of Community Development

Dairy farms and a small amount of cropland comprise the majority of Tillamook County's unurbanized low elevation lands.

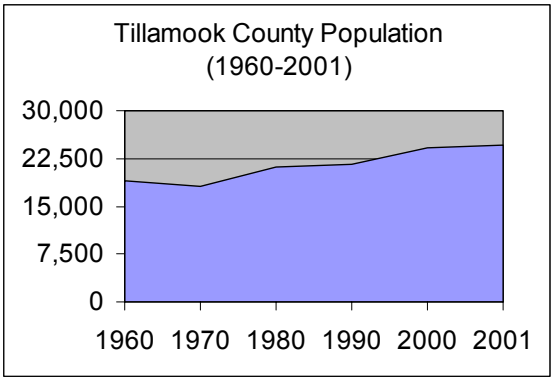
In addition to several small unincorporated communities, the county contains seven incorporated communities ranging in population from Nehalem with 200 residents to the City of Tillamook with 4,350.[1] All of these communities lie on or near Highway 101, which runs along the Tillamook County coastline.

Eight major rivers systems drain Tillamook County, and five major estuaries provide critical habitats for a range of aquatic and terrestrial species. Tillamook County's northernmost estuary, Nehalem Bay, is fed by the Nehalem River. To the south, the Tillamook Bay basin is drained by the Miami, Kilchis, Wilson, Trask, and Tillamook Rivers. Small coastal systems drain into Netarts Bay and Sand Lake, while the Nestucca and Little Nestucca Rivers empty into the Nestucca Bay in southern Tillamook County. All of the rivers boast runs of anadramous salmonids, though the numbers of these fish have declined considerably as a result of ocean harvest and alterations to terrestrial and aquatic habitats.

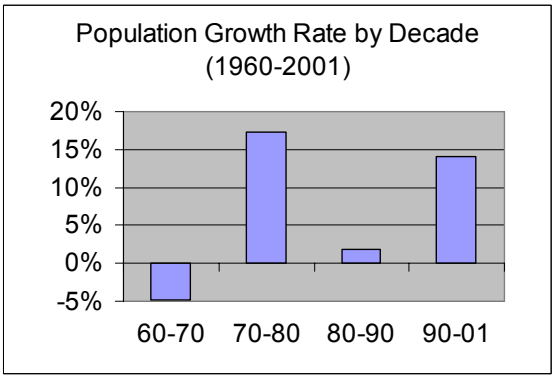
[1] 2001 population estimates, Center for Population Research and Census, Portland State University, 2001.

…and its People

Tillamook County's 2001 population of 24,260 ranks 22nd among Oregon's 36 counties. Since 1960, the county has witnessed a population increase of approximately 30%. The rate of growth over this period has varied, however, with relatively slow growth occurring in the 1960s and 1980s, followed by higher growth rates the 1970s and 1990s. County planners expect the current trend of 10% to 12% growth per decade to continue into the next decade.



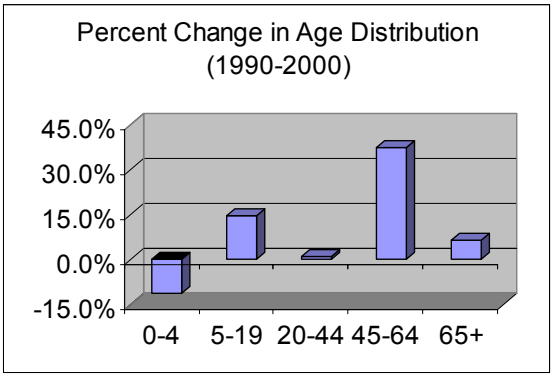
Source: Oregon Blue Book



Source: Oregon Blue Book

According to 2000 U.S. Census data, the average age of Tillamook County's citizens is increasing. In 1990, almost 44% of county citizens were over the age of 45. By 2000, nearly 48% were over 45.

Accordingly, Tillamook County's youth population has declined. From 1990 to 2000, the population of children ages newborn to four declined by more than 11%. The figure on the right summarizes changes in county age distribution.



Source: U.S. Census, 1990 & 2000

According to the 2000 U.S. Census, in 1999, 93.2% of Tillamook County's population was White, 5.1% Hispanic, and slightly more than 1% African American and Native American combined. County planners anticipated an increase in the Hispanic population since the 1990 census. Indeed, after comprising 1.7% of the population in 1990, the Hispanic population more than doubled between 1990 and 2000.

Reflecting the growing retiree population, sixty percent of Tillamook County households receive personal income from social security and retirement income sources. Nearly 40% of households receive personal income from investment sources including rent, dividends, and interest payments. About 7% of households receive income from transfer payments (Social Security Income and public assistance). Finally, 84% of households receive income derived from wages, salary, or self-employment.

INTRODUCTION TO BENCHMARKS

Background: Strategic Visioning in Tillamook County

In October 1997, the Tillamook County Commissioners appointed a 12-member Futures Council to create the Tillamook County Strategic Vision. The commissioners charged the group to "develop a long range vision for the county through broad-based citizen input representing the various geographic regions and full range of interests that exist within the county."

To engage Tillamook County residents and landowners in the Visioning exercise, the Futures Council initiated a six-month public outreach process. This process focused on defining issues common throughout Tillamook County communities. Specifically, it used local input to devise countywide goals as well as the strategies that should be implemented to achieve them. During the Visioning process, the Futures Council:

Conducted 17 focus group meetings to identify the insights and concerns of community stakeholder groups;

- Distributed a survey to more than 4,000 households to insure widespread community input; and
- Held a series of public meetings, which used electronic voting, to identify and prioritize strategies that would help the county reach its Vision.

This process yielded feedback from more than 1,000 Tillamook County residents and landowners. Using their input, the Futures Council created the Tillamook County Strategic Vision. Published in February of 1999, the Strategic Vision or Big Book, as it has come to be known, represents Tillamook County residents' views on a wide range of issues. The Vision is divided into four sections representing economy, growth and development, the natural environment, and society and culture. Within each of these four sections, the Vision defines long-range community goals. In support of these goals, the Vision lays out strategies that can be implemented to achieve them and benchmarks that will measure the county's progress. These benchmarks are the subject of this report.

Shortly after the release of the Vision, the Futures Council initiated an effort to quantify the benchmarks contained in the Vision. The objective of the benchmarking process was to establish baseline data that reflect the current status of the county in regard to the goals contained in the Vision. The benchmarks contained in the 2000 Benchmarks Report present this baseline data and, where possible, provide past data to show recent trends. This update provides the most recent data available as of December 2002, and illustrates trends since the original benchmark report.

Purpose of Benchmarks

Will Rogers once said, “you can’t figure out where you are going until you know where you’ve been." As Tillamook County works towards its 2020 Vision, the community must first assess its current condition. Benchmarks provide the tool for this. In simplest terms, benchmarks provide numerical measurements of some part of the world in which we live. Whether they count the numbers of fish in our rivers or the percentage of residents living below the poverty line, benchmarks measure some element of our community that is of value to us. As a community measuring stick, they are vital to the long term visioning process. By assessing our condition in the present, benchmarks help guide policies in the future. Through tracking benchmarks over the long term, we ensure that our steps take us in the right direction and our communities develop according to the values of their residents. Ultimately, benchmarks tell us how we are doing as a society in the present and provide a yardstick for the future.

This publication represents the second edition of Tillamook County benchmarks in an ongoing series of benchmarking efforts. Over the years to come, the Futures Council will continue to periodically revisit (and perhaps revise) the benchmarks contained here. In fact, some of the benchmarks contained in this second edition were modified from the initial set of benchmarks to reflect changes in community priorities. Through this ongoing process of updating and revising the initial benchmarks, the Futures Council will determine trends in the community’s overall health and welfare. As an unbiased advisory board, they will then be able to counsel policy makers on the county’s success in responding to those issues that are most vital to area residents and landowners.

Methods Used in Creating Benchmarks

The benchmarks contained in the Strategic Vision are modeled after the Oregon Progress Board’s benchmarks for the state of Oregon and its counties. Like the Progress Board, the Futures Council uses benchmarks as a means of monitoring the success of achieving its Vision. Consequently, the Futures Council attempts to use the Oregon Progress Board’s benchmarks wherever they are appropriate and local data are available. It should be noted that unlike those contained in Oregon Shines (the state of Oregon’s Strategic Vision), the benchmarks contained within this report do not prescribe numerical targets to reach at a future date. The Futures Council views its role in public policy as an organization that monitors the Vision and facilitates processes that help achieve it. The Council leaves the task of prescribing targets to those who are most actively involved with the policies touched upon in the Strategic Vision.

In selecting benchmarks to assess the goals contained in the Strategic Vision, the Futures Council applies two primary criteria. First, they use those benchmarks for which data are consistently and readily available. Because it is important to show trends, it is vital that the data selected for the benchmarks will be available in the future. Second, benchmarks must reflect the goals contained in the Vision. The Strategic Vision is based entirely on public input. As a result, benchmarks must assess indicators vital to the interests of the community.

Organization of this Report

This report is divided into four sections, each corresponding to the four major elements of the Strategic Vision: economy, the natural environment, community growth and development, and society and culture. Each of the four sections begins with a summary of the benchmarks and how they relate to the goals contained in the Vision. An important part of this discussion is a summary of the unique obstacles encountered in quantifying the benchmarks found in a given section.

Following this introduction is a section explaining the changes in the benchmarks since the 2000 Benchmarks Report. After this each section details the benchmarks analyzed by the Futures Council. Specifically, each benchmark contains the following information:

- Background information**,** including why it is important to Tillamook County and what goal(s) it relates to;
- Data sources**,** including a reference to the corresponding Oregon Progress Board Benchmark (where appropriate); and
- Findings**,** including a brief discussion of the data which is accompanied by tables and figures.

A Final Note on this Report - The Limitations of Benchmarks

Many policy makers are attracted to benchmarks because they provide a relatively quick and accurate report card on the effectiveness of policies. Failure to recognize the obstacles discussed above can prove costly, however. Because some goals are easily assigned a corresponding benchmark and data are readily available, the potential exists for the importance of those goals to become inflated relative to less measurable goals. Likewise, policy makers run the risk of diminishing the importance of those goals that cannot be easily measured through benchmarks. In monitoring the goals contained in the Strategic Vision, policy makers must not lose sight of the fact that poorly measured goals are no less important to the community's interests than those which allow for quick and easy measurement.

No simple solution exists for this problem. Policy makers will be tempted to focus only on those goals for which their investments of time and money show clear and measurable benefits. Likewise, they may be tempted to discard benchmarks all together because of the inconsistencies that exist. Instead of 'throwing the baby out with the bath water', however, policy makers must recognize the importance of those goals that cannot be easily measured. To address all of the goals contained in the Strategic Vision, including both those that are easy and difficult to measure, policy makers must focus on implementing the strategies contained in the Vision instead of working solely towards individual benchmarks. Implementation of the strategies will insure that even those goals not easily measured will be pursued through on-the -ground efforts. For those community goals that cannot be measured, the Futures Council will continue to seek to develop appropriate benchmarks.

MODIFICATIONS TO BENCHMARKS

Background: Review of Benchmarks

As part of the benchmark update process, Community Planning Workshop (CPW) reviewed the Futures Council 2000 Benchmarks. In reviewing the 2000 benchmarks, CPW found that some benchmarks relied on data that are not regularly available or are very difficult to obtain. Other benchmarks did not adequately address the Futures Council's goals. CPW reviewed its findings with the Futures Council and revised the benchmarks per the Council's direction. In some cases, additional indicators were added to existing benchmarks or entirely new benchmarks were developed. These changes are intended to strengthen the Futures Council's benchmarks and improve the benchmark update process in the future. Following is an explanation of the modifications made to the benchmarks in this update.

Growth and Development

Agricultural Land Preservation. New data for this benchmark are not yet available. The Futures Council will be able to update it in 2004 when the new 2002 Census of Agriculture data become available. This is in part addressed by the number of new dwellings approved in farm use zones (Benchmark 1.2)

Forestland Preservation. This benchmark was removed as new county-level data are not available from the Oregon Department of Forestry, and it is unclear whether or not county-level data will be available in the future. Preservation of forestland is addressed in part by the number of new dwellings approved in forestlands (Benchmark 1.2).

Dwelling Approvals in Exclusive Farm Use Zones and Forest Lands. This benchmark is a modification of the previous benchmark entitled "Percentage Growth within the Urban/Community Growth Boundaries." Unlike the previous benchmark, which relied on data that were difficult to obtain from the Tillamook County Community Development Department, this new benchmark uses annual farm and forest reports published annually by the Oregon Department of Land Conservation and Development. These reports are easily accessible on the Internet and provide an indication of how well the County is preserving resource lands.

Buildable Land Supply. This is a new benchmark for this section which replaces the "Percentage of Area within the Urban Growth Boundaries that Can be Served by Existing Public Sewer Systems." Data were very difficult to collect for this benchmark, and the numbers provided for the 2000 Benchmarks Report were "best guesses," which do not provide accurate, systematic data that can be tracked over time. Data on the County's buildable land supply were provided by the Director of the Tillamook County Community Development Department.

Percentage of Households Spending More than 30% of their Household Income on Housing (Including Utilities). This is slightly modified from the benchmark in the 2000 Benchmarks Report that examined the percent of low-income households (rather than all

households) that are cost-burdened. Data for all households are available from the 2000 US Census, but new data for low-income households only are not yet available from the Oregon Progress Board—they will be included in their 2004 County Data Book. This benchmark will be strengthened by using both indicators in future updates.

Natural Environment

Miles of Streambank Restoration. This benchmark has been removed since there was no comprehensive data source available for the work that is being done by a variety of agencies and organizations within Tillamook County. Furthermore, this benchmark did not adequately address the goal of managing waterways to protect riparian zones and provide high quality habitat. This is better measured by the outcomes of trends in water quality, fish populations, and bacteria and sediment loads (Benchmarks 2.1-2.4).

Trends in Water Quality Limited Streams and TMDL Approvals. This is a new benchmark that was added as a supplement to the "Trends in Stream Water Quality Index." The Oregon Department of Environmental Quality maintains a database of streams that have been deemed Water Quality Limited. Streams are removed from this list once a Total Maximum Daily Load (TMDL) Plan has been approved by the US Environmental Protection Agency. By tracking both Water Quality Limited streams and TMDL approvals, this benchmark further informs the Council of water quality issues and trends in Tillamook County. These data are easily accessible via the Internet.

Bacteria and Sediment Loads Entering Tillamook Bay. This benchmark cannot yet be updated since new data are costly to collect and will only be collected every 5-10 years. The Futures Council should update this benchmark when new data become available.

Wild Salmon and Steelhead Populations Levels. This benchmark has been slightly modified to look at trends in population levels instead of populations at target levels. There are presently no county-level targets, so the previous benchmark could not be accurately measured. Examining trends in population levels will provide an indication of whether or not conditions for fish are improving in Tillamook County.

Solid Waste Generated, Disposed, and Recovered per Capita. This benchmark is a slight modification of a previous benchmark: "Pounds of Waste per Tillamook County Residence Entering County Landfills." Data for the previous benchmark came from the Tillamook County Community Development Department and were not readily obtainable or consistent. The new benchmark uses data published annually by the Oregon Department of Environmental Quality in their annual Material Recovery Survey Report. This report uses a systematic method of collecting data from landfills and waste haulers and provides information of solid waste generated, disposed, and recovered (recycled) for each county and the state of Oregon.

Economy

Status of Tillamook County and its Cities as "Distressed Areas." This is a new benchmark added to this section. At least every two years, the Oregon Economic and Community

Development Department (OECDD) calculates an index that determines which counties and cities are worse-off that the state of Oregon as a whole. This index uses eight factors which include: unemployment rate, per capita personal income, average pay per worker, population change, percent of population receiving unemployment insurance benefits, industrial diversity based on distribution of employment by industry, percent of families in poverty, and employment change. This provides a good overall indicator of the county's economic status.

Employment Diversification. This benchmark replaces "Non-Farm Employment Trends." As it was written, the previous benchmark did not present data in a fashion that allowed one to make any conclusions about the overall diversity of the County's employment. The new benchmark uses an employment diversification index to calculate how diverse the employment opportunities in Tillamook County are as compared with the state of Oregon and the US.

Tourism Spending and Employment Trends. This is a new benchmark added to the Economy section. Because Tillamook is an increasingly popular tourist destination, the Futures Council felt it was important to track how this industry impacts the local economy. Dean Runyan Associates, a consulting firm in Portland, publishes annual data for Oregon and its counties on tourism spending and employment generated by tourism that are easily available on the Internet.

Society and Culture

School Report Cards. This benchmark replaces the "Percentage of Tillamook County High School Students who have Completed a Structured Work-Study or Community Service Program." This previous benchmark was difficult to collect data for since the high schools track these programs in different ways. Furthermore, two of the three high schools have begun requiring community service as a graduation requirement. The Oregon Department of Education publishes annual School Report Cards for each school in the State of Oregon. These are easily accessible on the Internet. While these report cards do not address exactly the same issue as the previous benchmark, they do provide data on each school's student performance, student behavior, and school character. They also provide an assessment of improved student performance and an overall rating.

Percentage of 8th Grade Students Who Have Used Alcohol, Cigarettes, or Illicit Drugs in the Past 30 Days. This benchmark is a slight modification of the benchmark which previously read "Percentage of 6^{th}, 7^{th}, and 8^{th} Grade Students Who Have Used Alcohol, Cigarettes, or Marijuana in the Past 30 Days." Only data for 8^{th} graders are periodically available. These data are available online in the Oregon Progress Board's County Data Book.

CHAPTER 1: GROWTH AND DEVELOPMENT BENCHMARKS

Benchmark 1.1	Percentage of Agricultural Land in 1987 Still Preserved for Agricultural Use
Benchmark 1.2	Dwelling Approvals in Exclusive Farm Use Zones and Forest Lands
Benchmark 1.3	Buildable Land Supply in Tillamook County
Benchmark 1.4	Percentage of Tillamook County Residents Served by Public Drinking Water that Meets Health Based Standards
Benchmark 1.5	Percentage of Tillamook County Households with On-Site Sewage Disposal Systems that Do Not Meet Government Standards
Benchmark 1.6	Percentage of State and County Road Miles within Tillamook County that Meet Prescribed Standards
Benchmark 1.7	Percentage of Tillamook County Residents who Commute to and from Work by Means Other than a Single Occupancy Vehicle
Benchmark 1.8	Percentage of Households that are Owner-Occupied
Benchmark 1.9	Percentage of Households Spending More than 30% of their Household Income on Housing (including utilities)

GROWTH AND DEVELOPMENT BENCHMARKS

Introduction

In 1973, the state legislature created the Oregon Statewide Land Use Planning System. The driving force behind the creation of this system was the desire among Oregonians to control growth and development in a manner that maintains livable communities while conserving Oregon's vast supply of natural resources. Not surprisingly, during the Visioning process, Tillamook County residents echoed many of the same sentiments that provided the foundation of the statewide program 25 years ago. The preservation of farm and forest land, concentrated development, maintained infrastructure, affordable housing; during the Visioning process, all of these principles emerged as vital to the interests of Tillamook County residents and landowners. As a result, the Strategic Vision offers an array of strategies that focus on these four goals. Like the state program, the dominant theme throughout the Growth and Development section is to direct development in a way that creates livable communities while preserving the county's rural character and abundant natural resources.

About the Growth and Development Benchmarks

Growth and development issues emerge at many levels of government. Local communities face a wide range of growth and development issues and challenges, while state and county governments formulate policies that foster prudent land use. This poses an interesting challenge to benchmarking. While it is important to record the unique growth and development issues confronting each town and city, it is impractical to devise benchmarks that measure individual communities. As a result, the benchmarks presented in this chapter evaluate countywide data to determine regional trends that affect the greatest number of communities.

These benchmarks respond to the concerns of county residents by evaluating the Growth and Development goals presented in the Strategic Vision. Goal 1.1, which focuses on concentrating growth, is measured using the percentages of agricultural land preserved; approvals for the construction of dwellings on forest and farm lands; and the supply of buildable land. The maintenance of infrastructure, presented in Goal 1.2, is assessed by evaluating existing sewage, water treatment, and road systems. This chapter evaluates Goal 1.3, the use of alternative modes of transportation, by measuring the use of transportation modes other than the automobile. Finally, Goal 1.4, which promotes affordable housing, is assessed by measuring owner-occupancy rates and the numbers of residents for whom housing is a cost burden.

In the years to come, the Futures Council will continue to track these benchmarks. As trends develop, these benchmarks will assist policy makers in determining the county's success at maintaining sustainable, livable communities, where all may share in and preserve the unique qualities of Tillamook County.

The list below contains a summary of the goals found in the Growth and Development section of the Tillamook County Strategic Vision. Beneath each goal is listed the benchmark(s) with which the Futures Council has chosen to assess it.

Goal 1.1 Manage growth in a manner that creates vibrant towns while maintaining the rural character of the countryside by concentrating growth in existing communities and by protecting our farms, forests, rivers, bays, beaches and coastline.

- Benchmark 1.1 Percentage of Agricultural Land in 1987 Still Preserved for Agricultural Use
- Benchmark 1.2 Dwellings Approvals in Exclusive Farm Use Zones and Forest Lands
- Benchmark 1.3 Buildable Land Supply in Tillamook County

Goal 1.2 The infrastructure (e.g. roads, schools, sewer, water, fire, medical services, etc.) that serves our communities is improved and maintained.

- Benchmark 1.4 Percentage of Tillamook County Residents Served by Public Drinking Water that Meets Health Based Standards
- Benchmark 1.5 Percentage of Tillamook County Households with On-Site Sewage Disposal Systems that Do Not Meet Government Standards
- Benchmark 1.6 Percentage of State and County Road Miles within Tillamook County that Meet Prescribed Standards

Goal 1.3 Alternative modes of transportation (including bicycles, rail, air, etc.) are encouraged.

- Benchmark 1.7 Percentage of Tillamook County Residents who Commute to and from Work by Means Other than a Single Occupancy Vehicle

Goal 1.4 Our County offers an array of affordable housing.

- Benchmark 1.8 Percentage of Households that are Owner-Occupied
- Benchmark 1.9 Percentage of Households Spending More than 30% of their Household Income on Housing (including utilities)

Benchmark 1.1 Percentage of Agricultural Land in 1987 Still Preserved for Agricultural Use

Background

This benchmark addresses Goal 1.1:

> *Manage growth in a manner that creates vibrant towns while maintaining the rural character of the countryside by concentrating growth in existing communities and by protecting our farms, forests, rivers, bays, beaches and coastline.*

One of the principles that gave rise to the Oregon Statewide Land Use Planning System was the desire among Oregonians to preserve farm and forest land. By protecting farm and forest lands, Oregonians insure that the cultural and economic contributions provided by farming and logging are not lost to the rapid growth that is so prevalent throughout the west. The Statewide Planning Program is vital to an area like Tillamook County, where increasing development could otherwise threaten the industries upon which the region was founded.

During the Visioning process, Tillamook County residents clearly indicated a desire to see their rural areas conserved, and the ethic of protecting farm and forests is embedded in many of the Strategic Vision's goals. Farming received particular attention during the Futures Council's March 1998 Tillamook County Household Survey, with 72% of respondents agreeing that protecting farmland is essential to the county's economy. In addition, 69% agreed or strongly agreed with the statement that "farmland provides open space that is essential to [residents'] quality of life." This benchmark measures how effectively Tillamook County is preserving its agricultural land.

New data for this benchmark are not available at the time of this benchmark update. Results from the 2002 Census of Agriculture will be available in 2004 and can be used to update the following information at that point.

Data Sources

Data were obtained for this benchmark through:

- United States Department of Agriculture: Natural Resource Conservation Service, 1999 Natural Resource Inventory
- United States Department of Agriculture, 1997 Agricultural Census

State Benchmark

- Oregon Progress Board Benchmark # 80

Findings

Table 1-1 and Figure 1-1 indicate that between 1987 and 1997, Tillamook County lost and/or converted more than 4,300 acres of farmland to other uses. This represents a decline of just over 10% of county farmland during the last ten-year span for which data was available. The state of Oregon as a whole has been much more successful in preserving its farmland with a ten-year loss of just over two percent of the state's farmland.

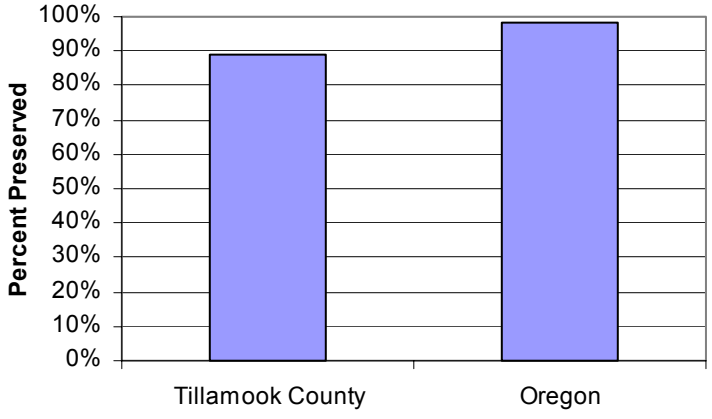
It is important to note that Tillamook County's loss of farmland has not been caused by the conversion of dairyland—the number of acres of pasture land remained relatively constant between 1987 and 1997. The last row in Table 1-1 indicates that the amount of pastureland in Tillamook County has held steady since 1987, after a significant loss of land (3,400 acres) during the 1982 to 1987 period. The dairy industry's recent success in preserving its pastureland is likely due to a number of forces, including the economic health of the Tillamook County Creamery Association, as well as the TCCA's commitment to "no net loss of pastureland" among its producers.

Table 1-1
Acreage in Farm Production in Oregon and Tillamook County (1987–1997)

	1982	1987	1992	1997	Percent Preserved 1982-1997
Total Tillamook County Farmland	N/A	39,913	39,559	35,580	89.14%
Total Oregon Farmland	17,739,782	17,809,165	17,609,497	17,449,293	97.98%
Tillamook County Pastureland	25,800	22,400	22,600	22,500	87.21%

Sources: USDA Agricultural Census and NRCS Natural Resources Inventory

Figure 1-1
Percentage of Land Preserved for Agricultural Use in Oregon and Tillamook County since (1982–1997)



Source: USDA Agricultural Census

Benchmark 1.2 Dwelling Approvals in Exclusive Farm Use Zones and Forest Land

Background

This benchmark measures the success of achieving Goal 1.1:

> *Manage growth in a manner that creates vibrant towns while maintaining the rural character of the countryside by concentrating growth in existing communities and by protecting our farms, forests, rivers, bays, beaches, and coastline.*

During the Visioning process, survey respondents expressed very strong support for encouraging development within the established cities and communities and for preserving rural resource lands and uses. More than two thirds of respondents agreed with the statement, "we need to direct development to already established towns in order to protect our farms and forests and maintain our rural quality of life." Only nine percent of those responding disagreed with this statement.

As development occurs, these areas lose their rural character, taking on the appearance of towns without the benefit of urban services. Moreover, rural development often conflicts with rural resource use, including farming and forestry, and it may adversely impact natural features such as rivers, bays, and beaches.

This benchmark measures the effectiveness of attempts to direct development to existing cities and communities by tracking the number of dwelling approvals in exclusive farm use and forest land zones—the fewer the number of permits, the more effective the attempts. This is related to Benchmark 1.1 in that it indirectly measures resource land conservation of farm and forestland. Over time this benchmark will provide a clear indication of how much construction is occurring on resource lands and how effectively policy makers are responding residents' desires.

The data source for this benchmark is from the Department of Land Conservation and Development's annual forest and farm reports.

Data Source

Data were obtained for this benchmark through:

- Department of Land Conservation and Development, Rural Lands Division, *1999-2000 Forest Report,* "Dwelling Approvals on Forest Land", and *1999-2000 Farm Report,* "Dwelling Approvals on Exclusive Farm Use Land" www.lcd-state.or.us/rural/

Related State Benchmark

- Oregon Progress Board Benchmarks #80 and #81

Findings

Tables 1-2a and 1-2b list the number of building permits granted for residential dwellings on Forest Lands and Exclusive Farm Use Lands, respectively, between 1995 and 2000. As Oregon attempts to preserve all forestlands at 92% of 1970 levels, minimizing approvals and permits is extremely important to Tillamook County. The small number of annual dwelling approvals on both forest and farmlands indicates that Tillamook County is successfully directing development away from resource lands.

Table 1-2a
Dwelling Approvals on Forest Land. 1993-2000

	1993	1994	1995	1996	1997	1998	1999	2000
Tillamook County	2	1	2	2	2	3	2	3
Oregon	1,020	616	509	463	341	355	339	341

Source: Department of Land Conservation and Development

Table 1-2b
Dwelling Approvals on Exclusive Farm Use Lands, Tillamook County, 1997-2000

	1997	1998	1999	2000
Tillamook County	4	0	1	1
Primary Farm	1	0	1	0
Lot of Record	0	0	0	0
Non-Farm Dwellings	3	0	0	1
Oregon	530	404	389	384

Source: Department of Land Conservation and Development

Benchmark 1.3 Buildable Land Supply in Tillamook County

Background

This benchmark measures the success in achieving Goal 1.1:

> *Manage growth in a manner that creates vibrant towns while maintaining the rural character of the countryside by concentrating growth in existing communities and by protecting our farms, forests, rivers, bays, beaches, and coastline.*

During the Visioning process, survey respondents expressed very strong support for encouraging development within the established cities and communities and for preserving rural resource lands and uses. More than two thirds of respondents agreed with the statement, "we need to direct development to already established towns in order to protect our farms and forests and maintain our rural quality of life." Only nine percent of those responding disagreed with this statement.

As development occurs, these areas lose their rural character, taking on the appearance of towns without the benefit of urban services. Moreover, rural development often conflicts with rural resource use, including farming and forestry, and it may adversely impact natural features such as rivers, bays, and beaches.

This benchmark measures the effectiveness of the state planning requirement that cities provide a 20-year supply of buildable land, and the amount of development potential in rural unincorporated communities.

The data source for this benchmark is the Tillamook County Department of Community Development.

Data Source

Data were obtained for this benchmark through:

- Tillamook County Community Development Department. Bill Campbell, Director, (503) 842-3408, http://www.co.tillamook.or.us/gov/comdev/planning (see the Periodic Review page)

Related State Benchmark

None

Findings

Table 1.3a shows developable residential land in Tillamook County's unincorporated communities and rural areas. Some development is allowed to occur in rural unincorporated communities and in rural areas that are granted exceptions to statewide goals restricting development on farm and forest lands. Table 1.3a shows that Tillamook County has substantial development potential in rural areas. While this development does not directly affect farm and forest lands, rural development can create demand for services and land use conflicts that are inconsistent with agricultural and forestry operations. Table 1.3b shows development potential in incorporated cities. The potential parcels column accounts for land divisions and is for all land uses.

Table 1.3a
Developable Residential Land in Tillamook County's Unincorporated Communities and Rural Areas

Unincorporated Communities	Total Land Area (Acres)	Developable Residential Land (Gross Acres)	Potential Lots for Residential Development
Barview-Watseco-Twin Rocks	269	230	798
Beaver	262	177	289
Cape Meares	171	116	277
Cloverdale	154	111	515
Falcon Cove	66	49	54
Hebo	122	80	133
Idaville	34	8	17
Mohler	8	1	2
Neahkahnie	298	224	498
Neskowin	1,500	na	1,426
Netarts	398	na	655
Oceanside	372	na	671
Pacific City-Woods	674	na	2,194
Siskeyville	151	86	179
Tierra del Mar	317	278	466
Subtotal	**4,796**	**1,360**	**8,174**
Rural Exception Areas	**13,858**	**8,155**	**3,589**
Total	**18,654**	**9,515**	**11,763**

Source: Tillamook County Community Development Department, 2002

Table 1.3b
Development potential in Urban Growth Boundaries

City	Total Acres	Number of Parcels	Developed Parcels	Potential Parcels
Bay City	881.3	1,205	611	2,716
Garibaldi	226.1	500	491	382
Manzanita	467.2	1,510	1,195	1,909
Nehalem	557.8	686	424	3,733
Rockaway Beach	383.0	1,753	917	1,633
Tillamook	885.2	2,024	1,854	1,332
Wheeler	242.5	463	220	1,082
Total	3643.1	8,141	5,712	12,787

Source: Tillamook County Community Development Department, 2002

Benchmark 1.4 Percentage of Tillamook County Residents Served by Public Drinking Water[2] that Meets Health Based Standards

Background

This benchmark provides a measure of success for Goal 1.2:

> *The infrastructure (e.g. roads, schools, sewer, water, fire, medical, etc.) that serves our communities is improved and maintained.*

For much of the last decade, the U.S. Environmental Protection Agency has provided funding to state governments to improve water treatment and manage pollution of surface and ground water supplies. This is reflected in the continuing progress enjoyed by the State of Oregon in regard to its supply of clean water. The Futures Council's Vision indicates that residents' primary concern is to accommodate Tillamook County's growth. Likewise, it shows that many residents want infrastructure to be a priority of county government. Rapid growth can quickly outstretch a community's capacity to provide adequate services to its residents. Because a clean water supply is a vital factor in both adequate infrastructure and environmental health, it is not surprising that residents expressed a desire to clean up Tillamook County's surface water bodies.

This benchmark evaluates the number of residents receiving clean drinking water from community water systems, all non-transient non-community systems, and transient non-community systems serving more than 500 people per day. If growth occurs too quickly in Tillamook County's communities and their capacity to provide clean water does not increase, this benchmark will reflect such a trend over time. County-level data on the percentage of residents receiving clean drinking water have been updated with 2001 figures provided by the Department of Human Services' Drinking Water Program.

Data Source

Data for this benchmark were obtained through:

- Oregon Department of Human Services, Drinking Water Program. "Pipeline: Oregon Drinking Water News," Annual Reports on Oregon's Public Drinking Water http://www.ohd.hr.state.or.us/dwp/pipeline.htm
- Evan Hofeld, Natural Resource Specialist, Drinking Water Program, Oregon Department of Human Services, 503-731-4317.

Related State Benchmark

- Oregon Progress Board Benchmark # 69

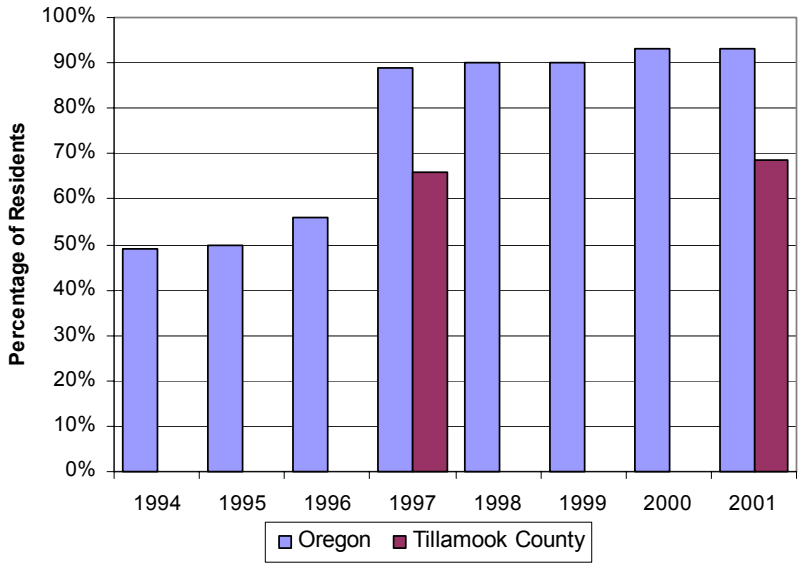
[2] This benchmark measures the percentage of Tillamook County residents served only by community-based systems. See Appendix B for additional information.

Findings

Oregon and the US Environmental Protection Agency have set a goal that by 2005, 95% of Oregon residents will be served by public drinking water that meets health-based standards. Figure 1-4 shows that in 1997, public drinking water systems throughout Oregon served 89% of the state's population with water that meets standards. This was a marked increase from 49% only three years earlier. By 2001, 93% of state residents were served by healthy drinking water.

Tillamook County lags behind the state in providing its residents with healthy drinking water. In 1997, 66% of county residents were served by water systems meeting health standards. This increased 3% to 69% in 2001, but this remains 24% below the state rate. Moreover, Tillamook County was 26% below the EPA goal of 95% in 2001.

Figure 1-4
Percentage of Residents Served by Community Water Systems that Meet Health Based Standards



Source: Department of Human Services

Benchmark 1.5 Percentage of Tillamook County Households with On-Site Sewage Disposal Systems that Do Not Meet Government Standards

Background

This benchmark is a measure of success for Goal 1.2:

> *The infrastructure (e.g. roads, schools, sewer, water, fire, medical, etc.) that serves our communities is improved and maintained.*

The Tillamook Bay National Estuary Project (TBNEP) highlighted bacterial contamination (and other contaminants) of surface waters as one of Tillamook Bay's priority problems. The TBNEP identified on-site sewage (septic) disposal systems[3] as a potential contributor of bacteria loading into Tillamook Bay (and other surface water bodies throughout the county). Sewage disposal is a critical infrastructure issue that ties closely to the water quality concerns expressed in the Natural Environment section of the Strategic Vision. More than 90% of respondents to the Futures Council's countywide survey agreed or strongly agreed that there must be adequate sewage treatment in the county.

Roughly 5,000 Tillamook County households rely on on-site wastewater disposal (septic) systems. The Tillamook County Health Department, however, estimates that 30% of on-site wastewater disposal systems are in intermittent use due to Tillamook County's seasonal population shifts. As these systems age, many will be prone to failure. Using the number of repair permits issued by the county, this benchmark measures the percentage of Tillamook County households with on-site sewage disposal systems that are out of compliance with government standards.

Data Source

Data were obtained for this benchmark through:

- Wes Greenwood, Sanitation Division, Tillamook County Department of Community Development.

Related State Benchmark

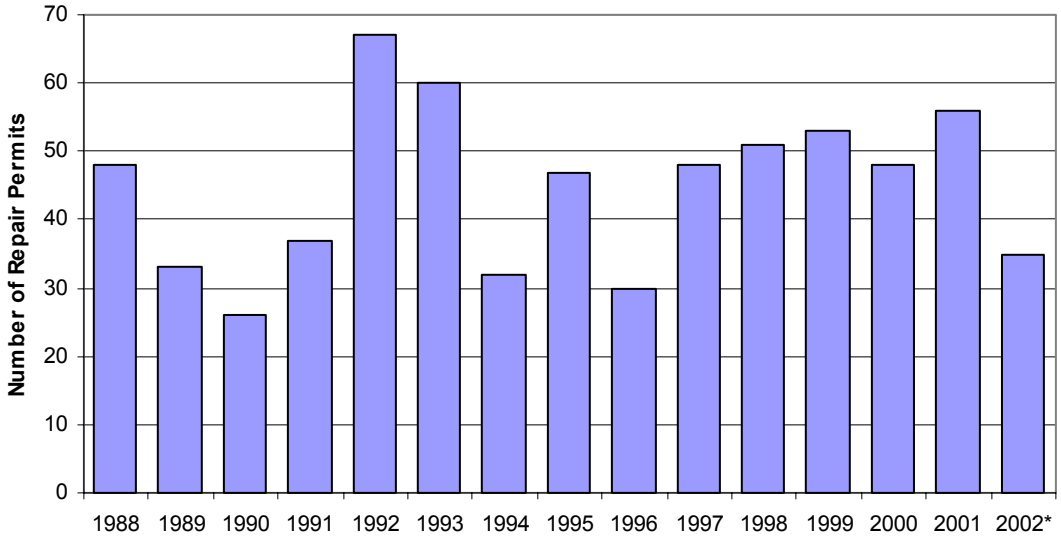
None

[3] Public sanitary sewage treatment plants were identified as a larger contributor of bacteria. This benchmark evaluates on-site sewage disposal systems, however, because public sanitary sewage treatment plants are regularly in compliance with state standards and contribute significant loads of bacteria only during storm events. See Appendix B for more information.

Findings

Figure 1-5 below indicates that the rate of failures (measured by the number of major repair permits issued[4]) in these systems has remained relatively stable, fluctuating between a low of 26 failures in 1990 and a high of 67 failures in 1992. The average number of failures between 1988 and 2001 was roughly 45 failures per year. This average failure rate indicates that approximately one percent of all systems failed annually over the ten-year period

Figure 1-5
Number of Major Permits Issued for
On-Site Wastewater Disposal Systems (1988–2001)



Source: Tillamook County Department of Community Development

[4] Because the number of permits issued is used as the indicator of failures, the actual number of failures may be higher. Any error between actual failures and permits issued is assumed to be consistent over the years examined.

Benchmark 1.6 Percentage of State and County Road Miles Within Tillamook County that Meet Prescribed Standards

Background

This benchmark is a measure of success for Goal 1.2:

> *The infrastructure (e.g. roads, schools, sewer, water, fire, medical, etc.) that serves our communities is improved and maintained.*

While one of the Vision's stated goals is to improve other means of transportation around the county, the vast majority of residents still rely on their automobile for their basic transportation needs. As its population grows and Tillamook County becomes an increasingly popular tourist destination, the county's roads will endure increasing stress. Because of the wet climate and often-steep topography, road washouts and slides are a common occurrence in the county. During the Visioning process, county residents placed a high priority on the maintenance of roads and other county infrastructure.

The condition of county roadways is a very good indicator of their ability to handle the daily traffic of Tillamook County. This benchmark uses new data from the Oregon Department of Transportation and the County Community Development Department to measure the effectiveness of both the state and county in maintaining roads in Tillamook County.

Data Source

Data were obtained for this benchmark through:

- Kevin Brophy, Pavement Management Systems, Oregon Department of Transportation, (503) 986-3116. http://www.odot.state.or.us/otms/pavement/
- Aaron Suko, Roads and Solid Wastes Division, Tillamook County Development Department, (503) 842-3419.

Related State Benchmark

- Oregon Progress Board Benchmark #72

Findings

The Oregon Department of Transportation uses a 100-point scale to assess road conditions throughout the state. Table 1-6a shows that the conditions of state-owned roads in Tillamook County have improved. In 1997, approximately 37% of state-owned roads were in very good or good condition. This has increased to nearly 52% in 2001.

Table 1-6a
Condition of State-Owned Roads in Tillamook County

		2001 Assessment		1997 Assessment
Condition	**Scoring Range**	**Number of Miles**	**Percent of Miles**	**Percent of Miles**
Very Good	**(98.1-100)**	17.39	11.8%	37%
Good	**(75.1-98.0)**	58.82	39.9%	
Fair	**(45.1-75.0)**	55.84	37.9%	43%
Poor	**(10.1-45.0)**	15.46	10.5%	20%
Very Poor	**(0-10.0)**	0	0.0%	
Total		147.51	100.0%	100%

Source: Oregon Department of Transportation

Since the last benchmark report, the county has changed its rating system. Like the state of Oregon, it uses a 100-point scale**.** However**,** the county and the state use different categories, so it is not possible to compare the two sets of data. Despite this limitation, Table 1-6b shows that 40% of county-owned roads are in good, very good, or excellent condition.

Table 1-6b
Condition of County-Owned Roads in Tillamook County

Condition	**Scoring Range**	**Number of Miles**	**Percent of Miles**
Excellent	**(85-100)**	18	6.3%
Very Good	**(70-84)**	30	10.5%
Good	**(55-69)**	66	23.2%
Fair	**(40-54)**	69	24.2%
Poor	**(25-39)**	55	19.3%
Very Poor	**(0-24)**	47	16.5%
Total		285	100.0%

Source: Tillamook County Community Development Department

Benchmark 1.7 Percentage of Tillamook County Residents who Commute to and From Work by Means Other than a Single Occupancy Vehicle

Background

This benchmark is a measure of success for Goal 1.3:

> *Alternative modes of transportation (including bicycles, rail, air, etc.) are encouraged.*

Tillamook County is a rural region with a small population that must travel significant distances between communities and areas of commerce. These factors lend themselves poorly to transportation modes other than the automobile, so single occupant vehicles are a common sight on county roadways. The demands of a growing population and the increased traffic that goes along with it, however, now provide the opportunity for Tillamook County to explore a wider range of transportation modes. The recently-developed bus system, known as The Wave, provides many county residents an alternative to cars in certain instances. But demand is relatively low and its effectiveness in reducing traffic congestion is negligible. Unlike public transportation in major cities, The Wave was not created to diminish traffic congestion but primarily to supply transportation to those who would otherwise have difficulty traveling throughout the county.

As the county's population continues to increase (particularly in the summer tourist season), bicycles, foot traffic, and public transportation can all play valuable roles in making Tillamook County accessible to its residents and visitors without the use of an automobile.

This benchmark evaluates commuter traffic, one of the major indicators of a growing population. Heavy commuter traffic is expensive (wear and tear on infrastructure), time consuming (traffic jams), and damaging to the environment (auto emissions, oil run off, and noise pollution). By determining the number of people who travel to work by means other than a single occupancy vehicle, this benchmark will indicate the county's success at encouraging alternative modes of transportation.

Comparing census data for 1990 and 2000 shows commuting trends for both Tillamook County and Oregon.

Data Source

Data were obtained for this benchmark through:

- 1990 and 2000 U.S. Census, SF3 Tables www.census.gov

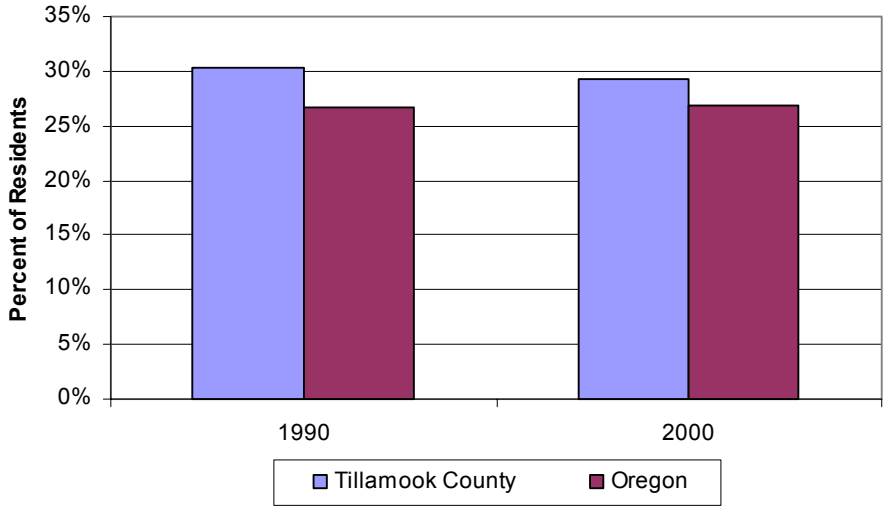
Related State Benchmark

- Oregon Progress Board Benchmark # 70

Findings

Figure 1-7 and Table 1-7 compare commuting data for 1990 and 2000 in Tillamook County and the state of Oregon. Figure 1-7 shows the percentage of residents commuting by carpool or alternative means. While the state rate has remained at approximately 27%, Tillamook County has dropped from 30.3% to 29.2% during this decade.

Figure 1-7
Percentage of Residents Commuting to Work by Carpool or Alternative Means



Source: US Census

Table 1-7 also shows that the percentage of Tillamook County residents commuting by single occupancy vehicles has increased approximately one percent from 69.7% to 70.8% over the 1990-2000 decade. In addition, the percent of residents commuting by carpool has dropped slightly from 15.4% to 14.9% in Tillamook County.

Table 1-7
Number and Percentage of Residents Commuting by Automobile (Alone or Carpooling) and by Alternative Means

	1990		2000	
	Tillamook County	Oregon	Tillamook County	Oregon
Commuting Alone	5,739 (69.7%)	949,326 (73.3%)	7,618 (70.8%)	117,1641 (73.2%)
Carpooling	1,268 (15.4%)	165,256 (12.8%)	1,599 (14.9%)	195,950 (12.2%)
Total Commuting by Automobile	7,007 (85.1%)	1,114,582 (86.1%)	9,217 (85.7%)	1,367,591 (85.4%)
Commuting by Other Means	1,230 (14.9%)	180,108 (13.9%)	1,537 (14.3%)	233,787 (14.6%)
Total Commuters	8,237 (100%)	1,294,690 (100%)	10,754 (100%)	1,601,378 (100%)

Source: US Census

Benchmark 1.8 Percentage of Households that are Owner-Occupied

Background

This benchmark is a measure of success for Goal 1.4:

Our county offers an array of affordable housing.

With the increase in second home and vacation residences in the county, it is crucial that the county maintains an emphasis on providing a wide array of housing types that are affordable to a broad range of income levels. Rising property values can lead to the loss of buildings and residences that allow low-income families the chance to buy into their county.

This benchmark measures the percentage of Tillamook County residents that report owning their own home, either outright or with a mortgage. It also serves as a rough measure of the distribution of wealth among Tillamook County residents. To identify whether ample affordable housing exists in the county, this benchmark complements Benchmark 1.10: Percentage of Households Spending More than 30% of their Household Income on Housing (including utilities). Viewed together, these benchmarks indicate whether or not affordable housing is available in the county, and, likewise, whether the construction of larger homes is having an adverse impact on housing for low-income populations.

This update contains new 2000 data from the Oregon Progress Board that can be compared with 1980 and 1990 data to show recent housing trends.

Data Source

Data were obtained for this benchmark through:

- Oregon Progress Board, *2001 County Data Book*, September 2002, Benchmark #73: Percentage of Oregon Households that are Owner Occupied, p.74. www.econ.state.or.us/opb
- Southern Oregon Regional Services Institute (SORSI), *Oregon: A Statistical Overview 2002*, Benchmark #20: 1990-2000 Average Owner-Occupied Housing Units % Occupied Units, p. 37.

Related State Benchmark

- Oregon Progress Board Benchmark # 73

Findings

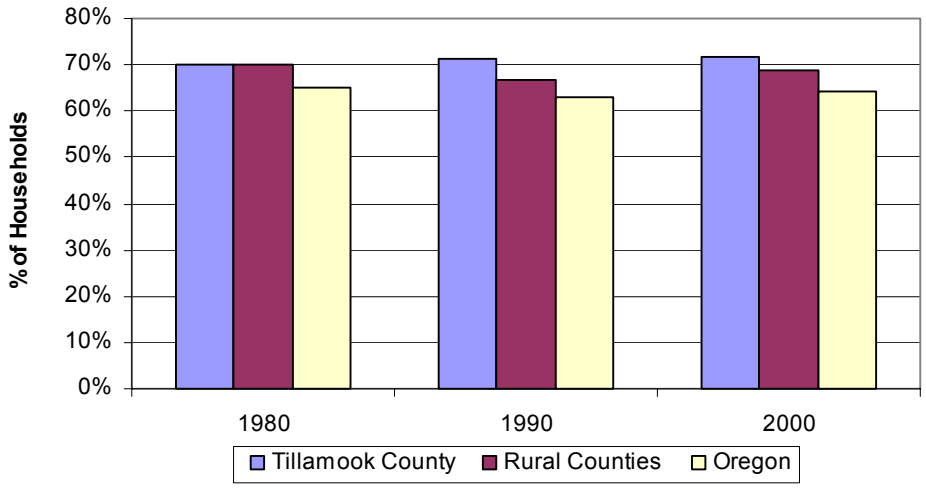
The Oregon Progress Board's data, shown in Table 1-8 and Figure 1-8, show that the percentage of owner-occupied households in Tillamook County has increased slowly since 1980. Tillamook County remains well above the state and rural county average for owner-occupied households. SORSI data illustrate the same trend and shows that Tillamook County has the fifth highest rate of owner-occupied households among Oregon's thirty-six counties.

Table 1-8
Percentage of Households Occupied by Owners and by Renters

	1980		1990		2000	
	Owners	Renters	Owners	Renters	Owners	Renters
Tillamook County	70.0%	30.0%	71.3%	28.7%	71.8%	28.2%
Rural Counties	69.9%	30.1%	66.9%	33.1%	68.7%	31.3%
Oregon	65.1%	34.9%	63.1%	36.9%	64.3%	35.7%

Source: Oregon Progress Board

Figure 1-8
Percentage of Households that are Owner-Occupied



Source: Oregon Progress Board

Benchmark 1.9 Percentage of Households Spending More than 30% of their Household Income on Housing Including Utilities

Background

This benchmark is a measure of success for Goal 1.4:

Our county offers an array of affordable housing.

As defined in the state's Strategic Vision, Oregon Shines II, "a housing affordability rule of thumb states that the proportion of a household's income spent on rent or mortgage payments and other housing expenses should be less than 30 percent". Today, many households pay a large portion of their income on housing-related costs, leaving too little money for food, childcare, health services, and other necessities. Because of increasing numbers of large vacation rentals and second-family homes, many residents emphasized during the Visioning process the importance of maintaining an adequate supply of affordable housing.

This benchmark presents data from the 1990 and 2000 US Census showing the percentage of Tillamook County's residents for whom housing is a cost burden.

Data Source

Data were obtained for this benchmark through:

- 1990 and 2000 U.S. Census www.census.gov
- Oregon Progress Board, *2001 County Data Book*, September 2002, Benchmark #74a: Percent of Renters Below Median Income Spending More than 30% of Income for Housing (including Utilities) and #74b: Percent of Owner Occupied Households Below Median Income Spending More than 30% of Income for Housing (including Utilities), p.76, 78. www.econ.state.or.us/opb

Related State Benchmark

- Oregon Progress Board Benchmark # 74

Findings

Data from the U.S. Census, shown in Table 1-9 and Figure 1-9, show that in 1990, 26.4% of Tillamook County households spent more than 30% of their income on housing. This decreased to 25.3% in 2000. At the same time, the total percent of cost-burdened households in the state of Oregon increased 8.6% from 22.6% to 31.2%. Tillamook County now has a lower rate of cost-burdened households than the state. It is important to note, however, that while the overall proportion of cost-burdened households decreased in Tillamook County from 1990 to 2000, the proportion of owner-occupied households that are cost-burdened increased 5%, while it dropped 1.3% for renters.

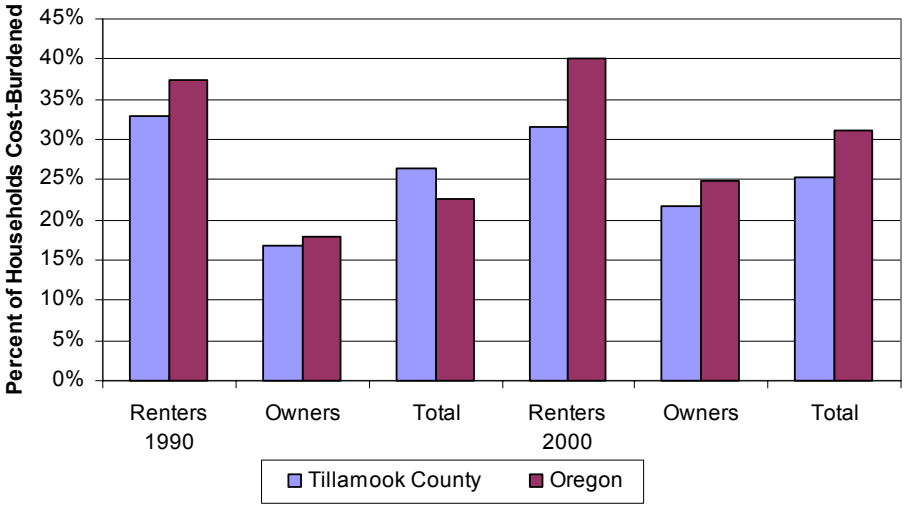
Table 1-9
Percentage of Households Spending More than 30% of their Household Income on Housing Including Utilities

	1990			2000		
	Renters	Owners	Total	Renters	Owners	Total
Tillamook County	32.9%	16.7%	26.4%	31.6%	21.7%	25.3%
Oregon	37.3%	18.0%	22.6%	40.0%	24.8%	31.2%

Source: 1990 and 2000 U.S. Census

The Oregon Progress Board also collects data on the percentage of households with incomes below the median income that spend more than 30% of their income on housing. While these data are not available for 2000, the data from 1990 show that for Tillamook County, 68.0% of renters and 32.1% of owner-occupants below the median income level are cost-burdened. Both these rates are below the state averages of 71.0% and 38.1%, respectively.

Figure 1-9
Percentage of Households Spending More than 30% of their Household Income on Housing Including Utilities



Source: 1990 and 2000 U.S. Census

CHAPTER 2: NATURAL ENVIRONMENT BENCHMARKS

NATURAL ENVIRONMENT BENCHMARKS

Introduction

The Natural Environment section of the Strategic Vision focuses primarily on maintaining the health of Tillamook County's bountiful natural resources as integral and essential components of our community as a whole. During the Visioning process, residents emphasized the importance of conserving fish, wildlife and other natural resources. In addition, they stated a clear desire to promote community partnerships that work with agricultural and forest managers to retain the natural features that much of our community is based upon. Community partnerships and development of local grassroots organizations help insure that resource-based industries use resources in a manner that promotes economic development while maintaining the ecological integrity of the landscape.

About the Natural Environment Benchmarks

To monitor achievement of the Vision's goals, the Futures Council focuses on benchmarks that provide clear evidence of ecosystem health countywide, while keeping the benchmarks as straightforward as possible. To a greater degree than the other three areas of the Vision, natural environment benchmarks are often inherently complex and easy to misinterpret. First, data collection is labor intensive and reporting is often inconsistent. Data collection and analysis often are confounded by such problematic tasks, such as counting species' populations, analyzing riparian health at a county level, and focusing on the outcomes of environmental restoration rather than the techniques used. In addition, because of the dynamic and interrelated character of natural environment systems, benchmarks that attempt to measure any one indicator risk being either overly complex for consistent measurement or too focused to be meaningful. The benchmarks contained in this section are an attempt to simply and accurately measure those elements of the natural environment that are most important to the community, while indicating overall ecosystem health and community stewardship.

The list below contains a summary of the goals found in the Natural Environment section of the Tillamook County Strategic Vision. Beneath each goal is listed the benchmark(s) with which the Futures Council has chosen to monitor the community's progress towards its goals.

Goal 2.1 Waterways are managed to protect riparian zones and provide high quality habitat for native fish and wildlife. In addition, they provide recreational, aesthetic, educational, and commercial values.

- Benchmark 2.1 Trends in Stream Water Quality Index
- Benchmark 2.2 Trends in Water Quality Limited Streams and TMDL Approvals
- Benchmark 2.3 Bacteria and Sediment Loads Entering Tillamook Bay
- Benchmark 2.4 Wild Salmon and Steelhead Population Levels

Goal 2.2 All county water bodies are of sufficiently high quality to avoid listing as "water quality degraded" (e.g. streams listed by the DEQ).

- Benchmark 2.1 Trends in Stream Water Quality Index
- Benchmark 2.2 Trends in Water Quality Limited Streams and TMDL Approvals

Goal 2.3 Shellfish harvesting in our estuaries is not limited by degraded water quality.

- Benchmark 2.3 Bacteria and Sediment Loads Entering Tillamook Bay

Goal 2.4 Wild salmon and steelhead populations are increased as integral, functioning components of our watersheds.

- Benchmark 2.4 Wild Salmon and Steelhead Populations Levels

Goal 2.5 Native wildlife populations are healthy and integral components of our community. Wildlife species contribute to the health and value of our managed agricultural and forestlands.

- No Benchmark.

Goal 2.6 Forest management practices sustain the full complement of associated plant and animal populations, as well as support a viable wood products industry.

- Benchmark 3.2 Employment in the Forest Industry (See Economy Section)

Goal 2.7 Waste products are recycled, thereby reducing demand on the natural and human-made environment.

- Benchmark 2.5 Solid Waste Generated, Disposed, and Recovered per Capita

Benchmark 2.1 Trends in the Stream Water Quality Index (OWQI)

Background

This benchmark addresses Goals 2.1 and 2.2:

> *Waterways are managed to protect riparian zones and provide high quality habitat for native fish and wildlife. In addition, they provide recreational, aesthetic, educational, and commercial values.*
>
> *All county water bodies are of sufficiently high quality to avoid listing as "water quality degraded" (e.g. streams listed by the DEQ).*

Tillamook County is a land of water. Throughout the landscape run rivers and streams that roar down the uplands before meandering through lowland areas and pouring into Tillamook County's mosaic of lakes, fresh and saltwater marshes, and estuaries. These waters are vital to the ecological well-being of the region, and Tillamook County residents are deeply concerned that the health of these waters be maintained. Currently, many water bodies are listed by the Oregon Department of Environmental Quality (DEQ) as "water quality limited", as defined under Section 303(d) of the Clean Water Act—see Benchmark 2.2.

The Futures Council uses the Oregon Water Quality Index (OWQI) as a meaningful measure of our river systems' general health as well as to assess the goals of protection, recreation, aesthetics, education, and commercial values. The OWQI monitors various factors that indicate overall water quality. DEQ defines the OWQI as follows:

The OWQI is a single number between zero (worst) and 100 (best) that expresses water quality by integrating measurements of eight carefully selected water quality parameters (temperature, dissolved oxygen, biochemical oxygen demand, pH, ammonia and nitrate nitrogen, total phosphates, total solids, fecal coliform). The index was developed for the purpose of providing a simple, concise and valid method for expressing the significance of regularly generated laboratory data, and was designed to aid in the assessment of water quality for general recreational uses.[5]

The OWQI results have been updated to include 1991-2001 data as follows.

Data Source

Data were obtained for this benchmark through:

- Curtis Cude, Oregon Water Quality Index Coordinator, Water Quality Monitoring Section, Laboratory Division, Oregon Department of Environmental Quality, 503-229-5983.

Related State Benchmark

- None

[5] For additional information on the OWQI, please see Appendix B.

Findings

The Oregon Water Quality Index (OWQI) is based on a ten-year index to reduce the variability that is inherent in water quality assessments. Table 2-1 summarizes the health of major rivers in Tillamook County according to OWQI data sets from 1986-1995 and 1991-2000. The periods are broken into summer (column 3) as well as fall, winter, and spring (column 4).

The OWQI data set from 1991-2001 listed five of Tillamook County's eight rivers as "fair" in condition. The DEQ OWQI North Coast Basin Report concluded that in many cases:

> "Good summertime water quality recedes to Fair in the fall, winter and spring. Impairments include elevated levels of nutrients (ammonia and nitrate nitrogen and total phosphates), biochemical oxygen demand, and total solids. In this case, rising water levels during heavy precipitation may be removing organic materials from fields, banks, and hillsides."

This indicates the presence of untreated animal wastes in the rivers throughout the year. Overall, the Tillamook River site had the most impaired water quality in the sub-basin due to occasions of very high concentrations of fecal coliform.

To compare different data sets, non-parametric Seasonal-Kendall trend analyses are completed. For each site, monthly or quarterly data sets are compared and analyzed to see if a significant positive or negative trend in water quality can be detected. Although a majority of the OWQI ratings for the North Coast Basin have remained the same, the 1991-2000 data have shown an improvement in water quality from "fair" to "good" for both the Kilchis and Nestucca Rivers. Where data were available, all trends show an increase in OWQI ratings, with the exception of the Wilson River, which had neither a positive nor a negative trend.

Table 2-1
Seasonal Average OWQI Results
for the North Coast Basin (1991-2001)

River (@ Location)	River Mile	Summer Average	F-W-S Average	Minimum Seasonal Average	1986-1995 Rating	1991-2000 Rating	Trend
Nehalem R. @ Foley Rd.	7.8	90	84	84	Fair	Fair	Increase
Miami R. @ Moss Creek Rd.	1.7	84	84	84	Fair	Fair	Increase
Kilchis R. @ Hwy 101	1	88	88	88	Fair	Good	Increase
Wilson R. @ Hwy 6	8.5	92	92	92	Excellent	Excellent	Insufficient Data
Wilson R. @ Hwy 101	1.8	85	82	82	Fair	Fair	No Trend
Trask R. @ Hwy 101	4.2	89	86	86	Good	Good	Increase
Tillamook R. @ Bewley Creek Rd.	6.8	72	85	72	Poor	Poor	Increase
Nestucca R. @ Cloverdale	1.7	89	86	86	Fair	Good	Increase

Source: Oregon Water Quality Index Lab

Note: The OWQI analyzes a defined set of water quality variables, including temperature, dissolved oxygen (percent saturation and concentration), biochemical oxygen demand, pH, total solids, ammonia and nitrate nitrogens, total phosphorus, and fecal coliforms, to produce a score, or average, describing general water quality. The averages for each river above display their scores over the season.

Benchmark 2.2 Trends in Water Quality Limited Streams and TMDL Approvals

Background

This benchmark addresses Goals 2.1 and 2.2:

> *Waterways are managed to protect riparian zones and provide high quality habitat for native fish and wildlife. In addition, they provide recreational, aesthetic, educational, and commercial values.*

All county water bodies are of sufficiently high quality to avoid listing as "water quality degraded" (e.g. streams listed by the DEQ).

This is a new benchmark for the 2002 update that provides the Futures Council with data from the Department of Environmental Quality (DEQ) regarding rivers with water quality issues. The Federal Clean Water Act requires that Oregon undertake specific activities, such as monitoring and recording of rivers, estuaries and lakes, in order to develop standards and procedures that better protect sensitive areas. Section 303(d) of the Clean Water Act requires that Oregon develop a list of water bodies that do not meet standards and that the list be submitted every two years to the U.S. Environmental Protection Agency (EPA). Water bodies contained on the 303(d) list are described as water quality limited.

Once a water body has been added to the 303(d) list, the DEQ must develop a Total Maximum Daily Load (TMDL) plan within 10 years. The TMDL identifies "allowable pollutant loads to a water body from both point (end of pipe) and non-point sources (runoff) that will prevent a violation of water quality standards." Once a TMDL plan is approved by the EPA, the river can be removed from the 303(d) list.

Monitoring an increase or decrease of 303(d) listed water bodies and those with TMDLs in Tillamook County, provides the Futures Council with a general indicator of water quality trends. The 303(d) listings, however, are limited in that a TMDL plan does not necessarily correspond with improved water quality.

Data Source

Data were obtained for this benchmark through:

- Oregon Department of Environmental Quality, Water Quality Division, 303(d) List, "Water Quality Limited Streams Database," "Fact Sheet: The 303(d) List of Impaired and Threatened Waterbodies" www.deq.state.or.us/wq
- Oregon Department of Environmental Quality, Water Quality Division, TMDLs, "Oregon TMDLs Approved by USEPA as of June 2002," "Tillamook Bay Watershed Total Maximum Daily Load (TMDL)," "Nestucca Bay Watershed TMDLs and Water Quality Management Plan," http://www.deq.state.or.us/wq/TMDLs/TMDLs.htm

Related State Benchmark

- None

Findings

As a new addition to Chapter 2, summary information on the 303(d) list and Total Maximum Daily Loads data will provide ongoing information on water quality trends in Tillamook County. Currently, the Wilson-Trask-Nestucca sub-basin contains 11 listed water bodies (including portions of these rivers outside of Tillamook County), and the Nehalem sub-basin has 18. With the exception of Mill Creek, which is listed for elevated levels of iron, all of the current listings in the Wilson-Trask-Nestucca sub-basin are for Dissolved Oxygen. (It is important to note that TMDLs were just completed for both bacteria and temperature in this basin so, although these parameters are not shown on the current 303(d) list, they are major water quality issues.). Iron and pH content are also listed as concerns for specific locations. The predominant concern for locations in the Nehalem sub-basin is water temperature. A few locations, including the lower Nehalem River and the Nehalem Bay are also listed for elevated levels of fecal coliform.

Table 2-2 lists the water bodies that were previously listed as water quality limited in 1998. These have been removed from the 303(d) list as a result of TMDL development for each basin. The Nestucca Bay water body was not meeting standards for temperature, bacteria, and sediment. Many reaches were found to be too warm to protect salmon and trout; some reaches had excessive fine sediment in streambeds; and fecal bacteria concentrations were occasionally too high for human consumption of shellfish harvested from the area. The TMDL parameters determined for the bay included creation of more riparian vegetation along the stream, limitations on temperature of discharges from wastewater treatment plants, load allocations for land use types were developed, and increased channel width to reduce sedimentation. Once the TMDL parameters were addressed, the water bodies were removed from 303(d) listing.

Tillamook Bay Watershed also has a TMDL plan to address pollutant levels. The watershed contains 20 water bodies listed as water quality limited. Bacteria levels are a concern in 15 of these, and temperature is a concern in 12 of the listed waterbodies.

Table 2-2
TMDLs in Tillamook County Approved by the US EPA as of June 2002

Waterbody	Water Quality Concern Addressed	TMDL Parameters	U.S. EPA Approval Date
Tillamook Bay Watershed	Temperature, Bacteria	Temperature, Bacteria	07/31/2001
Nestucca Bay	Temperature, Bacteria, Sediment	Temperature, Bacteria, Sediment	05/13/2002

Source: Oregon Department of Environmental Quality

Benchmark 2.3 Bacteria and Sediment Loads Entering Tillamook Bay

Background

This benchmark addresses Goals 2.1 and 2.3:

> *Waterways are managed to protect riparian zones and provide high quality habitat for native fish and wildlife. In addition, they provide recreational, aesthetic, educational, and commercial values.*
>
> *Shellfish harvesting in our estuaries is not limited by degraded water quality.*

Urban development and resource-based industries, such as timber harvesting and dairy farming, can contribute significant loads of bacteria and sediment into Tillamook County waterways. These processes have been most manifest in the Tillamook Bay, which is the county's largest and most biologically rich estuary. Sedimentation and bacterial contamination have caused periodic closures of Tillamook Bay to both commercial and recreational shellfish harvesting. The Federal government has implemented two major programs in the Tillamook Bay basin, the Rural Clean Water Project and the National Estuary Program to address water quality in the Tillamook Bay basin.

The underlying intent of Goal 2.3 is to keep Tillamook Bay open longer for commercial shellfish harvest and reduce the periodic "man-induced" closures to recreational shellfish harvest. Consequently, Benchmark 2.3 serves as an indicator of water quality and indirectly assesses the impacts of the programs mentioned above on shellfish harvest. This benchmark is specific to Tillamook Bay because the Performance Partnership (now called the Tillamook County Estuary Partnership, a multi-lateral nonprofit partnership designed to implement the Comprehensive Conservation and Management Plan) will provide a reliable source of the required data only for Tillamook Bay.

Data for this benchmark are costly to collect and will only be collected every 5-10 years. The Futures Council should update this benchmark as new data become available.

Data Source

Data were obtained for this benchmark through:

- Oregon Department of Agriculture, Commercial Shellfish Program
- TBNEP/Performance Partnership, Scientific and Technical Coordinator
- T.J. Sullivan, J.M. Bischoff and K.B. Vache, *Results from Storm Sampling in Tillamook Bay Watershed.*

Related State Benchmark

- None

Findings

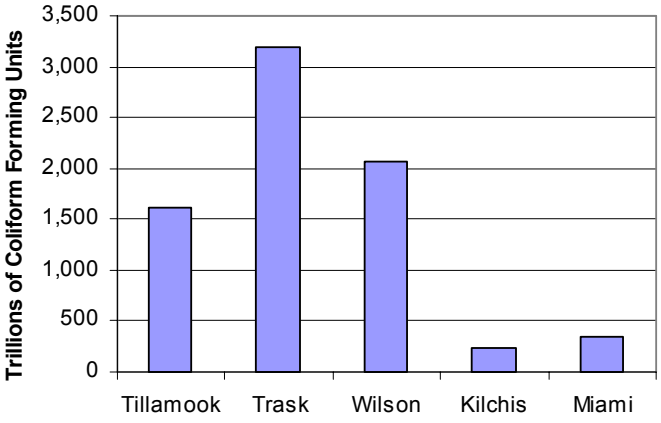
Table 2-3 shows two of the measurable factors, bacteria and sediment, related to water quality that can be used to indicate the overall health of Tillamook Bay. Figures 2-3a and 2-3b indicate that the Trask and Wilson Rivers contribute the bulk of sediment and bacteria entering the Tillamook Bay. It should be noted, however, that these rivers contribute more than half of the total volume of surface water entering via the bay's five rivers. Per unit of water volume, the Tillamook River produces a disproportionately high load of bacteria.

Table 2-3
Levels of Bacteria and Sediment in Rivers Entering Tillamook Bay (1997–1998)

River	Bacteria Levels (Trillions of Coliform Forming Units)	Sediment Loads (Millions of Total Suspended Solids)
Tillamook	1,623	10
Trask	3,189	185
Wilson	2,065	314
Kilchis	238	49
Miami	339	15

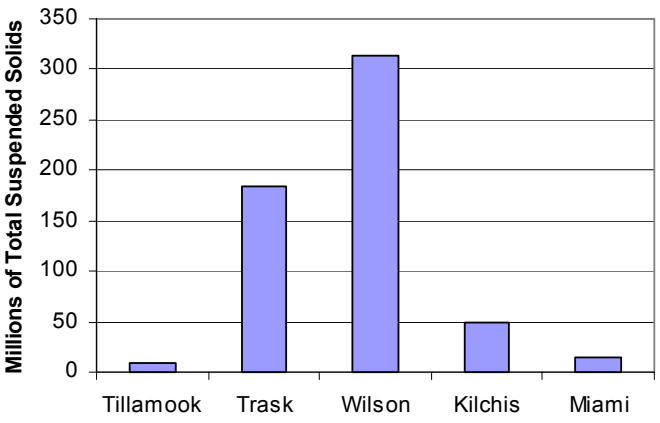
Source: Sullivan, Bischoff, and Vache.

Figure 2-3a
Levels of Bacteria in Rivers Entering Tillamook Bay (1997–1998)



Source: Sullivan, Bischoff, and Vache.

Figure 2-3b
Loads of Sediment in Rivers Entering Tillamook Bay (1997–1998)



Source: Sullivan, Bischoff, and Vache

Benchmark 2.4 Wild Salmon and Steelhead Population Levels

Background

This benchmark addresses Goals 2.1 and 2.4:

> *Waterways are managed to protect riparian zones and provide high quality habitat for native fish and wildlife. In addition, they provide recreational, aesthetic, educational, and commercial values.*
>
> *Wild salmon and steelhead populations are increased as integral, functioning components of our watersheds.*

Throughout much of the Pacific Northwest, wild salmonid populations are in steady decline. This is reflected in Tillamook County, where many runs of Coho, chinook, and chum salmon, as well as sea-run cutthroat and steelhead trout have declined considerably. Causes for the decline of these species are many and have been widely debated. Many of these causes have been addressed during the last decade through changes in natural resource policy and on-the-ground management. The legacy of decades and even centuries of habitat alteration will not be easily or quickly reversed. Some improvement in the number of returning salmonids has encouraged habitat restoration efforts. Tillamook County residents recognize these salmonids as integral to the economic, cultural, and ecological character of the county. During the Visioning process, 75% of survey respondents agreed or strongly agreed that "efforts to recover and ensure sustainable runs of salmon should be a top priority now and through the year 2020."

The intent of this benchmark is to serve as an indicator of the success of salmonid habitat enhancement efforts. However, due to the complex life cycles of salmonids and the resulting logistical and statistical variability of data collection and analysis, the Oregon Department of Fish and Wildlife (ODFW) cannot assure its accuracy. Consequently, ODFW is currently looking into how it might better evaluate salmon populations. Both the Oregon Progress Board and the Futures Council will adapt this benchmark accordingly over time.

In the meantime, the Futures Council is focusing on tracking wild Coho salmon populations. In August of 1998, the National Marine Fisheries Service listed the Coho as "threatened" under the Endangered Species Act within the Oregon Coast Evolutionary Significant Unit (ESU).[6] Tillamook County falls entirely within this ESU.

This benchmark has been slightly altered to reflect Coho populations rather than the percent of Coho populations at target levels, since there are no county-level targets.[7] Following are updated data from the Oregon Department of Fish and Wildlife.

[6] An ESU is defined by drainage basins that provide habitat for a distinctive species group.
[7] Information from Steve Jacobs, Project Manager, Coastal Salmonid Inventory Project, Oregon Department of Fish and Wildlife, 541-757-4263 x.261.

Data Source

Data were obtained for this benchmark through:

- Oregon Department of Fish and Wildlife, Corvallis Research Lab, Coastal Salmon Inventory Project: North Coast District, "Stratified Random Sampling Estimates for Coastal River Basins 1990-2000" and "Preliminary Estimated Spawner Abundance: 2001 Spawning Season" http://osu.crst.edu/Dept/ODFW/spawn/coho.htm
- Oregon Department of Fish and Wildlife, Fish Restoration and Enhancement Program: Report to the Oregon Legislature, "Types of R&E Enhancement Projects by County, 1990-2001," May 2001. www.dfw.state.or.us/
- Oregon Progress Board, *The 2001 Benchmark Performance Report*, March 2001, Benchmark #85: Percent of Wild Salmon and Steelhead Populations in Key Sub-Basins that are at Target Levels, p.67 www.econ.state.or.us/opb

Related State Benchmark

- Oregon Progress Board Benchmark #85

Findings

In 1990, ODFW estimates were that 48% of wild salmon and steelhead populations in key sub-basins were at target levels. For the years 1995 through 1998, approximately 2% of wild salmon and steelhead were at target levels statewide. With weather patterns improving and recovery efforts in place, estimates for Oregon in 2000 were for approximately 10% of wild salmon and steelhead populations to be at target levels.

In Tillamook County, wild Coho populations were substantially diminished during much of the 1990s but have started to increase in the last several years. Table 2-4 shows the wild Coho population counts by drainage basin. The Nehalem River has had the most dramatic increase in its Coho populations since 1998—with an increase from an estimated 1,190 Coho in 1998 to a preliminary estimate of 22,334 Coho in 2001. Figure 2-4 displays the total estimated wild Coho populations in Tillamook County drainage basins. The combined increase in Coho populations since 1999 is visible.

Table 2-4

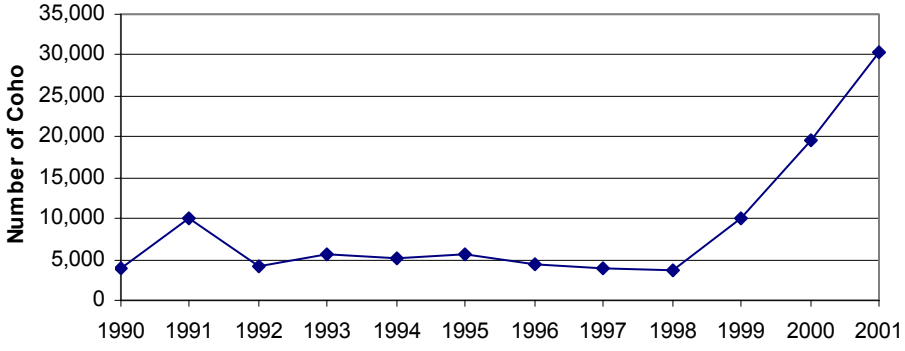
Wild Coho Populations in Tillamook County by Drainage Basin (1990–2001)

Drainage Basin	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Nehalem	1,552	3,975	1,268	2,265	2,007	1,463	1,057	1,173	1,190	3,713	14,518	22,334
Tillamook Bay	265	3,000	261	860	652	289	661	388	271	2,175	1,956	1,885
Nestucca	189	728	684	401	313	1,811	519	271	169	2,201	1,155	3,944
Sand Lake & Neskowin Cr.	0	240	24	41	77	108	275	61	0	47	0	71
Total	3,996	9,934	4,229	5,560	5,043	5,666	4,508	3,890	3,628	10,135	19,629	30,235

Source: Oregon Department of Fish and Wildlife

Salmonid populations typically fluctuate naturally. Causal factors are widely debated. The recent improvement in population levels may in part be due to habitat restoration and enhancement projects. ODFW reports that 24 habitat restoration projects occurred within Tillamook County between 1990 and 2001.

Figure 2-4
Total Estimated Wild Coho Populations in Tillamook County Drainage Basins



Source: Oregon Department of Fish and Wildlife

Benchmark 2.5 Solid Waste Generated, Disposed, and Recovered Per Capita

Background

This benchmark addresses Goal 2.7:

> *Waste products are recycled, thereby reducing demand on the natural and human-made environment.*

Recycling rates provide an indicator of environmental consciousness and stewardship within a community. Increased recycling will reduce the amount of refuse that ends up in county landfills and reduce demand on raw materials. Tillamook County reflects the nationwide effort to increase recycling as the number of public and private recycling stations available to residents has increased dramatically in the last decade.

The Department of Environmental Quality provides data on approximately 35 materials collected for recycling, composting, or energy recovery. DEQ's annual Material Recovery Survey was mandated by 1991 legislation, setting a 50% material recovery goal for Oregon in the year 2000.

In 1997, the legislature also passed laws (Oregon Revised Statute 459A.010) requiring wastesheds to set new voluntary goals and to maintain the lesser of their required rate or their actual 1996 rate without backsliding. For Tillamook in 2000, the statutory target was established at a 30% recovery rate goal, with a minimum recovery rate of 15% required. The DEQ Material Recovery Survey provides an annual look at how Tillamook County is doing in its waste generation, recovery, and disposal, providing information regarding the success of these efforts and where more focus and attention are needed.

Data Source

Data were obtained for this benchmark through:

- Oregon Department of Environmental Quality: 2000 Material Recovery Survey Report. http://www.deq.state.or.us/wmc/solwaste/documents/MRS2000Report.pdf
- Oregon Progress Board, *2001 County Data Book*, September 2002, Benchmark #83: Pounds of Oregon Municipal Solid Waste Landfilled or Incinerated per Capita, p.80. www.econ.state.or.us/opb
- Southern Oregon Regional Services Institute (SORSI), *Oregon: A Statistical Overview 2002*, Benchmark #131: 1996-2000 Average Solid Waste Pounds per Capita, p.52 and Benchmark #133: 2000 "Recovered" Rate % Waste, p.52.[8]

Related State Benchmark

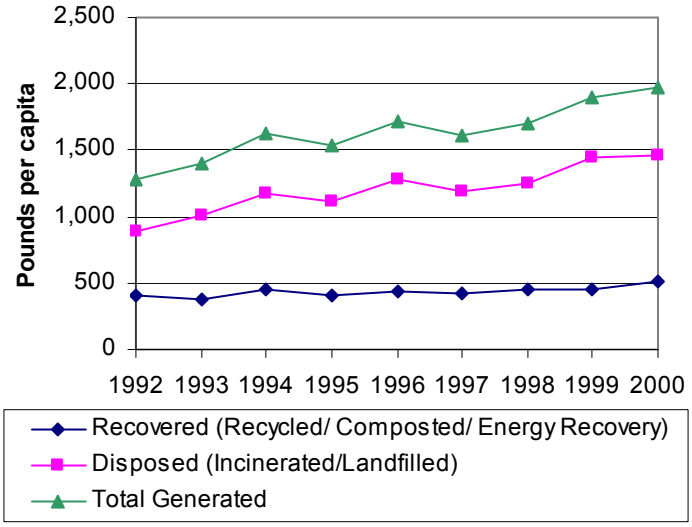
- Oregon Progress Board Benchmark #83

[8] This data also supports the following findings, showing that in 2000, Tillamook County's waste recovery rate was 25.7% while the State of Oregon's was 38.9%. Furthermore, the average solid waste generated per capita from 1996-2000 was 1343 pounds for Tillamook County and 1623 for the State.

Findings

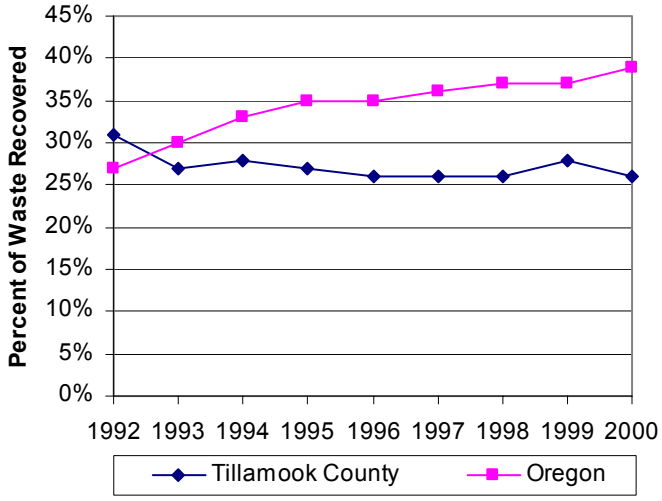
The Department of Environmental Quality's data, shown in Figure 2-5a, show that Tillamook County's pounds of solid waste generated and disposed of per capita have increased steadily since 1992, while the amount of waste recovered has increased only slightly. As a result, the county's waste recovery rate, shown in Figure 2-5b, has declined from 31% in 1992 to 26% in 2000, away from its goal of 30%. During this same time period, Oregon's recovery rate rose from 27% to 39%, closer to its goal of 50%.

Figure 2-5a
Waste Generated, Disposed, and Recovered in Tillamook County



Source: Oregon Department of Environmental Quality

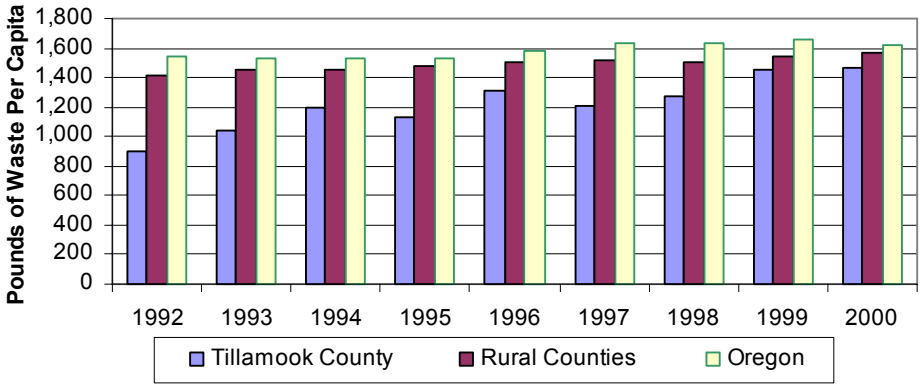
Figure 2-5b
Waste Recovery Rate



Source: Oregon Department of Environmental Quality

Data from the Oregon Progress Board shown in Figure 2-5c show that while the state and rural counties' solid waste disposed per capita has increased 5% and 12%, respectively, Tillamook County's per capita solid waste disposal has increased 62%, from 904 to 1466 pounds per capita during this time period. Tillamook County's disposal quantity is now nearly equal to that of other rural counties and the state.

Figure 2-5c
Pounds of Municipal Solid Waste Disposed of per Capita (1992-2000)



Source: Oregon Progress Board

CHAPTER 3: ECONOMY BENCHMARKS

ECONOMY BENCHMARKS

Introduction

Since Europeans settled Tillamook County in the mid-19th century, resource-based industries like logging, agriculture, and fishing have comprised virtually all of the county's economic input and output. Over the past 50 years, however, the county has seen a steadily diversifying economy, with significant growth in non-farm and forest industries. Much of this is due to the relatively recent increase in both tourism and second-home development as well as accompanying growth in the service sector. Although resource-based industries still comprise a substantial proportion of the county economy (lumber/wood products and food production account for 80% of all manufacturing employment, according to the Oregon Employment Department), the tourist industry provides more than 25% of Tillamook County's total year- round employment (Oregon Regional Services Institute, 1997). Moreover, the county experienced a 54% increase in tourism dollars between 1991 and 2000 (Dean Runyan Associates, 2002).

The views provided by Tillamook County residents during the Visioning process indicate a community that appreciates and nurtures its heritage but also has an eye on its economic future. Goal 3.1 of the Vision focuses on expanding existing businesses and industries while maintaining traditional resource-based industries. Goal 3.2 and 3.3 address two issues common to rural regions: low per capita income and little economic diversification. Residents also emphasized the importance of tourism, which is reflected in Goal 3.4: "promote economic growth through year-round family wage jobs in the tourism industry." Finally, Goal 3.5 expresses the community's desire to include the county's youth in economic development through appropriate education and hands-on experience.

About the Economy Benchmarks

For the most part, the benchmarks contained in this section evaluate standard economic indicators. Goal 3.1, expanding businesses while maintaining existing industries, is measured using net job growth and employment in the forest industry and farm sector. Per capita income, addressed in Goal 3.2, is measured in Benchmarks 3.4 through 3.7. These include the average annual payroll per covered worker, the county per capita income as a percentage of U.S per capita income, the percentage of the population below poverty level, and the number of county students receiving free or reduced-cost lunches. The goal of increased economic diversification is measured using the total unemployment rate, the designation of "distressed" areas, an economic diversification index, and employment trends. Travel spending in the County and the number of tourists visiting the Tillamook County Creamery measure growth in the tourism industry. Finally, Goal 3.5, which promotes youth in economic diversification efforts, is measured through the change in numbers of students completing vocational, supplemental, and preparatory classes at the local community college.

Below is a list of the goals that make up the Economy section of the Tillamook County 2020 Strategic Vision. Beneath each goal are the benchmark(s) the Futures Council has chosen to assess the goal.

Goal 3.1 Expand existing business and industries while maintaining traditional industrial base in forestry and agriculture.

Benchmark 3.1	Net Job Growth
Benchmark 3.2	Employment in the Forest Industry
Benchmark 3.3	Employment in the Farm Sector

Goal 3.2 Increase per capita income.

Benchmark 3.4	Average Annual Payroll per Covered Worker
Benchmark 3.5	Per Capita Income as a Percentage of the U.S. Per Capita Income
Benchmark 3.6	Percentage of Population Below Poverty Level
Benchmark 3.7	Number of Students Receiving Free or Reduced-Cost Lunches

Goal 3.3 Diversify the economy.

Benchmark 3.8	Total Unemployment Rate
Benchmark 3.9	Status of Tillamook County and its Cities as “Distressed Areas”
Benchmark 3.10	Employment Diversification

Goal 3.4 Promote economic growth through year-round family wage jobs in the tourism industry.

Benchmark 3.11	Tourism Spending and Employment in Tillamook County
Benchmark 3.12	Number of Tourists Visiting the Tillamook County Creamery

Goal 3.5 Include youth in local economic development by providing appropriate classroom and field based education and training.

Benchmark 3.13	Number of Students Enrolled in Vocational Supplementary or Preparatory Classes at Tillamook Bay Community College

Benchmark 3.1 Net Job Growth

Background

This benchmark relates to Goal 3.1 of the 2020 Strategic Vision:

> *Expand existing business and industries while maintaining traditional industrial base in forestry and agriculture.*

Reflecting recent demographic changes in the county, where greater numbers of second home - owners and seniors have entered the area, an astonishing 61% of survey respondents disagreed with the statement, "providing jobs is more important than protecting the environment." In addition to bringing a greater degree of pro-environment fervor to the county, this demographic movement has also increased employment in the trade and service industries (see Benchmark 3.9: Non-Farm Employment Trends).

Contrary to these survey results, however, community focus group meetings held during the Visioning process revealed many residents' ambivalence. Many long-time residents want to utilize the county's abundant natural resources, and they draw a fine line between preservation and conservation. On the other hand, local resistance to recent "pro-environment" initiatives, like increased riparian protection and a Portland-based movement to set aside the Tillamook State Forest from logging, indicates the county's desire to insure private property rights as well as maintain resource extraction industries. In addition, the commonly-held desire among residents to preserve farmland (see Benchmark 3.3: Employment in the Farm Sector) reflects the importance of the dairy industry to the community.

Regardless of disparate attitudes concerning resource protection verses utilization, virtually all county residents indicated an over-riding priority to expand Tillamook County's job base. Residents recognize that job growth ultimately enhances the vitality of businesses operating in the county and, consequently, the county's economic well-being. This benchmark measures overall job growth in the Tillamook County. The benchmarks that follow, 3.2 and 3.3, focus on job growth in the resource-based farm and forest industries.

This update provides new data on job growth and an additional indicator (SORSI) for this benchmark.

Data Source

Data were obtained for this benchmark through:

- Oregon Progress Board, *2001 County Data Book*, September 2002, Benchmark #4: Net Job Growth (Loss) per 1,000 Population, p.2. www.econ.state.or.us/opb
- Southern Oregon Regional Services Institute (SORSI), *Oregon: A Statistical Overview 2002*, Benchmark #26: 1996-2000 Avg. Net Job Growth per 1,000, p. 8.

Related State Benchmark

- Oregon Progress Board Benchmark #4.

Findings

Because job growth rates fluctuate rapidly from year to year, it is important to evaluate long-term trends. Data from the Oregon Progress Board shown in Table 3-1 and Figure 3-1 indicate consistent job growth in Tillamook County from 1990 to 2000. Since the 2000 Benchmarks Report, the average net job growth rate has dropped slightly for Tillamook, rural counties, and the state. The net job growth rate in Tillamook County, however, still remains lower than the state rate, but higher when compared with other rural Oregon counties. On average from 1990 to 2000, Tillamook County added 9.2 jobs per 1,000 eligible workers, while other rural counties added only 6.3 jobs, but statewide approximately 12.1 jobs were added per 1,000 eligible workers.

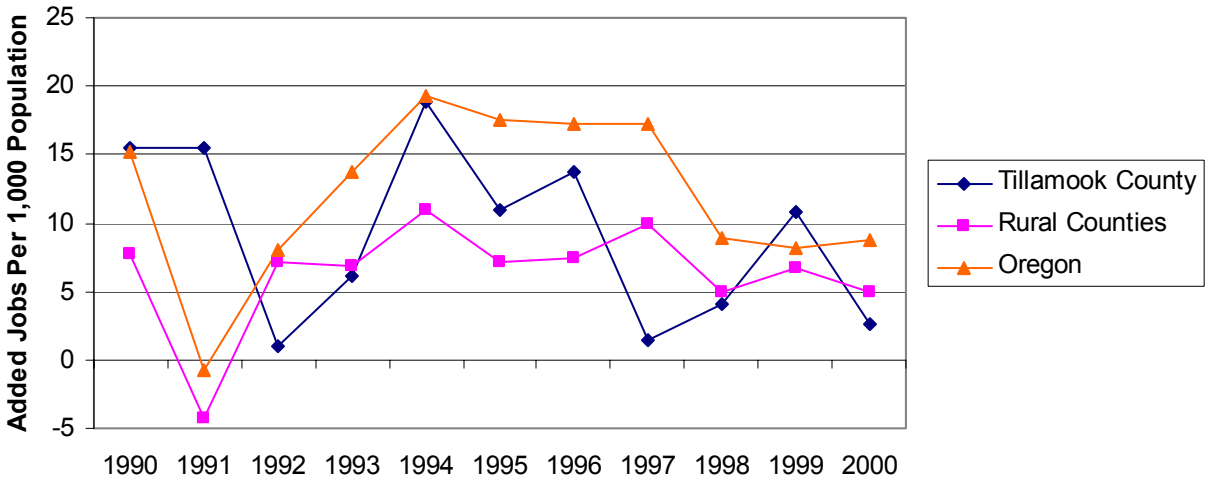
SORSI provides an additional indicator on net job growth. This source indicates that the average net job growth over the 1996-2000 period was 6.6 per 1,000 for Tillamook County as compared with 12.2 per 1,000 for the state.

Table 3-1
Net Job Growth per 1,000 Eligible Workers in Tillamook County, Rural Oregon Counties, and the State of Oregon (1990–2000)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	Average
Tillamook County	15.5	15.5	1.0	6.1	18.9	10.9	13.8	1.5	4.1	10.8	2.6	9.2
Rural Counties	7.8	-4.3	7.2	6.9	10.9	7.1	7.4	10.0	4.9	6.7	4.9	6.3
Oregon	15.2	-0.7	8.0	13.7	19.3	17.6	17.2	17.3	8.9	8.2	8.8	12.1

Source: Oregon Progress Board

Figure 3-1
Net Job Growth per 1,000 Eligible Workers in Tillamook County, Rural Oregon Counties, and the State of Oregon (1990–2000)



Source: Oregon Progress Board

Benchmark 3.2 Employment in the Forest Industry

Background

This benchmark relates to Goal 3.1 of the 2020 Strategic Vision:

> *Expand existing business and industries while maintaining traditional industrial base in forestry and agriculture.*

Since the turn of the century, Tillamook County forests have fueled a significant portion of the county economy. Today, more than 90% of the county is zoned for forest use, and the industry still provides nearly 40% of all manufacturing jobs. In recent years, forest management throughout the Pacific Northwest has come under increasing scrutiny from the environmental community. This has led to concern among the forest products industry that an increasing acreage of land may be set aside from timber harvest to benefit salmonids, spotted owls, and other threatened and endangered wildlife. However, the Oregon Department of Forestry and the County Commissioners have committed to consistent timber production from the Tillamook State Forest. From these indications, it is clear that, although timber harvests may never again reach historical levels, logging will continue in the forests of Tillamook County.

This benchmark addresses a portion of Goal 3.2, maintaining the industrial base in forestry. Specifically, it examines levels of employment in the wood products industry and per capita income earned by wood products employees.[9]

Following are updated data for this benchmark.

Data Source

Data were obtained for this benchmark through:

- Oregon Employment Department, Oregon Labor Market Information System (OLMIS), "Covered Employment and Payroll: Lumber and Wood Products: Tillamook County." (http://www.olmis.org) Salary information was converted into 2000 dollars using the Bureau of Labor Statistics' Inflation Calculator http://www.bls.gov/ .

Related State Benchmark

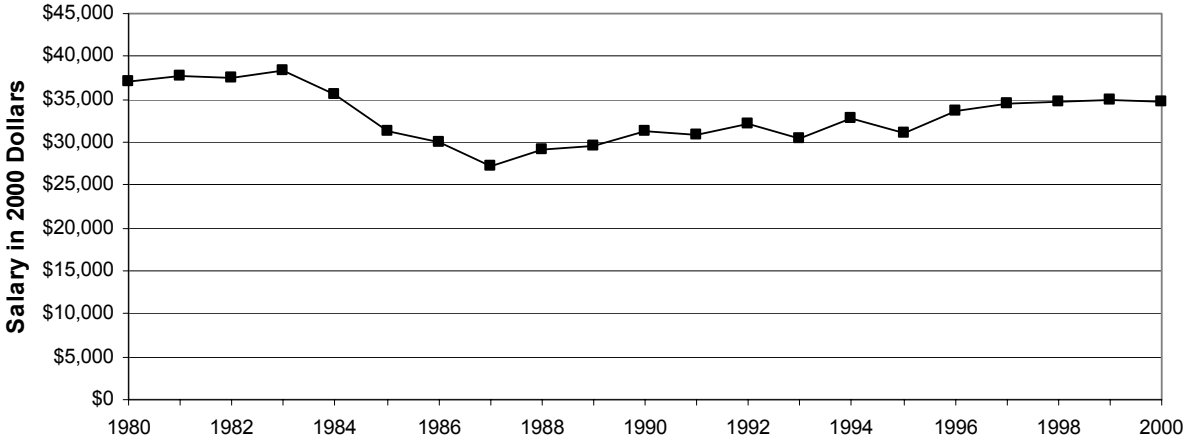
- None

[9] This benchmark omits some minor sectors of the forest industry. Please see Appendix B for details.

Findings

Since the 2000 Benchmarks Report, data from the Oregon Employment Department show that the average annual pay for employees in the lumber and wood manufacturing industries rose steadily in the early and mid-1990s. The late 1990s saw a stagnation of wage increases in lumber and wood manufacturing. Figure 3-2a shows that in 2000, the average annual pay was approximately $34,714—about $2,400 higher (unadjusted) than in 1995.

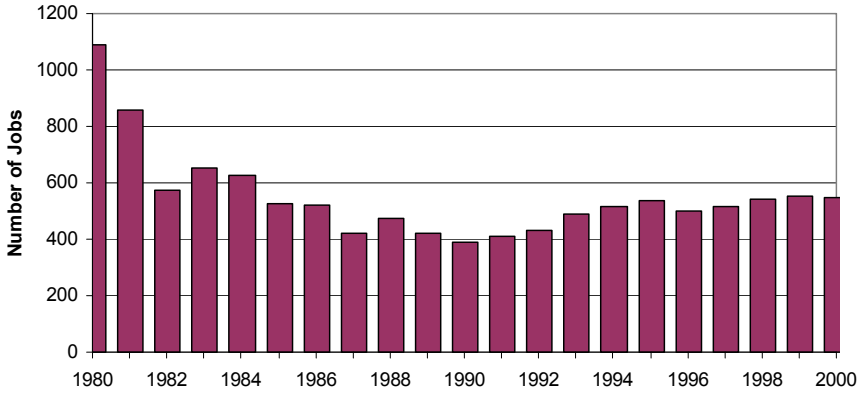
Figure 3-2a
Annual Pay (in 2000 Dollars) for Lumber and Wood Manufacturing Jobs in Tillamook County (1980-2000)



Source: Oregon Employment Department

Employment in timber manufacturing has improved gradually over the last five years after dropping below 500 in 1996, as shown in Figure 3-2b. In the last few years, employment has leveled off at around 550 jobs. These data provide only a subset of the total number of timber-related jobs, but this benchmark continues to indicate that employment is steady, and salaries are improving.

Figure 3-2b
Manufacturing Jobs in Lumber and Wood in Tillamook County (1980-2000)



Source: Oregon Employment Department

Benchmark 3.3 Employment in the Farm Sector

Background

This benchmark relates to Goal 3.1 of the 2020 Strategic Vision:

> *Expand existing business and industries while maintaining traditional industrial base in forestry and agriculture.*

In addition to tourist dollars generated from the Tillamook County Creamery's 800,000 to 1 million annual visitors, the dairy industry's production comprises a critical portion of the Tillamook County economy. It is not surprising then that during the Visioning process, 72% of respondents to the Futures Council household survey agreed that protecting farmland is essential to the county's economy. It is interesting to note that the negative image of logging as revealed in the survey—61% of respondents disagreed with the statement, "providing jobs is more important than protecting the environment" and 57% disagreed with the statement "clearcutting is a necessary forest practice" is not seen for the dairy industry. This reflects Tillamook County's primary identity as a dairy community.

Rather than measuring only agricultural employment, which does not include the dairy industry, this benchmark measures total employment in the farm sector. The more traditional economic indicator of employment in the agricultural industry is a subset of farm data and is also provided in the findings.

Following are updated data for this benchmark.

Data Source

Data were obtained for this benchmark through:

- Oregon Employment Department, Oregon Labor Market Information System (OLMIS), "Total Agricultural Employment by Calendar Year: Revised Series 1990-2001, '01 Benchmark: Tillamook County." www.olmis.org
- Oregon Employment Department, Oregon Labor Market Information System (OLMIS), "Research and Analysis: Tillamook County 1991-2001." www.olmis.org Figures for total farm employment were calculated by subtracting non-farm employment from total employment.

Related State Benchmark

- None

Findings

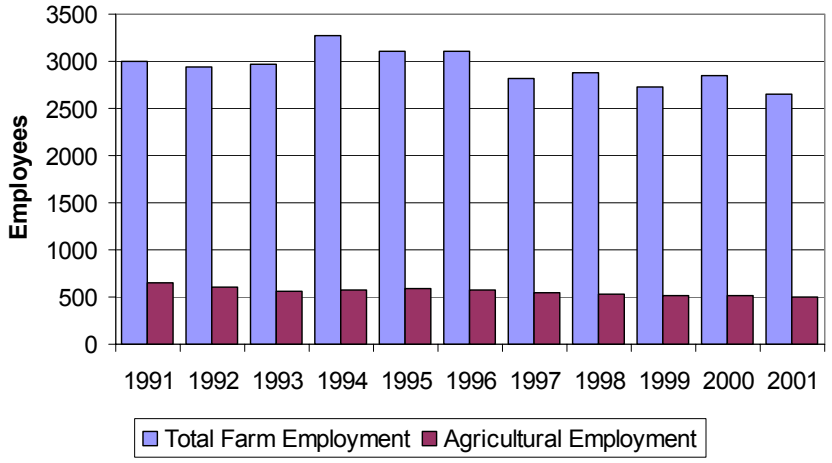
Table 3-3 and Figure 3-3 show that total farm employment and agricultural employment have decreased somewhat since the 2000 Benchmarks Report. In 1991, farm employment comprised approximately 33 percent of total employment in Tillamook County. By 2001, this figure dropped to 25 percent. Agricultural employment also dropped from approximately 7 percent to 5 percent of total employment during this decade.

Table 3-3
Total Employment and Employment in the Farm Sector in Tillamook County (1991–2001)

		Total Farm Emp		Agricultural Emp	
Year	Total Emp	Number	Percent of Total Emp	Number	Percent of Total Emp
1991	9,210	3,000	33%	650	7%
1992	9,400	2,940	31%	600	6%
1993	9,580	2,970	31%	560	6%
1994	10,350	3,280	32%	580	6%
1995	10,360	3,110	30%	590	6%
1996	10,730	3,110	29%	570	5%
1997	10,390	2,820	27%	540	5%
1998	10,540	2,880	27%	530	5%
1999	10,661	2,731	26%	520	5%
2000	10,789	2,849	26%	520	5%
2001	10,552	2,652	25%	505	5%
Change 1991-2001					
Number	1,342	-348		-145	
Percent	14.6%	-11.6%		-22.3%	

Source: Oregon Employment Department

Figure 3-3
Tillamook County Employment in the Agricultural Sector (1991–2001)



Source: Oregon Employment Department

Benchmark 3.4 Average Annual Payroll per Covered Worker

Background

This benchmark relates to Goal 3.2 of the 2020 Strategic Vision:

Increase per capita income.

Sound wages are at the core of a healthy economy. With declining numbers of jobs in natural resource industries, Oregon's rural counties face challenges providing family wage jobs to many of their residents. During the Visioning process, residents emphasized the importance of economic diversification and family wage employment opportunities.

This benchmark complements Benchmark 3.5: Average Annual Per Capita Income. The average annual payroll per covered worker measures the total payroll for all industries divided by the annual average employment in these industries. According to the Oregon Progress Board, "this approach helps evaluate how each worker is fairing rather than just charting personal income, which may include two-worker families." In addition, per capita income will improve as more individuals become employed. This measurement evaluates the income in the county independent of total employment or household size.

This update provides recent information for this benchmark from the Oregon Progress Board as well as additional indicators from the Oregon Employment Department and SORSI.

Data Source

Data were obtained for this benchmark through:

- Oregon Progress Board, *2001 County Data Book*, September 2002, Benchmark #12: Average Annual Payroll per Covered Worker (All Industries) in 1995 Dollars, p.8. www.econ.state.or.us/opb
- Oregon Employment Department, Oregon Labor Market Information System (OLMIS), "Research and Analysis: Tillamook County 1991-2001: Average Covered Wage." www.olmis.org
- Southern Oregon Regional Services Institute (SORSI). *Oregon: A Statistical Overview 2002*, Benchmark #36: 1996-2000 Avg. Annual Pay per Covered Worker in 1995 dollars, page 10.

Related State Benchmark

- Oregon Progress Board Benchmark #12

Findings

Table 3-4 summarizes the (adjusted) average annual payroll per covered worker from 1990 to 2000. This table shows that while the state, rural counties, and Tillamook County have all seen increases in average payroll, the gap between the average payroll in Tillamook County and in the state has continued to grow over the last decade. In 2000, Tillamook County workers earned about 73 percent of the statewide average and about 97 percent of the rural counties' average.

Table 3-4
Adjusted (in 1995 Dollars) Average Annual Payroll per Covered Worker (1990–2000)

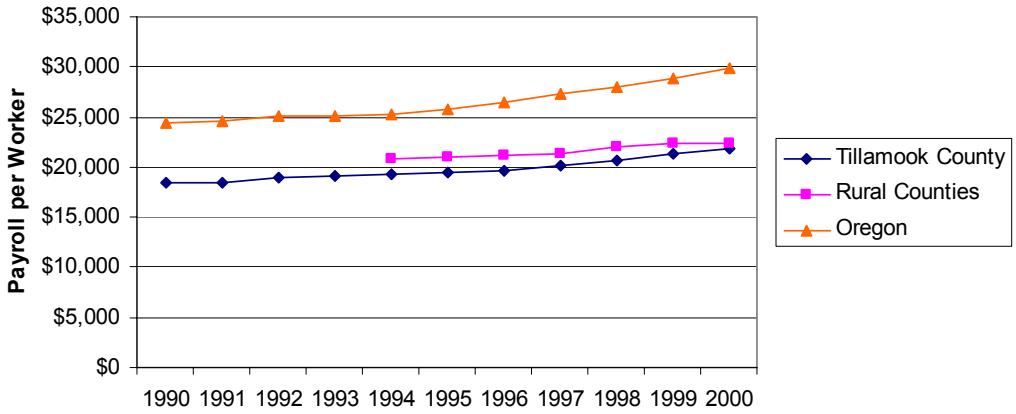
Year	Tillamook County	Rural Counties	Oregon	Tillamook-Oregon Difference
1990	$18,409	N/A	$24,376	($5,967)
1991	$18,374	N/A	$24,613	($6,239)
1992	$18,958	N/A	$25,129	($6,171)
1993	$19,195	N/A	$25,141	($5,946)
1994	$19,349	$20,842	$25,349	($6,000)
1995	$19,485	$20,967	$25,837	($6,352)
1996	$19,598	$21,116	$26,463	($6,865)
1997	$20,182	$21,414	$27,281	($7,099)
1998	$20,690	$22,001	$28,077	($7,387)
1999	$21,267	$22,399	$28,857	($7,590)
2000	$21,787	$22,442	$29,843	($8,056)

Source: Oregon Progress Board

Figure 3-4 graphically shows that, although wages for workers in both Tillamook County and other rural counties have improved throughout this decade, the rate of growth in rural counties clearly continues to lag behind the state as a whole. Data from the Oregon Employment Department also shows this trend of a widening gap between Tillamook and Oregon as a whole.

SORSI provides another indicator that shows the rural-urban disparity for this benchmark. These data show that the 5-year average (1996-2000) annual covered payroll for Tillamook County was $20,705 as compared with $28,104 for the state of Oregon during that time period.

Figure 3-4
Adjusted Average Annual Payroll per Covered Worker (1990–2000)



Source: Oregon Progress Board

Benchmark 3.5 Per Capita Income as a Percentage of U.S. Per Capita Income

Background

This benchmark relates to Goal 3.2 of the 2020 Strategic Vision:

> *Increase per capita income.*

During the Visioning process, it became clear that Tillamook County residents place a high priority on increasing the number of family wage jobs available in the county. The average income of the individual is a reflection of the health of a region's economy. In addition to Benchmark 3.4: Average Annual Payroll per Covered Worker, this benchmark helps assess the county's success in raising the earning power of county residents relative to other regions in Oregon and the U.S. as a whole. Per capita income is determined by dividing the total personal income by the total population.

Following are updated data for this benchmark from the Oregon Progress Board as well as an additional indicator from SORSI.

Data Source

- Oregon Progress Board, *2001 County Data Book*, September 2002, Benchmark #11: Per Capita Personal Income as a Percentage of the US Per Capita Income (US=100%), p.6. www.econ.state.or.us/opb

- Southern Oregon Regional Services Institute (SORSI). *Oregon: A Statistical Overview 2002*, Benchmark #31: 1995-1999 Avg. Personal Income per Capita % US per Capita Income, p. 9.

Related State Benchmark

- Oregon Progress Board Benchmark #11

Findings

Table 3-5 and Figure 3-5 show the per capita incomes as percentages of the US per capita income for Tillamook County, rural Oregon counties, and Oregon. Like Benchmark 3.4 on the previous pages, this benchmark indicates that Tillamook County and other rural Oregon counties have not shared in the growing prosperity of the state's more urbanized regions. Although the Oregon per capita income was still six percent below that of the U.S. in 2000, it remains nearly 20% higher than that of Tillamook County and other rural counties.

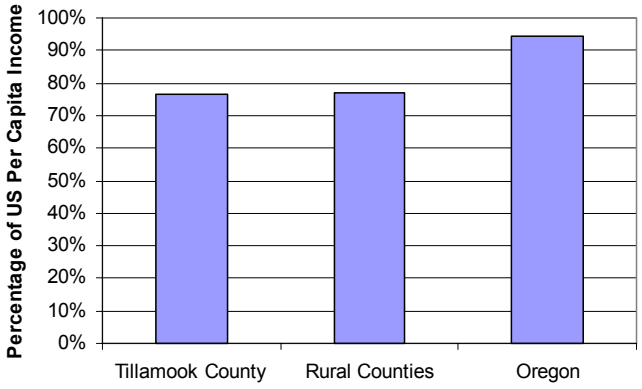
Data from SORSI reinforces this trend, showing that Tillamook County's average personal income per capita from 1995 to 1999 was 75.6% that of US per capita income, whereas the state's average was 95.5% of the national per capita income.

Table 3-5
Per Capita Income as a Percentage of the U.S. Per Capita Income (1990–2000)

Year	Tillamook County	Rural Counties	Oregon
1990	76%	78%	93%
1991	77%	78%	94%
1992	75%	78%	93%
1993	75%	78%	94%
1994	77%	78%	95%
1995	76%	78%	96%
1996	78%	77%	96%
1997	77%	77%	96%
1998	77%	76%	95%
1999	77%	75%	94%
2000	76%	74%	94%
Average, 90-00	76%	77%	95%

Source: Oregon Progress Board

Figure 3-5
Five Year Average Per Capita Income as a Percentage of the U.S. Per Capita Income (1993–1997)



Source: Oregon Progress Board

Benchmark 3.6 Percentage of Population Below Poverty Level

Background

This benchmark addresses Goal 3.2:

Increase per capita income.

Living below the poverty level often means a family will not have adequate funds to afford vital living expenses like food, shelter, and health services. The state of Oregon has undertaken a comprehensive effort involving a number of state agencies to reduce poverty in both urban and rural areas. This benchmark provides the third evaluation of per capita income in Tillamook County by examining both the percentage of the total population living below the Federal poverty line and the percentage of the population with incomes below 100% of the Federal poverty line. Over time, this benchmark will assess the effectiveness of state and county efforts to reduce poverty in Oregon and Tillamook County.

Following are updated data from the Oregon Progress Board and the Department of Human Services. Data from SORSI are also included as additional indicators for this benchmark.

Data Source

Data were obtained for this benchmark through:

- Oregon Progress Board, *2001 County Data Book*, September 2002, Benchmark #53: Percent of Oregonians with Incomes Below 100% of the Federal Poverty Level, p.54. www.econ.state.or.us/opb
- Southern Oregon Regional Services Institute (SORSI). *Oregon: A Statistical Overview 2002*, Benchmark #46: 1993-1998 Avg. Persons in Poverty % Population, p. 12.
- Oregon Department of Human Services, Children, Adults and Families Programs, Reports and Publications, Historical Program Information, Public Assistance Branch and Service Delivery Data, "Historical Program Information by Branch and County: State of Oregon Public Assistance Data by County." (http://www.afs.hr.state.or.us/papage.html) Data on the "estimated population of the county" and the "estimated persons below poverty" in Section A of this table were collected for each month and then averaged to get annual percentages of persons below poverty.
- US Department of Health and Human Services, poverty guidelines (definition of poverty) http://aspe.hhs.gov/poverty/03poverty.htm.

Related State Benchmark

- Oregon Progress Board Benchmark #53

Findings

Table 3-6 shows the Department of Human Services' data on the percentage of those living below the poverty line in Tillamook County and Oregon. From 1992 through 1997, Tillamook County had a poverty rate higher than that of the state. In more recent years, however, this gap has begun to close.

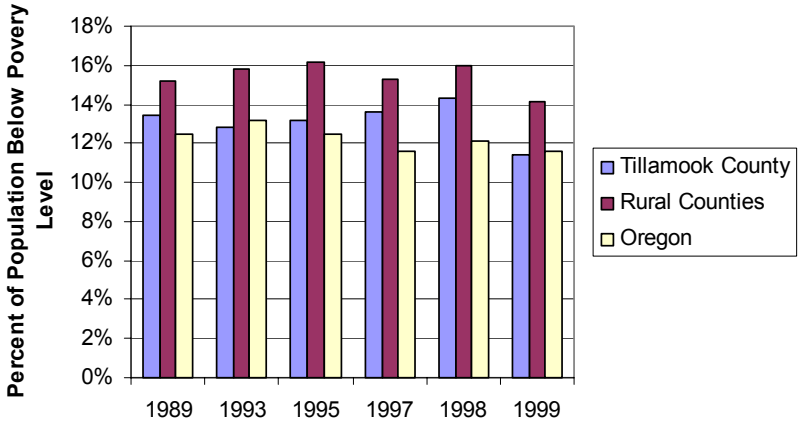
Table 3-6
Percentage of Total Population Below Poverty in Tillamook County and Oregon (1990–2002)

Year	Tillamook County	Oregon
1990	9.7%	10.2%
1991	9.7%	10.1%
1992	14.1%	12.0%
1993	15.0%	12.4%
1994	15.0%	12.4%
1995	15.0%	12.4%
1996	15.0%	12.4%
1997	13.2%	13.0%
1998	12.8%	13.1%
1999	11.6%	11.7%
2000	11.7%	11.7%
2001	13.6%	11.6%
2002	12.0%	11.4%

Source: Oregon Department of Human Services

Figure 3-6 graphically shows the Oregon Progress Board's poverty data for the state, rural counties, and Tillamook County. Tillamook County has consistently had a lower poverty rate than other rural Oregon counties. The percent of population with incomes below the Federal poverty line has dropped recently in Tillamook County, rural counties, and Oregon.

Figure 3-6
Percent of Population with Incomes Below 100% of the Federal Poverty Level



Source: Oregon Progress Board

Benchmark 3.7 Number of Students Receiving Free or Reduced-Cost Lunches

Background

This benchmark addresses Goal 3.2:

Increase per capita income.

Benchmark 3.7 provides the final benchmark that the Futures Council has chosen to use in assessing per capita income. By examining the numbers of students in need of assistance for school lunches, this benchmark aims to evaluate the effect of increasing (or decreasing) income levels on Tillamook County families. In doing so, this benchmark also helps gauge the number of family wage jobs available to Tillamook County residents.

In order to qualify for the free or reduced lunch program, a family must meet a set of standards for income level and family size established by the U.S. Department of Agriculture. Table 3-7 shows USDA family income and size standards that determine eligibility for school lunch programs.

Table 3-7a
USDA Family Earnings and Size Standards for School Lunch Programs in 2002-2003 School Year

Family Size	1	2	3	4	5	6	7	8
Annual Income to Quality for Free Lunch	$11,518	$15,522	$19,526	$23,530	$27,534	$31,538	$35,542	$39,546
Annual Income to Quality for Reduced-Price Meals	$16,391	$22,089	$27,787	$33,485	$39,183	$44,881	$50,579	$56,277

Source: Oregon Department of Education

Following are updated data obtained from the Oregon Department of Education Child Nutrition Programs.

Data Source

- Oregon Department of Education, Office of Student Services, Child Nutrition Programs, "Income Elegibility Guildlines July 2002-June 2003," Form 3511-E (Rev 3-02). http://www.ode.state.or.us/nutrition/

- Heidi Dupuis, Nutrition Specialist, Oregon Department of Education Child Nutrition Programs.

Related State Benchmark

- None

Findings

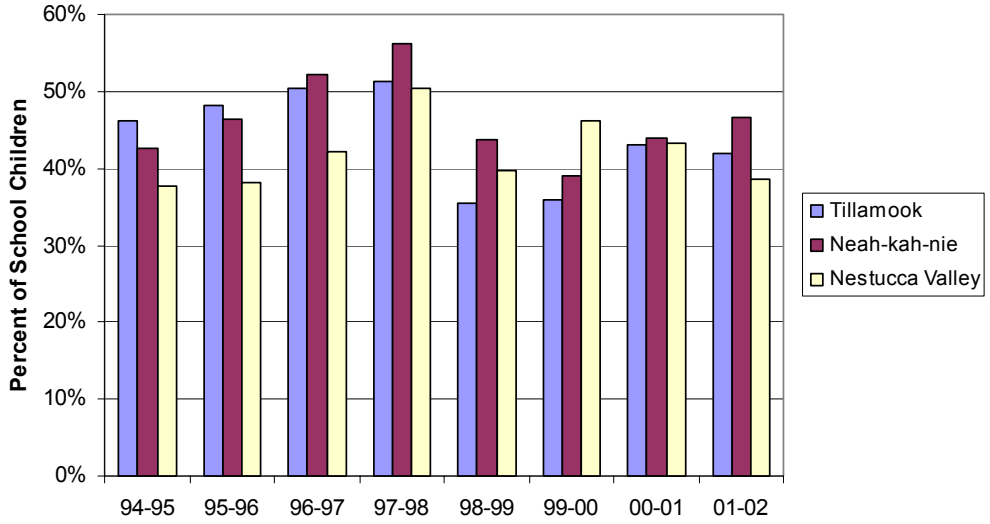
Table 3-7b and Figure 3-7 show that between the 1994-95 and 1997-98 school years, increasing numbers of students received free or reduced-cost lunches in each of Tillamook County's three school districts. There was a dramatic drop in the number of students receiving free or reduced-cost lunches between the 97-98 and the 98-99 school years. This may be due to external factors—such as resources available for these programs or data collection methods. From 1998 to the present, the total percent of Tillamook County students receiving free or reduced-cost lunches has increased by 4.4%.

Table 3-7b
Percentage of Tillamook County School Children by School District Receiving Free or Reduced-Cost Lunches (1994–2002)

School District	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
Tillamook	46.1%	48.1%	50.3%	51.2%	35.4%	35.8%	43.1%	41.8%
Neah-kah-nie	42.6%	46.5%	52.1%	56.3%	43.7%	39.1%	43.9%	46.7%
Nestucca Valley	37.8%	38.2%	42.1%	50.5%	39.7%	46.1%	43.2%	38.7%
Total					37.9%	38.3%	43.3%	42.3%

Source: Oregon Department of Education

Figure 3-7
Percentage of Tillamook County School Children by School District Receiving Free or Reduced-Cost Lunches (1994–2002)



Source: Oregon Department of Education

Benchmark 3.8 Total Unemployment Rate

Background

This benchmark relates to Goal 3.3 of the 2020 Strategic Vision:

Diversify the economy.

As discussed throughout this chapter, local residents place a high value on the creation of family wage jobs and economic diversification. This benchmark assesses economic diversification throughout our communities by measuring unemployment across all sectors of the county economy. By doing so, it complements Benchmark 3.9: Non-farm Employment Trends, which focuses on trends within specific industries operating throughout the county. By combining these two benchmarks, policy makers can track the big picture (total unemployment) as well as how it plays out in specific facets of the local economy (labor trends).

Following is an update of the Oregon Progress Board data for this benchmark. Data from the Oregon Employment Department and SORSI have been added as additional indicators for this benchmark.

Data Source

Data were obtained for this benchmark through:

- Oregon Employment Department (OLMIS), Unemployment Division, "Annual Average Unemployment Rates 1980-2001." www.olmis.org

- Oregon Progress Board, *2001 County Data Book*, September 2002, Benchmark #15: Oregon Unemployment Rate as a Percent of US Unemployment Rate, p.10. www.econ.state.or.us/opb

- Southern Oregon Regional Services Institute (SORSI). *Oregon: A Statistical Overview 2002*, Benchmark #27: 2000 Average Annual Unemployment Rate, Benchmark #28: 1996-2000 Avg. Unemployment Rate % US Unemployment. Rate, p. 12.

Related State Benchmark

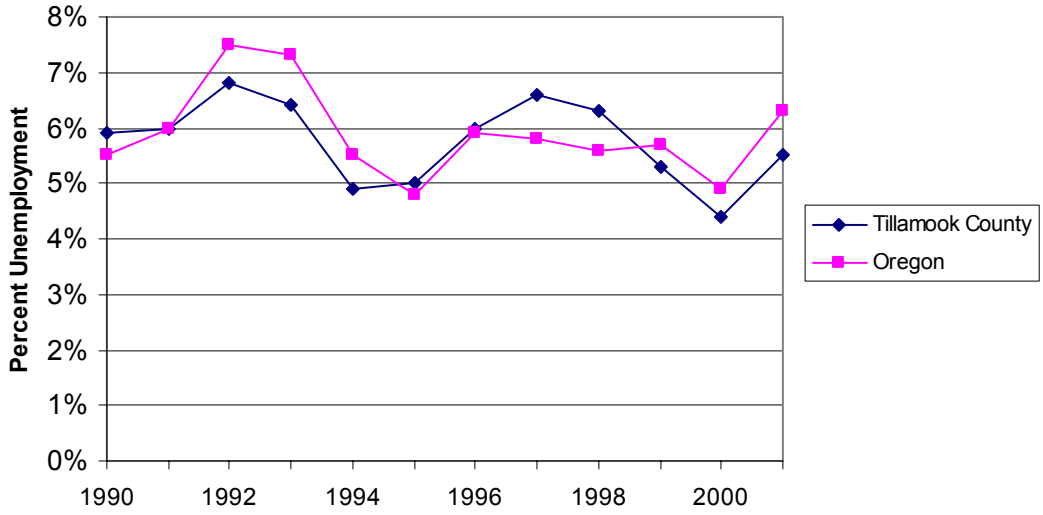
- Oregon Progress Board Benchmark #15

Findings

As Figure 3-8 indicates, the average unemployment rate in Tillamook County and in Oregon fluctuated throughout the 1990s and has risen recently. In 2001, the County's unemployment rate was 5.5%, while the state's was 6.3%. Table 3-8 provides another indicator on unemployment trends by showing the unemployment rate as a percent of the national unemployment rate for Tillamook County, rural counties, and the state. For the last five years, all three areas have been well above the national unemployment rate. Tillamook County and the state have consistently had lower unemployment rates than rural Oregon counties on average. It is important to note that these figures are not seasonably adjusted and do not necessarily represent the year-round employment situation fully.

SORSI provides two additional indicators for this benchmark. These data show that in 2000, Tillamook County's unemployment rate was 4.4% while Oregon's was 4.9%. They also show that the 1996-2000 average unemployment rate as a percent of the US unemployment rate was 124.4% for Tillamook County, while it was 122.1% for Oregon as a whole.

Figure 3-8
Unemployment Rate (1990–2001)



Source: Oregon Employment Department

Table 3-8
Unemployment Rate as a Percentage of US Unemployment Rate (1990–2000)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Tillamook County	105.4%	88.2%	90.7%	92.8%	80.3%	89.3%	111.1%	134.7%	140.0%	126.2%	110.0%
Rural Counties	133.9%	110.3%	128.0%	132.0%	127.9%	130.4%	164.8%	181.6%	186.7%	192.1%	167.3%
Oregon	98.2%	88.2%	100.0%	105.8%	90.2%	85.7%	109.3%	118.4%	124.4%	135.7%	122.5%

Source: Oregon Progress Board

Benchmark 3.9 Status of Tillamook County and its Cities as "Distressed Areas"

Background

This benchmark relates to Goal 3.3 of the 2020 Strategic Vision:

Diversify the economy.

At least every two years, the Oregon Economic and Community Development Department (OECDD) assesses which counties and cities are "distressed" areas. These areas receive priority assistance from the department.

The index that OECDD uses to determine which areas are in particular need is calculated on eight parameters: unemployment rate, per capita personal income, average pay per worker, population change, percent of population receiving unemployment insurance benefits, industrial diversity based on distribution of employment by industry, percent of families in poverty, employment change. The statewide index is 1.00. An index greater than 1.20 for counties and/or 1.25 for cities in non-distressed counties designates these areas as "distressed."

This new benchmark added by the Futures Council in December 2002 provides a good overview of the general health of Tillamook County's economy. Following are data from OECDD's March 2002 analysis.

Data Source

Data were obtained for this benchmark through:

- Oregon Economic and Community Development Department, Economic Data, "Distressed Areas and Associated Index Values as of March, 2002" www.econ.state.or.us/distarea.htm.

Related State Benchmark

- None

Findings

As of March 2002, Tillamook County is not one of the 19 Oregon counties that is designated a distressed area. This indicates that Tillamook index value is below 1.20, and that in general, the county's economy is healthy as compared to the rest of Oregon. There are three cities, however, in Tillamook County which are considered distressed. As Table 3-9 indicates, Nehalem is the most distressed of these three cities, with an index value of 1.73. These three areas may be locations where the Futures Council wants to specifically examine how it can promote a strong economy.

Table 3-9
Distressed Areas in
Tillamook County as of March 2002

Distressed Areas	Index Value
Garibaldi	1.48
Nehalem	1.73
Tillamook	1.59

Source: Oregon Economic and Community Development Department

Benchmark 3.10 Employment Diversification

Background

This benchmark relates to Goal 3.3 of the 2020 Strategic Vision:

Diversify the economy.

As discussed in other benchmarks throughout this chapter, family wage jobs are a vital component of economic health. At present, Tillamook County desires to expand the number of family wage jobs that are available to its residents. One may hypothesize that limited family wage jobs resulted in 76% of local residents agreeing with the survey statement, "Tillamook County needs a more diversified employment base." Despite the agreement concerning the need for economic diversification and high-paying jobs, the Visioning process revealed a range of opinions regarding the types of businesses and industries that local policy makers should promote. Many residents wanted to focus on maintaining and expanding opportunities in traditional industries like logging, fishing, and agriculture. Others expressed concern about the environmental degradation that can occur as a result of these industries and wanted to pursue less resource-dependent development opportunities.

An economic diversification index is an indicator that measures how closely a county's employment distribution resembles that of Oregon and the US. The more closely a region's economy reflects the reference region (state or country), the higher the value of the Hachman Index. This index has a maximum value of one—meaning that the county's employment mix is exactly the same as the state's or the US's. This index is defined as follows:

$$HI_t=1/(j(EMP_{CTYjt}/EMP_{STATEJT})*(EMP_{CTYjt}))$$

Where EMP_{CTYjt} is the share of the county's employment in industry j in year t, and $EMP_{STATEjt}$ is the share of the state's (or nation's) employment in industry j in year t.

This new benchmark added in December 2002 provides a snapshot view of the diversity of Tillamook County's employment base.

Data Source

Data were obtained for this benchmark through:

- Oregon Employment Department, (OLMIS), Feature Article, September 2001, "An Application of the Hachman Economic Diversification Index To Oregon Counties," www.olmis.org.
- Oregon Employment Department, Oregon Labor Market Information System (OLMIS), "Research and Analysis: Tillamook County 1991-2001." www.olmis.org Figures for farm employment were calculated by subtracting non-farm employment from total employment.

Related State Benchmark

- None

Findings

Table 3-10a shows that Tillamook County ranks 18th out of Oregon's 36 counties in terms of the diversity of its employment opportunities. When compared with the US as a reference base, Tillamook County ranks 22nd out of the 36 counties. Theoretically, more diverse economies are more stable and are negatively correlated with variation in job growth rates.

Table 3-10a
Hachman Economic Diversification Index for Tillamook County with Oregon and the US as Reference Bases, 1999

	Oregon Base		US Base	
	Rank	Value	Rank	Value
Tillamook County	18	0.4023	22	0.1055

Source: Oregon Employment Department

Table 3-10b shows the diversity of employment by sector. Comparing the jobs of Tillamook County in 1991 with 2001 shows some remarkable changes. Clearly, non-farm employment now represents a bigger portion of all employment opportunities in the county. In addition, non-manufacturing jobs now represent more than 60% of all jobs in the county, while manufacturing jobs represent about 14%.

Table 3-10b
Tillamook County Employment by Sector 1991-2001

	1991		2001		Change 91-01	
	Number	Percent of Total	Number	Percent of Total	Number	Percent
Farm Employment	**3,000**	**32.6%**	**2,652**	**25.1%**	**-348**	**-11.6%**
Non Farm Employment	**6,210**	**67.4%**	**7,900**	**74.9%**	**1,690**	**27.2%**
Manufacturing	1,060	11.5%	1,510	14.3%	450	42.5%
Durable Goods	520	5.6%	710	6.7%	190	36.5%
Lumber and Wood Products	420	4.6%	560	5.3%	140	33.3%
Other Durable Goods	100	1.1%	150	1.4%	50	50.0%
Nondurable Goods	540	5.9%	800	7.6%	260	48.1%
Food and Kindred Products	470	5.1%	720	6.8%	250	53.2%
Other Nondurable Goods	70	0.8%	80	0.8%	10	14.3%
Nonmanufacturing	5,150	55.9%	6,390	60.6%	1,240	24.1%
Construction and Mining	200	2.2%	340	3.2%	140	70.0%
Transportation and Public Utilites	230	2.5%	240	2.3%	10	4.3%
Trade	1,650	17.9%	1,840	17.4%	190	11.5%
Finance, Insurance and Real Estate	220	2.4%	320	3.0%	100	45.5%
Services	1,310	14.2%	1,830	17.3%	520	39.7%
Government	1,540	16.7%	1,830	17.3%	290	18.8%
Total Employment	**9,210**		**10,552**		**1,342**	**14.6%**

Source: Oregon Employment Department

Benchmark 3.11 Tourism Spending and Employment in Tillamook County

Background

This benchmark relates to Goal 3.4 of the 2020 Strategic Vision:

> *Promote economic growth through year-round family wage jobs in the tourism industry.*

Tourism is a central part of Tillamook County's economy. It contributes to local business earnings, local and state tax revenues, and provides employment opportunities. Tillamook County's world-famous Creamery along with its scenic location on the Oregon Coast draw tourists year-round.

This is a new benchmark added by the Futures Council in December 2002. Council members feel it is important to track how much tourism is contributing to the local economy. Data for this benchmark are from reports generated for the Oregon Tourism Commission by a Portland consulting firm, Dean Runyan Associates.

Data Source

Data were obtained for this benchmark through:

- Dean Runyan Associates, Travel Data, Oregon Travel Data "Oregon Travel Impact by County, 2001," "Oregon Travel Spending by County 1991-2001," "Detailed County Impacts," "Oregon Travel Impacts 1991-2001," www.deanrunyan.com. Amounts in the "Oregon Travel Spending by County 1991-2001" data were converted to 2000 dollars using the Bureau of Labor Statistics's Inflation Calculator http://www.bls.gov/.

- Oregon Employment Department, Oregon Labor Market Information System (OLMIS), "Research and Analysis: Tillamook County 1991-2001: Average Covered Wage." www.olmis.org These data on total county employment were used to calculate the percent of employment resulting from travel spending as a percent of total employment.

Related State Benchmark

- None

Findings

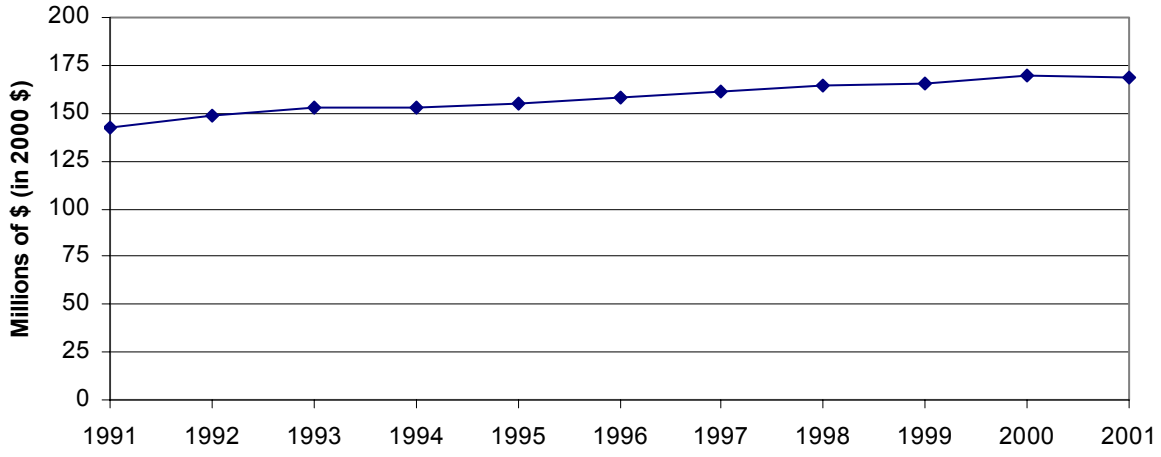
Figures 3-11a and 3-11b shows that travel spending in Tillamook County and in the state of Oregon has steadily increased from 1991 to 2001—although it has grown at a greater rate (5.7%) for the state than for Tillamook County (4.4%). In 2001, $169 million were spent in Tillamook County as the result of visitors. Travel spending in Tillamook has continually represented about 3% of all travel spending in Oregon.

Figure 3-11a
Travel Spending in Millions of Dollars (in 2000 $) 1991-2001

Year	Tillamook County	Oregon	Tillamook as percent of State
1991	142.1	4,428.0	3.2%
1992	148.8	4,600.2	3.2%
1993	152.4	4,666.3	3.3%
1994	152.8	4,805.0	3.2%
1995	154.7	5,024.8	3.1%
1996	158.5	5,222.3	3.0%
1997	160.9	5,369.0	3.0%
1998	164.5	5,478.9	3.0%
1999	165.6	5,685.3	2.9%
2000	169.8	6,069.3	2.8%
2001	169.0	5,951.1	2.8%
Average Annual Percent Change	4%	6%	

Source: Dean Runyan Associates

Figure 3-11b
Travel Spending in Millions of Dollars (in 2000 $) 1991-2001 in Tillamook County



Source: Dean Runyan Associates

Figure 3-11c shows that while travel spending in Tillamook County has increased, the employment generated as a result of this has remained steady around 3600 jobs from 1998-2001. This represents about 4% of all jobs resulting from travel spending in Oregon.

Figure 3-11c
Employment Generated by Travel Spending (in 2000 $) 1991-2001

	1991	1996	1997	1998	1999	2000	2001
Tillamook County	3,330	3,540	3,480	3,660	3,590	3,630	3,630
As a Percent of Total County Employment	36.2%	33.0%	33.5%	34.7%	33.7%	33.6%	34.4%
Oregon	75,500	86,600	87,100	90,800	91,200	95,300	94,100
Tillamook as percent of State	4.4%	4.1%	4.0%	4.0%	3.9%	3.8%	3.9%

Source: Dean Runyan Associates and Oregon Employment Department.

Benchmark 3.12 Number of Tourists Visiting the Tillamook County Creamery

Background

This benchmark relates to Goal 3.4 of the 2020 Strategic Vision:

> *Promote economic growth through year-round family wage jobs in the tourism industry.*

As discussed above, Tillamook County residents want to diversify the economy to provide more year-round family wage jobs. During the Visioning process, almost 70% of survey respondents encouraged the development of small, locally-owned businesses. As evidenced by Tillamook County's steadily increasing employment in the service sector, tourism holds great potential for diversifying and bolstering the county's economy through locally-owned business start-ups. This benchmark uses Tillamook County's most prominent tourist attraction, the Tillamook County Creamery, as an indicator of tourism county-wide.[10] The findings presented here are broken down into four three-month blocks to highlight the seasonal nature of the county's tourism.

This benchmark is certainly not an in-depth indicator of tourism and its effect on family wage jobs. However, assuming that greater numbers of visitors will spawn greater local investment in the community, tracking tourist visits to the Creamery will provide insight on the health of Tillamook County's tourist base and, subsequently, the likelihood that tourism can spawn family wage jobs. The Futures Council will work with Chambers of Commerce and the County Economic Development Council to develop a more direct link between tourism and its net effect on jobs.

The following data are an update to the data presented in the 2000 Benchmarks Report.

Data Source

Data were obtained for this benchmark through:

- Susan Palmer, Director of Retail Operations, Tillamook County Creamery Association, 503-815-6713.

Related State Benchmark

- None

[10] The Creamery utilizes a formula to calculate tourist estimates. Please see Appendix B for details.

Findings

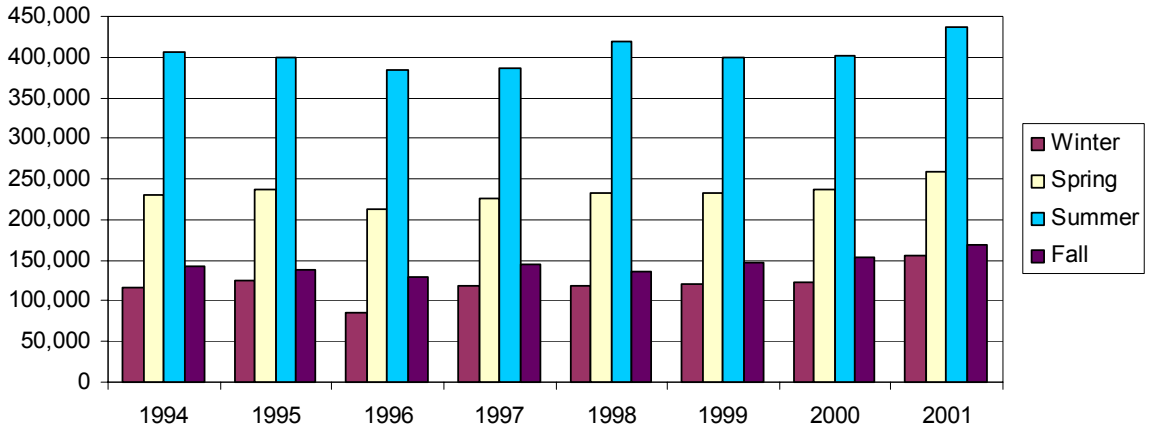
Table 3-12 and Figure 3-12 show that the number of tourists visiting the Tillamook Creamery has continued to increase steadily. In 2001, the Creamery saw more than one million visitors. Not surprisingly, 40-45% of tourists continue to visit in the summer months, followed by the spring, fall, and winter months, respectively.

Table 3-12
Number of Tourists Visiting the Tillamook Creamery by Season (1994–2001)

Year	Winter (Jan-March)	Spring (April-June)	Summer (July-Sept.)	Fall (Oct.-Dec.)	Totals
1994	115,905	229,424	406,081	142,534	893,944
1995	124,174	236,736	400,204	139,217	900,331
1996	85,997	213,223	385,029	130,288	814,537
1997	118,561	227,116	387,363	145,255	878,295
1998	118,920	233,360	418,212	135,716	906,208
1999	120,683	233,601	398,936	147,446	900,666
2000	123,471	237,417	402,068	154,229	917,185
2001	156,084	259,427	436,577	169,545	1,021,633

Source: Tillamook County Creamery Association

Figure 3-12
Number of Tourists Visiting the Tillamook Creamery by Season (1994–2001)



Source: Tillamook County Creamery Association

Benchmark 3.13 Number of Students Enrolled in Vocational Supplementary or Preparatory Classes at Tillamook Bay Community College

Background

This benchmark measures Goal 3.5 of the 2020 Strategic Vision:

> *Include youth in local economic development by providing appropriate classroom and field based education and training.*

Tillamook County residents understand that applied education is essential for today's demanding job market and that people with greater skills are more likely to earn family wages than those without. During the Visioning process, 62% of survey respondents agreed that more vocational employment skills are needed to improve incomes among low- and moderate-income residents. Training for workers increases their income generating potential, and Tillamook County residents want young people to have these opportunities before entering the workforce. Retraining and supplemental training are also critical for preparing people to work effectively with changing and emerging technologies. This benchmark measures the number of students who complete vocational supplementary or preparatory classes at the local community college.

Following are updated headcount and enrollment data from Tillamook Bay Community College's Institutional Researcher.

Data Source

Data were obtained for this benchmark through:

- James Downes, Institutional Researcher, Office of Registrar and Records, Tillamook Bay Community College. 503-842-8222 x.121

Related State Benchmarks

- Oregon Progress Board Benchmark #25
- Oregon Progress Board Benchmark #28

Findings

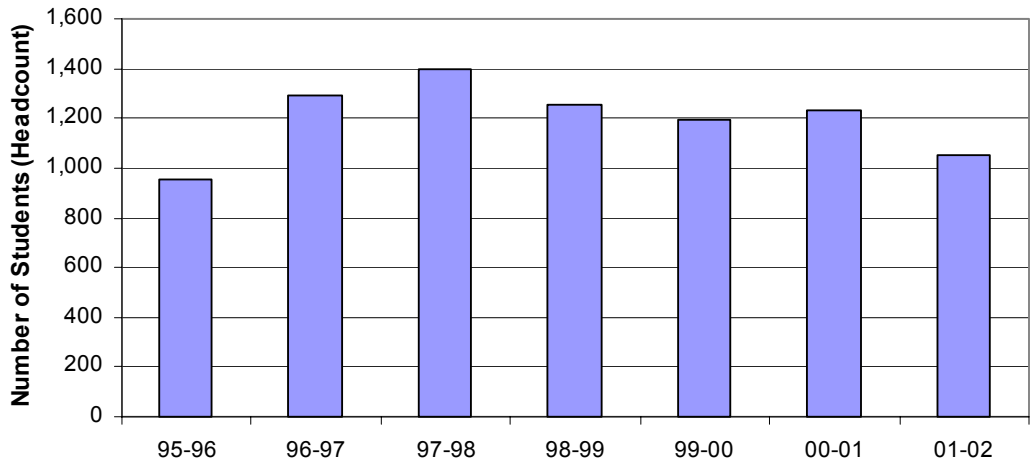
Table 3-13 and Figure 3-13 show that Tillamook County residents are regularly using the vocational services provided at the Tillamook Bay Community College. While the number of students in vocational preparatory and supplementary courses increased from the 1995-96 school year through the 1997-1998 school year, there has been a decline in the number of students over the past several years. This may reflect budget cuts rather than a lack of interest in these programs. In Table 3-13, "Headcount" is the number of students when they are not double-counted if enrolled in more than one course. "Enrollment" does double count students. Both of these figures show similar trends.

Table 3-13
Headcount and Enrollment in Vocational Preparatory and Supplementary Courses at Tillamook Bay Community College (1995–2002)

Academic Year	Headcount	Enrollment
1995-96	955	1,415
1996-97	1,294	1,695
1997-98	1,394	1,839
1998-99	1,251	1,700
1999-00	1,195	1,529
2000-01	1,229	1,555
2001-02	1,051	1,444

Source: Tillamook Bay Community College

Figure 3-13
Number of Students (Headcount) in Vocational Preparatory and Supplementary Courses at Tillamook Bay Community College (1995–2002)



Source: Tillamook Bay Community College

CHAPTER 4: SOCIETY AND CULTURE BENCHMARKS

Benchmark 4.1	Tillamook County High School Dropout Rate
Benchmark 4.2	Percentage of 8th Graders Who Achieve Established Skill Levels in Reading and Math
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SOCIETY & CULTURE BENCHMARKS

Introduction

The Society and Culture section of the Strategic Vision contains an array of goals and strategies that indicate residents' and landowners' priorities with regard to the health and cultural richness of their communities. During the Visioning process, the welfare of area youth consistently arose as a topic of particular concern to Tillamook County residents. Two of the four goals and six of the eleven strategies contained in the Society and Culture section of the Vision relate to the welfare of county youth. These goals and strategies emphasize the importance of community involvement in the lives of children and focus on providing a range of educational and extracurricular opportunities for students. Those goals and strategies not involving youth address the importance of maintaining the rural character of Tillamook County and enhancing citizen participation in community affairs.

About the Society and Culture Benchmarks

Because of the Vision's emphasis on young people, the benchmarks contained in the Society and Culture section focus almost entirely on the well-being of youth in Tillamook County. Due to the rather general nature of these youth-oriented goals, however, they do not lend themselves to quick and easy measurement. As a result, most of the benchmarks contained here focus on measuring indicators of overall youth welfare. The Futures Council believes that, although they do not measure goals explicitly, many of these indicators will reflect how well a goal is being met, and therefore make effective benchmarks.

For example, Goal 4.2, which focuses on educational and extracurricular opportunities for students, is measured using the student dropout rate, achievement in math and reading, and overall school performance in the statewide school and district report cards (Benchmarks 4.1 – 4.3). The Futures Council is confident that if the county offers appropriate educational and extracurricular opportunities, this will be reflected through a student's participation and achievement in both his/her school and community.

Similarly, Goal 4.3 emphasizes the desire for the community to become involved in its schools. This goal is measured using social indicators, including the teen pregnancy rate, teen Alcohol and drug abuse rates, and juvenile arrest rates (Benchmarks 4.4 – 4.6). The implicit idea behind these benchmarks is that if parents and the community as a whole become involved in their schools, the community will see improving trends in the health and welfare of area youth.

Goals 4.1 and 4.4 are extremely subjective and consequently, not easily measured. The Futures Council is still determining a benchmark for Goal 4.1: Protect Rural Atmosphere and Small Town Feeling. Goal 4.4 addresses citizen involvement in government and is measured using voter turnout.

The list below contains a summary of the goals found in the Society and Culture section of the Tillamook County Strategic Vision. Beneath each goal is listed the benchmark(s) with which the Futures Council has chosen to assess it.

Goal 4.1 Protect rural atmosphere and small-town feeling.

Benchmark under development

Goal 4.2 Students in Tillamook County schools participate in a wide variety of safe, skill-building, extracurricular activities and educational opportunities.

Benchmark 4.1	Tillamook County High School Dropout Rate
Benchmark 4.2	Percentage of 8th Graders Who Achieve Established Skill Levels in Reading and Math
Benchmark 4.3	Tillamook County School Report Cards

Goal 4.3 There is strong community involvement in local schools. Community involvement is a part of every student's education in Tillamook County.

Benchmark 4.4	Pregnancy Rate per 1,000 Females Age 10-17
Benchmark 4.5	Percentage of 8th Grade Students Who Have Used Alcohol, Cigarettes, or Illicit Drugs in the Past 30 Days
Benchmark 4.6	Total Juvenile Arrests per 1,000 Juveniles per Year

Goal 4.4 There is ample opportunity for citizens to become involved in local and county government.

Benchmark 4.7	Percentage of Registered Tillamook County Voters who Voted in General Elections

Benchmark 4.1 Tillamook County High School Dropout Rate

Background

This benchmark relates to Goal 4.2 of the 2020 Strategic Vision:

> *Students in Tillamook County schools participate in a wide variety of safe, skill-building, extracurricular activities and educational opportunities.*

Tillamook County takes pride in its youth. From the results of the Futures Council's gauging of public opinion, it is evident that residents recognize the importance of youth education. An educated young population will ultimately benefit the county as a whole. Goal 4.2 declares a strong desire for Tillamook County's youth to become educated, well-rounded members of society.

This benchmark measures the percentage of students, grades 7-12, who leave the school system and do not return to receive a high school diploma. Statistics show that the future for young people who do not complete a high school education is not as promising as those of their graduating peers. Besides lacking basic skills for employment, those who drop out are not exposed to continuing educational and professional opportunities provided to high school graduates. As a result, students who dropout are more likely to be unemployed, and if employed, will likely earn less than those with a diploma. Thus, a low dropout rate indicates that young people have a better chance of success in an increasingly sophisticated and demanding job market.

This update to the benchmarks provides new data for the 1998-99 through 2000-2001 school years.

Data Source

Data were obtained for this benchmark through:

- Oregon Progress Board. *2001 County Data Book*, September 2002, Benchmark #22: High School Dropout Rate (Grades 9-12 for the listed school year), p.22. www.econ.state.or.us/opb

Related State Benchmark

- Oregon Progress Board Benchmark #22

Findings

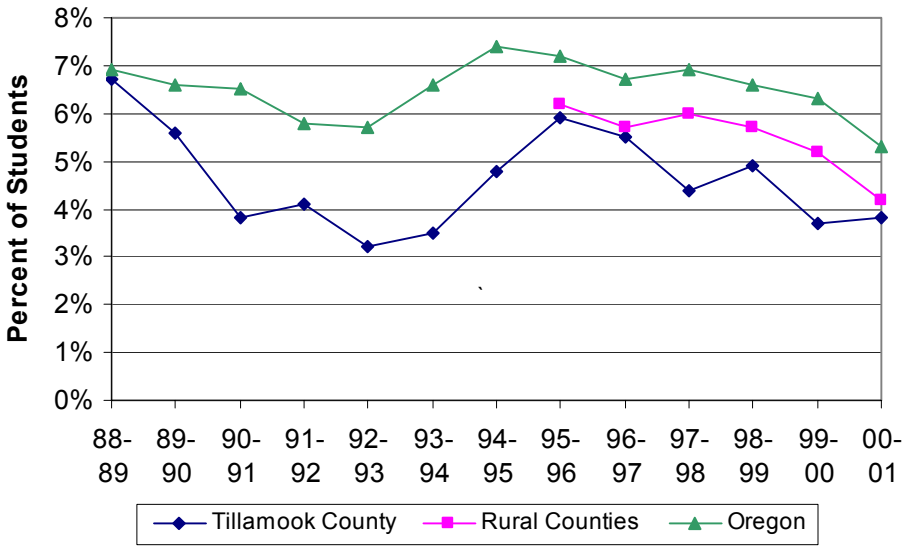
Table 4-1 and Figure 4-1 show high school dropout rates for Tillamook County, rural Oregon counties, and Oregon between the 1988-89 and 2000-01 school years. Since 1989, the high school dropout rate for Tillamook County has fluctuated along with the state's rate, while remaining consistently below it. Since definitional changes were implemented regarding what constitutes "a dropout" in 1996, the county has shown a consistent decline while the state and rural county rates have remained fairly stable. The 2000 Benchmarks Report included data through the 1997-98 school year, which showed a dropout rate of less than five percent of students. The dropout rate has continued to decline, with some fluctuation, from the 1997-98 school year to the 2000-2001 school year and is now below four percent. This suggests a positive trend over the last few years toward decreasing high school dropout in Tillamook County.

Table 4-1
High School Dropout Rate
(School years 1988-89 through 2000-01)

	88-89	89-90	90-91	91-92	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Tillamook County	6.7%	5.6%	3.8%	4.1%	3.2%	3.5%	4.8%	5.9%	5.5%	4.4%	4.9%	3.7%	3.8%
Rural Counties	n/a	n/a	n/a	n/a	n/a	n/a	n/a	6.2%	5.7%	6.0%	5.7%	5.2%	4.2%
Oregon	6.9%	6.6%	6.5%	5.8%	5.7%	6.6%	7.4%	7.2%	6.7%	6.9%	6.6%	6.3%	5.3%

Source: Oregon Progress Board

Figure 4-1
High School Dropout Rate
(School years 1988-89 through 2000-01)



Source: Oregon Progress Board

Benchmark 4.2 Percentage of 8th Graders Who Achieve Established Skills in Reading and Math

Background

This benchmark relates to Goal 4.2 of the 2020 Strategic Vision:

> *Students in Tillamook County schools participate in a wide variety of safe, skill-building, extracurricular activities and educational opportunities.*

Benchmark 4.2 focuses on the building blocks of a student's education: reading and math. Adequate skills in reading and math are critical to the success of young people entering the job market. By measuring students' proficiency in reading and math, teachers and administrators can gauge the effectiveness of school curricula. Moreover, it helps Tillamook County as a whole assess how well extracurricular and other non-academic opportunities are meeting the needs of its youth. Coupled with Benchmark 4.1, this benchmark gives a picture of the academic health and educational progress of students throughout the county.

This benchmark update includes new data from the Oregon Progress Board for 2000 and 2001.

Data Source

Data were obtained for this benchmark through:

- Oregon Progress Board. *2001 County Data Book*, September 2002, Benchmark #20a: Percent of 8th Grade Students who Achieve Established Skills in Reading and #20b: Percent of 8th Grade Students who Achieve Established Skills in Math, p.18-19. www.econ.state.or.us/opb

Related State Benchmark

- Oregon Progress Board Benchmark #20

Findings

Table 4-2 and Figure 4-2a show that over the past five years, 8th grade achievement in reading has fluctuated, but is on an upward trend—improving about 7.4% between 1997 and 2001. While this pattern mirrors that of the state, Tillamook County 8th graders still fall below the achievement rate of the state as a whole. The Oregon State Board of Education adopted new performance standards in 1996, so results prior to 1997 should not be compared with those after 1997.

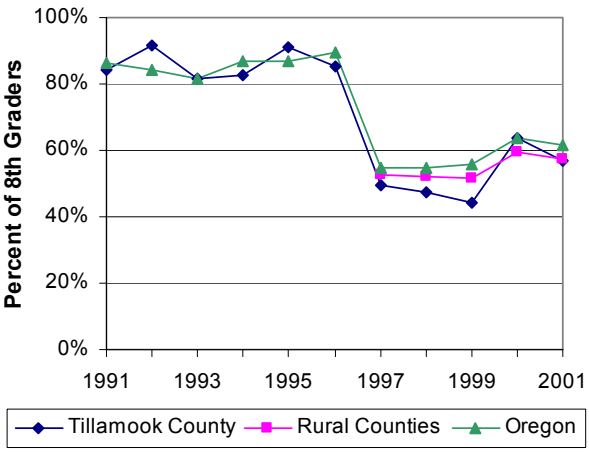
Table 4-2 and Figure 4-2b show that 8th grade achievement in math has also fluctuated, but is also on an upward trend. In 1997, 46.1% of 8th graders achieved the established skills in math. This increased by about 5.5% to 51.6% of students in 2001. As in reading, Tillamook is slightly below the math achievement rate of the state as a whole, but it continues to exceed the achievement rate of other rural counties. Coupled with results from Benchmark 4.1, this benchmark update suggests improving trends in the academic health and educational progress of the county.

Table 4-2
Percentage of Eighth Graders
Who Achieve Established Skills in Math and Reading (1991–2001)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Reading											
Tillamook County	84.2%	91.5%	81.4%	82.5%	90.9%	85.5%	49.5%	47.3%	44.3%	63.8%	56.9%
Rural Counties	N/A	N/A	N/A	N/A	N/A	N/A	52.7%	52.0%	51.7%	59.5%	57.3%
Oregon	86.2%	84.1%	81.8%	87.0%	86.9%	89.4%	54.9%	54.7%	56.0%	63.6%	61.5%
Math											
Tillamook County	67.5%	89.8%	85.9%	82.3%	81.5%	84.8%	46.1%	48.8%	52.6%	56.1%	51.6%
Rural Counties	N/A	N/A	N/A	N/A	N/A	N/A	43.3%	46.9%	47.1%	51.5%	50.6%
Oregon	74.8%	84.2%	83.0%	83.0%	83.7%	84.6%	49.5%	50.8%	52.1%	55.6%	55.4%

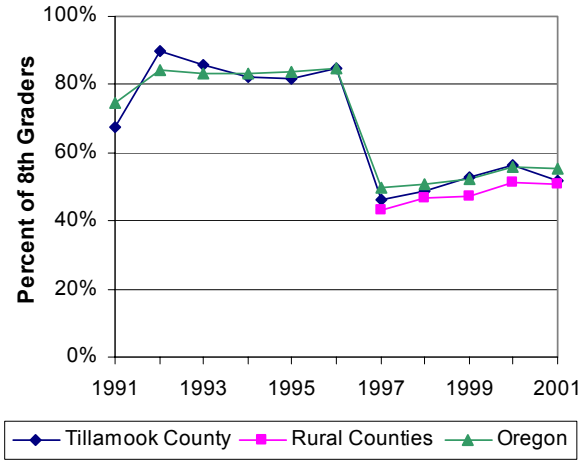
Source: Oregon Progress Board

Figure 4-2a
Percentage of Eighth Graders Achieving Established Reading Skills (1991–2001)



Source: Oregon Progress Board

Figure 4-2b
Percentage of Eighth Graders Achieving Established Math Skills (1991–2001)



Source: Oregon Progress Board

Benchmark 4.3 Tillamook County School Report Cards

Background

This benchmark relates to Goal 4.2 of the 2020 Strategic Vision:

> *Students in Tillamook County schools participate in a wide variety of safe, skill-building, extracurricular activities and educational opportunities.*

The Oregon Department of Education (ODE) develops yearly report cards for schools and districts across the state of Oregon. The report cards are the product of significant public input; ODE held approximately 30 public meetings across the state. This input was used to design and revise the criteria and standards for evaluation. Evaluation is based on the following primary categories – student performance, student behavior, school character, and improved student performance – and includes an overall rating.

Report cards for the following districts and schools of Tillamook County are included in this report: Nestucca Valley School District #101 (Nestucca High School, Nestucca Valley Elementary School, Nestucca Valley Middle School); Tillamook School District #9 (East Elementary School, Liberty Elementary School, South Prairie Elementary School, Tillamook High School, Tillamook Junior High School, Wilson Elementary School); and Neah-Kah-Nie School District #56 (Garibaldi Elementary School, Neah-Kah-Nie Junior/Senior High School, Nehalem Elementary School).

This is a new benchmark for the 2002 report.

Data Source

- Oregon Department of Education, "School and District Report Cards." http://reportcard.ode.state.or.us/

Related State Benchmark

- None

Findings

Table 4-3 shows overall school ratings from the Oregon Department of Education's School Report Cards for each school in three Tillamook County school districts, between the years of 2000 and 2002. Each school was given an overall rating of either satisfactory or strong for all three years. Only one school has regressed from an overall rating of strong to satisfactory during this time period, while six schools have improved from satisfactory to strong. The School Report Cards also assess school character, student performance, and student behavior. School character has improved from satisfactory to exceptional for all Tillamook County schools. In 2002, nine schools showed improved student performance while two stayed about the same and one declined. The category with the most variation and fluctuation is student behavior, but even this category shows general improvements from 2000 to 2002.

Table 4-3
Overall School Ratings for Schools in Tillamook County by School District (2000-2002)

	2000	2001	2002
Neah Kah Nie School District 56			
Garibaldi ES	Satisfactory	Satisfactory	Strong
Nehalem ES	Satisfactory	Satisfactory	Strong
Neah-Kah-Nie Jr/Sr HS	Satisfactory	Satisfactory	Satisfactory
Tillamook School District 9			
East ES	Strong	Satisfactory	Satisfactory
Liberty ES	Satisfactory	Satisfactory	Satisfactory
South Prairie ES	Satisfactory	Strong	Strong
Wilson Elementary School	Satisfactory	Satisfactory	Strong
Tillamook Jr. HS	Satisfactory	Satisfactory	Satisfactory
Tillamook HS	Satisfactory	Satisfactory	Satisfactory
Nestucca School District 101			
Nestucca Valley ES	Satisfactory	Satisfactory	Strong
Nestucca Valley MS	Satisfactory	Strong	Strong
Nestucca HS	Satisfactory	Satisfactory	Satisfactory

Source: Oregon Department of Education

Benchmark 4.4 Pregnancy Rate per 1000 Females Age 10-17

Background

This benchmark relates to Goal 4.3 of the 2020 Strategic Vision:

> *There is strong community involvement in local schools. Community involvement is a part of every student's education in Tillamook County.*

This benchmark measures the rate of pregnancies for females age 10-17 (data include live births and abortions). Females age 10-17 who become pregnant are more likely than adults to have problems with their pregnancy, often resulting in poor maternal outcomes. While teenage pregnancy is a health concern, it is a social problem as well. Teenage mothers have a difficult time getting an adequate education and, accordingly, often face greater hardships as young parents.

In the late 1980s and early 1990s, the Tillamook County teen pregnancy rate was very high. As a result, the county launched an aggressive effort at reducing teen pregnancy. This effort earned the county national recognition for the positive results it produced. However, the latter half of this decade has shown a steady increase. This benchmark will measure how effectively Tillamook County can build upon the momentum generated by its past efforts.

The following update provides new data for 1999-2001 from the Oregon Progress Board.

Data Source

Data were obtained for this benchmark through:

- Oregon Progress Board. *2001 County Data Book*, September 2002, Benchmark #39: Pregnancy Rates per 1,000 Females Ages 10-17, p.30. www.econ.state.or.us/opb
- Southern Oregon Regional Services Institute (SORSI), *Oregon: A Statistical Overview 2002*, Benchmark #86: 1996-2000 Average Teen Pregnancy Rate Ages 10-17 Years per 1,000, p. 45.

Related State Benchmark

- Oregon Progress Board Benchmark #39

Findings

Table 4-4 and Figure 4-4 summarize the pregnancy rate for youth (age 10-17) in Tillamook County and the state from 1990 through 2001. In 1990, the county's teen pregnancy rate for was higher than the state rate for Oregon, with almost 25 of every 1,000 females age 10-17 becoming pregnant. However, since 1990, Tillamook County's pregnancy rate has remained below the state rate. In 1994, the pregnancy rate plummeted to its lowest point at only seven youths per 1,000. During the update period of 1999 to 2001, the rate first rose and then declined dramatically. As of 2001, the teen pregnancy rate remains below state average at 8.5 youths per 1,000. This update of benchmark data suggests the trends associated with teenage pregnancy are improving in Tillamook.

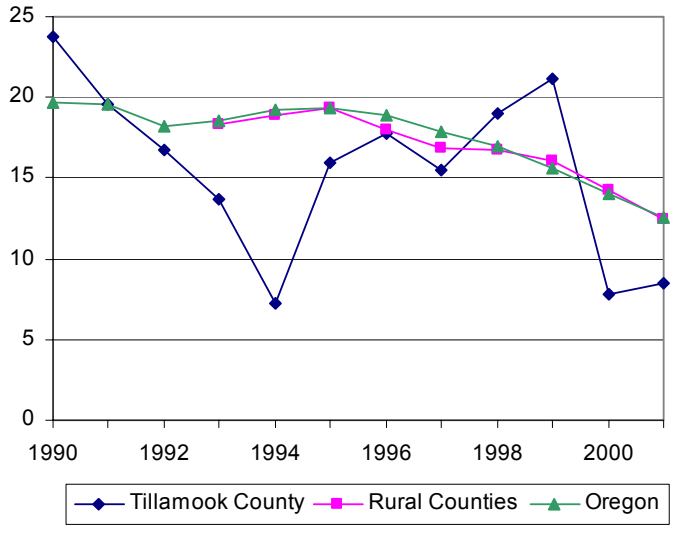
Table 4-4
Pregnancy Rate per 1000 Females Age 10-17 (1990–2001)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Tillamook County	23.8	19.6	16.7	13.7	7.2	15.9	17.8	15.5	19.0	21.1	7.8	8.5
Rural Counties	N/A	N/A	N/A	18.3	18.9	19.4	18.0	16.8	16.7	16.1	14.3	12.5
Oregon	19.7	19.6	18.2	18.6	19.2	19.4	18.9	17.9	17.0	15.6	14.0	12.6

Sources: Oregon Progress Board

SORSI also provides information on this benchmark. The average teen pregnancy rate from 1996-2000 was 16.3 per 1,000 females for Tillamook County, and 16.7 per 1,000 females for the state. Although Tillamook is below the state's rate, it was still the 13th highest of Oregon's 36 counties during this five-year period.

Figure 4-4
Pregnancy Rate per 1000 Females Age 10-17 (1990–2001)



Sources: Oregon Progress Board

Benchmark 4.5 Percentage Of 8th Grade Students Who Have Used Alcohol, Cigarettes, or Illicit Drugs in the Past 30 Days

Background

This benchmark relates to Goal 4.3 of the 2020 Strategic Vision:

> *There is strong community involvement in local schools. Community involvement is a part of every student's education in Tillamook County.*

Tillamook County residents want more community involvement with youth. An important component of this goal is educating young people about the risks of certain behaviors. The Visioning process revealed that most Tillamook County residents think the availability and use of drugs is increasing among young people. Additionally, residents agreed that alcohol abuse is one of the county's most important social issues. Drug and alcohol use at a young age makes an individual more likely to live a life of dependence, which increases the likelihood that the abuser will become involved in crime and suffer greater health problems. Consequently, an abuser of drugs and alcohol is more likely to pose a hazard to society and become a burden on the healthcare system.

Although Benchmark 4.5 does not directly measure community involvement in schools, it is an important indicator of the health of young people and community welfare. When viewed alongside Benchmarks 4.4: Teen Pregnancy Rate and 4.6: Juvenile Arrest Rate, these benchmarks do measure an implicit connection between the health of Tillamook County's youth and the community's involvement in its schools.

Following is an update with new data from the Oregon Progress Board for 1998 and 2000.

Data Source

Data were obtained for this benchmark through:

- Oregon Progress Board. *2001 County Data Book*, September 2002, Benchmark #49a: Percent of 8th Grade Students Who Report Using Alcohol in the Previous 30 Days, #49b: Percent of 8th Grade Students Who Report Using Illicit Drugs in the Previous 30 Days, and #49 c: Percent of 8th Grade Students Who Report Using Cigarettes in the Previous 30 Days, p. 42, 44, 46. www.econ.state.or.us/opb

Related State Benchmark

- Oregon Progress Board Benchmark #49.

Findings

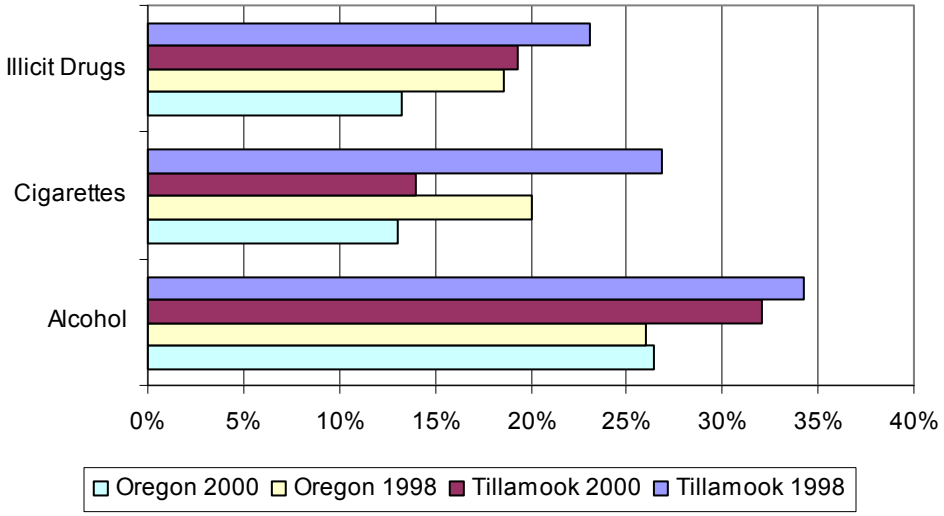
Table 4-5 and Figure 4-5 indicate that a significant number of Tillamook County middle school students use tobacco, drugs, and alcohol. More students responded that they use alcohol than cigarettes or illicit drugs. In 1998, 34.3% of the county's 8th grade students responded that they had used alcohol to some degree in the past 30 days, while 26.8% responded that they had used tobacco. Based on 2000 data, the percentage of students in Tillamook County using alcohol, cigarettes, and illicit drugs has declined. The following table and figure show that county students are using these substances at rates above the state average, but also suggest that trends are improving. Of particular note is the decline in cigarette use from 26.8% in 1998 to 14.0% in 2000.

Table 4-5
Percentage of 8th Grade Students who Used Alcohol, Cigarettes, or Marijuana in the Previous 30 Days (1998, 2000)

	Tillamook		Oregon	
	1998	2000	1998	2000
Alcohol	34.3%	32.1%	26.0%	26.4%
Cigarettes	26.8%	14.0%	20.1%	13.1%
Illicit Drugs	23.1%	19.3%	18.6%	13.3%

Source: Oregon Progress Board

Figure 4-5
Percentage of 8th Grade Students who Used Alcohol, Cigarettes, or Marijuana in the Previous 30 Days (1998, 2000)



Source: Oregon Progress Board

Benchmark 4.6 Total Juvenile Arrests Per 1,000 Juveniles Per Year

Background

This benchmark relates to Goal 4.3 of the 2020 Strategic Vision:

> *There is strong community involvement in local schools. Community involvement is a part of every student's education in Tillamook County.*

This benchmark measures the number of arrests made by law enforcement for juvenile crimes. Juvenile crime is an indicator of youth stability and can be reduced by increased community involvement in schools. It should be noted that findings for this benchmark should be considered carefully. Tillamook County places a high priority on reporting juvenile crime, immediate intervention and follow up. High crime rates relative to other rural counties may be a reflection of Tillamook County's vigilance in reporting and responding to juvenile crime. Following is an update that includes data from 1999-2001 from the Oregon Progress Board.

Data Source

Data were obtained for this benchmark through:

- Oregon Progress Board. *2001 County Data Book*, September 2002, Benchmark #62: Total Juvenile Arrests per 1,000 Juvenile Oregonians per year, #62a: Juvenile Arrests for Crimes Against Persons per 1,000 Juvenile Oregonians per year, #62b: Juvenile Arrests for. Crimes Against Property per 1,000 Juvenile Oregonians per year, and #62c: Juvenile Arrests for Behavioral Crimes per 1,000 Juvenile Oregonians per year, p. 66, 68, 70,72. www.econ.state.or.us/opb

Related Benchmark

- Oregon Progress Board Benchmark #62

Findings

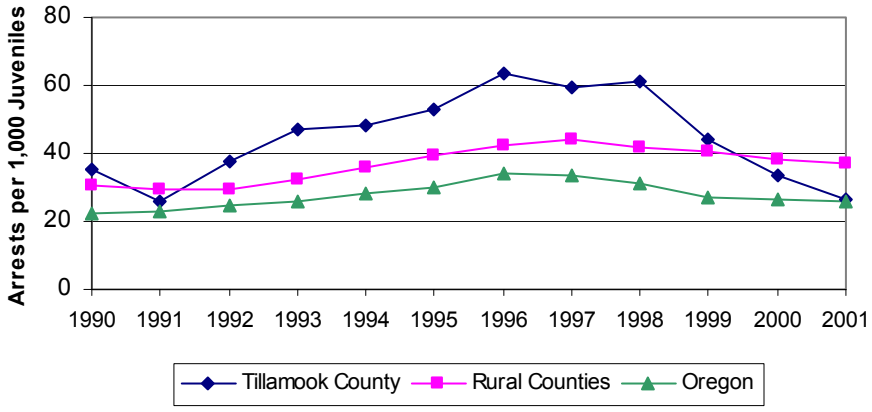
Table 4-6 summarizes the total juvenile arrest rate for behavioral, person to person, and property crimes in Tillamook County, all rural counties and Oregon as a whole. Figures 4-6a, 4-6b, and 4-6c graphically illustrate trends in each of these three areas. Since the 2000 Benchmarks Report, juvenile arrests of all three types have declined across the state, with dramatic declines in Tillamook County. By 2001, juvenile arrests in Tillamook County are at state levels for behavioral crimes and below state levels for person and property crimes, indicating substantial improvement.

Table 4-6
Total Juvenile Arrests per 1,000 Juveniles (1990-2001)

Year	Tillamook County	Rural Counties	Oregon
1990	60.1	56.2	46.4
1991	47.5	55.1	49.8
1992	65.1	57.6	53.4
1993	81.0	60.7	54.8
1994	98.8	66.4	58.1
1995	89.8	69.3	57.2
1996	96.3	71.6	60.8
1997	87.5	72.9	58.2
1998	94.9	67.3	53.3
1999	62.3	64.7	47.0
2000	46.2	60.0	45.5
2001	37.6	57.1	42.7

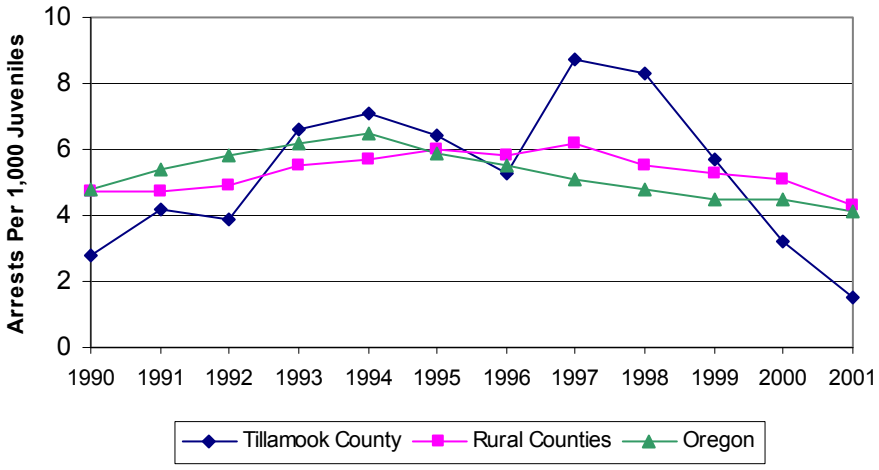
Source: Oregon Progress Board

Figure 4-6a
Juvenile Arrests per 1,000 Juveniles for Behavioral Crimes (1990–2001)



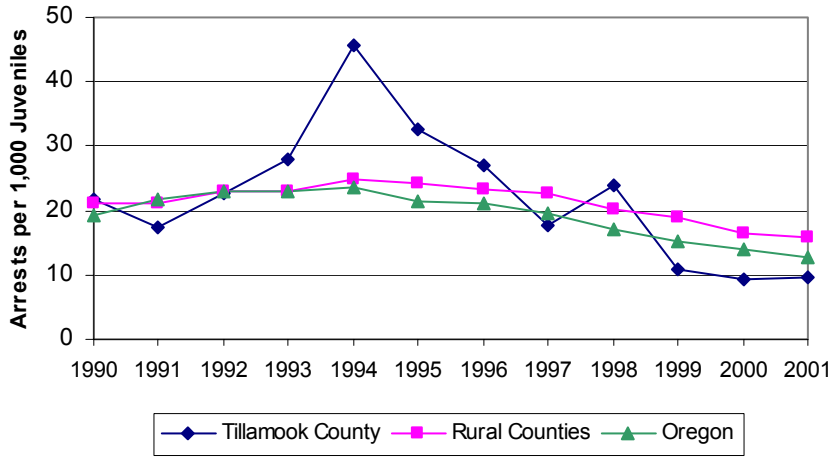
Source: Oregon Progress Board

Figure 4-6b
Juvenile Arrests per 1,000 Juveniles for Crimes Against Persons (1990–2001)



Source: Oregon Progress Board

Figure 4-6c
Juvenile Arrests per 1,000 Juveniles for Property Crimes (1990–2001)



Source: Oregon Progress Board

Benchmark 4.7 Percentage of Registered Tillamook County Voters who Voted in General Elections

Background

This benchmark measures Goal 4.4 of the Strategic Vision:

> *There is ample opportunity for citizens to become involved in local and county government.*

During the Visioning process, Tillamook County residents indicated that they think it is important for people to become more involved in their communities. Specifically, they indicated that citizens should participate more in local government decision-making, whereby decision-makers respond to the concerns and interests of the community. If citizens are involved in and trust their government, then government functions as intended.

Difficulties arise when measuring the degree of public involvement in local government. Voter turnout rates measure only indirectly Goal 4.4 of the Strategic Vision. Citizens who become involved in local government tend to vote. Citizens who find government inaccessible or unresponsive are less likely to vote. Thus, a rising voter turnout likely indicates increasing involvement in government.

Following is an update that contains data from all general elections from 1990-2002.

Data Source

Data were obtained for this benchmark through:

- Oregon Progress Board. *2001 County Data Book*, September 2002, Benchmark #31: Percent of Registered Voters who Participated in Biennial Primary Elections, p.28. www.econ.state.or.us/opb
- Oregon Secretary of State, Elections Division, Elections History, "Voter Registration and Participation." www.sos.state.or.us

Related State Benchmark

- Oregon Progress Board Benchmark #31

Findings

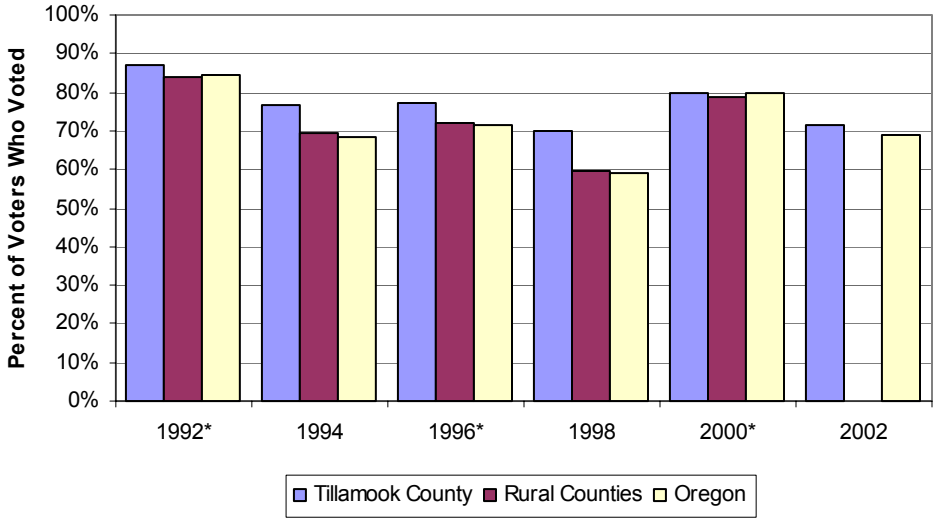
Table 4-7 shows voter turnout in general elections from 1990 to 2002 for registered voters in Tillamook County. Figure 4-7 illustrates a comparison between Tillamook County, other rural counties, and the state of Oregon. Voter turnout refers to the percentage of registered voters who actually cast votes in the elections. Since 1990, the number of registered voters in Tillamook County has increased significantly. However, the percentage of registered voters who have voted has fluctuated. Not surprisingly, voter turnout has been higher in years of presidential elections. In the most recent general election (2002), 71.7% of registered Tillamook County voters participated. This is higher than the state average of 69.1%. Overall, voter participation in Tillamook County has remained higher than state averages from 1990 to 2002.

Table 4-7
Tillamook County Voter Turnout in General Elections (1990–2002)

	1990	1994	1996*	1998	2000*	2002
Registered Voters	11,892	13,380	14,942	15,036	15,695	14,917
Total Voting	9,613	10,245	11,513	10,507	12,553	10,695
Percentage Who Voted	80.8%	76.6%	77.1%	69.9%	80.0%	71.7%

* Signifies a presidential election year
Source: Oregon Secretary of State

Figure 4-7
Voter Turnout in General Elections (1992-2002)



Source: Oregon Progress Board for 1992-2000, Oregon Secretary of State for 2002.

APPENDIX A: OBSTACLES TO EFFECTIVE BENCHMARKING

Benchmarks effectively assess many of the goals contained in the Strategic Vision. However, many of the benchmarks contained in the Strategic Vision (as summarized in Futures Council newsletter #4) are different than those contained in this publication. Over the course of this benchmarking exercise, which we have dubbed "road testing the Vision," the Futures Council recognized that many of the benchmarks contained in the Vision could not be quantified or did not, in fact, adequately measure the corresponding goal. Consequently, the Futures Council revised many of the benchmarks originally contained in the Vision.

Some benchmarks cannot be quantified

As mentioned above, access to reliable and consistently available data was one of the criteria used by the Futures Council in selecting the benchmarks contained in this publication. Many of the benchmarks originally proposed in the Strategic Vision provided effective measures of progress. However, because of the unavailability of some data, several appropriate benchmarks are not contained in this report. For example, data were available for several benchmarks at the regional or state level but not for Tillamook County. With time and through localized surveying and data gathering, information may become available that allows the Futures Council to expand its list of benchmarks. Several proposed benchmarks are listed below under Benchmarks to be Assessed in the Future.

Not all goals have benchmarks

In a few instances, goals simply cannot be measured by a benchmark. Those goals that currently do not have a benchmark established to measure them include:

- Goal 2.5 Native wildlife populations are healthy and integral components of our community. Wildlife species contribute to the health and value of our managed agricultural and forestlands.
- Goal 4.1 Protect rural atmosphere and small-town feeling.

During future updates of this report, the Futures Council will continue to discuss appropriate measurements for these goals as well as data needs. See below (Benchmarks to be Assessed in the Future) for details.

Other obstacles

Within each of the four sections, other challenges to benchmarking arose, which were unique to that area. These are discussed at the beginning of each chapter and, when necessary, within the background statements of each benchmark.

APPENDIX B: NOTES ON DATA

Appendix B provides details on data gathered for certain benchmarks. The number before each comment indicates a footnote in the text of this report.

Growth and Development:

Benchmark 1.1 Percentage of Agricultural Land in 1987 Still Preserved for Agricultural Use

The data in this benchmark are derived from the Natural Resource Conservation Service's Natural Resource Inventory (NRI). The NRI uses sampling points in compiling this data. Data included here are estimates and not on-the-ground measurements.
In addition, hayland is considered in the cropland category.

Benchmark 1.4 Percentage of Area within the Urban Growth Boundary that Can be Served by Existing Public Sewer Systems

Unlike other benchmarks contained in this report, many of the figures presented here are "thumbnail estimates" by city officials and should not be cited or used in policy-making. The primary difficulty faced by the city representatives was estimating the amount of land within their Urban Growth Boundary (UGB). (This information is currently not available through county or state sources either.) Thus, estimating the proportion of an area served by existing sewer systems was a best-guess exercise. The City of Rockaway Beach was unable to produce figures.

Benchmark 1.5 Percentage of Tillamook County Residents Served by Public Drinking Water that Meets Health Based Standards

Public drinking water systems serve roughly 80% of Tillamook County's population. There are three types of public drinking water systems: 1) community-based systems, 2) non-community transient systems and 3) non-community non-transient systems. Community-based systems are in established communities. Non-community systems (both transient and non-transient) occur almost entirely in rural areas that are not served by community-based systems. (Examples of establishments using non-community supplied water include rural schools, restaurants, R.V. parks, businesses etc.)

This benchmark measures the percentage of Tillamook County residents served only by community-based systems. The rates provided for the state of Oregon include non-community based systems.

Benchmark 1.6 Percentage of Tillamook County Residents with On-Site Sewage Disposal Systems that Do Not Meet Government Standards

The Oregon Progress Board Benchmark #72 is "the percentage of Oregon residents with sewage disposal that does not meet government standards." OPB derived their findings using data from the DEQ Sewage Needs Survey, which provides information on large public sanitary sewer systems. Tillamook County's public sanitary sewer systems are regularly in compliance (with the exception of the Garibaldi treatment facility, which currently is being upgraded), so this would not serve as an effective benchmark.

Instead, the Futures Council uses only local (small) on-site sewage disposal systems as their benchmark. Many of these systems often are out of compliance, and data on repair permits are readily available. Note: compliance issues with large on-site sewage disposal systems (RV parks, state parks etc) cannot be quantified, so these are presented qualitatively in appendix form. Because the number of permits issued is used as the indicator of failures, the actual number of failures may be higher. Any error between actual failures and permits issued is assumed to be consistent over the years examined.

Environment

Benchmark 2.2 Trends in the Stream Water Quality Index (OWQI)

Because of the inherent variability in water quality data when comparing one year or season to another, the OWQI uses a Kendall Analysis in computing the index: This means that scores are indexed on a ten-year average, and ten-year blocks are then compared to show trends. Scores are measured as follows:

- Very Poor: 0-59,
- Poor: 60-79,
- Fair: 80-84,
- Good: 85-89,
- Excellent: 90-100

Economy

Benchmark 3.2 Employment in the Forest Industry

First, the data do not represent those individuals actually working in the forests but only those on the manufacturing end of the industry. Second, sometimes mills and logging contractors hire temporary workers, who would not be reflected in this category of state employment data. Finally, some degree of crossover exists between Tillamook and the surrounding counties, both in terms of employees coming in to find work in the timber industry and in terms of wood products being taken outside of the county for processing. In both cases, the employment data contained in this benchmark do not reflect this.

Benchmark 3.9 Number of Tourists Visiting the Tillamook County Creamery

The Creamery staff track these figures using the following formula:
a factor of 2.78 (estimated number of visitors per party) x the number of Register Sales.
The figures are verified by both random physical counts of visitors and by the number of ice cream cones sold per sales ticket. Ms. Judy Hill, Public Relations Manager, stated that survey information has shown that many of the visitors are day visitors. However, every visitor who comes to the community brings the potential for supporting Tillamook businesses.

Society and Culture

Benchmark 4.1 Tillamook County High School Dropout Rate

Rural county data were not available until 1996, when definitional changes were implemented regarding what constitutes a dropout. Note: data before and after 1996 should not be compared; they are presented here only to compare state and county findings within each year.

Benchmark 4.2 Percentage of 8th Graders Who Achieve Established Skills in Reading and Math

The Oregon State Board of Education adopted new performance standards in 1996. Data presented here record achievement back to 1991 for comparison with state rates. Data before and after 1997 should not be compared.

APPENDIX C: ADDITIONAL DATA

Appendix C provides further data for several benchmarks contained in the text of this report.

Benchmark 2.4 Percentage of Wild Salmon and Steelhead Populations in Key Sub-Basins at Target Levels

Table C-1 details the estimated wild Coho populations in drainage basins throughout Tillamook County. These data are summarized in **Figure 2-3** and shown graphically in **Figure 2-4** of this report.

Table C-1
Estimated Wild Coho Salmon Populations in Major Tillamook County Drainage Basins (1990 – 1998)

Drainage Basin	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Nehalem	1,552	3,975	1,268	2,265	2,007	1,463	1,057	1,173	1,190	3,713	14,518
Tillamook Bay	265	3,000	261	860	652	289	661	388	271	2,175	1,956
Nestucca	189	728	684	401	313	1,811	519	271	169	2,201	1,155
Sand Lake & Neskowin Cr.	0	240	24	41	77	108	275	61	0	47	0
Total	3,996	9,934	4,229	5,560	5,043	5,666	4,508	3,890	3,628	10,135	19,629

Source: Oregon Department of Fish and Wildlife

Benchmark 4.3 Tillamook County School Report Cards

Tables C-2, C-3, and C-4 show the evaluation of Tillamook County schools completed by the Oregon Department of Education for the three school districts in the county. These data are summarized in **Table 4-3** of this report.

Table C-2
Overall School Ratings for Schools in Nestucca School District (2000-2002)

School (Grades)	Year	Student Performance	Student Behavior	School Character	Improved Student Performance	Overall Rating
Nestucca HS (9-12)	2000	Satisfactory	Strong	Satisfactory	Declined	Satisfactory
	2001	Satisfactory	Strong	Exceptional	Improved	Satisfactory
	2002	Satisfactory	Strong	Exceptional	Declined	Satisfactory
Nestucca Valley Elementary (K-5)	2000	Satisfactory	Low	Satisfactory	Improved	Satisfactory
	2001	Strong	Low	Exceptional	About Same	Satisfactory
	2002	Strong	Satsifactory	Exceptional	Improved	Strong
Nestucca Valley MS (6-8)	2000	Satisfactory	Low	Satisfactory	Declined	Satisfactory
	2001	Strong	Satisfactory	Exceptional	Improved	Strong
	2002	Strong	Satisfactory	Exceptional	Improved	Strong

Source: Oregon Department of Education

Table C-3
Overall School Ratings for Schools in Tillamook School District (2000-2002)

School (Grades)	Year	Student Performance	Student Behavior	School Character	Improved Student Performance	Overall Rating
East ES (1-6)	2000	Strong	Satisfactory	Satisfactory	Improved	Strong
	2001	Satisfactory	Strong	Exceptional	About Same	Satisfactory
	2002	Satisfactory	Strong	Exceptional	Improved	Satisfactory
Liberty ES (K-6)	2000	Satisfactory	Satisfactory	Satisfactory	Improved	Satisfactory
	2001	Satisfactory	Satisfactory	Exceptional	About Same	Satisfactory
	2002	Satisfactory	Strong	Exceptional	About Same	Satisfactory
South Prairie ES (K-6)	2000	Satisfactory	Satisfactory	Satisfactory	Declined	Satisfactory
	2001	Satisfactory	Satisfactory	Exceptional	About Same	Strong
	2002	Strong	Satisfactory	Exceptional	Improved	Strong
Tillamook HS (9-12)	2000	Satisfactory	Satisfactory	Satisfactory	Improved	Satisfactory
	2001	Satisfactory	Strong	Exceptional	Improved	Satisfactory
	2002	Satisfactory	Strong	Exceptional	Improved	Satisfactory
Tillamook Junior High School (7-8)	2000	Satisfactory	Unacceptable	Satisfactory	Improved	Satisfactory
	2001	Satisfactory	Low	Exceptional	Declined	Satisfactory
	2002	Satisfactory	Satisfactory	Exceptional	Improved	Satisfactory
Wilson Elementary School (K-6)	2000	Satisfactory	Low	Satisfactory	About Same	Satisfactory
	2001	Satisfactory	Low	Exceptional	Improved	Satisfactory
	2002	Strong	Strong	Exceptional	Improved	Strong

Source: Oregon Department of Education

Table C-4
Overall School Ratings for Schools in Neah-Kah-Nie School District (2000-2002)

School (Grades)	Year	Student Performance	Student Behavior	School Character	Improved Student Performance	Overall Rating
Garibaldi ES (K-6)	2000	Satisfactory	Satisfactory	Satisfactory	Improved	Satisfactory
	2001	Satisfactory	Low	Exceptional	About Same	Satisfactory
	2002	Strong	Satisfactory	Exceptional	Improved	Strong
Neah-Kah-Nie Jr/Sr High School (7-12)	2000	Satisfactory	Strong	Satisfactory	Improved	Satisfactory
	2001	Satisfactory	Low	Exceptional	Improved	Satisfactory
	2002	Satisfactory	Satsifactory	Exceptional	About Same	Satisfactory
Nehaiem ES (K-6)	2000	Strong	Satisfactory	Satisfactory	Improved	Satisfactory
	2001	Strong	Low	Exceptional	Improved	Satisfactory
	2002	Strong	Satisfactory	Exceptional	Improved	Strong

Source: Oregon Department of Education