TRACKING OREGON’S PROGRESS

A REPORT OF THE

TRACKING OREGON’S PROGRESS
(TOP) INDICATORS PROJECT
Many hands helped with this report. We are indebted first of all to the advisory committee for their counsel on needed indicators; we added several new indicators in response to their suggestions. We are also grateful to those who reviewed early drafts of this report under very short timelines, and whose corrections and insights greatly improved the final report. Rita Conrad of the Oregon Department of Education Office of Child Care and Duncan Wyse of the Oregon Business Council – both former directors of the Oregon Progress Board – provided particularly insightful comments about the framing of the report and ways to avoid misinterpretation of the indicators. Sheila Martin of the Institute of Portland Metropolitan Studies and Jason Jurjevich of the Population Research Center, both at Portland State University, provided very careful reviews of the early draft and helped us to clarify ambiguities and correct errors in the report. Rita and Sheila, as project manager and steering committee member respectively of the Greater Portland Pulse project report, also drew on insights from the GPP project to help shape the TOP Indicators report. Beth Emshoff of Oregon State University, Mike Hibbard of the University of Oregon and Ethan Seltzer of Portland State University all pushed us hard to add new contextual material and sharpen the focus for potential readers. John Antle, Bill Jaeger and JunJie Wu of Oregon State University provided helpful suggestions about the section on the environment. We were not always able to follow the suggestions of reviewers, because we sometimes faced conflicting recommendations. We are grateful for the comments and counsel of all these reviewers and look forward to their continued involvement as the TOP Indicators effort evolves. In future years, additional indicators will be added to the TOP Indicators report and website. Decisions about which indicators to add will be made in consultation with the project advisory committee.
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INTRODUCTION

In 1989, Oregon embarked on a novel experiment to track the progress of the state toward a set of economic, social and environmental goals embodied in the state strategic plan Oregon Shines. The task of tracking a set of indicators to measure progress was assigned to a new state entity: the Oregon Progress Board. For two decades, the Progress Board measured the state’s progress using a set of social, economic and environmental indicators. After the 2009 report was completed, however, the state decided not to continue funding the Progress Board and discontinued the tracking of state and county indicators.

This past spring, the Oregon Community Foundation began a partnership with Oregon State University’s Rural Studies Program on the Tracking Oregon’s Progress (or TOP) Indicators Project. This project builds upon the discontinued Oregon Progress Board Benchmarks data collection and reporting, and upon the ongoing Greater Portland Pulse indicators effort in the Portland metropolitan area. (See Appendix A for a review of the Benchmarks and Greater Portland Pulse projects.) The project involves two related components: (1) TOP Indicators online (http://oe.oregonexplorer.info/rural/CommunitiesReporter/top_indicators.aspx) that tracks changes in 88 indicators (TOP Indicators) for the state of Oregon and all 36 counties since 1990 (when data are available); and (2) this 2014 TOP Indicators Report.

The TOP Indicators online component capitalizes upon OSU Rural Studies Program’s existing Communities Reporter Tool of the Rural Communities Explorer (an online data repository and reporting tool supported by the Ford Family Foundation). In addition to providing web access to the state data, the web portal allows users to access the county-level indicator data to produce state- and county-level reports on all the indicators or on specific indicators, and allows comparisons between counties, with the state, and with all metropolitan and/or nonmetropolitan counties. There are significant differences among counties and between metropolitan and nonmetropolitan areas on many indicators.

The indicators focus on three domains: a Healthy Economy, Healthy People and Communities, and a Healthy Environment. The Healthy Economy indicators cover topics related to the economy and education; the Healthy People and Communities indicators cover topics related to civic engagement, health, safety, and housing; and the Healthy Environment indicators pertain to the built environment and natural environment. A healthy economy is, of course, linked to and interdependent with healthy people and communities and a healthy environment. Many of the indicators could have easily been placed in, more than one domain. Education, for example, supports both a healthy economy and healthy people and communities. And timber harvest affects both economic and environmental health. For these indicators and others, we followed the Oregon Progress Board structure to place indicators into domains.

Some of the indicators provide more recent data on Oregon Benchmarks reported by the Progress Board. New indicators are also included, in part because new data are available and in part to align with the Governor’s recently established 10-Year Plan indicators. A list of the 88 TOP Indicators is in Appendix B.

This 2014 report is a report to the people of Oregon. It identifies trends in the state that suggest both progress toward prosperity as well as issues that may be a source of future barriers and concerns. Like those who led previous indicator efforts, we hope that the report and website will be used by policymakers, government analysts, the press, business and civic leaders and the civically-engaged population to better understand the current social, economic, and environmental condition of the state.

For the sake of brevity, this report does not include a discussion of all 88 TOP Indicators. Some indicators have only been collected in recent years and thus trends are not evident. In other cases, the report includes one or more representative indicators for a given topic. (Some indicators are placed in one domain on the website and another domain in the report to improve the flow of the report. For example, housing cost burden is included in the discussion of economic hardship in the economy section of the report rather than in the community section, and education is included in the section on people rather than in the discussion of the economy.) Data on all 88 TOP Indicators for the state and counties are available online. Visit the TOP Indicator website to access the indicators via the online data portal (http://oe.oregonexplorer.info/rural/CommunitiesReporter/top_indicators.aspx).
Over many decades, population and jobs have grown faster in Oregon than in the nation.

The fundamental economic health indicators in the economy are population, jobs and earnings. Jobs and earnings in turn are linked to labor force participation and unemployment. Certain segments of the population are or have been economically vulnerable and are thus of particular interest.

Since the population and number of jobs in Oregon have grown faster than the national average, Oregon’s share of the nation’s population and jobs has increased slightly.

Population growth is often used as an indicator of economic vigor. The population of Oregon has grown steadily from just over 2 million people in 1969 to over 3.8 million people in 2011. Since population growth in Oregon has been faster than the nation’s, Oregon’s share of the nation’s population has increased from 1.15 percent in 1990, to 1.24 percent in 2011. See Figure 1.

Job growth is often seen as the other fundamental indicator of economic vitality. The number of full- and part-time jobs in Oregon has grown from around 920,000 to over 2.2 million between 1969 and 2011. This growth has not been steady, however, with much greater job growth in the 1990s than in the 2000s: in the 1990s, jobs grew at an average rate of 2.9 percent a year (from 1.6 million to 2.1 million jobs); in the 2000s, jobs grew at an average rate of 0.5 percent per year (from 2.1 million to 2.2 million).

Because job growth in Oregon during this period was faster than the nation’s, Oregon’s share of the nation’s jobs grew from 1.18 percent in 1990 to 1.25 percent in 2011. Further, the rate of relative job growth has also been greater than the rate of relative population growth, indicating that Oregon’s share of jobs has increased more than its share of population. See Figure 2.

Per capita income has dropped in Oregon since 2000 relative to the nation.

Per capita income (total income divided by population) is a key measure of a healthy economy because it provides an indicator of the average income that is available to support each person. Places with higher per capita incomes have more resources for public and private goods and services. Oregon per capita income has been dropping relative to the nation as a whole since 1980. In the late 1970s, Oregon’s per capita income was above the national average. Since 1980, however, per capita income has dropped below the national average. In 1990, it stood at 92.5 percent; in 2000, it was 94.8 percent; but in 2010, it dropped to 89.2 percent. See Figure 3.
Since 1990, the population has become more racially and ethnically diverse with Hispanics almost tripling as a share of the state’s population.

The racial and ethnic composition of Oregon’s population has also seen a dramatic shift since 1990. In 1990, over 90 percent of Oregonians were white and non-Hispanic. In 2007-11, this share had dropped to just under 79 percent. Due to migration and higher birth rates, the Hispanic population has grown from just under 4 percent to almost 12 percent of the total population in this interval, as illustrated in Figure 4. In this and subsequent figures, the population shares by race are not strictly comparable between 1990 and the later periods. In 1990, the Census Bureau instructed individuals to identify as one race only. In 2000 and afterward, individuals were allowed to identify as more than one race. Therefore, in 2000 and after, all categories are monoracial (e.g., White only, African-American only) except Hispanic and Multiracial. Hispanics are an ethnic group who can be of any race. The categories are mutually exclusive and sum to 100 percent of the population. Labor force participation has increased for some racial and ethnic populations and declined for others in Oregon since 2000.

The labor force participation rate measures the percent of the population 16 years of age or older that is in the civilian labor force (that is, who are available for work and either are working or seeking work). Labor force participation rates indicate what share of the adult population is in the labor force; these rates do not tell anything about whether those in the labor force have jobs or whether those with jobs are working full- or part-time. In both 1990 and 2000, 64 percent of the overall population age 16 or more was in the labor force. See Figure 5.

People enter and leave the labor force for many reasons. Some enter the labor force after they finish their education or recover from an injury. Others enter because they need a job due to a change in family economic circumstances or a
family disruption. People leave the labor force for many different reasons as well. Some leave the labor force upon retirement, or when the family economic situation improves so that they no longer need to work. Others leave the labor force in discouragement after a long, unsuccessful job search or during an economic downturn when employers are not hiring, or with the arrival of a child or to take care of a parent or family member with a long-term illness. Thus, it is often difficult to predict what effect an economic downturn or upswing will have on labor force participation.

As illustrated in Figure 5, labor force participation varies by race and ethnicity. In 2000, African-Americans had the lowest rates of labor force participation (63.2 percent), while Native Hawaiians/Pacific Islanders had the highest (76.5 percent). During the recession, labor force participation declined for Whites, American Indians/Native Alaskans and Native Hawaiians/Pacific Islanders, and increased for those who identified as Hispanic, Other, and Asian. In the most recent period, Whites had a rate of 62.9 percent while Hispanics had a rate of 73.5 percent.

**Labor market conditions have deteriorated in Oregon: the unemployment rate in Oregon has risen since 1990, especially for Oregonians of color, and average wages per job have been stagnant since 2000.**

The unemployment rate (the percent of the civilian labor force that is not working and is actively seeking employment) is one of the most common economic indicators relating to the health of an economy. This rate can increase because the number of people seeking work increases and/or because the number of people out of work increases. This indicator has tended to be cyclical, falling during expansions and rising during recessions. The unemployment rate, however, may not decline during an expansion if the number of people seeking work increases faster than the number of jobs. Likewise, the unemployment rate may fall during an extended recession as people discouraged about finding a job stop looking for work.

The overall trend in Oregon showed a rising rate of unemployment since 1990, from a 6.2 percent unemployment rate in 1990 to a 6.5 percent rate in 2000. The rate has grown over 50 percent since 2000, to 9.8 percent in the most recent periods, reflecting the
lingering effects of the Great Recession in Oregon. See Figure 6.

Overall indicators of Oregon’s economic health can mask significant differences between certain subgroups of Oregonians. For example, unemployment varies markedly by race and ethnicity. In 2000, the Asian population had the lowest unemployment rate among all race/ethnic groups (5.7 percent), followed by Whites (5.9 percent), and Hispanics (6.4 percent). The highest unemployment rates in 2000 were found among those who identified as Multiracial (17.2 percent), African-Americans (12.6 percent), and American Indian/Native Alaskans (12.3 percent). See Figure 7.

The recession increased unemployment rates for all racial/ethnic groups except for non-Hispanic Multiracial, and other populations (whose rates declined). Between 2000 and the 2007–11 period, unemployment rates increased most for Native Hawaiian/Pacific Islanders (from 11.6 percent to 16.0 percent) and for Hispanics (from 6.4 percent to 9.7 percent). Whites and American Indians/Native Alaskans had similar increases in unemployment (approximately 2.4 percentage points), but unemployment was far more prevalent among American Indians/Native Alaskans than Whites at both time points. African-American and Asian Oregonians actually saw the smallest increases in unemployment between 2000 and 2007–11, but African-American unemployment was high at both time points, and more than twice that of Asians. Despite these changes to unemployment across racial and ethnic groups, the groups with the lowest unemployment remained unchanged across the two decades. Asians and Whites had the lowest unemployment rates in 2000 and on average in 2007–11. However, American Indians/Native Alaskans and Native Hawaiians/Pacific Islanders lost ground during this period, moving to having the highest unemployment rates in 2007–11. See Figure 7.

Average annual wages per job in Oregon rose during years of robust growth and Asian Oregonians actually saw the smallest increases in unemployment between 2000 and 2007–11, but African-American unemployment was high at both time points, and more than twice that of Asians. Despite these changes to unemployment across racial and ethnic groups, the groups with the lowest unemployment remained unchanged across the two decades. Asians and Whites had the lowest unemployment rates in 2000 and on average in 2007–11. However, American Indians/Native Alaskans and Native Hawaiians/Pacific Islanders lost ground during this period, moving to having the highest unemployment rates in 2007–11. See Figure 7.

Average annual wages per job in Oregon have been stagnant since 2000.

Average annual wages per job in Oregon rose during years of robust growth between 1990 and 2000, but have stagnated since 2000 at just under $40,000 (in 2006 dollars). See Figure 8.

In part due to worsening labor market conditions, income inequality has increased, minority incomes have declined relatively, and poverty and the housing cost burden have grown.

Income inequality has increased in Oregon since 1990, though not as much as in the nation.

A commonly used measure of income inequality is the Gini Index. When all households have equal incomes, the Gini Index is 0. When one household has all the income, the Gini Index is 1. The higher the Gini Index, the greater the inequality. The Gini Index for
households has been rising in Oregon and the U.S. since 1990. As illustrated in Figure 9, Oregon’s Gini Index rose from .431 in 1990 to .438 in 2000 and .449 in 2010. This trend indicates that higher-income households are receiving an increasing share of Oregon’s income. The level of income inequality is greater in the U.S. than it is in Oregon, but inequality is rising at a slightly higher rate in Oregon than in the U.S. See Figure 9.

The average income of minorities has declined relative to incomes for Whites.

To examine racial equity, the TOP Indicators include a measure of minority per capita income as a percent of per capita income of the White (non-Hispanic) population. In 2000, per capita income for minorities (racial minorities and Hispanics) was 71.0 percent of per capita income for whites. In 2010, it was 66.7 percent. See Figure 10.

**Poverty in Oregon has been on the rise, especially for children.**

The TOP Indicators include two indicators of poverty: the overall poverty rate and the child poverty rate. The poverty rate is defined as the percent of individuals whose family income falls below the poverty threshold for their family size. The child poverty rate is the percent of children under 18 whose family incomes fall below the poverty threshold. The poverty threshold in 2011 for a family of two adults and two children was approximately $23,000.

Oregon’s poverty rate declined from 12.4 percent in the 1990 Census to 11.6 percent in the 2000 Census. However, the rate has been steadily increasing since then, reaching 14.8 percent in 2011.

The child poverty rate in Oregon, which is higher than the overall poverty rate, was 15.8 percent in 1990. As with overall poverty, child poverty decreased in the 1990s to 14.7 percent in 2000, and then increased in the 2000s, reaching 19.6 percent in 2011. See Figure 11.

The housing cost burden in Oregon has increased substantially since 1990.

For many households, housing costs are a significant and increasing portion of the household budget. Households are considered “cost burdened” by housing costs if they spend 30 percent or more of gross household income on their rent or mortgage. According to this indicator, 26.4 percent of Oregon households were “housing cost burdened” in 1990. By 2000, this share had risen to 31.2 percent. By 2007–11, this share had risen to 40.4 percent, indicating that for 2 out of 5 Oregon households, housing costs consumed 30 percent or more of their household budget. See Figure 12.
Oregonians have increased their educational attainment overall, but some groups have faced obstacles to achieving more education.

A better-educated population supports a more productive workforce, which can foster business expansion, higher earnings, and job growth. We examine two indicators of educational participation and attainment: the high school cohort graduation rate (the number of students who graduated from high school in a given year divided by the number who enrolled in high school 5 years earlier) and the shares of the population 25 years of age or older who achieved different levels of education.

High school graduation rates have increased for all racial/ethnic groups and for the economically disadvantaged, but large disparities have been persistent.

As illustrated in Figure 13, overall high school graduation rates increased in Oregon between 2010 and 2012 from 69.1 percent to 72.4 percent. There are, however, large differences in high school graduation rates across racial and ethnic groups. For example, four out of five Asian students in the class of 2010 graduated from high school in five years, compared to less than two-thirds of African-American, American Indian/Native Alaskans and Hispanic students. Because the state only began collecting cohort graduation rate data in 2009, it is not possible to know the longer-term trends on these rates. Over the three years for which data are available, however, there is evidence of increasing graduation rates across all racial/ethnic groups. Although in the case of some of minorities (African-American, Multiracial and Hispanic students) these increases are large and some minorities are making progress, the gap between the highest and lowest rates has not decreased. The gap in 2010 was 25.3 percentage points; in 2012, it was 26.8 percentage points, indicating that racial disparities in graduation rates persisted. The data also indicate that American Indi-
an/Native Alaskan high school students have been left behind, while students in other racial and ethnic groups have seen at least moderate improvement.

**Adult educational attainment has been improving since 1990.**

The percent of adults with high school education or less fell from 18.5 percent in 1990 to about 11 percent in 2007-2011.

In the same period, the percent of adults with at least a 2-year degree rose from 28 percent to 37 percent and those with a 4-year degree or greater rose from 21 percent to 29 percent. See Figure 14.

**Oregon adults and teens have made some good health-related choices and Oregonians have been living longer, but there have been continuing disparities in health outcomes and concerns about trends for prenatal care, low birth-weight babies, and teen drug use.**

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**Figure 14: Oregon Adult (Age 25+) Educational Attainment (Percent), 1990-2011. Source: US Bureau of the Census, Decennial Census & American Community Survey**

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**Figure 15: Prenatal Alcohol and Tobacco Use in Oregon, 1990-2010. Source: Oregon Department of Human Services, Center for Health Statistics**

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**Figure 16: First Trimester Prenatal Care in Oregon, 1990-2011. Source: Oregon Department of Human Services, Center for Health Statistics**

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**Figure 17: Low Birth-Weight Babies in Oregon (Percent), 2000-2011. *In 2003, Pacific Islanders were included with Asians. Data on individuals who identify as Multiracial or Other were not compiled in 2000 and 2003. Source: Oregon Health Authority, Vital Statistics**
Pregnant mothers have sharply reduced use of alcohol and tobacco during pregnancy, although many were still not getting prenatal care during the early months of pregnancy.

There has been a sharp reduction in the percentage of infants born to mothers who reported using alcohol during pregnancy, from 5.2 percent in 1990 to 0.7 percent in 2009. There has also been a significant decline in the percentage of infants born to mothers reporting using tobacco during pregnancy, from 22.2 percent in 1990 to 11.2 percent in 2010. See Figure 15.

The share of pregnant mothers getting prenatal care in the first trimester of pregnancy has experienced relatively large fluctuations in recent years, and shows no discernable trend. See Figure 16.

During the 2000s, about one in 16 Oregon babies was born below the recommended birth weight, a rate that has varied greatly across racial and ethnic groups.

There have been large disparities in both the rates of low birth-weight across racial and ethnic groups, and in the direction of change for these rates. The rate of low birth-weight babies in 2003 among African-Americans (11.6 percent) was twice the rate among Hispanics (5.3 percent). African-Americans, however, have seen decreases in their rates of low birth-weight and Hispanics have seen increases. Whites, with average rates, saw decreases in low birth-weight babies; and Asians, with slightly above average rates, have seen increases. All non-White racial groups have rates above the state average, and African-American rates, while declining, remain the highest. See Figure 17.

The teen pregnancy rate has declined very substantially during the past two decades, but there have been great disparities in rates among racial and ethnic groups.

Several different measures track teen pregnancy, and all measures indicate a downward trend since 1990. One indicator is the rate of pregnancy per 1,000 females age 15-17. Using this indicator, the teen pregnancy rate dropped from 52.2 per thousand in 1990 to 16.6 per thousand in 2007–11. See Figure 18.

Use of alcohol and cigarettes by 8th graders in Oregon fluctuated in the 2000s. Eighth-grader use of illegal drugs increased by about 50 percent.

The percentage of 8th graders who reported using alcohol in the previous 30 days has fluctuated between 23 and 32 percent over the 2000–2009 period. The percentage of 8th graders who reported using cigarettes in the previous 30 days declined from 13 percent to 9 percent.
percent between 2000 and 2005, but increased to 10 percent in 2009. Finally, the percentage of 8th graders who reported using illegal drugs in the previous 30 days increased from 13 percent to 18 percent between 2000 and 2009. See Figure 20.

While smoking by Oregon adults declined between 2002–05 and 2006–09, most Oregonians reported not getting enough exercise or eating the recommended amounts of vegetables.

The percentage of adults who smoked cigarettes decreased from 20.4 percent to 17.1 percent between 2002 and 2009. However, only about half of Oregon adults meet the U.S. Centers for Disease Control and Prevention (CDC) recommendations for physical activity, and only about one quarter of Oregon adults eat the recommended five or more servings of vegetables each day. Rates for both exercise and diet showed little improvement over time. See Figure 21.

The traffic fatality rate in Oregon has been cut almost in half in the last two decades. Highway safety has improved dramatically in Oregon since 1996, when there were 526 fatalities (a rate of 16.2 traffic fatalities per 100,000 population). In 2011, there were only 331 fatalities (a rate of 8.7 traffic fatalities per 100,000 people). See Figure 22.

Mortality rates have declined for all age groups since 1990. The most dramatic declines have been for those 65 and older and for the age 0-4 population.

The mortality rate for 65-74 year-olds declined from 25 per 1,000 to 18 per 1,000 over the same time period. The mortality rate for those 0-4 years of age declined from 2.2 per 1,000 population in 1990 to 1.3 per 1,000 in 2011. See Figures 23 and 24.
Arrest rates for crimes against persons and property declined more than 35 percent between 1990 and 2010, and arrests for behavioral crimes peaked in 2000 but have declined almost 25 percent since 2000.

Crimes are reported in three major categories: crimes against persons, crimes against property, and behavioral crimes. Crimes against persons include willful murder, negligent homicide, rape, other sex crimes, kidnapping, robbery, aggravated assault and simple assault. Crimes against property include burglary, larceny, motor vehicle theft, arson, forgery/counterfeit, fraud, embezzlement, stolen property, and vandalism. Behavioral crimes include weapons regulation laws, prostitution, drug laws, gambling, offenses against family, DUII, liquor laws, disorderly conduct, all other offenses (except traffic), curfew violations, and runaway juveniles.

Between 1990 and 2010, arrests for crimes against persons decreased sharply (from 8.05 to 4.84 per 1,000 population) as did arrests for crimes against property (from 14.1 to 9.0 per 1,000 population). Arrests for behavioral crimes, by contrast, increased between 1990 and 2000 before declining sharply between 2000 and 2010 (from 31.7 to 24.1 per 1,000 population). See Figure 25.

Juvenile arrest rates showed a similar pattern, but declined even more sharply between 1990 and 2010. Arrest rates of juveniles for crimes against persons declined by almost half over this period, from 5.4 to 2.8 per 1,000 individuals under 18. Juvenile arrest rates for crimes against property declined by more than half, from 21.6 to 9.6 per 1,000 individuals under 18. Arrests for behavioral crimes increased from 22.6 per 1,000 individuals under 18 in 1990 to 26.7 in 2000 before declining to 17.8 in 2010. See Figure 26.
The child abuse rate in Oregon has increased slightly since 2000.

Approximately 1.3 out of every 1,000 children under 18 years of age have been reported as victims of child abuse or neglect. See Figure 27.

African-Americans in Oregon have been incarcerated at a rate that was more than their share of the population.

The index of incarceration for each race/ethnic group is the ratio of the race/ethnicity’s share of inmate population divided by the race/ethnicity’s share of the total population. An index value greater than 1 indicates that a particular race/ethnic group is incarcerated at a rate that is disproportionally higher than their share of the population. Higher indices indicate greater disproportionality. In 2011, African-Americans were incarcerated at a rate that was 5 times more than their share of the population. See Figure 28.
Tracking progress relative to Oregon’s natural environment is challenging. There are few good indicators of the quality of Oregon’s natural resource base that have been collected consistently over time. Some environmental indicators, such as air quality, vary greatly from year to year, making it difficult to discern whether progress is being made. And it is difficult to assess some environmental changes. The accounting systems for tracking the benefits and costs of changes in resource use are not well developed because many benefits and costs of preserved natural resources and clean air and water are difficult to measure and accrue over long time horizons.

In this section, we focus on four environmental quality and natural resource use indicators: (1) changes in the amount of solid waste going to landfills; (2) air quality; (3) changes in forest harvest; and (4) changes in nonfederal land use. Because the last two indicators, particularly, have strong environmental and economic effects, there may be disagreement about whether they are primarily economic or environmental indicators. As noted in the introduction, we follow the Progress Board practice of classifying them with environmental indicators. Similarly, because these changes affect different economic or demographic groups and communities differently, there may be disagreement about whether or not the observed changes in these indicators are desirable.

Oregonians have reduced the waste put into landfills on a per capita basis by about one quarter since 2000.

There is a limited amount of land suitable for storing solid waste. Putting solid waste into landfills uses up this limited resource and incinerating solid waste uses other resources and generates air pollution. Reducing the amount of solid waste put into landfills or incinerated is an indicator of progress in environmental management. As illustrated in Figure 29, since 2000, Oregonians have reduced the pounds of solid waste land-filled or incinerated from 1,667 pounds per person to 1,264 pounds per person. These reductions may be due to declines in waste generated or increases in recycling.

Oregonians in some communities have been exposed multiple times per year to air that is unhealthy for sensitive groups.

The Oregon Department of Environmental Quality monitors air quality and tracks the number of days the outdoor air in monitored locations is considered unhealthy according to the traditional National Ambient Air Quality Standards. The Air Quality Index used to make this determination addresses six air pollutants: 1) carbon monoxide, 2) ozone, 3) particulate matter, 4) nitrogen dioxide, 5) sulfur dioxide, and 6) lead. National standards are set by the U.S. Environmental Protection Agency (EPA) at a level that is protective of the most sensitive population groups. Sen-
Sensitive groups are those who are more susceptible to the harmful effects of air pollution, including children, the elderly and chronically ill individuals. The air quality indicator we report is the sum across all monitored counties of the number of days per year that air quality was unhealthy in the county for these sensitive groups. A larger number indicates that more counties had more unhealthy air quality days for that year.

Figure 30 illustrates that there was great year-to-year variation in the number of county-days with unhealthy air for sensitive groups. The number varies between 14 and 55 in the years reported here, indicating that air pollution continues to expose sensitive groups to unhealthy air. Although air quality can be a concern in rural areas, most of reported days with unhealthy air occur in the metropolitan areas.

The amount of timber harvested annually in Oregon has been cut almost in half in the past two decades, as Federal land management plans increased protections for old-growth forests.

Changes in natural resource use affect both the environment and the economy. Reduced timber harvests are associated with improved water quality, reduced soil erosion, protection of endangered species, and increased carbon sequestration. Reduced timber harvests are also linked to forest fires and insect infestations in some forest ecosystems that have negative environmental effects. There is much debate about the overall environmental impact of reduced harvests. Reduced timber harvests also have, as noted above, significant economic implications for people and communities.

The Federal government owns half (53 percent) of the land in Oregon (see Gorte, Vincent, Hansen & Rosenblum, Federal Land Ownership: Overview and Data, Washington DC: Congressional Research Service, 2012), so Federal management decisions about land use are a dominant factor in determining land and water use and environmental quality in this state. Federal forest policy in the Pacific Northwest has been a source of much debate since at least the 1980s when forest management policy began to work toward a different balance between habitat protection and harvesting timber on Federal lands. The Northwest Forest Plan (NWFP), put into place in 1994, established a new forest management framework that shifted 11 million acres of federal forestland from timber production to old-growth forest protection. This new management framework dramatically altered the size and ownership composition of timber harvests in Oregon. See Figure 31.

After reaching a peak of over 8 billion board feet (BBF) in the late 1980s, total timber harvest declined in Oregon to about 6.2 billion board feet in 1990. Prior to 1990, the Federal government was usually the lead source of timber in Oregon, in most years supplying slightly more than private forests.

In the early 1990s, the Federal government changed its management objectives and harvest plans. Total harvests in Oregon were reduced from 6.2 billion board feet in 1990 to 3.9 billion board feet in 2000 as the two federal forest agencies – the Bureau of Land Management (BLM) and the U.S. Forest Service (USFS) – drastically reduced their harvests. The Federal harvest went from 2.7 BBF in 1990 to 328 million board feet in 2000. The other timber owners (private industrial and nonindustrial forest sector, the Native American forest industry and the state and local government forests) reduced their harvests by a much smaller amount (from 3.5 billion board feet to 2.8 billion board feet).
Oregon has been slowly losing farmland, forestland and rangeland to urban and low-density residential uses.

Oregon land use laws have created a system for managing nonfederal land use change that seeks to balance resource protection and use of land for residential, industrial and municipal purposes. Changes in land use are an indicator of how this balance is being struck. In 1994, 94 percent of nonfederal land was in wildland forest, wildland range, mixed forest/agriculture, mixed range/agriculture, and intensive agriculture uses. As illustrated in Figure 32, between 1994 and 2009, this share declined by about 0.5 percentage points. This land was converted to low-density residential (increasing from 4.2 to 4.5 percent) and urban (1.6 to 1.9 percent) uses. Data from the National Land Cover Database (NLCD) suggest that this rate of conversion is slower than the national conversion rate. Using a different set of land classifications and a different time period, NLCD estimates that the percent of the nation in urban areas (land in the “developed” land cover classification that includes low-density residential) increased from 2.83 percent in 1992 to 5.46 percent in 2006 (see http://www.mrlc.gov/nlcd92_stat.php).

Data from the USDA National Agricultural Statistics Service corroborate the findings above, indicating a slow loss of farmland. These data show the proportion of land in farms declining from 28.7 percent in 1992 to 26.7 percent in 2007. See Figure 33.
MOVING FORWARD

Over the past quarter century, Oregon has seen some significant changes in its economy, people and communities, environment and natural resource use. Between 1990 and 2010:

- Oregon’s share of the nation’s population and employment grew;
- Oregonians became better educated and healthier;
- Oregon arrest rates for crime came down overall; and
- Oregonians reduced the generation of solid waste for landfills and incinerators.

There are indications, however, that this progress was not shared equally by all Oregonians, and some economic, social and environmental indicators reveal issues of continuing concern.

- Inequality has increased and some are worse off: per capita income declined relative to the nation, average wages per job stagnated, and unemployment, poverty and inequality increased substantially.
- Some population groups (African-Americans, American Indians/Native Alaskans and Hispanics) lagged behind in educational attainment as they graduated from high school at lower rates.
- Incarceration rates were disproportionately high for African-Americans.
- Air quality has been unhealthy for some sensitive groups multiple days per year in some communities.

And there have been important changes in land management and land use in Oregon.

- Timber harvests have declined in Oregon.
- A small share of Oregon’s farmland, forestland and rangeland has been slowly converted to urban and residential uses.

This report attempts to build on the legacy of the Oregon Progress Board in tracking Oregon’s progress toward a more sustainable and equitable economy and society. Moving forward requires more than merely understanding these trends and continuing to monitor them. It requires thoughtful and concerted action to identify opportunities and reduce barriers for all Oregonians, and particularly those who have not shared proportionally in the fruits of past progress.
This appendix reviews two efforts to track Oregon’s progress on economic, social and environmental goals.

**Oregon Progress Board and Oregon Shines**

The explicit theory of change underlying the tracking of indicators and linking the goals, articulated in the 2001 Benchmarks report, was the “Circle of Prosperity:”

- “A clean, appealing environment, a talented workforce and responsive public services will attract and find a base for...
- diverse, value-adding industries that provide well-paying jobs which will...
- create job and business opportunities for Oregonians, reducing poverty and crime [and] generate revenues for excellent schools and quality public schools and quality public services and facilities [resulting in]...
- a clean, appealing environment, a talented workforce and responsive public services......”

See Figure A1.

In 2009, the Oregon Progress Board issued its last report, *Achieving the Oregon Shines Vision HIGHLIGHTS: 2009 Benchmark Report to the People of Oregon*. In this report, the OPB graded Oregon’s progress by tracking 91 “benchmarks” over the previous decade, indicating how well or poorly the indicator was moving toward targets established in Oregon Shines. For the state of Oregon, the 2009 Benchmark Report used 158 indicators to track these 91 Benchmarks. These 91 Benchmarks were organized into seven Benchmark categories under three goals: *Economy and Education* under the “Quality Jobs for all Oregonians” goal; *Civic Engagement, Social Support and Public Safety*, under the “Engaged, Sharing and Safe Communities” goal, and *Built Environment and Natural Environment* under the “Healthy Sustainable Surroundings” goal. Where possible, the report also indicated how the state ranked nationally on any indicator (and compared to neighboring Washington state), and identified notable improvements and concerns.

Figure A1. Oregon Progress Board Circle of Prosperity. Source: Oregon Progress Board, 2001
Greater Portland Pulse

Interest in tracking indicators of progress, however, continues in Oregon. In early 2010, the Greater Portland Vancouver Indicators project was organized to develop and track regional indicators about the economy, education, health, safety, the arts, civic engagement, environment, housing and transportation. This effort evolved into Greater Portland Pulse [GPP], a partnership led by Portland State University’s Institute of Portland Metropolitan Studies and METRO, an elected regional government serving citizens of Multnomah, Clackamas and Washington Counties. Greater Portland Pulse, according to its website, “uses both data and dialogue to encourage coordinated action for better results across the region.” The project engages citizens in the Greater Portland region (Clackamas, Multnomah, and Washington Counties in Oregon, and Clark County in Washington) in identifying indicators and collecting data to track social, environmental and economic well-being for the four-county region on nine topics: Economic Opportunity; Education; Healthy People; Safe People; Arts and Culture; Civic Engagement; Healthy, Natural Environment; Housing and Communities; and Access and Mobility. For each of the topics, Greater Portland Pulse identifies desired outcomes, indicators and drivers. As of December 2012, there were 64 indicators for the nine topics (and 19 “developmental indicators” under development, the majority of which are related to Arts and Culture and Civic Engagement). Some of the indicators in the Environment and Access topics are important for urban places but not appropriate for rural areas.

GPP has developed the “Circle of Well-Being” as its theory of change in its first report, The Path to Economic Prosperity: Equity and the Education Imperative: “The region needs human, social, natural and physical capital to attract good employers and jobs to the area. This gives people the economic opportunity to achieve better outcomes, such as higher incomes, which increase public revenues, and improved levels of health, which decrease demand on public services. Stronger private and public service, such as excellent education, well-planned communities and a well-managed, functional natural environment, can then emerge to further sustain the region’s capital.”

The Circle of Well-Being embraces the importance of equity as a sustainable growth strategy for the region: “…[M]etropolitan regions prosper in the long run when they address the educational, economic and other needs of people of color and low income. Equitable access to economic opportunity requires equitable access to not only jobs, but to education, health, safety, the arts, civic engagement, the natural environment, quality housing and transportation.” (Greater Portland Pulse, 2011). See Figure A2.

For each of the topics, Greater Portland Pulse identifies desired outcomes, indicators and drivers. For example, for Economic Opportunity there are three desired outcomes: Individual and Family Prosperity, Business Prosperity, and Community Prosperity. For the Individual and Family Prosperity outcome, for example, there are six indicators: average wage per job, the wage distribution, per capita income, the unemployment rate, the self-sufficiency rate and the child poverty rate. For each of these indicators, various “drivers” are identified. The Greater Portland Pulse website provides both an extensive set of data visualization alternatives (bar charts, line graphs, and maps) for understanding levels and changes in the indicators, and documentation for each indicator. The website also provides opportunities for feedback and entering one’s own data.

## APPENDIX B

### Comprehensive list of TOP Indicators

#### HEALTHY ECONOMY

**Economy**

i. Per capita personal income as a percent of the US per capita income (US=100 percent)
ii. Ratio of mean annual income
iii. Modified Palma Index
iv. Minority income as a percent of White income
v. Poverty rate
vi. Child poverty rate
vii. Total employment (# of employed)
ix. Labor force participation rate (overall and by race/ethnicity)
x. Net job loss/growth, per 1,000 population
xi. Number/percent of businesses that are women or minority owned
xii. Childcare slots, per 100 children under 13
xiii. Average annual payroll per covered worker (in 2006 dollars)
xiv. Employment concentration in professional services, relative to the US concentration (US=100 percent)
xv. Teens not in school and not working
xvi. Proportion of people with disabilities who are employed

#### EDUCATION

i. Percent of 3 to 4 year olds enrolled in school
ii. Percent of children entering school ready-to-learn
iii. Percentage of 3rd graders who met reading requirement
iv. Percentage of 3rd graders who met math requirement
v. Percentage of 8th graders who met reading requirement
vi. Percentage of 8th graders who met math requirement
vii. High school dropout rate (overall and by race/ethnicity)
ix. 4 year high school completers (overall and by race/ethnicity)
ix. 5 year high school completers (overall and by race/ethnicity)
x. Percent of adults with less than high school education
xi. Percentage of adults with high school education
xii. Percentage of adults with 2-year degree
xiii. Percentage of adults with 4-year degree

#### HEALTHY PEOPLE & COMMUNITIES

**Community Capacity**

i. Voter turnout
ii. Property tax imposed per household
iii. State and local spending per capita
iv. Number of registered nonprofit organizations
v. Total revenue of registered nonprofits per capita

**Housing**

i. Home ownership rate (based on total population count)
ii. Home ownership rate (estimate)
iii. Percentage of households in housing cost burden

#### HEALTHY PEOPLE

i. Percentage of adults with health insurance
ii. Percentage of babies born to mothers receiving pre-natal care
iii. Percent of 2-year-olds adequately immunized
iv. Percent of infants born to mothers using alcohol
v. Percentage of infants born to mothers using tobacco
vi. Pregnancy rate per 1,000 females aged 15-17 (overall and by race/ethnicity)
vii. Percentage of infants born with normal birthweight (overall and by race/ethnicity)
viii. Percentage of 8th graders who reported using alcohol in the previous 30 days
ix. Percentage of 8th graders who reported using tobacco in the previous 30 days
x. Percentage of 8th graders who reported using illegal drugs in the previous 30 days
xi. Percentage of seniors living independently
xii. Percent of adults who smoke cigarettes
xiii. Access to recreational facilities per capita
xiv. Percent of adults who could not see doctor due to cost
xv. Physical activity age adjusted percent
xvi. Percent of adults who eat recommended amounts of fruits and vegetables
xvii. Incidence of HIV per 1,000
xviii. Mortality rate by age, per 1,000 population
xix. Years of life lost before age 70, per 1,000 population
xx. Traffic fatalities per capita
xxi. Estimated percent of individuals who are food insecure
xxii. Estimated percent of individuals who are food insecure with hunger
xxiii. Estimated percent of children who are food insecure

#### HEALTHY ENVIRONMENT

**Built Environment**

i. Percent of water systems that meet high quality standards
ii. Percent of small towns with water systems that meet high quality standards
iii. Pounds of waste landfilled, per capita
iv. Number of environmental cleanup sites with known or potential contamination from hazardous substances on Confirmed Release List
v. Number of leaking underground storage tanks in active cleanup

**Natural Environment**

i. Number of days in cities air is unhealthy for sensitive groups
ii. Number of days in cities air is unhealthy for all groups
iii. Number of impaired (303d listed) lakes within county
iv. Number of impaired (303d listed) stream reaches within county
v. Proportion of land in farms
vi. Total timber harvest (1,000s of board feet)
vii. Timber harvest by industry (1,000s of board feet)
viii. Timber harvest by other private (1,000s of board feet)
ix. Timber harvest by Native American (1,000 s of board feet)
x. Timber harvest by state public (1,000 s of board feet)
xii. Timber harvest by BLM (1,000s of board feet)
xiii. Timber harvest by USFS (1,000s of board feet)
xiv. Proportion of non-federal land that is Wildland Forest, Wildland Range, Mixed Forest/Agriculture, Mixed Range/Agriculture, Intensive Agriculture, Low-Density Residential, and Urban
CREATE CUSTOMIZED REPORTS TO LEARN ABOUT THE TOPICS THAT MOST INTEREST YOU,

whether it’s education, the economy, health, or the environment!
See how individual counties compare to each other or to the state as a whole, or compare urban counties to rural counties.

To explore the indicators and create your own reports, visit the TOP Indicators website at http://oe.oregonexplorer.info/rural/CommunitiesReporter/top_indicators.aspx
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