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Oregon  
Vital Statistics  
Annual Report  
2003  
Vol. 1

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# Oregon Vital Statistics Annual Report 2003

## Volume 1

### Preface

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*What's past is prologue... Sometimes the best way to determine what direction to take is to look at where we are and back at where we have been. This is as true in matters of public health as it is in navigation. And in today's complex society, careful planning is becoming more important than ever before. Each year, the Oregon Department of Human Services' Center for Health Statistics publishes the Oregon Vital Statistics Annual Report, an analytical look at the health of Oregon as measured by the health of its citizens. By this means, policy makers and health care professionals have a source of important knowledge that can be used to form bases for action and benchmarks for assessing progress.*

### STRUCTURE OF THE REPORT

To improve ease of use and timeliness, the Vital Statistics Annual Report is issued in two volumes. Volume 1 presents data on births, abortions, and teen pregnancy. Volume 2 presents data on deaths (all ages), perinatal deaths and youth suicide attempts. The only marriage and divorce data published in the report are statewide occurrences and rates. Information by county and by month of occurrence is available, as are a variety of year-to-date preliminary data on deaths, births, abortions, and teen pregnancy, at the Center for Health Statistics (CHS) web page: <http://www.ohd.hr.state.or.us/chs/welcome.htm>. Additional data is available in the form of simple cross-tabulations. For information on availability or to request data, call the Center for Health Statistics.

Comprehensive information on communicable diseases can be obtained by contacting the DHS Office of Disease Prevention and Epidemiology. The more significant demographic and public health issues are discussed in the narrative sections that open each chapter. These narratives are accompanied by charts, graphs, and sidebar tables. Readers can research their own areas of interest by using the data in the many tables at the end of each section. You can also refer to other CHS reports for more detail on the specific issues summarized in this report.

### A COOPERATIVE EFFORT

The presentation of data in this report is the final stage of a long, ongoing process that begins with the prompt, accurate recording of vital events. This registration system ensures that the information is collected, kept secure, and made available to individuals and their families when needed for documentation. Tabulation and analysis of the data by the Oregon Center for Health Statistics provide useful information about the health and social changes occurring in Oregon.

Vital Statistics has been called "the eyes and ears of public health," and is, in fact, the only organized system of

health records covering the entire population. The collection of data is a highly cooperative effort that depends on the participation of a great many people throughout the state.

## **THE PROVIDERS OF SERVICES**

Those who provide the services associated with vital events are the first participants in the collection system.

The birth attendant completes both the legal document and the confidential statistical section of the birth certificate. For deaths, the funeral director or person who first assumes responsibility for the body files the death or fetal death certificate. A physician completes the medical portion of these death certificates, except in cases of found bodies and unnatural deaths, which are certified by the medical examiner. Hospital medical records personnel help to ensure that all certificates are complete and accurate.

These service providers then file the completed certificates with the county registrars in the county where the event occurred.

Abortions and adolescent suicide attempts are treated differently. The providers of induced abortions file the completed statistical reports (which contain no identifying information) directly with the state registrar. Adolescent suicide attempts (again, without identifying information) are reported by the hospitals who treated youth who made the attempts.

## **COUNTY OFFICIALS**

County registrars play an important role by further assuring the completeness and accuracy of birth, death, and fetal death registration. They check the certificates against other sources of information to make certain no events are missed. County registrars also follow up any incomplete items before sending the certificates to the state registrar at the Center for Health Statistics.

## **CENTER FOR HEALTH STATISTICS**

At the state level, the staff of the Center for Health Statistics perform additional checks for completeness and accuracy. A field representative makes contact with providers and county registrars. Clerical staff send correspondence seeking additional information on such matters as causes of death, birthweight, and tobacco use. Microfilmers store certificates so that certified copies can be made. Coders and data entry personnel turn the collected information into computerized data, which are then retrieved by programmers, analyzed by researchers, and made available for demographic and public health needs.

## **OTHER STATES**

This report does not overlook events relating to Oregon residents that occurred in another state. The Centers for Health Statistics in each U.S. state and Canadian province have agreed to forward copies of birth, death, and fetal death certificates to the state where the person usually resided. A cooperative agreement also exists for reports on induced termination of pregnancy; however, some states collect no resident information on these reports and, therefore, cannot participate in the exchange. As Oregon is the only state with an adolescent suicide attempt data system, we receive no reports of resident youth who attempted suicide outside of Oregon.

Among all these participants, it is clear there is no single recorder. The many hundreds of people throughout Oregon who record the major life events of our citizens have all played important roles in preparing this report. It could not have been achieved without them.

## **METHODOLOGICAL CHANGES**

Beginning in 1999, significant changes occurred in the classification of cause of death data and the tabulation of youth suicide attempt data. See the Technical Notes for detailed information.

### **Cause of Death Classification**

Beginning in 1999, and for the first time in twenty years, a new revision of the International Classification of Disease (ICD) became the standard nosological manual. This tenth revision (ICD-10) incorporates new rules for selecting the underlying cause of death as well as new, and often more detailed, cause of death codes. Changes have also been made in the structure of the leading causes of death, most notably the addition of new categories. As a consequence of these changes, the data for 1999 and latter years are not directly comparable to previously published data.

### **Youth Suicide Attempts**

Unlike previous years, suicide ideators (persons who threatened to commit suicide but made no physical act) are not included in the total number of attempts, but are shown in a separate table. Had they been included in the total, the count would have been 785, a new high.

# Quick Reference: Volume 1

## Summary of Oregon Vital Events, 2003

<b>Population</b>	3,541,500	Population increased 36,800 or 1.1 percent over 2002.
<b>Live Births</b> Number Crude Rate Fertility Rate	<b>Residents</b> 45,935 13.0 61.2	Number increased by 745. The fertility rate increased slightly.
<b>Marriages</b> Number Crude Rate	<b>Occurrence</b> 25,565 7.2	Number of Marriages increased by 586, an increase of 2.3 percent from 2002. The rate increased by 1.4 percent.
<b>Divorces</b> Number Crude Rate	<b>Occurrence</b> 15,359 4.3	Number of divorces decreased 787 from 2002. The rate decreased by 4.9 percent.
<b>Unmarried Mothers</b> Number Rate	<b>Residents</b> 14,553 31.7	Number increased by 591. Proportion of births which were to unmarried mothers increased slightly (0.8 percent).
<b>Low Birthweight Infants</b> Number Rate	<b>Residents</b> 2,822 61.4	Number of low birthweight infants increased by 205. Rate increased by 7.8 percent.
<b>Induced Abortions</b> Number Ratio	<b>Occurrence</b> 12,622 269.4	The number of reported abortions decreased by 550, a decrease of 4.2 percent from 2002. The abortion ratio decreased by 5.8 percent.

Crude birth, death, marriage, and divorce rates are per 1,000 population; fertility rate per 1,000 15-44 year old females; unmarried mother rate and low birthweight rate, per 1,000 live resident births; induced abortion ratio per 1,000 live occurrence births. Rates and percentages are calculated excluding missing and unknown values.

**Table 1-1. Live Births, Births to Unmarried Mothers, Marriages, and Divorces, U.S., 1945-2003**

Year	Live Births		Births to Unmarried Mothers		Marriages		Divorces	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
1945	2,735,456	20.6	117,400	42.9	1,612,992	12.2	485,000	3.5
1946	3,288,672	23.5	125,200	38.1	2,291,045	16.4	610,000	4.3
1947	3,699,940	25.8	131,900	35.7	1,991,878	13.9	483,000	3.4
1948	3,535,068	24.2	129,700	36.7	1,811,155	12.4	408,000	2.8
1949	3,559,529	23.9	133,200	37.4	1,579,798	10.6	397,000	2.7
1950	3,554,149	23.6	141,600	39.8	1,667,231	11.1	385,144	2.6
1951	3,750,850	24.5	146,500	39.1	1,594,694	10.4	381,000	2.5
1952	3,846,986	24.7	150,300	39.1	1,539,318	9.9	392,000	2.5
1953	3,902,120	24.7	160,800	41.2	1,546,000	9.8	390,000	2.5
1954	4,017,362	24.9	176,600	44.0	1,490,000	9.2	379,000	2.4
1955	4,047,295	24.6	183,300	45.3	1,531,000	9.3	377,000	2.3
1956	4,163,090	24.9	193,500	46.5	1,585,000	9.5	382,000	2.3
1957	4,254,784	25.0	201,700	47.4	1,518,000	8.9	381,000	2.2
1958	4,203,812	24.3	208,700	49.6	1,451,000	8.4	368,000	2.1
1959	4,244,796	24.0	220,600	52.0	1,494,000	8.5	395,000	2.2
1960	4,257,850	23.7	224,300	52.7	1,523,000	8.5	393,000	2.2
1961	4,268,326	23.3	240,200	56.3	1,548,000	8.5	414,000	2.3
1962	4,167,362	22.4	245,000	58.8	1,577,000	8.5	413,000	2.2
1963	4,098,020	21.7	259,400	63.3	1,654,000	8.8	428,000	2.3
1964	4,027,490	21.0	275,700	68.5	1,725,000	9.0	450,000	2.4
1965	3,760,358	19.4	291,200	77.4	1,800,000	9.3	479,000	2.5
1966	3,606,274	18.4	302,400	83.9	1,857,000	9.5	499,000	2.5
1967	3,520,959	17.8	318,100	90.3	1,927,000	9.7	523,000	2.6
1968	3,501,564	17.6	339,200	96.9	2,069,000	10.4	584,000	2.9
1969	3,600,206	17.9	360,800	100.2	2,145,000	10.6	639,000	3.2
1970	3,731,368	18.4	398,700	106.9	2,158,802	10.6	708,000	3.5
1971	3,555,970	17.2	401,400	112.9	2,190,481	10.6	773,000	3.7
1972	3,258,411	15.6	403,200	123.7	2,282,154	10.9	845,000	4.0
1973	3,136,965	14.8	407,300	129.8	2,284,108	10.8	915,000	4.3
1974	3,159,958	14.8	418,100	132.3	2,229,667	10.5	977,000	4.6
1975	3,144,198	14.6	447,900	142.5	2,152,662	10.0	1,036,000	4.8
1976	3,167,788	14.6	468,100	147.8	2,154,807	9.9	1,083,000	5.0
1977	3,326,632	15.1	515,700	155.0	2,178,367	9.9	1,091,000	5.0
1978	3,333,279	15.0	543,900	163.2	2,282,272	10.3	1,130,000	5.1
1979	3,494,398	15.6	597,800	171.1	2,331,337	10.1	1,181,000	5.3
1980	3,612,258	15.9	665,747	184.3	2,390,252	10.6	1,189,000	5.2
1981	3,629,238	15.8	686,605	189.2	2,422,145	10.6	1,213,000	5.3
1982	3,680,537	15.9	715,277	194.3	2,456,278	10.6	1,170,000	5.0
1983	3,638,933	15.5	737,893	202.8	2,445,604	10.5	1,179,000	5.0
1984	3,669,141	15.5	770,355	210.0	2,477,192	10.5	1,169,000	4.9

See footnotes at end of table.

**Table 1-1. Live Births, Births to Unmarried Mothers, Marriages, and Divorces, U.S., 1945-2003 — Continued**

Year	Live Births		Births to Unmarried Mothers		Marriages		Divorces	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
1985	3,760,561	15.8	828,174	202.2	2,425,000	10.2	1,187,000	5.0
1986	3,756,547	15.6	878,477	233.9	2,400,000	10.0	1,159,000	4.8
1987	3,809,394	15.7	933,013	243.7	2,421,000	9.9	1,157,000	4.8
1988	3,909,510	15.9	1,005,299	257.1	2,389,000	9.7	1,183,000	4.8
1989	4,040,958	16.2	1,094,169	270.8	2,404,000	9.7	1,163,000	4.7
1990	4,158,212	16.7	1,165,384	280.3	2,448,000	9.8	1,175,000	4.7
1991	4,110,907	16.2	1,213,769	295.3	2,371,000	9.4	1,187,000	4.7
1992	4,065,014	15.9	1,244,876	300.0	2,362,000	9.2	1,215,000	4.7
1993	4,000,240	15.5	1,240,172	310.0	2,334,000	9.0	1,187,000	4.6
1994	3,952,767	15.2	1,289,592	326.3	2,362,000	9.1	1,191,000	4.6
1995	3,899,589	14.8	1,253,976	322.0	2,336,000	8.9	1,169,000	4.4
1996	3,891,494	14.7	1,260,306	324.0	2,344,000	8.8	1,150,000	4.3
1997	3,880,894	14.5	1,257,444	324.0	2,384,000	8.9	1,163,000	4.3
1998	3,941,553	14.6	1,293,567	328.0	2,256,000	8.3	1,135,000	4.2
1999	3,959,417	14.5	1,308,560	330.0	2,358,000	8.6	not available	4.1
2000	4,058,814	14.7	1,347,043	332.0	2,329,000	8.2	not available	4.1
2001	4,025,933	14.1	1,349,249	335.1	2,345,000	8.2	not available	3.9
2002	4,021,726	13.9	1,365,966	339.6	2,254,000	7.8	not available	4.0
2003	4,091,063	14.1	1,415,804	346.0	*2,187,000	*7.5	not available	*3.8

\*Provisional data.

Rate per 1,000 population for live births, marriages and divorces.

Rate per 1,000 live births for births to unmarried mothers.

The source for federal data is Births: Preliminary Data for 2003 Vol. 53, No. 9, November 23, 2004, pp.4-5. This publication belongs to the monthly Vital Statistics Report series published by the National Center for Health Statistics (NCHS).

Marriage and divorce number and rate: Births, Marriages, Divorces and Deaths. Provisional Data for 2003 as of September 2004. National Vital Statistics Report, Vol. 53, No. 19, May 3, 2005, p.1.

Vital Statistics of the United States, Volumes 1-3, lists historical data.

**TABLE 1-2. Population, Live Births and Births to Unmarried Mothers, Marriages, and Divorces, Oregon, 1910, 1915, 1920, 1925, 1930-2003**

Year*	Population	Live Births		Births to Unmarried Mothers		Marriages		Dissolutions of Marriage	
		Number	Rate	Number	Ratio <sup>1</sup>	Number	Rate	Number	Rate
1910	673,002	9,176	13.6	-	-	5,541	8.2	-	-
1915	732,226	12,232	16.7	-	-	4,983	6.8	-	-
1920	791,701	14,954	18.9	-	-	7,557	9.5	-	-
1925	874,800	15,579	17.8	-	-	6,999	8.0	-	-
1930	958,450	13,473	14.1	-	-	7,678	8.0	2,825	2.9
1931	967,200	13,227	13.7	-	-	7,346	7.6	2,417	2.5
1932	980,600	12,845	13.1	-	-	6,668	6.8	1,728	1.8
1933	994,000	12,228	12.3	-	-	5,715	5.7	1,844	1.9
1934	1,007,400	13,071	13.0	-	-	6,237	6.2	2,248	2.2
1935	1,020,800	13,143	12.9	-	-	6,795	6.7	2,304	2.3
1936	1,034,100	14,119	13.7	-	-	7,433	7.2	2,578	2.5
1937	1,047,500	15,495	14.8	-	-	7,602	7.3	2,718	2.6
1938	1,061,000	16,333	15.4	-	-	6,734	6.3	3,162	3.0
1939	1,074,000	16,727	15.6	-	-	4,902	4.6	3,422	3.2
1940	1,093,000	17,522	16.0	237	13.5	5,998	5.5	3,543	3.2
1941	1,107,000	18,784	17.0	229	12.2	7,445	6.7	4,122	3.7
1942	1,148,500	22,283	19.4	247	11.1	8,768	7.6	4,725	4.1
1943	1,167,200	25,380	21.7	328	12.9	9,272	7.9	5,643	4.8
1944	1,221,000	23,444	19.2	407	17.4	8,675	7.1	6,619	5.4
1945	1,227,200	23,339	19.0	504	21.6	9,764	8.0	7,949	6.5
1946	1,347,900	29,566	21.9	517	17.5	14,674	10.9	10,241	7.6
1947	1,423,300	36,190	25.4	608	16.8	12,881	9.1	6,707	4.7
1948	1,470,800	34,937	23.8	575	16.5	12,373	8.4	6,405	4.4
1949	1,511,200	35,062	23.2	502	14.3	10,746	7.1	6,274	4.2
1950	1,521,341	35,991	23.7	667	18.5	11,300	7.4	5,943	3.9
1951	1,568,000	37,317	23.8	623	16.7	10,118	6.5	6,133	3.9
1952	1,602,100	39,752	24.8	780	19.6	9,998	6.2	6,311	3.9
1953	1,636,800	39,866	24.4	772	19.4	10,502	6.4	6,373	3.9
1954	1,662,680	38,550	23.2	909	23.6	9,567	5.8	6,130	3.7
1955	1,690,840	38,678	22.9	880	22.8	10,632	6.3	6,158	3.6
1956	1,734,650	38,432	22.2	958	24.9	10,568	6.1	5,827	3.4
1957	1,737,470	37,828	21.8	1,088	28.8	9,961	5.7	5,261	3.0
1958	1,728,550	36,295	21.0	1,091	30.1	9,896	5.7	5,452	3.2
1959	1,777,000	36,634	20.6	1,217	33.2	10,166	5.7	6,009	3.4
1960	1,768,687	38,347	21.7	1,250	32.6	10,590	6.0	5,711	3.2
1961	1,816,345	37,475	20.6	1,433	38.2	10,798	5.9	6,023	3.3
1962	1,825,138	36,983	20.3	1,499	40.5	11,122	6.1	6,074	3.3
1963	1,856,190	34,863	18.8	1,708	49.0	11,786	6.3	6,180	3.3
1964	1,906,000	33,500	17.6	1,754	52.4	12,297	6.5	6,486	3.4

See footnotes at end of table.

**TABLE 1-2. Population, Live Births and Births to Unmarried Mothers, Marriages, and Divorces, Oregon, 1910, 1915, 1920, 1925, 1930-2003 — Continued**

Year*	Population	Live Births		Births to Unmarried Mothers		Marriages		Dissolutions of Marriage	
		Number	Rate	Number	Ratio <sup>1</sup>	Number	Rate	Number	Rate
1965	1,972,150	32,955	16.7	2,094	63.5	13,252	6.7	6,219	3.2
1966	1,999,780	32,446	16.2	2,330	71.8	13,981	7.0	6,764	3.4
1967	2,006,360	31,446	15.7	2,478	78.8	14,401	7.2	7,603	3.8
1968	2,050,900	32,136	15.7	2,831	88.1	16,125	7.9	8,258	4.0
1969	2,081,640	33,834	16.3	3,000	88.7	16,874	8.1	8,643	4.2
1970	2,091,385	35,353	16.9	2,912	82.4	17,302	8.3	9,583	4.6
1971	2,143,010	33,344	15.6	2,603	78.1	18,100	8.4	10,687	5.0
1972	2,183,270	31,308	14.3	2,552	81.5	19,265	8.8	11,706	5.4
1973	2,224,900	30,902	13.9	2,599	84.1	19,661	8.8	12,382	5.6
1974	2,266,000	32,506	14.3	2,984	91.8	20,002	8.8	13,538	6.0
1975	2,299,000	33,352	14.5	3,382	101.4	19,322	8.4	15,526	6.8
1976	2,341,750	34,840	14.9	3,825	109.8	19,182	8.2	16,070	6.9
1977	2,396,100	37,467	15.6	4,596	122.7	20,303	8.5	16,372	6.8
1978	2,472,000	38,964	15.8	5,279	135.5	21,055	8.5	16,965	6.9
1979	2,544,000	41,564	16.3	5,599	134.7	22,063	8.7	17,584	6.9
1980	2,633,105	43,091	16.4	6,360	147.6	23,004	8.7	17,762	6.7
1981	2,660,435	42,974	16.2	6,384	148.6	22,904	8.6	17,697	6.7
1982	2,656,185	41,012	15.4	6,484	158.1	24,186	9.1	16,792	6.3
1983	2,634,993	39,949	15.2	6,467	161.9	23,346	8.9	16,173	6.1
1984	2,660,000	39,536	14.9	6,861	173.5	23,074	8.7	15,631	5.9
1985	2,675,800	39,419	14.7	7,385	187.3	22,408	8.4	15,736	5.9
1986	2,659,500	38,850	14.6	7,999	205.9	22,015	8.3	15,774	5.9
1987	2,690,000	38,674	14.4	8,659	223.9	22,301	8.3	15,602	5.8
1988	2,741,000	39,850	14.5	9,377	235.3	23,407	8.5	15,188	5.5
1989	2,791,000	41,223	14.8	10,437	253.2	23,908	8.6	15,083	5.4
1990	2,847,000	42,830	15.0	11,024	257.4	25,348	8.9	15,734	5.5
1991	2,930,000	42,458	14.5	11,312	266.4	24,934	8.5	15,839	5.4
1992	2,979,000	41,941	14.1	11,310	269.7	24,866	8.3	16,067	5.4
1993	3,038,000	41,566	13.7	11,719	281.9	24,856	8.2	16,345	5.4
1994	3,082,000	41,832	13.6	12,007	287.0	25,194	8.2	15,844	5.1
1995	3,132,000	42,715	13.6	12,350	289.1	25,292	8.1	15,289	4.9
1996	3,181,000	43,645	13.7	12,944	296.6	25,815	8.1	14,944	4.7
1997	3,217,000	43,765	13.6	12,606	288.0	26,074	8.1	14,864	4.6
1998	3,267,550	45,228	13.8	13,451	297.6	25,424	7.8	15,234	4.7
1999	3,300,800	45,193	13.7	13,738	304.0	25,876	7.8	15,647	4.7
2000	3,436,750	45,786	13.3	13,778	301.0	25,926	7.5	16,579	4.8
2001	3,471,700	45,318	13.1	13,733	304.0	25,990	7.5	16,559	4.8
2002	3,504,700	45,190	12.9	13,962	309.5	24,979	7.1	16,146	4.6
2003	3,541,500	45,935	13.0	14,553	317.4	25,565	7.2	15,359	4.3

- Data not available.

Rate per 1,000 population for live births, marriages and dissolutions of marriage.

<sup>1</sup> Ratio per 1,000 live births for births to unmarried mothers calculated excluding unknown marital status.

\* Complete listings for years 1908-1929 can be found in annual reports before 2001.

**TABLE 1-3. Population, Live Births and Births to Unmarried Mothers by County of Residence, and Marriages and Dissolutions of Marriage by County of Occurrence, Oregon, 2003**

County	Estimated Population July 1, 2003	Live Births		Births to Unmarried Mothers		Marriages		Dissolutions of Marriage	
		No.	Rate	No.	Ratio	No.	Rate	No.	Rate
Total	3,541,500	45,935	13.0	14,553	317.4	25,565	7.2	15,359	4.3
Baker	16,500	146	§ 8.8	46	315.1	106	6.4	73	4.4
Benton	80,500	770	§ 9.6	166	§ 216.1	396	§ 4.9	268	§ 3.3
Clackamas	353,450	4,019	§ 11.4	1,021	§ 254.1	2,794	§ 7.9	1,385	§ 3.9
Clatsop	36,300	367	§ 10.1	135	368.9	491	§ 13.5	168	4.6
Columbia	45,000	539	12.0	131	§ 243.0	256	§ 5.7	230	§ 5.1
Coos	63,000	631	§ 10.0	265	§ 420.6	445	7.1	207	§ 3.3
Crook	20,300	235	11.6	68	289.4	148	7.3	102	5.0
Curry	21,100	156	§ 7.4	48	400.0	170	8.1	105	5.0
Deschutes	130,500	1,575	§ 12.1	431	§ 274.0	1,061	§ 8.1	708	§ 5.4
Douglas	101,800	1,107	§ 10.9	451	§ 408.1	832	§ 8.2	594	§ 5.8
Gilliam	1,900	21	11.1	8	381.0	16	8.4	3	1.6
Grant	7,650	65	§ 8.5	17	261.5	50	6.5	30	3.9
Harney	7,300	66	§ 9.0	15	227.3	53	7.3	24	3.3
Hood River	20,500	290	14.1	68	§ 234.5	293	§ 14.3	84	4.1
Jackson	189,100	2,137	§ 11.3	690	324.9	1,380	7.3	1,003	§ 5.3
Jefferson	19,900	315	§ 15.8	134	§ 425.4	115	§ 5.8	81	4.1
Josephine	78,350	802	§ 10.2	311	§ 387.8	551	7.0	358	4.6
Klamath	64,600	836	12.9	312	§ 374.1	409	§ 6.3	300	4.6
Lake	7,400	70	§ 9.5	17	242.9	39	5.3	28	3.8
Lane	329,400	3,754	§ 11.4	1,290	§ 343.9	2,271	§ 6.9	1,525	§ 4.6
Lincoln	45,000	429	§ 9.5	216	§ 503.5	675	§ 15.0	234	§ 5.2
Linn	104,900	1,356	12.9	488	§ 360.1	688	§ 6.6	495	4.7
Malheur	32,000	455	14.2	154	338.5	187	§ 5.8	97	§ 3.0
Marion	295,900	4,635	§ 15.7	1,807	§ 389.9	2,197	7.4	1,288	4.4
Morrow	11,750	186	§ 15.8	60	322.6	60	§ 5.1	52	4.4
Multnomah	677,850	9,340	§ 13.8	3,139	§ 336.3	5,424	§ 8.0	2,618	§ 3.9
Polk	64,000	775	§ 12.1	214	§ 276.1	396	§ 6.2	194	§ 3.0
Sherman	1,900	22	11.6	7	318.2	12	6.3	4	2.1
Tillamook	24,900	254	§ 10.2	80	316.2	288	§ 11.6	116	4.7
Umatilla	71,100	1,120	§ 15.8	427	§ 381.2	462	§ 6.5	348	§ 4.9
Union	24,650	323	13.1	105	327.1	189	7.7	94	3.8
Wallowa	7,150	66	§ 9.2	18	272.7	75	§ 10.5	28	3.9
Wasco	23,550	262	§ 11.1	87	332.1	178	7.6	133	§ 5.6
Washington	472,600	7,630	§ 16.1	1,761	§ 231.0	2,217	§ 4.7	1,985	4.2
Wheeler	1,550	6	§ 3.9	2	333.3	13	8.4	2	1.3
Yamhill	88,150	1,175	13.3	364	310.1	628	7.1	395	4.5

NOTE: Rate per 1,000 population for live births, marriages and dissolutions of marriage. Ratio per 1,000 live births for births to unmarried mothers. Ratio is calculated excluding missing and unknown values.

§ Indicates rate or ratio is significantly different from the state.

WARNING: Rates based on less than 5 events are unreliable.

**TABLE 1-4. Population and Births by City of Residence, Oregon, 2003**

City of Residence	Estimated Population July 1, 2003	Births	
		Number	Rate
Albany (Linn, Benton)	43,600	663	15.2
Ashland (Jackson)	20,430	156	7.6
Beaverton (Washington)	79,010	2,091	26.5
Bend (Deschutes)	62,900	861	13.7
Canby (Clackamas)	13,910	271	19.5
Central Point (Jackson)	14,750	211	14.3
Coos Bay (Coos)	15,650	258	16.5
Corvallis (Benton)	52,950	490	9.3
Dallas (Polk)	13,270	151	11.4
Eugene (Lane)	143,910	1,835	12.8
Forest Grove (Washington)	19,130	314	16.4
Gladstone (Clackamas)	11,790	139	11.8
Grants Pass (Josephine)	24,470	437	17.9
Gresham (Multnomah)	93,660	924	9.9
Hermiston (Umatilla)	14,540	318	21.9
Hillsboro (Washington)	79,340	1,429	18.0
Keizer (Marion)	34,010	526	15.5
Klamath Falls (Klamath)	20,190	340	16.8
La Grande (Union)	12,500	205	16.4
Lake Oswego (Clackamas, Multnomah, Washington)	35,860	319	8.9
Lebanon (Linn)	13,140	209	15.9
McMinnville (Yamhill)	28,890	488	16.9
Medford (Jackson)	68,080	1,009	14.8
Milwaukie (Clackamas)	20,580	675	32.8
Newberg (Yamhill)	19,530	292	15.0
Oregon City (Clackamas)	28,100	541	19.3
Pendleton (Umatilla)	16,830	193	11.5
Portland (Clackamas, Multnomah, Washington)	545,140	8,593	15.8
Redmond (Deschutes)	17,450	314	18.0
Roseburg (Douglas)	20,480	461	22.5
Salem (Marion, Polk)	142,940	2,842	19.9
Springfield (Lane)	54,720	1,012	18.5
St. Helens (Columbia)	11,250	173	15.4
The Dalles (Wasco)	12,350	174	14.1
Tigard (Washington)	45,130	839	18.6
Troutdale (Multnomah)	14,300	267	18.7
Tualatin (Clackamas, Washington)	24,790	411	16.6
West Linn (Clackamas)	23,820	298	12.5
Wilsonville (Clackamas, Washington)	15,880	237	14.9
Woodburn (Marion)	21,560	475	22.0

Selected cities of 10,000 or more population listed. Counties listed in parentheses.  
Population source: Center for Population Research and Census, Portland State University.  
Rate per 1,000 population.

**TABLE 1-5. United States Rates of Low Birthweight,  
and Measures of Prenatal Care, 1980-2003**

Year	Low Birthweight	First Trimester Care	No Care	Inadequate Care <sup>1</sup>	Third Trimester Care	Less than Five Visits
1980	68.4	763.6	13.5	87.2	38.1	69.4
1981	68.1	763.5	14.1	87.1	38.4	68.6
1982	67.5	759.3	15.9	90.8	39.9	71.9
1983	68.2	760.6	17.0	88.7	39.7	69.9
1984	67.2	764.5	17.1	87.8	39.4	68.7
1985	67.5	763.1	17.0	88.0	40.6	67.6
1986	68.1	760.4	19.3	89.6	41.1	68.4
1987	69.0	760.0	20.1	90.5	41.8	68.8
1988	69.3	760.5	18.8	90.4	42.1	68.4
1989	70.5	754.5	21.8	96.3	42.7	74.6
1990	69.7	758.3	19.8	91.3	41.1	70.4
1991	71.2	762.5	19.1	86.7	38.6	66.6
1992	70.8	777.5	17.3	78.6	34.5	60.6
1993	72.2	789.0	16.0	72.7	32.4	55.2
1994	72.8	802.2	13.6	66.9	30.4	50.4
1995	73.2	812.7	12.3	63.0	30.2	46.7
1996	73.9	818.6	11.8	60.5	28.2	44.7
1997	75.1	825.3	12.2	58.1	27.0	44.5
1998	76.0	828.3	11.9	57.9	27.0	44.1
1999	76.0	832.0	11.2	56.3	25.8	43.4
2000	76.0	832.0	10.9	57.7	26.6	42.7
2001	77.0	834.0	10.4	N/A	26.2	42.1
2002	78.0	837.0	9.7	N/A	25.7	40.8
2003	*79.0	*841.0	N/A	N/A	N/A	N/A

<sup>1</sup> Inadequate prenatal care is defined as care that began in the third trimester or consisted of less than five prenatal visits.

All rates are per 1,000 live births. Rates and percentages are calculated excluding missing and unknown values.

\*Hamilton, BE, Martin JA, Sutton PD. Births: Preliminary Data for 2003. National Vital Statistics Reports;

Vol 53 No 9. Hyattsville, Maryland: National Center for Health Statistics. 2004.

N/A = Not Available.

**TABLE 1-6. Oregon Rates of Low Birthweight,  
and Measures of Prenatal Care, 1980-2003**

Year	Low Birthweight	First Trimester Care	No Care	Inadequate Care <sup>1</sup>	Third Trimester Care	Less than Five Visits
1980	50.4	780.8	5.5	58.0	35.2	41.4
1981	48.5	775.6	8.9	63.1	38.6	43.0
1982	49.2	769.3	11.2	70.3	41.0	48.0
1983	50.0	775.3	11.3	66.5	38.5	44.9
1984	51.5	771.5	11.0	68.2	41.1	46.2
1985	51.3	752.0	12.1	72.9	43.7	47.5
1986	51.3	738.7	11.7	83.3	52.1	54.6
1987	54.0	736.8	16.5	86.2	50.3	58.5
1988	52.6	738.8	13.8	83.6	49.9	54.7
1989	52.2	750.7	12.0	73.2	42.9	48.7
1990	50.1	757.1	10.7	70.0	43.4	45.1
1991	49.2	768.2	8.7	61.0	37.4	38.6
1992	51.8	787.0	8.2	52.6	31.4	34.0
1993	52.5	794.6	7.6	51.7	30.4	33.8
1994	53.0	790.9	8.5	57.8	34.3	36.4
1995	54.9	787.7	8.6	58.4	34.7	38.2
1996	53.5	799.3	7.1	53.7	31.7	34.8
1997	55.0	811.2	6.7	50.0	29.6	32.3
1998	53.7	807.2	7.2	53.5	30.7	35.3
1999	53.9	809.9	7.3	53.7	29.6	35.7
2000	56.6	812.8	8.5	55.9	29.8	36.6
2001	55.6	815.2	8.0	50.5	28.7	33.1
2002	57.9	816.4	9.4	52.2	28.6	35.7
2003	61.6	810.7	11.7	55.5	28.6	38.4

<sup>1</sup> Inadequate prenatal care is defined as care that began in the third trimester or consisted of less than five prenatal visits.  
All rates are per 1,000 live births. Rates and percentages are calculated excluding missing and unknown values.

# Natality

In 2003, Oregon recorded **45,935 resident births**. There were 745 more resident births than in 2002 and the **crude birth rate** (the number of babies born divided by the total state population) increased slightly, from 12.9 to 13.0 per 1,000 population. [Table 1-2]. Oregon's crude birth rate peaked in 1947 at 25.4 per 1,000 population. For the past thirty years however, Oregon's rates have held in the mid-teens, ranging from a high of 16.4 in 1980 to a low of 12.9 in 2002. Except for the period between 1976 and 1981, Oregon's crude birth rate has remained lower than the national rate for the past 50 years. In 2003, Oregon's rate was 7.8 percent lower than the nation's (13.0 vs. 14.1). [Figure 2-1].

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***Oregon's crude birth rate and fertility rate both remain below the national rates.***

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Oregon's **fertility rate** increased to 61.2 per 1,000 women age 15-44. [See sidebar, page 2-3; Table 2-2]. The fertility rate is based on the number of births per 1,000 women age 15-44. The fertility rate is a more precise measurement of changes in behavioral patterns because it consists only of women who are of childbearing age while the crude rate is based on the entire population. Age-specific **birth rates** increased for women age 25 and older and decreased for women age 15-24. The largest percentage decrease was among women age 15-19 (-7.7%). [Table 2-2, Figure 2-2]. The youngest mother in 2003 was 12 years old; the oldest was 53. The median age of mothers for all births was 27 and the mean age was 27.4. The median age at first birth was 25 and the mean age was 25.4. The **first birth rate** remained unchanged from the previous year at 24.3 first births per 1,000 women age 15-44, nearly 10% lower than the national rate of 26.7. The proportion of first births among total births

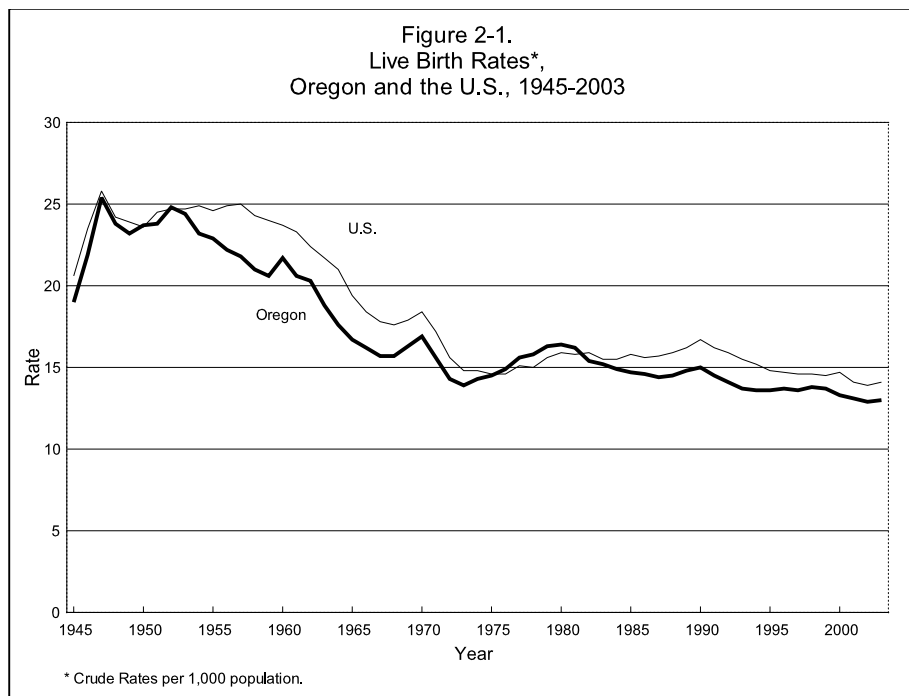
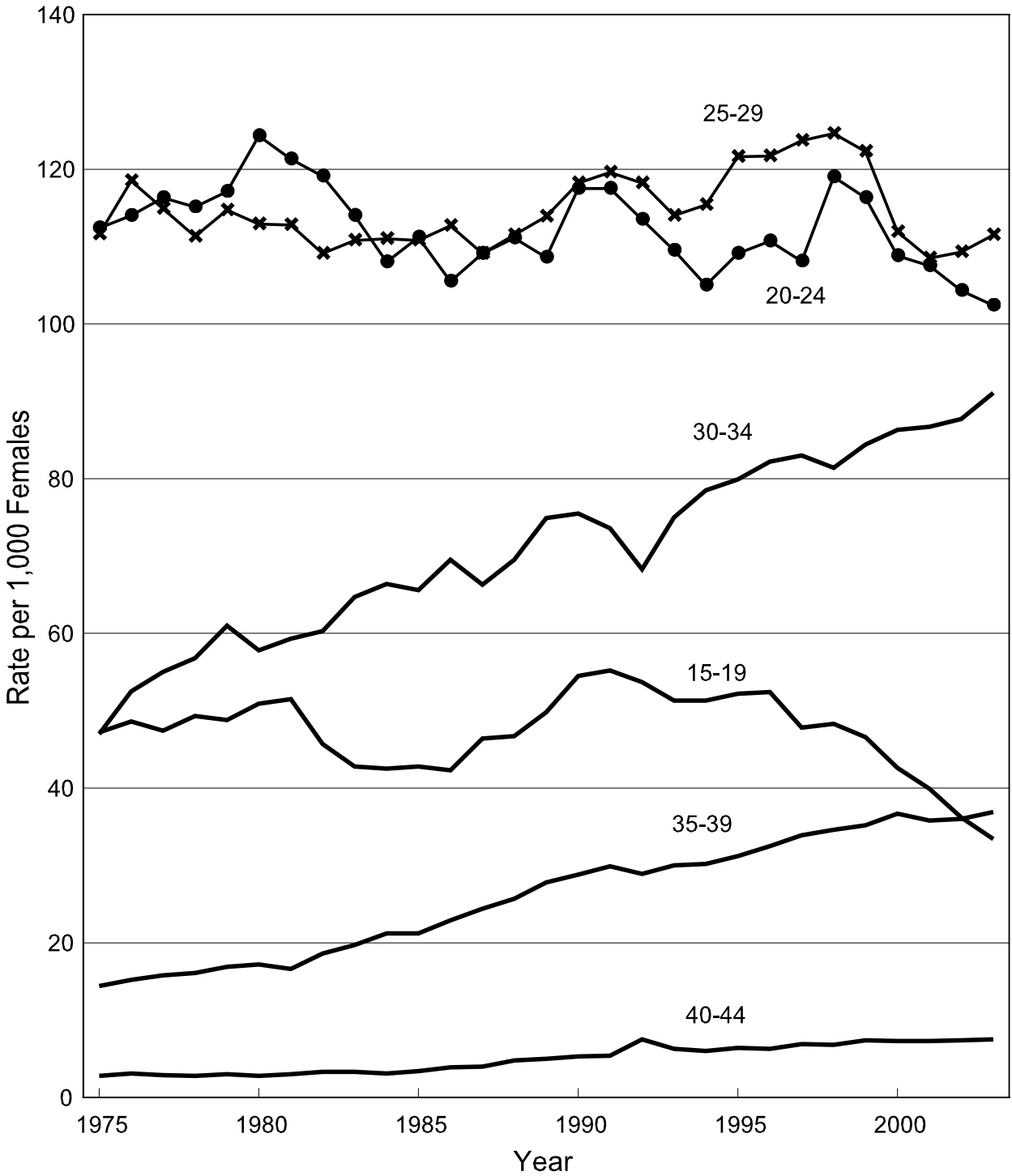


Figure 2-2.  
Age-Specific Birth Rates,  
Oregon Residents, 1975-2003



has been stable for the past decade. In 1990, 39.6 percent of births were first births; in 2003, 39.7 percent were first births.

The mean age for fathers was 30.2 years and the median age was 30. The **birth rate per 1,000 men** age 15-54 was 43.7 in 2003 for Oregon resident births. Information on the father was missing from almost ten percent of birth certificates. Unknown father age was distributed in the same manner as national data. (See Technical Notes - Definitions for details, Appendix B.) The national birth rate for men in 2002, was 48.4 per 1,000 men.

## DEMOGRAPHICS

### Maternal Race/Ethnicity

Birth rates for racial and ethnic groups are not calculated in this report because precise population data by racial and ethnic groups are available only for census years. Instead this report focuses on the race and ethnicity of women who gave birth as a proportion of total births. Since 1989, the number of births to women of Hispanic ethnicity has more than tripled to 18.4 percent of total births. [Table 2-7, Figure 2-3]. From 1981 to 1988, 'Hispanic' was a race category on the birth certificate. Since 1989, information regarding Hispanic ethnicity is reported separately from race. This change addressed the complexity of race and ethnicity and increased the accuracy when self-reporting. Differences by race and ethnicity of mother persist. Non-Hispanic American Indians and Hispanics were far more likely to receive inadequate prenatal care than other groups. Japanese and Hawaiian women (Hispanic and non-Hispanic) were least likely to receive inadequate care (3.3% and 4.3% respectively). [Table 2-18].

### Marital Status of Mother

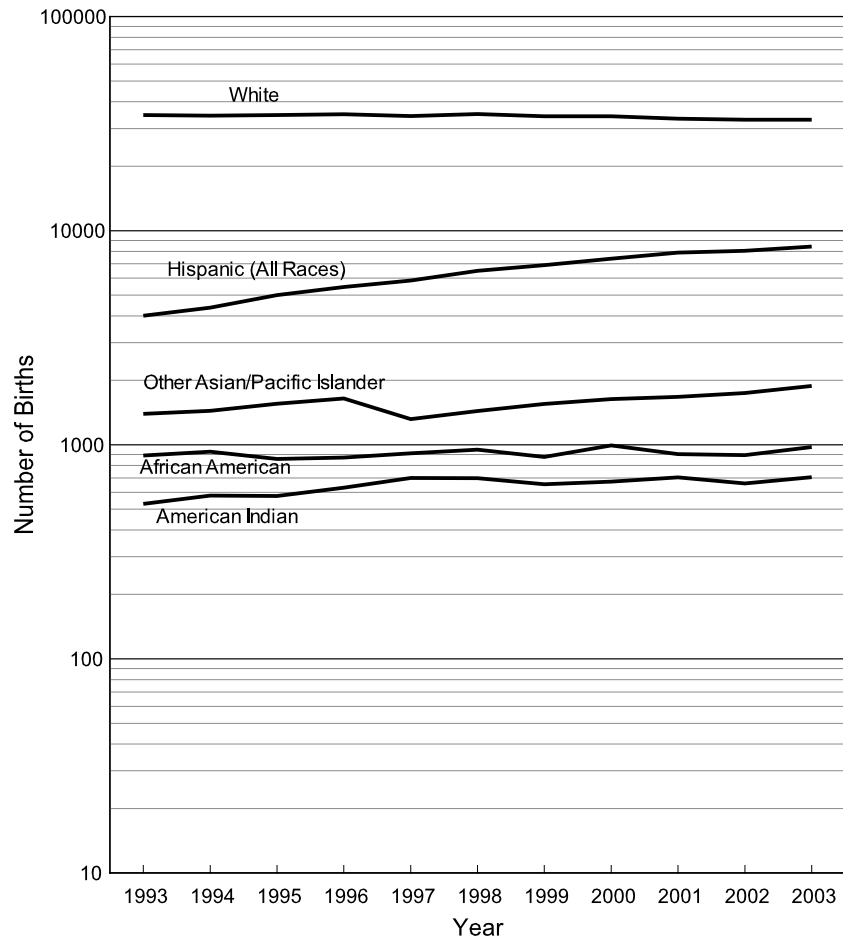
Historically, unmarried women as a group have had poorer birth outcomes than married women. They generally have a greater proportion of babies with low birthweight and low Apgar scores than do their married counterparts. Their infants are also more likely to require neonatal intensive care, to have congenital anomalies, or to die before age one. Between 1973 and 1993, the ratio of births to unmarried mothers more than tripled in Oregon. Since the mid-1990s, this ratio has stabilized. [Table 1-2, Figure 2-4]. While there hasn't been a matching increase in low birthweight rates and other indicators of poor health, the disparity in birth outcomes between married and unmarried women continues.

In 2003, 31.7 percent of all Oregon births were to unmarried women, a slight increase from the previous year. [Table 1-2]. Oregon has consistently had a lower percentage of births to unmarried women than the nation; Oregon's rate in 2003 was 8.4 percent lower. [Figure 2-4].

Among women giving birth in 2003, the percentage of women who were unmarried varied widely by ethnic and racial group (see sidebar). Non-Hispanic African American women

Fertility Rates Per 1,000 Females 15-44, Oregon vs. U.S.		
Year	Oregon	U.S.
1980	69.3	68.4
1981	68.1	67.3
1982	65.2	67.3
1983	64.1	65.7
1984	62.8	65.5
1985	62.2	66.3
1986	61.8	65.4
1987	60.9	65.8
1988	61.8	67.3
1989	63.3	69.2
1990	65.1	70.9
1991	63.7	69.3
1992	62.5	68.4
1993	61.1	67.0
1994	61.0	65.9
1995	62.3	64.6
1996	63.2	64.1
1997	63.0	63.6
1998	64.2	64.3
1999	64.2	64.4
2000	62.9	65.9
2001	61.6	65.3
2002	60.9	64.8
2003	61.2	66.1

Figure 2-3.  
Number of Births by Race and Ethnicity of Mother,  
Oregon Residents, 1993-2003

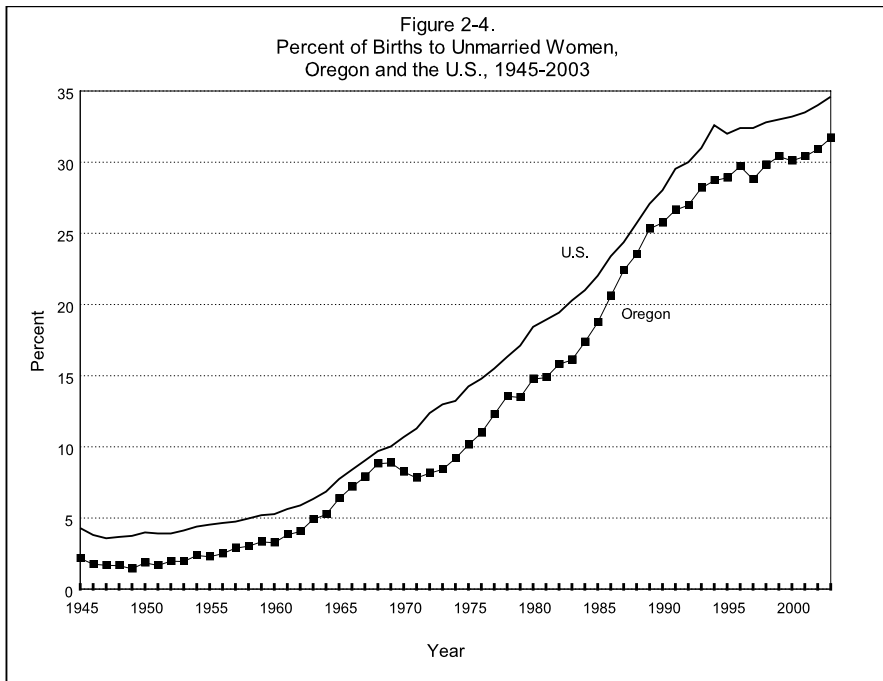


Note: A logarithmic scale is used for the vertical axis. Specified races are Non-Hispanic. Other Asian/Pacific Islander includes: Chinese, Japanese, Hawaiian, Filipino, and Other Asian/Pacific Islander.

had the highest rate of non-marital births (64.1%), followed by Non-Hispanic American Indian women (61.5%), and Hispanic women (43.2%). Non-Hispanic Asian women were least likely to be unmarried (15.9%). [Table 2-12].

Unmarried Mothers by Race/Ethnicity, Oregon Residents, 2003	
Race/Ethnicity	Unmarried
<b>Total</b>	31.7
Non-Hispanic	
African American	64.1
American Indian	61.5
White	28.3
Asian	15.9
Hispanic	43.2

Young mothers were also likely to be unmarried since persons younger than age 17 cannot get married in Oregon. More than three-fourths of the teens age 15-19 who gave birth in 2003 were unmarried (79.9%), compared to 47.9 percent for women age 20-24 and 24.0 percent for women age 25-29. Mothers age 30-34 (13.9%) and 35-39 (14.5%) were least likely to be unmarried, while 16.5 percent of mothers age 40-44 were unmarried. [Table 2-3]. Eleven of Oregon's 36 counties had proportions of non-marital births that were statistically significantly higher than the state average. [Table 2-9]. Among counties with statistically significant differences, Lincoln had



the highest percentage (50.3%) followed by Jefferson (42.5%), Coos (42.1%), and Douglas (40.8%). [See Appendix B: Technical Notes for information on statistical significance.] Seven Oregon counties had percentages of non-marital births that were statistically significantly lower than the state average. Benton county had the lowest percentage of non-marital births (21.6%). A county’s non-marital birth proportion should be viewed in part as a function of its own specific population mix, especially age and race. Variations in population composition among counties will likely result in significant differences in non-marital births.

### Educational Attainment

Mother’s level of education was closely related to prenatal care patterns. Women with less than a high school education were least likely to obtain first trimester prenatal care, while those who had college degrees or higher were most likely to have obtained first trimester care. [See sidebar and Table 2-19].

More than three-fourths of women who gave birth in 2003 had 12 or more years of schooling (80.0%) and 24.8 percent had 16 or more years of formal schooling. Non-Hispanic Asian (91.3%) and Non-Hispanic White (88.7%) mothers were most likely to have completed 12 or more years of education. Hispanic mothers of Mexican origin were least likely to have completed at least 12 years of formal schooling (40.6%). [Table 2-12].

Years of Education	No First Trimester Care (%)
<12	33.9
12	21.6
>12	10.6

## MATERNAL LIFESTYLE AND HEALTH CHARACTERISTICS

### Tobacco

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#### **Oregon Benchmark for the Year 2010**

*Percentage of infants whose mothers did not use tobacco during pregnancy (self-reported).*

Year 2010 Target:	98 percent
2003:	88 percent

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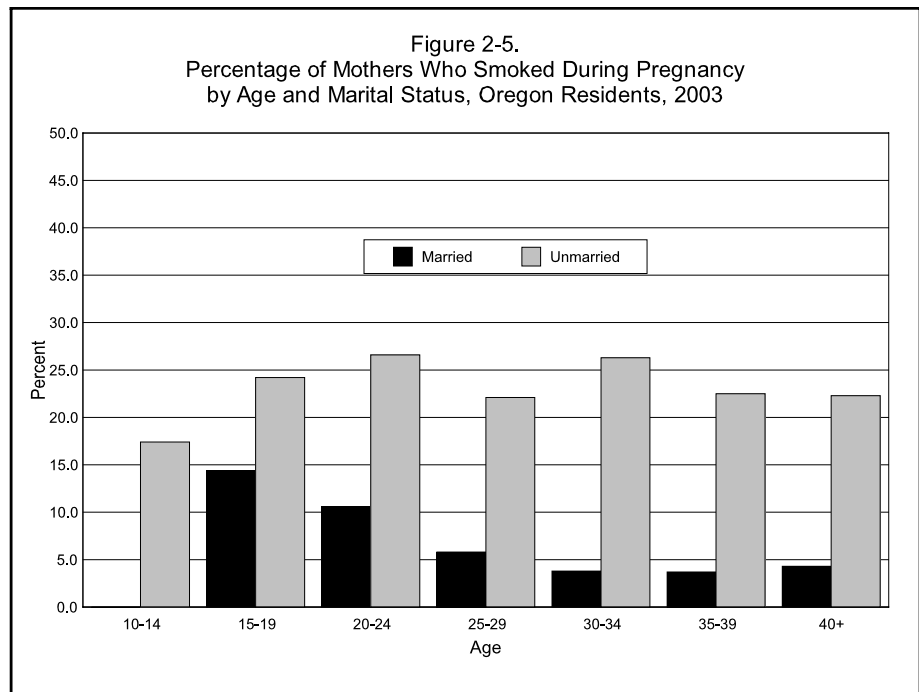


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**Women who smoked had a low birthweight rate of 88.8 per 1,000.**

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Women who smoke when pregnant have a far higher incidence of low birthweight babies than nonsmokers. Low birthweight infants are more likely to experience serious health problems, including increased rates of infant mortality. In 2002, the Oregon infant mortality rate during the first 27 days of life (neonatal) was 47.4 per 1,000 live births for low birthweight (less than 2,500 grams) infants compared to 1.1 per 1,000 for infants with birthweights of 2,500 grams or more. In 2003, women who smoked had a low birthweight rate of 88.8 per 1,000 live births, compared to 56.9 per 1,000 among women who did not smoke. Less than one out of eight mothers (12.0%) reported using tobacco during pregnancy, a proportion that has declined 25.9 percent since 1997 and 4.8 percent since 2002. Unmarried women were over four times more likely to smoke than married women (24.8% vs. 6.1%). For unmarried women, the smoking rate was highest among women age 20-24 (26.6%), 30-34 (26.3%) and 15-19 (24.2%) while for married women the lowest smoking prevalence rates were for women age 35-39 (3.7%) and age 30-34 (3.8%). [Figure 2-5].



Smoking prevalence as reported on birth certificates also varied among racial and ethnic groups. In 2003, Non-Hispanic American Indian women (24.2%) and Non-Hispanic African American women (18.8%) had the highest reported proportions for smoking during pregnancy, while Non-Hispanic Asian women (3.3%) and Hispanic women (3.0%) reported the lowest. [Table 2-24].

## Alcohol and Illicit Drugs

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### ***Oregon Benchmark for the Year 2010***

*Percentage of infants whose mothers did not use alcohol during pregnancy (self-reported).*

<i>Year 2010 Target:</i>	<i>98 percent</i>
<i>2003:</i>	<i>98 percent</i>

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Used during pregnancy, alcohol can cause deformity, mental retardation, and other severe developmental problems. Based on birth certificate data, 1.6 percent of Oregon mothers (701 women) drank alcohol during pregnancy in 2003. This represents a 69 percent decline from 1990, when 5.2 percent of mothers reported alcohol use. Non-Hispanic American Indian women (3.8%) and non-Hispanic African American women (2.2%) were most likely to have reported using alcohol during pregnancy. Non-Hispanic Asian women (0.8%) and Hispanic women (0.6%) reported the lowest alcohol use during pregnancy. [Table 2-24]. Oregon also records information on the use of illicit drugs during pregnancy including heroin, cocaine, marijuana and methamphetamine. In 2003, illicit drugs were mentioned in 1 percent of resident births (1.2%). [Table 2-15].

## Weight Gain

Maternal weight gain has been shown to have a positive correlation with the birthweight of the infant. The median weight gain during pregnancy was 30 pounds in 2003. The amount of weight gained by mothers varied by period of gestation, race and ethnicity. For all births, Hispanic women (49.2%) and Non-Hispanic African American women (54.8%) were least likely to gain more than 25 pounds during pregnancy. [Table 2-33]. Non-Hispanic African American women had the highest percent of low birthweight infants (11.6%). Hispanic women, despite the lower weight gain, had the lowest percentage of low birthweight infants (5.3%). [Table 2-34]. Non-Hispanic Whites were most likely to gain more than 25 pounds during pregnancy and had the second lowest percentage of low birthweight infants. Although the standard recommendation is 25 to 35 pounds for women of normal weight, pre-pregnancy weight isn't collected on the birth certificate so percentages of mothers who had appropriate weight gains cannot be calculated.

## Medical Risk Factors

Maternal medical risk factors influence pregnancy complications and infant health and vary greatly with the age, race and ethnicity of the mother. In 2003, the most frequently reported medical risk factors were anemia (6.2%) and pregnancy-associated hypertension (4.7%). [Tables 2-25 and 2-26].

## MEDICAL SERVICES UTILIZATION

### Prenatal Care

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#### **Oregon Benchmark for the Year 2003**

*Percentage of infants whose mothers received prenatal care beginning in the first trimester.*

<i>Year 2010 Target:</i>	<i>90 percent</i>
<i>2003:</i>	<i>81 percent</i>

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Public health services and private care providers seek to minimize the risk of death and disability, and to reduce costs associated with low birthweight infants by providing comprehensive prenatal care. Two ways to measure prenatal care are: 1) “inadequate prenatal care,” defined as no care until the third trimester or fewer than five total prenatal visits; or 2) “first trimester care,” defined as care beginning during the first three months of pregnancy, regardless of the number of total prenatal visits. First trimester care has been adopted as an Oregon Benchmark with a goal to ensure that at least 90 percent of women begin prenatal care within the first three months of their pregnancy. Overall, 81.1 percent of women who gave birth during 2003 received early prenatal care, slightly lower than the national number of 84.1. [Table 2-17; Table 1-5]. This is also slightly lower than the 2002 rate of 81.6 percent. [Table 1-6].

In 2003, 5.5 percent of women giving birth received inadequate prenatal care and nearly nineteen percent received no first trimester care. Women who received inadequate prenatal care were twice as likely to give birth to a low birthweight child as those who received adequate prenatal care, 12.6 percent compared to 5.8 percent. The proportion that received no prenatal care or third trimester care only remained about the same as previous years (1.2% and 2.9% respectively). [Figure 2-6]. Age, marital status, education and race/ethnicity continue to show important differences in accessing prenatal care. [Tables 2-14, 2-17, 2-18, 2-19].

Six of Oregon’s 36 counties had first trimester care rates significantly lower than the statewide rate: Jefferson, Lane, Malheur, Marion, Morrow and Umatilla. Two counties had rates significantly higher than the statewide rate: Deschutes and Washington. [Table 2-20].

The **Adequacy of Prenatal Care Utilization Index** is an alternative measure that is also based on the month prenatal

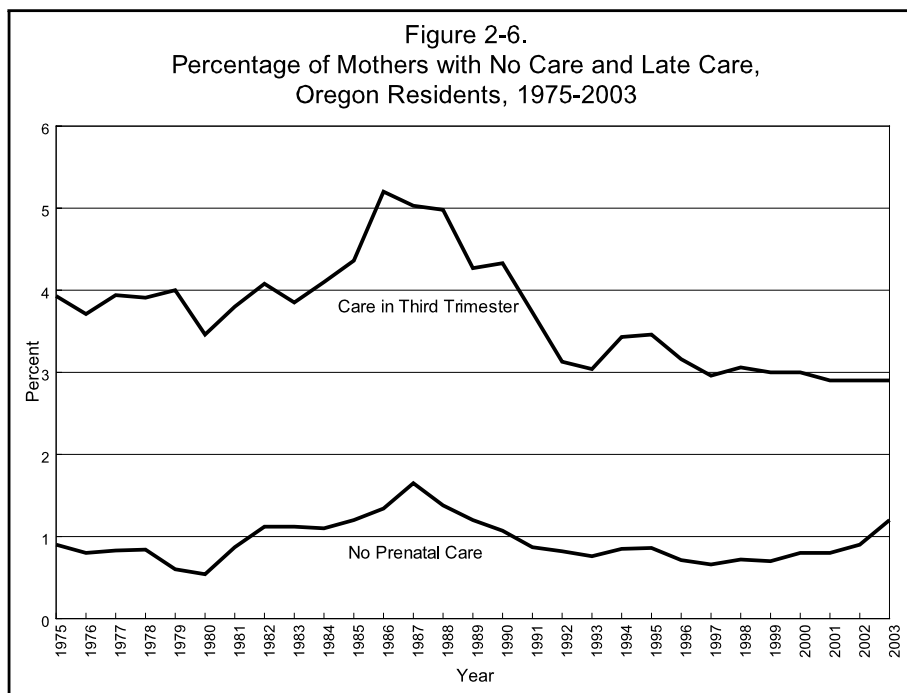
Adequacy of Prenatal Care Utilization Index Oregon 1998-2003				
	Intensive	Adequate	Intermediate	Inadequate
1998	25.2	45.8	17.0	12.0
1999	25.3	45.8	17.3	11.6
2000	24.9	44.5	18.3	11.4
2001	27.9	46.1	14.1	11.1
2002	26.5	46.7	14.9	11.0
2003	26.9	45.8	15.1	11.1

care began and the number of prenatal visits, adjusting for gestational age. Care is determined to be intensive (exceeding recommended care by a ratio of expected visits to actual by at least 110 percent), adequate, intermediate or inadequate. [See table, above.] As with other measures of prenatal care, women under the age of 20 were least likely to receive adequate care, while women age 40 and over were most likely to receive intensive prenatal care. Women with medical risk factors such as diabetes and hypertension, were also more likely to receive intensive prenatal care. For 2003, Oregon's proportion of 11.1 percent of births with inadequate care was very similar to the most recent national proportion of 11.3 percent in 2002.

### Birth Attendant and Place of Delivery

**Hospital Births** A major shift over the past few years has been the increasing prevalence of births attended by Certified Nurse Midwives (CNM). In 2003, 14.7 percent of hospital deliveries were CNM-attended, a slight decrease from 2002 (15.0%) but almost three times the proportion in 1988 (5.3%). This is

Certified Nurse Midwife Deliveries, Oregon Occurrence			
Year	Deliveries		
	Total	In-Hospital	Out-of-Hospital
1984	1,912	1,567	374
1985	2,022	1,661	390
1986	1,984	1,607	400
1987	1,843	1,483	385
1988	2,345	2,133	259
1989	2,886	2,706	244
1990	3,660	3,539	226
1991	4,262	4,096	166
1992	4,498	4,319	179
1993	4,784	4,618	173
1994	4,931	4,772	159
1995	5,601	5,441	160
1996	6,019	5,871	148
1997	5,853	5,734	119
1998	6,152	6,004	148
1999	6,357	6,193	164
2000	6,740	6,591	149
2001	6,848	6,721	127
2002	6,837	6,747	90
2003	6,838	6,721	117



Out-of-Hospital Births Oregon Occurrence		
Year	Deliveries	Rate
1982	2,069	49.2
1983	2,060	50.2
1984	1,786	43.7
1985	1,772	43.5
1986	1,520	37.9
1987	1,361	34.0
1988	1,217	29.4
1989	1,117	26.2
1990	1,077	24.2
1991	979	22.2
1992	996	22.8
1993	936	21.6
1994	979	22.5
1995	967	21.7
1996	979	21.4
1997	970	21.5
1998	914	19.8
1999	948	20.6
2000	1,047	22.4
2001	1,007	21.7
2002	947	20.6
2003	1,000	21.3

almost twice the national proportion of births attended by CNM (2002 = 7.5%). Most in-hospital births (81.0%) were delivered by MDs. [Table 2-28].

**Out-of-Hospital Births** In 2003, 2.1 percent of Oregon births occurred out-of-hospital. Oregon generally has a higher proportion of out-of-hospital births than the U.S. as a whole. In 2003, Oregon's proportion of out-of-hospital births was double that of the 2002 U.S. proportion of 0.9%. As in past years, the majority of out-of-hospital births occurred in the mother's home (71.2%). Freestanding birthing centers accounted for 211 births, approximately one-fifth of the births occurring out-of-hospital. Outcomes have generally been positive for out-of-hospital births. In 2003, only 12 infants born out-of-hospital in Oregon had low birthweights (1.2%). Eleven infants (1.1%) were reported to have a congenital anomaly, which is slightly lower than the percentage for in-hospital births (1.4%).

The type of attendant varied by birth setting. Licensed Direct Entry Midwives (LDEM) were predominant in out-of-hospital births, delivering one-fifth (19.7%) of those births in 2003. LDEMs are lay midwives who have volunteered for state licensure to provide natality care for Oregon women. In addition, Certified Nurse Midwives delivered one in ten out-of-hospital births (11.7%). Naturopathic physicians delivered one in eight out-of-hospital births (13.0%). Non-medical attendants, including non-licensed lay midwives, delivered 538 babies, 53.8 percent of the out-of-hospital births. [Table 2-28].

### Method of Delivery

In 2003, the rate of cesarean delivery was 25.3 per 100 births, well below the national rate of 27.6 per 100 births. The rate for vaginal delivery after a previous cesarean was only 1.5 while repeat cesarean was 9.9 per 100 births. The majority of births (73.2 per 100) continue to be vaginal deliveries (without prior cesarean). [Table 2-27]. However, the number of vaginal deliveries (without prior Cesarean) has declined 1.7 percent from 2002, and 5.9 percent from 1992. Cesarean rates increased 6.8 percent from 2002 (23.7 per 100 births) and 37.5 percent from 1992 (18.4 per 100 births).

## INFANT HEALTH CHARACTERISTICS

### Period of Gestation

Preterm births, (born prior to completion of 37 weeks), comprised 8.4 percent of total births in 2003, much lower than the U.S. rate in 2003 (12.3%). (Table 2-23) Similar to national trends, proportions of preterm births are higher for Non-Hispanic American Indians (10.8%) and Non-Hispanic African Americans (10.2%). [Table 2-24].

## Low Birthweight

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### **National Healthy People 2010 Objective**

*Reduce low birthweight to an incidence of no more than 5.0 percent of live births.*

*Percentage of Oregon low birthweight births, 2003: 6.1*

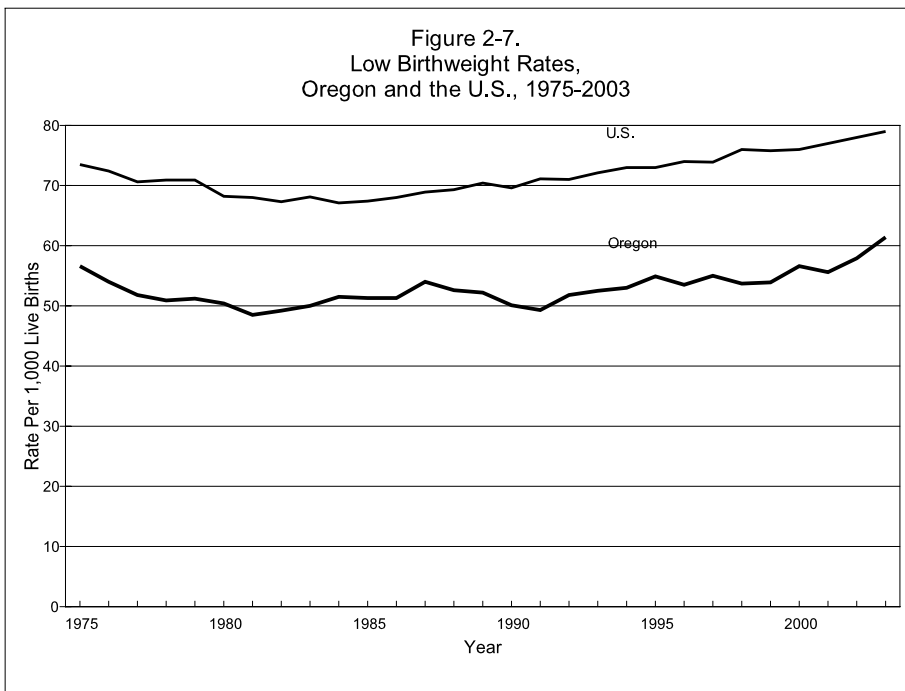
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Of the thousands of infants born each year, not all thrive and become healthy adults. Low birthweight is the major predictor of infant death, which in turn is a fundamental measure of the health of a population. Infants with low birthweight are more likely to need extensive medical treatment and to have lifelong disabling conditions. (For more information, see the Fetal and Infant Mortality section published in Volume 2 of the Oregon Vital Statistics Annual Report). The low birthweight rate is the proportion of infants who weigh less than 2,500 grams (5.5 pounds) at birth. In 2003, there were 2,822 low birthweight babies born to Oregon mothers. [Table 2-22]. One of the National Healthy People 2010 Objectives is to reduce the percentage of low birthweight infants nationwide to 5.0 percent. In 2003, the percentage of low birthweight births in Oregon remained slightly above this objective at 6.1 percent, or 61.4 per 1,000 live births. This rate is an increase from the 2002 figure of 57.9. While annual changes have been slight over the last twenty years, there has been an upward trend in low birthweight infants and this year's rate is Oregon's highest in over twenty-five years. [Table 1-6; Figure 2-7]. Nevertheless, Oregon's low birthweight rates are typically 25 percent lower than the national rate and in 2003, Oregon's rate was 22.3 percent lower than the national rate (61.4 vs. 79.0 per 1,000 births).

Figure 2-7.  
Low Birthweight Rates,  
Oregon and the U.S., 1975-2003



Primary Source of Payment for Delivery, Oregon Residents			
Year	Private Insurance	Self Pay	Medicaid/OHP
	%	%	%
1989	60.7	9.5	27.5
1990	60.4	8.7	28.7
1991	58.2	6.5	33.2
1992	57.2	5.8	35.2
1993	56.2	5.9	36.2
1994	57.5	5.6	34.9
1995	57.9	4.9	35.5
1996	58.3	5.7	35.0
1997	60.8	6.3	31.9
1998	62.2	6.3	30.7
1999	61.1	5.9	32.4
2000	61.6	5.4	32.8
2001	61.2	4.3	34.3
2002	58.7	3.5	37.8
2003	58.9	3.5	37.6

NOTE: Denominator excludes births with unknown payor source, multiple payor source, and other payor source.

Major factors contributing to the risk of having a low birth-weight baby are multiple births, tobacco use and chronic hypertension. Other factors include: non-white race of mother, mother's age (younger than 18 or older than 34), lack of prenatal care, low income, single marital status, a previous fetal or infant death, low education, and short spacing between births. As an example of risk factors, women age 40-44 have a higher than average rate of first trimester care (83.6%) compared to the state (81.1%). [Table 2-17]. Nevertheless, women age 40-44 continue to have a higher percentage of low birthweight babies, 10.0 percent compared to 6.1 percent for all births. [Table 2-23]. In 2003, most women (63.2%) had at least one risk factor for their pregnancy. State-wide 11.2 percent of the women had three or more risk factors.

### Apgar Scores

The Apgar score is composed of measurements of five characteristics of the infant: heart rate, respiratory effort, muscle tone, reflex irritability, and color. Each characteristic is rated 0-2 and the score totaled. Scores below 7, five minutes after birth, indicate poor to intermediate health at birth. In Oregon during 2003, 1.8 percent of infants had Apgar scores below 7, slightly higher than the 2002 national figure of 1.4 percent. [Table 2-23, Table 2-24].

### Abnormal Conditions and Congenital Anomalies

The most frequently reported conditions on birth certificates were birth injury, assisted ventilation of less than 30 minutes and assisted ventilation of more than 30 minutes. [Table 2-35, Table 2-36]. Congenital anomalies reported on birth certificates are shown in Table 2-37. Although Oregon occurrences are somewhat higher than national rates for some anomalies, congenital anomalies are believed to be under reported nationally due to factors such as recognizability and severity. Even at the national level, data users are advised to use caution in comparing annual occurrences for relatively small numbers.

### Multiple Births

Although slightly less than three percent of births in Oregon during 2003 were multiple births, the proportion varied widely by age, race and ethnicity. During 2003 mothers age 45 and older were most likely to have multiple births. The percentage of multiple births for each age group ranged from 1.5 percent for mothers age 15 to 19 to 35.0 percent of births to mothers age 45 and older, increasing with each five year age group [Table 2-23]. Non-Hispanic African American and Non-Hispanic whites were most likely to have multiple births (4.2% and 3.6% respectively). [Table 2-24].

**SOURCE OF PAYMENT**

Primary source of payment for delivery is noted on Oregon birth certificates under four categories: 1) private insurance, 2) self-pay (no insurance), 3) public insurance (Medicaid/Oregon Health Plan), and 4) other public insurance. The specific type of private insurance coverage is not defined. Multiple payment sources can be indicated. Private insurance companies paid for the majority of deliveries in Oregon (58.9%), up slightly from 58.7 percent in 2002 (see sidebar, previous page). Medicaid programs (e.g. the Oregon Health Plan) paid for slightly more than one-third of Oregon resident births (37.6%). Delivery costs were more likely to be paid for by public insurance if the woman was under age 18. [Table 2-14].



**TABLE 2-1. Resident Births by Age Group of Mother, Oregon 1955, 1960, 1965, 1970, 1975, 1980-2003**

Year	Total	Age Group of Mother												NS* No.				
		Under 15		15-19		20-24		25-29		30-34		35-39			40-44		45+	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%		No.	%	No.	%
1955	38,678	19	0.0	4,939	12.8	12,968	33.5	10,339	26.7	6,346	16.4	3,194	8.3	835	2.2	36	0.1	2
1960	38,347	31	0.1	5,896	15.4	14,122	36.8	9,338	24.4	5,303	13.8	2,808	7.3	799	2.1	48	0.1	2
1965	32,955	29	0.1	5,758	17.5	13,154	39.9	7,640	23.2	3,786	11.5	1,976	6.0	582	1.8	29	0.1	1
1970	35,353	41	0.1	6,027	17.0	14,587	41.3	9,778	27.7	3,373	9.5	1,195	3.4	324	0.9	27	0.1	1
1975	33,352	57	0.2	5,206	15.6	12,716	38.1	10,718	32.1	3,576	10.7	888	2.7	167	0.5	9	0.0	5
1980	43,091	71	0.2	5,658	13.1	14,912	34.6	14,297	33.2	6,499	15.1	1,456	3.4	185	0.4	11	0.0	2
1981	42,974	61	0.1	5,483	12.8	14,338	33.4	14,292	33.3	7,102	16.5	1,479	3.4	207	0.5	12	0.0	-
1982	41,012	52	0.1	4,783	11.7	13,422	32.7	13,534	33.0	7,202	17.6	1,765	4.3	241	0.6	13	0.0	-
1983	39,949	52	0.1	4,375	11.0	12,595	32.8	13,106	32.8	7,626	19.1	1,938	4.9	244	0.6	11	0.0	2
1984	39,536	56	0.1	4,245	10.7	12,035	30.4	12,783	32.3	7,961	20.1	2,193	5.5	248	0.6	13	0.0	2
1985	39,419	42	0.1	4,136	10.5	11,815	30.0	12,782	32.4	8,017	20.3	2,333	5.9	281	0.7	10	0.0	3
1986	38,850	64	0.2	4,159	10.7	11,334	29.2	12,308	31.7	8,067	20.8	2,574	6.6	327	0.8	13	0.0	4
1987	38,674	59	0.2	4,363	11.3	10,791	27.9	12,209	31.6	8,038	20.8	2,829	7.3	370	1.0	13	0.0	2
1988	39,850	57	0.1	4,496	11.3	10,874	27.3	12,477	31.3	8,436	21.2	3,055	7.7	469	1.2	11	0.0	2
1989	41,223	68	0.2	4,850	11.8	11,305	27.4	12,559	30.5	8,549	20.7	3,349	8.1	517	1.3	16	0.0	10
1990	42,830	76	0.2	5,080	11.9	11,523	26.9	12,974	30.3	8,961	20.9	3,607	8.4	585	1.4	13	0.0	11
1991	42,458	88	0.2	5,137	12.1	11,447	27.0	12,291	28.9	8,965	21.1	3,856	9.1	655	1.5	11	0.0	8
1992	41,941	86	0.2	5,108	12.2	11,367	27.1	11,953	28.5	8,898	21.2	3,763	8.9	725	1.7	29	0.1	12
1993	41,566	83	0.2	5,091	12.2	11,197	26.9	11,461	27.6	8,966	21.6	3,930	9.5	797	1.9	36	0.1	0
1994	41,832	117	0.3	5,238	12.5	10,999	26.3	11,592	27.7	9,150	21.9	3,904	9.3	776	1.9	45	0.1	11
1995	42,715	104	0.2	5,437	12.7	11,054	25.9	11,950	28.0	9,216	21.6	4,059	9.5	848	2.0	43	0.1	4
1996	43,645	91	0.2	5,676	13.0	11,268	25.8	12,286	28.1	9,202	21.1	4,232	9.7	847	1.9	39	0.1	4
1997	43,765	104	0.2	5,344	12.2	11,367	26.0	12,594	28.8	9,018	20.6	4,356	10.0	940	2.1	35	0.1	7
1998	45,228	95	0.2	5,565	12.3	11,855	26.2	12,850	28.4	9,303	20.6	4,560	10.1	942	2.1	46	0.1	12
1999	45,193	86	0.2	5,491	12.2	11,896	26.3	12,603	27.9	9,459	20.9	4,575	10.1	1,015	2.2	65	0.1	3
2000	45,786	66	0.1	5,090	11.1	12,265	26.8	12,680	27.7	9,943	21.7	4,669	10.2	1,007	2.2	61	0.1	5
2001	45,318	66	0.1	4,819	10.6	12,244	27.0	12,408	27.4	10,093	22.3	4,605	10.2	1,008	2.2	67	0.1	8
2002	45,190	51	0.1	4,410	9.8	11,997	26.6	12,634	28.0	10,320	22.8	4,674	10.3	1,036	2.3	61	0.1	7
2003	45,935	47	0.1	4,116	9.0	11,901	25.9	13,033	28.4	10,840	23.6	4,842	10.5	1,067	2.3	80	0.2	9

\* NS Indicates age not stated; the percentage is insignificant.

**TABLE 2-2. Age Specific Birth Rates, Fertility Rates and Total Fertility Rates, Oregon, 1940, 1950, 1960, 1970, 1975-2003**

Year	Age-Specific Birth Rates*						Fertility 15-44	Total Fertility Rate
	15-19	20-24	25-29	30-34	35-39	40-44		
1940	46.2	132.8	114.1	68.0	31.7	9.0	69.4	2,009.0
1950	92.9	223.0	169.5	100.9	46.7	12.6	108.8	3,228.3
1960	88.2	283.8	189.3	96.3	46.3	13.7	112.5	3,587.8
1970	58.9	167.5	139.4	58.3	21.7	5.4	81.5	2,255.6
1975	47.2	112.4	111.6	47.0	14.4	2.8	64.5	1,677.0
1976	48.6	114.0	118.5	52.5	15.2	3.1	67.4	1,759.3
1977	47.4	116.3	114.9	55.0	15.8	2.9	67.7	1,760.8
1978	49.3	115.1	111.3	56.8	16.1	2.8	67.3	1,757.5
1979	48.8	117.1	114.7	61.0	16.9	3.0	69.0	1,808.0
1980	50.9	124.3	112.9	57.8	17.2	2.8	69.3	1,829.5
1981	51.5	121.3	112.8	59.3	16.6	3.0	68.1	1,822.5
1982	45.7	119.1	109.1	60.3	18.6	3.3	65.2	1,780.6
1983	42.8	114.0	110.8	64.7	19.7	3.3	64.1	1,776.6
1984	42.5	108.0	111.0	66.4	21.2	3.1	62.8	1,761.6
1985	42.8	111.2	110.8	65.6	21.2	3.4	62.2	1,775.2
1986	42.3	105.5	112.7	69.5	22.9	3.9	61.8	1,784.0
1987	46.4	109.1	109.1	66.3	24.4	4.0	60.9	1,796.5
1988	46.7	111.1	111.5	69.5	25.7	4.8	61.8	1,846.5
1989	49.8	108.6	113.9	74.9	27.8	5.0	63.3	1,900.0
1990	54.5	117.5	118.2	75.5	28.8	5.3	65.1	1,999.0
1991	55.2	117.5	119.6	73.6	29.9	5.4	63.7	2,003.0
1992	53.7	113.5	118.2	68.3	28.9	7.5	62.5	1,950.5
1993	51.3	109.5	114.0	75.0	30.0	6.3	61.1	1,930.5
1994	51.3	105.0	115.4	78.5	30.2	6.0	61.0	1,932.0
1995	52.2	109.1	121.6	79.9	31.2	6.4	62.3	2,001.0
1996	52.4	110.7	121.7	82.2	32.5	6.3	63.2	2,029.0
1997	47.8	108.1	123.8	83.0	33.9	6.9	63.0	2,017.2
1998	48.3	119.0	124.6	81.4	34.6	6.8	64.2	2,074.3
1999	46.6	116.3	122.3	84.4	35.2	7.4	64.2	2,061.0
2000	42.6	108.8	111.9	86.3	36.7	7.3	62.9	1,968.0
2001	39.9	107.5	108.5	86.7	35.8	7.3	61.6	1,928.5
2002	36.2	104.3	109.3	87.7	36.0	7.4	60.9	1,904.5
2003	33.4	102.4	111.5	91.1	36.9	7.5	61.4	1,914.0

\*All rates are per 1,000 female population within the specific age group.  
 Births to mothers under 15 or over 44 are not included in Total Fertility Rate.  
 See Technical Notes section for definition of Total Fertility Rate.

**TABLE 2-3. Percent of Oregon Resident Births to Unmarried Mothers, by Age of Mother, 1970-2003**

Year	Age Group of Mother					
	15-19	20-24	25-29	30-34	35-39	40-44
1970	25.7	6.3	2.6	2.7	3.7	4.6
1971	24.4	6.0	2.6	2.2	3.1	4.3
1972	24.8	8.0	2.5	2.3	3.8	4.0
1973	26.0	6.4	2.8	2.6	3.4	5.5
1974	27.9	7.7	3.1	3.1	2.7	6.9
1975	30.3	8.8	4.0	3.8	5.7	6.0
1976	33.8	9.6	4.4	3.5	5.5	7.2
1977	37.8	11.8	5.2	4.1	5.6	4.6
1978	40.3	13.7	5.8	4.5	6.3	3.4
1979	39.5	14.0	6.4	5.5	6.5	6.2
1980	43.4	15.3	7.5	5.6	8.0	4.3
1981	43.4	16.1	7.8	5.7	6.0	8.7
1982	47.3	17.9	8.5	6.6	6.7	9.5
1983	50.0	18.7	9.1	6.8	7.8	7.4
1984	52.7	20.9	10.1	6.8	8.0	13.7
1985	56.6	23.0	11.1	8.0	8.5	10.3
1986	59.5	25.8	13.0	8.3	9.2	9.2
1987	61.3	28.7	14.1	9.7	10.3	10.8
1988	63.0	30.3	15.5	10.3	11.2	11.9
1989	65.6	32.6	16.4	11.6	11.3	13.7
1990	67.2	33.0	16.6	12.2	11.2	11.6
1991	68.7	34.6	17.3	12.2	10.9	15.0
1992	70.1	34.8	17.2	12.2	11.7	13.0
1993	72.6	36.7	18.3	13.0	11.4	14.4
1994	74.0	37.5	18.2	13.0	12.3	14.0
1995	73.9	38.6	17.5	13.4	12.8	12.4
1996	74.1	39.1	18.6	13.3	14.1	14.8
1997	73.7	38.4	18.3	12.9	14.1	14.1
1998	75.6	39.5	19.5	12.9	13.1	15.9
1999	76.2	40.7	20.3	13.3	14.0	15.5
2000	76.2	42.6	20.2	13.0	13.0	13.5
2001	76.3	43.6	20.9	13.0	13.1	16.5
2002	77.3	46.1	21.6	13.6	14.4	15.0
2003	79.9	47.9	24.0	13.9	14.5	16.5

**TABLE 2-4. Age of Mother by Live Birth Order, Oregon Resident Births, 2003**

Live Birth Order	Total Births	Age of Mother								
		<15	15-19	20-24	25-29	30-34	35-39	40-44	45+	N.S.
Total	45,935	47	4,116	11,901	13,033	10,840	4,842	1,067	80	9
First	18,245	45	3,315	5,533	4,602	3,286	1,212	228	22	2
Second	14,846	2	706	4,198	4,347	3,689	1,564	313	25	2
Third	7,745	—	89	1,665	2,617	2,147	1,005	210	10	2
Fourth	3,123	—	4	398	1,000	1,052	551	112	4	2
Fifth	1,092	—	—	74	324	370	261	57	6	—
Sixth	469	—	—	21	89	185	126	45	3	—
Seventh	175	—	—	2	31	57	55	28	1	1
Eighth	107	—	—	2	12	29	34	27	3	—
Ninth+	106	—	—	3	4	18	31	44	6	—
Unknown	27	—	2	5	7	7	3	3	—	—

— Quantity is zero.

**Table 2-5. Total Pregnancies by Type of Outcome and Age Groups,  
Oregon Residents, 2003**

Type of Outcome	Total	Age Group								
		<15	15-19	20-24	25-29	30-34	35-39	40-44	45+	N.S.
<b>Total</b>	58,741	100	6,287	16,347	15,773	12,703	5,944	1,442	112	33
<b>Live Births</b>	45,935	47	4,116	11,901	13,033	10,840	4,842	1,067	80	9
Percent	78.2	47.0	65.5	72.8	82.6	85.3	81.5	74.0	71.4	27.3
<b>Fetal Deaths</b>	184	1	17	48	50	34	25	8	–	1
Percent	0.3	1.0	0.3	0.3	0.3	0.3	0.4	0.6	–	3.0
<b>Induced Abortions</b>	12,622	52	2,154	4,398	2,690	1,829	1,077	367	32	23
Percent	21.5	52.0	34.3	26.9	17.1	14.4	18.1	25.5	28.6	69.7

<sup>1</sup> Induced abortion data are available by Oregon occurrence only. Estimate assumes that the number of Oregon residents who travel outside the state to obtain an abortion equals the number of out-of-state residents who obtain an abortion in Oregon.

– Quantity is zero.

Percents may not add to 100 due to rounding.

WARNING: Rates based on less than 5 events are unreliable.

**TABLE 2-6. Pregnancies<sup>1</sup> by Age and County of Residence,  
Oregon Residents, 2003**

County of Residence	All Ages	Age							N.S.
		10-19	20-24	25-29	30-34	35-39	40-44	45+	
Total	57,407	6,179	15,862	15,468	12,517	5,817	1,420	113	31
Baker	159	26	47	42	28	15	1	—	—
Benton	924	71	221	255	235	108	30	3	1
Clackamas	5,009	457	1,238	1,332	1,210	576	178	15	3
Clatsop	454	62	148	121	76	41	4	1	1
Columbia	622	50	204	156	139	55	16	1	1
Coos	740	102	274	184	118	52	10	—	—
Crook	265	39	95	71	39	16	5	—	—
Curry	192	29	54	55	31	13	10	—	—
Deschutes	1,927	218	533	491	441	190	48	5	1
Douglas	1,298	206	476	310	201	82	20	2	1
Gilliam	23	1	*	*	*	1	—	—	—
Grant	70	8	23	21	12	4	2	—	—
Harney	78	6	20	25	18	6	3	—	—
Hood River	336	38	89	75	71	49	14	—	—
Jackson	2,639	327	760	760	496	241	49	4	2
Jefferson	353	68	100	89	73	21	2	—	—
Josephine	949	128	308	236	170	78	26	3	—
Klamath	959	149	315	245	167	63	18	2	—
Lake	76	14	23	18	13	7	1	—	—
Lane	4,818	529	1,451	1,310	989	421	110	6	2
Lincoln	550	71	170	170	92	36	10	1	—
Linn	1,559	211	508	455	259	93	29	4	—
Malheur	480	77	160	120	85	32	5	1	—
Marion	5,468	719	1,745	1,509	950	448	89	8	—
Morrow	208	25	60	52	46	23	2	—	—
Multnomah	13,270	1,282	3,340	3,433	3,184	1,598	384	36	13
Polk	875	91	248	251	187	78	20	—	—
Sherman	26	4	*	*	*	3	—	—	1
Tillamook	308	38	109	77	53	22	7	2	—
Umatilla	1,285	190	392	364	230	78	29	1	1
Union	366	54	135	98	57	17	4	1	—
Wallowa	79	7	27	21	12	10	2	—	—
Wasco	310	39	99	88	53	24	7	—	—
Washington	9,310	681	2,042	2,660	2,478	1,183	248	15	3
Wheeler	6	3	*	*	*	*	*	—	—
Yamhill	1,410	159	434	356	291	132	36	2	—
Not Stated	6	—	2	1	—	1	1	—	1

— Quantity is zero.

<sup>1</sup> Pregnancies include live births and induced abortions reported for Oregon residents.

\* Detailed reporting of small numbers may breach confidentiality.

**TABLE 2-7. Resident Births by Race of Mother, Oregon, 1974-2003**

Year	Total	White	African American	American Indian	Chinese	Japanese	Other & Unknown	Hispanic
1974	32,506	31,508	569	341	66	80	243	*
1975	33,352	31,910	614	389	81	80	278	*
1976	34,840	33,369	586	356	88	81	340	*
1977	37,467	35,843	693	354	85	94	398	*
1978	38,964	37,197	751	374	86	94	462	*
1979	41,564	39,623	766	426	115	90	544	*
1980	43,091	40,787	792	475	140	96	801	*
1981	42,974	39,308	743	480	121	112	1,064	1,146
1982	41,012	37,355	773	468	156	131	941	1,188
1983	39,949	36,654	775	486	141	104	743	1,046
1984	39,536	36,146	725	497	148	104	770	1,146
1985	39,419	35,877	784	519	141	129	745	1,224
1986	38,850	35,190	755	524	163	129	768	1,321
1987	38,674	34,774	816	548	178	120	762	1,476
1988	39,850	35,541	888	596	201	125	865	1,634
1989	41,223	38,294	905	705	222	150	947	2,233
1990	42,830	39,808	917	745	230	162	968	2,969
1991	42,458	39,408	966	653	222	125	1,084	3,278
1992	41,941	38,873	955	665	231	122	1,095	3,549
1993	41,566	38,595	891	570	212	106	1,192	4,004
1994	41,832	38,723	944	621	213	97	1,234	4,368
1995	42,715	39,566	872	628	222	110	1,317	4,996
1996	43,645	40,366	892	671	196	112	1,408	5,455
1997	43,765	40,132	932	741	216	138	1,606	5,851
1998	45,228	41,490	966	752	161	101	1,758	6,499
1999	45,193	41,235	899	701	198	155	2,005	6,902
2000	45,786	41,584	1,015	727	273	142	2,045	7,397
2001	45,318	41,135	928	788	205	152	2,110	7,903
2002	45,190	40,895	934	805	237	135	2,184	8,051
2003	45,935	41,221	1,009	860	229	123	2,493	8,433

\*Data not available.

NOTE: Before 1981, neither Hispanic race nor ethnicity were recorded. Between 1981 and 1988, Hispanic was recorded as a race category. Since 1989, Hispanic ethnicity has been recorded separately from race and Hispanic mothers are included.

**TABLE 2-8. Ethnicity, Race, and County of Residence of Mother, Oregon Resident Births, 2003**

County of Residence	Total Births	Hispanic			Non-Hispanic			
		Total	White	Other	White	African American	American Indian	Other
Total	45,935	8,433	8,206	227	32,989	976	706	2,532
Baker	146	11	9	2	129	—	3	3
Benton	770	85	84	1	609	13	9	54
Clackamas	4,019	569	558	11	3,179	32	44	180
Clatsop	367	47	45	2	315	—	2	3
Columbia	539	18	17	1	507	2	5	7
Coos	631	50	47	3	543	4	24	10
Crook	235	35	29	6	193	—	4	2
Curry	156	7	7	—	142	—	5	2
Deschutes	1,575	161	69	92	1,363	5	15	28
Douglas	1,107	64	60	4	1,003	4	17	18
Gilliam	21	2	2	—	18	—	—	—
Grant	65	3	3	—	61	—	1	—
Harney	66	1	1	—	59	—	2	2
Hood River	290	135	135	—	147	1	2	5
Jackson	2,137	359	344	15	1,663	10	22	67
Jefferson	315	102	89	13	116	1	94	1
Josephine	802	75	74	1	692	4	13	15
Klamath	836	109	106	3	662	2	50	11
Lake	70	6	6	—	64	—	—	—
Lane	3,754	341	337	4	3,195	34	43	138
Lincoln	429	58	58	—	347	—	20	4
Linn	1,356	131	129	2	1,169	7	23	22
Malheur	455	214	213	1	231	1	6	2
Marion	4,635	1,630	1,620	10	2,647	43	70	141
Morrow	186	79	78	1	100	—	2	2
Multnomah	9,340	1,594	1,555	39	6,043	682	103	846
Polk	775	136	134	2	571	5	12	18
Sherman	22	2	2	—	19	—	1	—
Tillamook	254	54	54	—	188	1	5	6
Umatilla	1,120	351	349	2	698	9	36	9
Union	323	12	12	—	294	2	4	11
Wallowa	66	1	1	—	65	—	—	—
Wasco	262	58	58	—	187	1	8	8
Washington	7,630	1,675	1,664	11	4,880	111	49	900
Wheeler	6	2	2	—	4	—	—	—
Yamhill	1,175	256	255	1	886	2	12	17

— Quantity is zero.

NOTE: The sum of the subsets does not equal the total because of cases with unknown ethnicity or race.

**TABLE 2-9. Births to Unmarried Mothers,  
Oregon Residents, 2003**

County of Residence	Total Births	Number Unmarried	Percent Unmarried <sup>1</sup>
Total	45,935	14,553	31.7
Baker	146	46	31.5
Benton	770	166	§ 21.6
Clackamas	4,019	1,021	§ 25.4
Clatsop	367	135	36.9
Columbia	539	131	§ 24.3
Coos	631	265	§ 42.1
Crook	235	68	28.9
Curry	156	48	40.0
Deschutes	1,575	431	§ 27.4
Douglas	1,107	451	§ 40.8
Gilliam	21	8	38.1
Grant	65	17	26.2
Harney	66	15	22.7
Hood River	290	68	§ 23.4
Jackson	2,137	690	32.5
Jefferson	315	134	§ 42.5
Josephine	802	311	§ 38.8
Klamath	836	312	§ 37.4
Lake	70	17	24.3
Lane	3,754	1,290	§ 34.4
Lincoln	429	216	§ 50.3
Linn	1,356	488	§ 36.0
Malheur	455	154	33.8
Marion	4,635	1,807	§ 39.0
Morrow	186	60	32.3
Multnomah	9,340	3,139	§ 33.6
Polk	775	214	§ 27.6
Sherman	22	7	31.8
Tillamook	254	80	31.6
Umatilla	1,120	427	§ 38.1
Union	323	105	32.7
Wallowa	66	18	27.3
Wasco	262	87	33.2
Washington	7,630	1,761	§ 23.1
Wheeler	6	2	33.3
Yamhill	1,175	364	31.0

<sup>1</sup> Percent of total live births where marital status is known.

§ Percent unmarried is significantly different from the state.

WARNING: Rates/Percentages based on less than 5 events are unreliable.

NOTE: Rates/Percentages are calculated excluding missing and unknown values.

**TABLE 2-10. Age of Mother and County of Residence, Oregon Resident Births, 2003**

County of Residence	Total	<15	15-19	20-24	25-29	30-34	35-39	40-44	45+	N.S.
Total	45,935	47	4,116	11,901	13,033	10,840	4,842	1,067	80	9
Baker	146	—	21	43	41	27	14	—	—	—
Benton	770	—	43	163	221	214	102	24	2	1
Clackamas	4,019	3	254	927	1,126	1,076	482	137	13	1
Clatsop	367	1	46	110	109	64	34	3	—	—
Columbia	539	—	37	172	138	127	49	15	1	—
Coos	631	1	80	233	162	103	44	8	—	—
Crook	235	—	31	88	65	36	13	2	—	—
Curry	156	—	21	44	48	27	8	8	—	—
Deschutes	1,575	1	143	406	427	395	162	37	4	—
Douglas	1,107	2	160	410	269	182	66	16	1	1
Gilliam	21	—	1	6	7	6	1	—	—	—
Grant	65	—	7	21	21	11	4	1	—	—
Harney	66	—	5	18	23	13	4	3	—	—
Hood River	290	—	26	73	72	64	43	12	—	—
Jackson	2,137	3	230	578	654	433	196	38	3	2
Jefferson	315	1	57	89	78	69	19	2	—	—
Josephine	802	—	101	261	211	150	63	14	2	—
Klamath	836	2	119	271	225	148	53	16	2	—
Lake	70	—	12	21	18	13	5	1	—	—
Lane	3,754	1	334	1,049	1,100	835	356	75	3	1
Lincoln	429	1	45	141	135	74	26	7	—	—
Linn	1,356	2	169	439	416	229	78	21	2	—
Malheur	455	2	69	153	116	80	30	4	1	—
Marion	4,635	6	534	1,420	1,354	848	391	76	6	—
Morrow	186	—	22	52	52	40	18	2	—	—
Multnomah	9,340	9	700	2,017	2,498	2,554	1,263	270	28	1
Polk	775	—	76	203	236	173	70	17	—	—
Sherman	22	—	3	4	9	4	2	—	—	—
Tillamook	254	1	21	99	66	43	15	7	2	—
Umatilla	1,120	4	144	339	330	213	67	22	1	—
Union	323	1	44	124	89	48	15	1	1	—
Wallowa	66	—	5	24	18	10	8	1	—	—
Wasco	262	—	36	83	75	43	20	5	—	—
Washington	7,630	4	407	1,470	2,306	2,229	1,008	196	8	2
Wheeler	6	—	3	—	1	2	—	—	—	—
Yamhill	1,175	2	110	350	317	257	113	26	—	—

— Quantity is zero.

**TABLE 2-11. Unmarried Mothers by Age of Mother and County of Residence, Oregon Resident Births, 2003**

County of Residence	Total	<15	15-19	20-24	25-29	30-34	35-39	40-44	45+	N.S.
Total	14,553	46	3,289	5,702	3,121	1,509	700	176	10	—
Baker	46	—	15	17	9	2	3	—	—	—
Benton	166	—	30	70	40	15	9	1	1	—
Clackamas	1,021	3	200	412	218	106	59	21	2	—
Clatsop	135	1	31	61	22	13	7	—	—	—
Columbia	131	—	31	64	20	9	5	1	1	—
Coos	265	1	62	118	47	23	8	6	—	—
Crook	68	—	21	31	13	2	1	—	—	—
Curry	48	—	13	19	7	4	2	3	—	—
Deschutes	431	1	111	165	81	47	21	5	—	—
Douglas	451	2	132	199	66	40	9	3	—	—
Gilliam	8	—	1	5	1	1	—	—	—	—
Grant	17	—	5	6	4	1	—	1	—	—
Harney	15	—	5	7	1	1	1	—	—	—
Hood River	68	—	14	29	15	6	4	—	—	—
Jackson	690	2	179	251	153	64	37	4	—	—
Jefferson	134	1	43	39	28	19	3	1	—	—
Josephine	311	—	82	131	49	31	17	1	—	—
Klamath	312	2	93	127	51	27	10	2	—	—
Lake	17	—	9	6	—	—	2	—	—	—
Lane	1,290	1	288	520	280	124	69	8	—	—
Lincoln	216	1	40	85	56	15	15	4	—	—
Linn	488	2	134	198	105	37	8	4	—	—
Malheur	154	2	44	61	29	12	5	1	—	—
Marion	1,807	6	427	728	392	157	81	16	—	—
Morrow	60	—	17	20	14	7	2	—	—	—
Multnomah	3,139	9	588	1,122	747	431	181	55	6	—
Polk	214	—	63	77	36	25	10	3	—	—
Sherman	7	—	3	1	2	—	1	—	—	—
Tillamook	80	1	16	42	11	7	2	1	—	—
Umatilla	427	4	110	162	92	37	18	4	—	—
Union	105	1	37	43	13	7	4	—	—	—
Wallowa	18	—	4	9	2	2	1	—	—	—
Wasco	87	—	28	34	19	3	2	1	—	—
Washington	1,761	4	327	695	422	189	95	29	—	—
Wheeler	2	—	2	—	—	—	—	—	—	—
Yamhill	364	2	84	148	76	45	8	1	—	—

— Quantity is zero.

**TABLE 2-12. Race, Ethnicity and Place of Birth of Mother by Selected Demographic Characteristics (Percent), Oregon Resident Births, 2003**

Characteristic of Mother	Total	Non-Hispanic White	Non-Hispanic African American	Non-Hispanic American Indian	Non-Hispanic Asian <sup>1</sup>	Total Hispanic	Mexican	Central or South American	Other Hispanic
Total	45,935	32,989	976	706	2,418	8,433	7,830	325	278
Ratio of males to females <sup>2</sup>	1,046	1,051	925	1,046	1,061	1,040	1,059	857	771
<b>All Births</b>	<b>45,935</b>	<b>32,989</b>	<b>976</b>	<b>706</b>	<b>2,418</b>	<b>8,433</b>	<b>7,830</b>	<b>325</b>	<b>278</b>
Mothers Under 20 Years	9.1	7.9	14.1	18.0	2.8	14.0	14.3	7.7	14.7
4th and Higher-Order	11.0	9.9	15.5	19.1	7.7	15.4	15.7	12.9	10.8
Unmarried Mothers	31.7	28.3	64.1	61.5	15.9	43.2	43.4	37.8	42.1
Completed 12+ Years Education	80.0	88.7	79.9	70.9	91.3	42.8	40.6	63.9	79.3
<b>Born in the 50 States and D.C.</b>	<b>35,777</b>	<b>31,223</b>	<b>807</b>	<b>694</b>	<b>414</b>	<b>2,273</b>	<b>2,017</b>	<b>35</b>	<b>221</b>
Mothers Under 20 Years	9.5	8.1	16.7	18.2	9.7	23.1	23.6	28.6	18.1
4th and Higher-Order	9.9	9.5	15.1	19.3	5.8	12.4	12.9	–	10.0
Unmarried Mothers	32.4	29.4	73.4	62.1	32.4	50.2	50.5	57.1	46.2
Completed 12+ Years Education	86.8	88.6	79.7	70.7	91.0	69.2	68.0	82.4	78.2
<b>Born outside of the 50 States and D.C.</b>	<b>10,090</b>	<b>1,728</b>	<b>165</b>	<b>12</b>	<b>1,999</b>	<b>6,147</b>	<b>5,800</b>	<b>290</b>	<b>57</b>
Mothers Under 20 Years	7.4	3.5	1.8	8.3	1.4	10.7	11.0	5.2	1.8
4th and Higher-Order	14.9	16.9	17.6	8.3	8.0	16.5	16.7	14.5	14.0
Unmarried Mothers	29.2	9.2	20.0	25.0	12.4	40.6	41.0	35.5	26.3
Completed 12+ Years Education	55.5	91.1	81.1	83.3	91.4	33.0	31.0	61.7	83.6

– Quantity is zero.

<sup>1</sup> Includes Chinese, Japanese, Filipino, and Other Asian & Pacific Islander.

<sup>2</sup> Ratio of male live births per 1,000 female live births.

NOTE: Rates and percentages are calculated excluding missing and unknown values.

**TABLE 2-13. Country of Mother's Birth by Continent of Father's Birth, Oregon Residents, 2003**

Country of Mother's Birth	Total	Continent of Father's Birth					
		North America	Central and South America	Europe	Asia	Africa	Other and Unknown Countries
Total	45,935	37,195	442	792	1,820	227	5,459
Argentina	22	8	6	—	3	—	5
Australia	35	28	1	1	1	—	4
Brazil	33	17	3	—	2	1	10
Cambodia	64	17	1	—	43	—	3
Canada	220	196	1	6	6	1	10
China (Peoples Republic of)	191	22	—	2	162	—	5
Colombia	25	15	3	2	1	—	4
El Salvador	74	34	34	—	—	—	6
Ethiopia	39	5	—	—	—	30	4
France	20	19	—	1	—	—	—
Germany	184	163	—	6	1	—	14
Guam	31	20	1	—	1	—	9
Guatemala	147	40	88	—	1	—	18
Honduras	33	18	8	—	—	—	7
Hong Kong	20	10	—	—	10	—	—
India	264	21	—	—	235	2	6
Indonesia	19	7	—	1	11	—	—
Iran	22	6	—	1	15	—	—
Ireland	22	8	—	13	1	—	—
Japan	142	105	2	2	28	—	5
Khazakhstan	24	1	—	9	13	—	1
Korea	158	57	1	4	87	—	9
Laos	105	20	1	—	73	—	11
Lebanon	19	3	—	—	13	1	2
Marshall Islands	39	4	—	—	—	—	35
Mexico	5,709	5,029	89	4	7	—	580
Micronesia	41	6	—	—	—	1	34
Moldavia	26	—	—	19	6	—	1
New Zealand	19	15	—	—	—	1	3
Nicaragua	20	13	4	—	—	—	3
Peru	30	16	12	—	—	—	2
Philippines	231	146	2	6	4	—	73
Puerto Rico	25	16	—	—	—	—	9
Romania	98	18	1	74	1	—	4
Russia	170	39	—	37	93	—	1
Somalia	35	—	—	—	—	31	4
South Korea	46	20	—	1	22	1	2
Taiwan	54	21	—	—	32	—	1
Thailand	69	23	1	1	37	1	6
U.S.A.	35,779	30,551	159	349	322	73	4,325
Ukraine	248	15	2	184	40	—	7
United Kingdom	115	76	1	29	3	2	4
Vietnam	452	40	—	1	387	—	24
Other and Unknown Countries	816	307	21	39	159	82	208

— Quantity is zero.

**TABLE 2-14. Maternal Characteristics by Method of Payment for Delivery, Oregon Resident Births, 2003**

Characteristics		Total	Private Insurance	Self-Pay	Medicaid- /OHP*	Other	N.S.	Multiple Mention
<b>Mother's Age and Marital Status</b>								
<b>Total</b>		45,935	26,543	1,570	16,927	54	772	69
	Married	31,300	22,464	961	7,290	43	507	35
	Unmarried	14,553	4,078	609	9,636	11	185	34
<b>Less Than 18</b>		1,272	334	64	842	1	29	2
	Married	108	18	1	88	–	1	–
	Unmarried	1,162	316	63	754	1	26	2
<b>18-24</b>		14,792	5,357	557	8,581	20	256	21
	Married	6,885	3,439	273	3,024	14	131	4
	Unmarried	7,875	1,918	284	5,557	6	93	17
<b>25-34</b>		23,873	16,231	757	6,413	24	411	37
	Married	19,207	14,765	544	3,531	21	323	23
	Unmarried	4,630	1,465	213	2,881	3	54	14
<b>35+</b>		5,989	4,621	191	1,091	9	68	9
	Married	5,094	4,242	142	647	8	47	8
	Unmarried	886	379	49	444	1	12	1
<b>First Trimester Care</b>								
<b>Total</b>		37,207	23,907	912	11,762	44	524	58
	Married	27,016	20,630	625	5,331	35	365	30
	Unmarried	10,127	3,276	287	6,430	9	97	28
<b>Percent</b>		81.1	90.1	58.1	69.5	81.5	70.7	84.1
	Married	86.4	91.9	65.1	73.1	81.4	74.2	85.7
	Unmarried	69.7	80.4	47.1	66.7	81.8	56.1	82.4
<b>Inadequate Prenatal Care</b>								
<b>Total</b>		2,545	705	303	1,477	1	56	3
	Married	1,134	476	138	492	1	26	1
	Unmarried	1,407	229	165	985	–	26	2
<b>Percent</b>		5.5	2.7	19.3	8.7	1.9	7.6	4.3
	Married	3.6	2.1	14.4	6.7	2.3	5.3	2.9
	Unmarried	9.7	5.6	27.1	10.2	–	15.0	5.9
<b>Tobacco Use</b>								
<b>Percent</b>		12.0	5.5	11.5	22.2	16.7	12.6	10.3
<b>Alcohol Use</b>								
<b>Percent</b>		1.6	1.5	1.3	1.6	1.9	–	2.9
<b>Low Birthweight</b>								
<b>Percent</b>		6.1	6.0	5.2	6.3	5.6	9.7	13.0

– Quantity is zero.

NOTE: The sum of the subsets may not equal the total because of unknown marital status and/or mother's age, which are not presented in this table. Rates and percentages are calculated excluding missing and unknown values.

\*OHP = Oregon Health Plan.

**TABLE 2-15. Reported Use of Illicit Substances, Alcohol, or Tobacco, by County of Residence, Oregon Births, 2003**

County of Residence	Total Births	Tobacco Use		Alcohol Use		Illicit Drugs Used			
		Number	%	Number	%	Number	%	Mentions	
								Single	Multiple
Total	45,935	5,452	12.0	701	1.6	539	1.2	321	220
Baker	146	28	19.3	3	2.1	—	—	—	—
Benton	770	55	7.2	14	1.8	6	0.8	6	—
Clackamas	4,019	434	10.9	104	2.6	39	1.0	26	13
Clatsop	367	78	21.4	3	0.8	8	2.2	4	4
Columbia	539	98	18.6	4	0.9	8	1.5	5	3
Coos	631	145	23.1	5	0.8	26	4.1	9	18
Crook	235	42	17.9	3	1.3	1	0.4	1	—
Curry	156	33	26.2	2	1.7	3	1.9	2	1
Deschutes	1,575	204	13.0	32	2.0	2	0.1	2	—
Douglas	1,107	246	22.3	21	1.9	4	0.4	3	1
Gilliam	21	4	19.0	2	9.5	—	—	—	—
Grant	65	8	12.3	1	1.5	1	1.5	1	—
Harney	66	14	21.9	2	3.1	1	1.5	1	—
Hood River	290	14	4.9	5	1.8	2	0.7	2	—
Jackson	2,137	300	14.3	31	1.5	15	0.7	16	—
Jefferson	315	31	10.2	5	1.7	4	1.3	4	—
Josephine	802	184	23.0	16	2.0	40	5.0	26	14
Klamath	836	157	18.9	19	2.3	24	2.9	9	15
Lake	70	15	21.4	2	2.9	3	4.3	2	1
Lane	3,754	444	12.0	29	0.8	19	0.5	12	7
Lincoln	429	99	23.3	7	1.7	5	1.2	4	1
Linn	1,356	292	21.6	31	2.3	20	1.5	11	9
Malheur	455	41	9.1	1	0.2	3	0.7	3	—
Marion	4,635	500	10.9	33	0.7	83	1.8	34	49
Morrow	186	28	15.5	4	2.5	4	2.2	4	—
Multnomah	9,340	1,090	11.8	239	2.6	158	1.7	93	65
Polk	775	74	9.6	3	0.4	9	1.2	1	8
Sherman	22	4	18.2	—	—	—	—	—	—
Tillamook	254	42	16.9	4	1.6	—	—	—	—
Umatilla	1,120	165	15.0	17	2.2	25	2.2	20	5
Union	323	49	15.3	2	0.6	—	—	—	—
Wallowa	66	15	23.1	4	6.3	3	4.5	—	3
Wasco	262	42	16.0	2	0.8	1	0.4	1	—
Washington	7,630	333	4.4	43	0.6	20	0.3	17	3
Wheeler	6	*	*	*	*	*	*	*	*
Yamhill	1,175	143	12.3	8	0.7	2	0.2	2	—

— Quantity is zero.

\* Detailed reporting of small numbers may breach confidentiality.

WARNING: Rates and percentages based on less than 5 events are unreliable.

NOTE: Percent illicit drug use is percent of total births where illicit drug use was mentioned. Percentages for tobacco use and alcohol use exclude missing and unknown values in calculating percentages.

**TABLE 2-16. Maternal Risk Factors by County of Residence, Oregon, 2003**

County of Residence	Live Births	Minority Race/Ethnicity <sup>1</sup>	Inadequate Care <sup>2</sup>	Age < 18	Age >=35	4+ Live Births	<12 Years Educ.	Unmarried	Tobacco Use
		Percent of Births with Risk Factor							
Total	45,935	27.6	5.5	2.8	13.0	11.0	20.0	31.7	12.0
Baker	146	11.6	4.1	2.7	9.6	12.4	16.4	31.5	19.3
Benton	770	20.9	4.3	1.4	16.6	9.4	10.8	21.6	7.2
Clackamas	4,019	20.5	5.1	2.2	15.7	10.1	14.8	25.4	10.9
Clatsop	367	14.2	4.4	3.5	10.1	16.1	22.4	36.9	21.4
Columbia	539	5.8	4.9	0.9	12.1	11.3	13.0	24.3	18.6
Coos	631	13.9	6.2	3.0	8.2	9.7	17.7	42.1	23.1
Crook	235	17.4	3.0	3.0	6.4	11.5	27.2	28.9	17.9
Curry	156	9.0	8.4	2.6	10.3	9.6	20.6	40.0	26.2
Deschutes	1,575	13.2	2.5	2.6	12.9	8.6	14.1	27.4	13.0
Douglas	1,107	9.2	4.0	3.3	7.5	11.8	18.4	40.8	22.3
Gilliam	21	10.0	9.5	4.8	4.8	14.3	15.8	38.1	19.0
Grant	65	6.2	1.5	1.5	7.7	9.2	7.8	26.2	12.3
Harney	66	6.2	21.9	1.5	10.6	10.6	9.8	22.7	21.9
Hood River	290	49.3	4.2	1.4	19.0	13.8	36.2	23.4	4.9
Jackson	2,137	20.3	6.3	3.3	11.1	9.6	21.4	32.5	14.3
Jefferson	315	62.9	11.5	5.7	6.7	18.8	41.0	42.5	10.2
Josephine	802	13.0	3.5	3.4	9.9	12.1	19.2	38.8	23.0
Klamath	836	20.5	4.3	5.7	8.5	11.0	22.3	37.4	18.9
Lake	70	8.6	2.9	2.9	8.6	12.9	15.7	24.3	21.4
Lane	3,754	14.7	7.8	3.0	11.6	9.0	13.9	34.4	12.0
Lincoln	429	19.1	9.1	3.0	7.7	11.7	25.2	50.3	23.3
Linn	1,356	13.5	6.1	4.1	7.4	11.0	21.8	36.0	21.6
Malheur	455	49.0	6.2	5.3	7.7	17.8	36.0	33.8	9.1
Marion	4,635	41.5	9.5	3.4	10.2	14.4	30.3	39.0	10.9
Morrow	186	45.4	11.8	1.6	10.8	18.9	35.3	32.3	15.5
Multnomah	9,340	34.6	5.4	2.6	16.7	10.2	19.9	33.6	11.8
Polk	775	23.0	6.3	3.4	11.2	11.9	16.9	27.6	9.6
Sherman	22	13.6	4.5	–	9.1	18.2	18.2	31.8	18.2
Tillamook	254	25.6	4.3	1.6	9.4	14.2	18.9	31.6	16.9
Umatilla	1,120	36.8	9.3	4.0	8.0	15.3	31.4	38.1	15.0
Union	323	9.0	6.5	3.7	5.3	9.6	16.4	32.7	15.3
Wallowa	66	1.5	1.5	–	13.6	12.1	16.7	27.3	23.1
Wasco	262	28.6	3.1	3.8	9.5	10.7	26.5	33.2	16.0
Washington	7,630	35.9	2.8	1.7	15.9	10.1	17.1	23.1	4.4
Wheeler	6	33.3	*	–	–	16.7	50.0	33.3	*
Yamhill	1,175	24.5	3.3	2.9	11.8	13.3	23.5	31.0	12.3

– Quantity is zero.

<sup>1</sup> Includes nonwhite race and Hispanic ethnicity.

<sup>2</sup> Less than 5 prenatal visits or care began in the third trimester.

\* Detailed reporting of small numbers may breach confidentiality.

WARNING: Rates based on less than 5 events are unreliable.

NOTE: Risk factors expressed as a percentage of mothers within each risk category. Rates and percentages are calculated excluding missing and unknown values.

**TABLE 2-17. Prenatal Care by Mother's Age,  
Oregon Residents, 2003**

Mother's Age	Total Births	First Trimester Care		Inadequate Prenatal Care <sup>1</sup>	
		Number	Percent	Number	Percent
Total	45,935	37,207	81.1	2,545	5.5
<15	47	23	48.9	8	17.0
15-19	4,116	2,685	65.3	419	10.2
20-24	11,901	8,943	75.2	841	7.1
25-29	13,033	10,897	83.7	609	4.7
30-34	10,840	9,483	87.6	426	3.9
35-39	4,842	4,209	87.0	192	4.0
40-44	1,067	892	83.6	45	4.2
45+	80	70	87.5	2	2.5
Unknown	9	5	62.5	3	37.5

<sup>1</sup> Less than 5 prenatal visits or care began in the third trimester.

WARNING: Rates and percentages based on less than 5 events are unreliable.

NOTE: Rates and percentages are calculated excluding missing and unknown values.

**TABLE 2-18. Prenatal Care by Mother's Race and Ethnicity,  
Oregon Residents, 2003**

Mother's Race/Ethnicity	Total Births	First Trimester Care		Inadequate Prenatal Care <sup>1</sup>	
		Number	Percent	Number	Percent
<b>Total</b>	45,935	37,207	81.1	2,545	5.5
White	41,221	33,524	81.4	2,200	5.3
African American	1,009	787	78.0	76	7.5
American Indian	860	598	69.7	99	11.5
Chinese	229	185	81.1	12	5.3
Japanese	123	103	83.7	4	3.3
Hawaiian	47	37	78.7	2	4.3
Other Nonwhite	39	25	64.1	1	2.6
Filipino	192	159	83.2	14	7.3
Other Asian & Pacific Islander	1,887	1,529	81.1	117	6.2
Unknown Race	328	260	79.3	20	6.1
<b>Hispanic</b>					
<b>Total</b>	8,433	5,883	69.9	713	8.5
White	8,206	5,708	69.7	699	8.5
African American	31	28	90.3	3	9.7
American Indian	153	117	76.5	10	6.5
Chinese	3	2	66.7	1	33.3
Japanese	1	1	100.0	–	–
Hawaiian	3	2	66.7	–	–
Other Nonwhite	29	18	62.1	–	–
Filipino	3	3	100.0	–	–
Other Asian & Pacific Islander	4	4	100.0	–	–
Unknown Race	–	–	–	–	–
<b>Non-Hispanic</b>					
<b>Total</b>	37,203	31,085	83.6	1,812	4.9
White	32,989	27,793	84.3	1,500	4.6
African American	976	757	77.6	73	7.5
American Indian	706	481	68.3	88	12.5
Chinese	226	183	81.3	11	4.9
Japanese	122	102	83.6	4	3.3
Hawaiian	44	35	79.5	2	4.5
Other Nonwhite	10	7	70.0	1	10.0
Filipino	189	156	83.0	14	7.4
Other Asian & Pacific Islander	1,881	1,524	81.1	117	6.2
Unknown Race	60	47	78.3	2	3.3
<b>Unknown Ethnicity</b>	299	239	79.9	20	6.7

– Quantity is zero.

<sup>1</sup> Less than five prenatal visits or care began in the third trimester.

WARNING: Rates and percentages based on less than 5 events are unreliable.

NOTE: Rates and percentages are calculated excluding missing and unknown values.

**TABLE 2-19. Prenatal Care by  
Mother's Education, Oregon Residents, 2003**

Mother's Education (in years)	Total Births	First Trimester Care		Inadequate Prenatal Care <sup>1</sup>	
		Number	Percent	Number	Percent
Total	45,935	37,207	81.1	2,545	5.5
None	104	54	51.9	14	13.5
One	28	20	71.4	4	14.3
Two	76	41	53.9	9	11.8
Three	171	109	63.7	15	8.8
Four	136	88	64.7	11	8.1
Five	195	132	67.7	27	13.8
Six	1,242	818	65.9	109	8.8
Seven	177	124	70.1	19	10.7
Eight	645	412	64.1	81	12.6
Nine	1,876	1,240	66.1	186	9.9
Ten	1,773	1,173	66.2	214	12.1
Eleven	2,625	1,761	67.3	298	11.4
Twelve	14,353	11,237	78.4	856	6.0
Thirteen	4,160	3,505	84.4	178	4.3
Fourteen	4,871	4,212	86.5	177	3.6
Fifteen	1,541	1,335	86.6	57	3.7
Sixteen	6,549	6,042	92.3	135	2.1
Seventeen+	4,648	4,357	93.8	77	1.7
Unknown	765	547	71.7	78	10.2

<sup>1</sup> Less than five prenatal visits or care began in the third trimester.

WARNING: Rates and percentages based on less than 5 events are unreliable.

NOTE: Rates and percentages are calculated excluding missing and unknown values.

**TABLE 2-20. Prenatal Care by Mother's  
County of Residence, Oregon Residents, 2003**

County of Residence	Total Births	First Trimester Care		Inadequate Prenatal Care <sup>1</sup>	
		Number	Percent	Number	Percent
Total	45,935	37,207	81.1	2,545	5.5
Baker	146	124	84.9	6	4.1
Benton	770	656	85.2	33	4.3
Clackamas	4,019	3,357	83.5	204	5.1
Clatsop	367	304	82.8	16	4.4
Columbia	539	456	85.1	26	4.8
Coos	631	500	79.4	39	6.2
Crook	235	204	86.8	7	3.0
Curry	156	119	76.3	13	8.3
Deschutes	1,575	1,418	§ 90.0	39	§ 2.5
Douglas	1,107	945	85.4	44	4.0
Gilliam	21	16	76.2	2	9.5
Grant	65	56	86.2	1	1.5
Harney	66	51	77.3	14	§ 21.9
Hood River	290	244	84.1	12	4.2
Jackson	2,137	1,682	78.8	134	6.3
Jefferson	315	218	§ 69.2	36	§ 11.4
Josephine	802	698	87.0	28	§ 3.5
Klamath	836	680	81.3	36	4.3
Lake	70	57	81.4	2	2.9
Lane	3,754	2,850	§ 76.0	291	§ 7.8
Lincoln	429	325	75.8	39	§ 9.1
Linn	1,356	1,055	77.9	83	6.1
Malheur	455	321	§ 71.2	28	6.2
Marion	4,635	3,351	§ 72.3	440	§ 9.5
Morrow	186	106	§ 57.0	22	§ 11.8
Multnomah	9,340	7,552	80.9	504	5.4
Polk	775	609	78.6	49	6.3
Sherman	22	19	86.4	1	4.5
Tillamook	254	213	83.9	11	4.3
Umatilla	1,120	729	§ 66.2	103	§ 9.3
Union	323	242	74.9	21	6.5
Wallowa	66	58	87.9	1	1.5
Wasco	262	229	87.4	8	3.1
Washington	7,630	6,807	§ 89.2	210	§ 2.8
Wheeler	6	*	*	*	*
Yamhill	1,175	954	81.2	39	§ 3.3

<sup>1</sup> Less than 5 prenatal visits or care began in the third trimester.

§ Rate is significantly different from the state rate.

\* Detailed reporting of small numbers may breach confidentiality.

WARNING: Rates and percentages based on less than 5 events are unreliable.

NOTE: Rates and percentages are calculated excluding missing and unknown values.

**TABLE 2-21. Prenatal Care by Resident County  
for Unmarried Mothers, Oregon Residents, 2003**

County of Residence	Total Births	First Trimester Care		Inadequate Prenatal Care <sup>1</sup>	
		Number	Percent	Number	Percent
Total	14,553	10,127	69.7	1,417	9.7
Baker	46	38	82.6	2	4.3
Benton	166	122	73.5	16	9.6
Clackamas	1,021	719	70.4	92	9.0
Clatsop	135	106	78.5	7	5.2
Columbia	131	92	70.2	15	11.5
Coos	265	194	73.2	22	8.3
Crook	68	55	80.9	2	2.9
Curry	48	32	66.7	5	10.4
Deschutes	431	354	§ 82.1	18	§ 4.2
Douglas	451	359	§ 79.6	24	§ 5.3
Gilliam	8	*	*	*	*
Grant	17	15	88.2	—	—
Harney	15	9	60.0	7	§ 46.7
Hood River	68	51	75.0	5	7.4
Jackson	690	471	68.3	59	8.6
Jefferson	134	72	§ 53.7	31	§ 23.1
Josephine	311	249	§ 80.1	13	§ 4.2
Klamath	312	230	73.7	26	8.3
Lake	17	10	58.8	—	—
Lane	1,290	846	65.6	166	§ 12.9
Lincoln	216	147	68.1	28	13.0
Linn	488	315	64.7	58	11.9
Malheur	154	104	68.4	12	7.8
Marion	1,807	1,089	§ 60.3	263	§ 14.6
Morrow	60	29	48.3	14	§ 23.3
Multnomah	3,139	2,237	71.3	284	9.1
Polk	214	136	63.6	29	13.6
Sherman	7	*	*	*	*
Tillamook	80	59	73.8	5	6.2
Umatilla	427	232	§ 55.6	59	§ 14.0
Union	105	66	62.9	11	10.5
Wallowa	18	14	77.8	1	5.6
Wasco	87	68	78.2	7	8.0
Washington	1,761	1,344	§ 76.3	113	§ 6.4
Wheeler	2	*	*	*	*
Yamhill	364	249	68.4	21	§ 5.8

— Quantity is zero.

<sup>1</sup> Less than 5 prenatal visits or care began in the third trimester.

§ Percent is significantly different from the state.

\* Detailed reporting of small numbers may breach confidentiality.

WARNING: Rates and percentages based on less than 5 events are unreliable.

NOTE: Rates and percentages are calculated excluding missing and unknown values.

**TABLE 2-22. Prenatal Care  
by Birthweight, Oregon Residents, 2003**

Birthweight (in grams)	Total Births	First Trimester Care		Inadequate Care <sup>1</sup>	
		Number	Percent	Number	Percent
Total	45,935	37,207	81.1	2,545	5.5
499 and Less	53	44	83.0	35	66.0
500-999	160	119	74.8	47	29.6
1000-1499	253	205	81.3	39	15.6
1500-1999	570	459	80.5	49	8.6
2000-2499	1,786	1,411	79.1	151	8.5
<2500	2,822	2,238	79.4	321	11.4
2500-2999	6,554	5,191	79.3	406	6.2
3000-3499	16,936	13,676	80.8	895	5.3
3500-3999	14,341	11,709	81.7	712	5.0
4000-4499	4,385	3,646	83.2	169	3.9
4500-4999	800	662	82.9	39	4.9
5000 & Over	91	81	89.0	2	2.2
Unknown	6	4	66.7	1	16.7

<sup>1</sup> Less than five prenatal visits or care began in the third trimester.

WARNING: Rates and percentages based on less than 5 events are unreliable.

NOTE: Rates and percentages are calculated excluding missing and unknown values.

**TABLE 2-23. Selected Medical or Health Characteristics by Mother's Age (Percents), Oregon Resident Births, 2003**

Characteristic	Total Births	Age of Mother								
		<15	15-19	20-24	25-29	30-34	35-39	40-44	45+	N.S.
<b>All Births - Mother</b>										
Total Births <sup>1</sup>	45,935	47	4,116	11,901	13,033	10,840	4,842	1,067	80	9
1 <sup>st</sup> Trimester Care Inadequate Care <sup>2</sup>	81.1	48.9	65.3	75.2	83.7	87.6	87.0	83.6	87.5	62.5
Multiple Births	5.5	17.0	10.2	7.1	4.7	3.9	4.0	4.2	2.5	37.5
Primary Cesarean	3.2	–	1.5	2.3	2.8	4.0	5.1	7.3	35.0	–
Tobacco Use	15.4	14.9	15.3	13.6	14.4	16.4	18.6	23.0	31.2	–
Alcohol Use	12.0	17.0	22.3	18.3	9.7	6.9	6.4	7.6	2.5	–
	1.6	–	1.6	1.3	1.3	1.6	2.5	2.3	2.6	–
<b>All Births - Infant</b>										
Preterm Births <sup>3</sup>	8.4	19.1	8.1	8.1	7.8	8.3	9.7	13.6	27.8	12.5
Very Low Birthweight <sup>4</sup>	1.0	4.3	1.0	1.1	1.0	0.8	1.2	1.6	–	–
Low Birthweight <sup>5</sup>	6.1	8.5	6.3	5.9	5.5	6.0	7.4	10.0	20.0	11.1
4,000+ Grams	11.5	4.3	7.0	9.8	11.8	12.9	14.7	14.2	7.5	11.1
5 Minute Apgar <7	1.8	2.1	2.2	1.9	1.8	1.6	1.5	2.4	1.3	–
<b>Mothers Born Inside the US<sup>6</sup></b>										
Total Births <sup>1</sup>	35,777	40	3,366	9,554	9,918	8,292	3,713	819	69	6
1 <sup>st</sup> Trimester Care Inadequate Care <sup>2</sup>	83.4	47.5	67.6	77.6	86.6	90.0	89.1	86.1	92.8	66.7
Multiple Births	4.9	17.5	9.0	6.6	3.9	3.2	3.2	3.5	2.9	33.3
Primary Cesarean	3.4	–	1.6	2.4	3.0	4.1	6.1	7.6	37.7	–
Tobacco Use	15.7	17.5	15.5	14.1	14.7	16.6	18.8	24.1	33.3	–
Alcohol Use	14.9	17.5	26.7	22.1	12.4	8.6	7.9	9.8	2.9	–
	1.8	–	1.9	1.5	1.6	2.0	2.9	2.6	3.0	–
<b>Infants of Mothers Born Inside the US<sup>6</sup></b>										
Preterm Births <sup>3</sup>	8.7	20.0	8.1	8.4	8.1	8.6	10.4	14.1	32.4	16.7
Very Low Birthweight <sup>4</sup>	1.0	5.0	1.1	1.1	1.0	0.7	1.2	1.8	–	–
Low Birthweight <sup>5</sup>	6.3	7.5	6.5	6.2	5.6	5.8	7.8	10.4	21.7	16.7
4,000+ Grams	11.8	5.0	7.4	10.0	12.2	13.6	14.8	13.8	8.7	16.7
5 Minute Apgar <7	1.9	2.5	2.2	2.1	1.8	1.7	1.6	2.8	1.5	–

– Quantity is zero.  
See footnotes at end of table.

**TABLE 2-23. Selected Medical or Health Characteristics by Mother's Age (Percents), Oregon Resident Births, 2003 - Continued**

	Total	Age of Mother								
		<15	15-19	20-24	25-29	30-34	35-39	40-44	45+	N.S.
<b>Mothers Born Outside the US</b>										
Total Births <sup>1</sup>	10,095	6	744	2,332	3,099	2,536	1,120	245	11	2
1 <sup>st</sup> Trimester Care Inadequate Care <sup>2</sup>	72.9	50.0	55.2	65.5	74.4	79.5	80.1	75.9	54.5	100
Multiple Births	7.8	16.7	15.3	9.1	7.1	6.2	6.4	5.7	–	–
Primary Cesarean	2.4	–	1.2	2.0	1.9	3.4	1.8	6.5	18.2	–
Tobacco Use	14.3	–	14.4	11.7	13.4	15.7	17.9	19.2	18.2	–
Alcohol Use	1.5	–	1.9	2.5	1.3	1.1	1.3	0.4	–	–
	0.6	–	0.3	0.4	0.5	0.5	1.3	1.3	–	–
<b>Infants of Mothers Born Outside the US</b>										
Preterm Births <sup>3</sup>	7.1	–	7.7	6.7	6.5	7.4	7.4	11.8	–	–
Very Low Birthweight <sup>4</sup>	0.9	–	0.8	0.7	0.8	1.2	1.0	0.8	–	–
Low Birthweight <sup>5</sup>	5.7	–	4.8	5.0	5.1	6.7	6.2	8.6	9.1	–
4,000+ Grams	10.4	–	5.2	9.2	10.5	10.6	14.6	15.5	–	–
5 Minute Apgar <7	1.4	–	2.0	1.2	1.5	1.3	1.3	0.8	–	–

– Quantity is zero.

<sup>1</sup> The subtotals for mothers born domestically and internationally may not add to total births due to unknown age.

<sup>2</sup> Less than 5 prenatal visits or care began in the third trimester.

<sup>3</sup> Born prior to 37 completed weeks of gestation.

<sup>4</sup> Birthweight of less than 1,500 grams (3 lb 4 oz).

<sup>5</sup> Birthweight of less than 2,500 grams ( 5 lb 8 oz).

<sup>6</sup> Inside the U.S. includes the fifty states and the District of Columbia.

NOTE: Rates and percentages are calculated excluding missing and unknown values.

**TABLE 2-24. Selected Medical or Health Characteristics by Mother's Race (Percents), Oregon Resident Births, 2003**

Characteristic	Total Births	Non-Hispanic White	Non-Hispanic African American	Non-Hispanic American Indian	Non-Hispanic Asian <sup>1</sup>	Total Hispanic	Mexican	Central or South American	Other Hispanic
<b>All Births - Mother</b>									
Total Births <sup>2</sup>	45,935	32,989	976	706	2,418	8,433	7,830	325	278
1 <sup>st</sup> Trimester Care Inadequate Care <sup>3</sup>	81.1	84.3	77.6	68.3	81.4	69.9	69.5	70.5	78.8
Multiple Births	5.5	4.6	7.5	12.5	6.0	8.5	8.6	6.2	6.5
Primary Cesarean	3.2	3.6	4.2	2.5	2.1	1.9	1.9	1.2	2.2
Tobacco Use	15.4	15.8	19.6	12.6	17.8	12.7	12.3	18.8	15.8
Alcohol Use	12.0	14.4	18.8	24.2	3.3	3.0	2.7	2.2	10.5
	1.6	1.8	2.2	3.8	0.8	0.6	0.6	0.6	0.7
<b>All Births - Infant</b>									
Preterm Births <sup>4</sup> Very Low Birthweight <sup>5</sup>	8.4	8.6	10.2	10.8	7.5	7.3	7.2	7.1	12.2
Low Birthweight <sup>6</sup> 4,000+ Grams	1.0	1.0	2.4	1.0	0.7	0.9	0.9	0.3	0.7
5 Minute Apgar <7	6.1	6.1	11.6	7.6	6.8	5.3	5.3	3.4	9.4
	11.5	12.3	6.0	12.3	6.8	10.2	10.3	8.9	9.7
	1.8	1.9	2.1	2.0	1.2	1.5	1.6	0.6	1.1
<b>Mothers Born Inside the US<sup>7</sup></b>									
Total Births <sup>2</sup>	35,777	31,223	807	694	414	2,273	2,017	35	221
1 <sup>st</sup> Trimester Care Inadequate Care <sup>3</sup>	83.4	84.8	77.0	67.9	80.4	72.7	72.1	74.3	78.3
Multiple Births	4.9	4.4	7.6	12.7	5.8	7.9	8.1	2.9	7.2
Primary Cesarean	3.4	3.6	3.6	2.6	2.4	1.3	1.4	—	0.9
Tobacco Use	15.7	15.9	19.1	12.4	14.7	13.4	13.2	20.0	14.0
Alcohol Use	14.9	14.9	22.6	24.7	10.5	9.2	8.9	11.4	12.2
	1.8	1.8	2.6	3.9	1.5	1.6	1.6	2.9	0.9
<b>Infants of Mothers Born Inside the US<sup>7</sup></b>									
Preterm Births <sup>4</sup> Very Low Birthweight <sup>5</sup>	8.7	8.7	10.7	10.9	8.5	8.1	7.6	2.9	13.6
Low Birthweight <sup>6</sup> 4,000+ Grams	1.0	1.0	1.9	1.0	1.2	0.8	0.8	—	0.9
5 Minute Apgar <7	6.3	6.1	12.0	7.8	5.8	5.5	5.3	—	8.6
	11.8	12.2	5.6	12.2	9.4	9.1	9.2	—	10.0
	1.9	1.9	1.9	2.0	1.0	1.6	1.7	—	0.5

— Quantity is zero.  
See footnotes at end of table.

**TABLE 2-24. Selected Medical or Health Characteristics by Mother's Race (Percents), Oregon Resident Births, 2003 - Continued**

	Total	Non-Hispanic White	Non-Hispanic African American	Non-Hispanic American Indian	Non-Hispanic Asian <sup>1</sup>	Total Hispanic	Mexican	Central or South American	Other Hispanic
<b>Mothers Born Outside the US</b>									
Total Births <sup>2</sup>	10,095	1,730	166	12	2,001	6,147	5,800	290	57
1 <sup>st</sup> Trimester Care Inadequate Care <sup>3</sup>	72.9	76.2	80.1	91.7	81.6	68.8	68.6	70.0	80.7
Multiple Births	7.8	7.1	7.2	—	6.1	8.7	8.8	6.6	3.5
Primary Cesarean	2.4	3.2	6.0	—	2.0	2.1	2.1	1.4	7.0
Tobacco Use	14.3	15.2	21.1	25.0	18.4	12.5	12.1	18.6	22.8
Alcohol Use	1.5	4.5	0.6	—	1.8	0.7	0.6	1.0	3.6
	0.6	1.7	—	—	0.7	0.2	0.2	0.3	—
<b>Infants of Mothers Born Outside the US</b>									
Preterm Births <sup>4</sup>	7.1	6.9	7.2	8.3	7.3	7.1	7.0	7.6	7.0
Very Low Birthweight <sup>5</sup>	0.9	1.0	3.6	—	0.5	0.9	1.0	0.3	—
Low Birthweight <sup>6</sup>	5.7	5.4	8.4	—	7.0	5.3	5.3	3.8	12.3
4,000+ Grams	10.4	14.4	8.4	16.7	6.2	10.7	10.7	10.0	8.8
5 Minute Apgar <7	1.4	1.0	3.0	—	1.3	1.5	1.5	0.7	3.5

— Quantity is zero.

<sup>1</sup> Includes Chinese, Japanese, Filipino, and Other Asian & Pacific Islander.

<sup>2</sup> The subtotals for mothers born domestically and internationally may not add to total births due to unknown race/ethnicity.

<sup>3</sup> Less than 5 prenatal visits or care began in the third trimester.

<sup>4</sup> Born prior to 37 completed weeks of gestation.

<sup>5</sup> Birthweight of less than 1,500 grams (3 lb 4 oz).

<sup>6</sup> Birthweight of less than 2,500 grams ( 5 lb 8 oz).

<sup>7</sup> Inside the U.S. includes the fifty states and the District of Columbia.

NOTE: Rates and percentages are calculated excluding missing and unknown values.

**TABLE 2-25. Rates<sup>1</sup> of Selected Medical Risk Factors by Age of Mother, Oregon Residents, 2003**

Medical Risk Factor of Mother	Total Births <sup>2</sup>	<15	15-19	20-24	25-29	30-34	35-39	40-44	45+
Total Births	45,935	47	4,116	11,901	13,033	10,840	4,842	1,067	80
Anemia (Hct<30/Hgb<10)	61.7	191.5	81.4	68.3	60.1	50.6	57.6	60.9	25.0
Cardiac Disease	4.7	–	2.7	3.9	5.2	5.2	5.8	8.4	–
Chronic Lung Disease	27.8	63.8	36.9	33.4	28.0	21.4	21.5	21.6	12.5
Gestational Diabetes	36.4	21.3	10.4	19.9	34.1	50.0	64.8	75.9	87.5
Chronic Diabetes	5.4	–	2.2	3.8	5.8	7.7	5.8	5.6	12.5
Genital Herpes	19.6	–	13.4	15.5	16.6	22.5	31.2	42.2	37.5
Hydramnios	12.8	–	15.8	12.2	13.2	11.7	12.2	15.9	37.5
Hemoglobinopathy	1.0	–	1.9	1.0	0.7	1.1	1.0	0.9	–
Hypertension, Chronic	8.6	21.3	1.5	5.7	7.5	12.9	14.7	9.4	25.0
Hypertension, Pregnancy-Associated	46.8	42.6	54.4	47.9	45.6	44.4	43.2	56.2	137.5
Eclampsia	3.8	–	3.4	4.3	3.8	4.0	2.7	2.8	25.0
Incompetent Cervix	3.7	–	1.2	3.7	3.3	4.6	5.2	1.9	–
Previous Infant 4000+ Grams	16.9	–	1.0	9.2	17.3	21.7	31.2	46.9	25.0
Previous Preterm Infant	15.3	–	5.8	13.2	16.8	17.7	18.4	18.7	25.0
Renal Disease	23.6	42.6	37.4	30.1	22.8	17.3	13.8	15.9	–
Rh Sensitization	17.4	–	19.0	17.7	18.8	16.4	14.3	15.0	–
Uterine Bleeding	8.0	–	4.6	7.4	7.7	8.6	10.7	13.1	–

– Quantity is zero.

<sup>1</sup> Rates per 1,000 mothers.

<sup>2</sup> Total includes mothers with unstated age.

NOTE: Rates and percentages are calculated excluding missing and unknown values.

**TABLE 2-26. Mothers with Selected Medical Risk Factors by Race of Mother, Oregon Residents, 2003**

Medical Risk Factor of Mother	Total Births	Non-Hispanic White	Non-Hispanic African American	Non-Hispanic American Indian	Non-Hispanic Asian <sup>1</sup>	Total Hispanic	Mexican	Central or South American	Other Hispanic
Total Births	45,935	32,989	976	706	2,418	8,433	7,830	325	278
Anemia (Hct<30/Hgb<10)	2,835	1,875	106	53	144	616	590	18	8
Cardiac Disease	218	180	3	7	5	20	15	2	3
Chronic Lung Disease	1,277	1,008	33	46	31	125	109	6	10
Gestational Diabetes	1,670	1,057	34	28	160	376	355	12	9
Chronic Diabetes	247	174	2	6	5	57	53	—	4
Genital Herpes	899	721	44	18	35	65	58	3	4
Hydramnios	588	390	19	13	29	130	122	3	5
Hemoglobinopathy	47	15	16	—	9	6	6	—	—
Hypertension, Chronic	396	326	10	8	8	40	32	2	6
Hypertension, Pregnancy-Associated	2,151	1,646	47	36	79	327	315	8	4
Eclampsia	175	143	4	2	3	21	21	—	—
Incompetent Cervix	169	130	8	3	11	17	14	2	1
Previous Infant 4000+ Grams	777	648	13	17	31	66	59	4	3
Previous Preterm Infant	703	518	27	18	50	83	76	4	3
Renal Disease	1,083	766	28	29	42	197	183	9	5
Rh Sensitization	797	705	9	10	9	63	57	4	2
Uterine Bleeding	366	273	11	3	22	54	50	1	3

— Quantity is zero.

<sup>1</sup> Includes Chinese, Japanese, Filipino, and Other Asian & Pacific Islander.

**TABLE 2-27. Delivery Methods by Day of Birth,  
Mother's Age and Race, and Payment Source (Percents),  
Oregon Resident Births, 2003**

Characteristics	Total Births	Vaginal	Vaginal after previous C-section	Primary C-section	Repeat C-section
<b>Day of Birth</b>					
All Births	45,935	33,627	696	7,071	4,541
Sunday	4,716	78.9	1.9	13.9	5.3
Monday	6,845	70.3	1.5	15.2	12.9
Tuesday	7,417	73.0	1.5	15.4	10.2
Wednesday	7,505	71.3	1.4	15.8	11.5
Thursday	7,037	73.2	1.5	15.1	10.1
Friday	7,168	70.4	1.4	16.2	12.0
Saturday	5,247	78.7	1.6	15.5	4.2
<b>Mother's Age</b>					
<15	47	85.1	–	14.9	–
15-19	4,116	82.4	0.2	15.3	2.1
20-24	11,901	78.6	1.1	13.6	6.7
25-29	13,033	74.2	1.8	14.4	9.7
30-34	10,840	68.6	1.9	16.4	13.1
35-39	4,842	63.4	1.9	18.6	16.1
40-44	1,067	57.7	2.2	23.0	17.1
45+	80	52.5	3.8	31.2	12.5
N.S.	9	100.0	–	–	–
<b>Mother's Race</b>					
Non-Hispanic White	32,989	73.2	1.3	15.8	9.7
Non-Hispanic African American	976	68.1	1.6	19.6	10.7
Non-Hispanic American Indian	706	73.2	1.6	12.6	12.6
Non-Hispanic Asian <sup>1</sup>	2,418	70.9	1.3	17.8	10.0
Total Hispanic	8,433	74.5	2.5	12.7	10.4
<b>Payment Source</b>					
Private Insurance	26,543	71.5	1.3	17.0	10.2
Medicaid/OHP*	16,927	75.0	1.8	13.5	9.7
Self-Pay	1,570	82.7	2.5	8.6	6.2
Other	54	79.6	–	11.1	9.3
N.S.	772	71.6	1.8	17.4	9.2
Multiple Mention	69	76.8	–	18.8	4.3

– Quantity is zero.

<sup>1</sup> Includes Chinese, Japanese, Filipino, and Other Asian & Pacific Islander.

\* Oregon Health Plan.

**TABLE 2-28. County of Occurrence by Type of Institution and Delivery Attendant,  
Oregon Occurrence Births, 2003**

County of Occurrence	Total	Born in Hospital or on Arrival								
		Total Hospital Births	M.D.	D.O.	N.D.	C.N.M.	R.N.	L.D. E.M.	Other Licensed Medical	Non-Medical
Total	46,844	45,844	37,119	1,743	–	6,721	212	11	13	25
Baker	103	100	99	–	–	–	–	–	1	–
Benton	1,042	1,008	996	12	–	–	–	–	–	–
Clackamas	4,339	4,291	2,997	35	–	1,242	11	–	1	5
Clatsop	440	426	342	–	–	82	2	–	–	–
Columbia	9	–	–	–	–	–	–	–	–	–
Coos	686	669	400	98	–	168	3	–	–	–
Crook	97	93	93	–	–	–	–	–	–	–
Curry	78	76	28	23	–	25	–	–	–	–
Deschutes	1,879	1,851	1,740	–	–	109	–	2	–	–
Douglas	981	939	737	1	–	200	–	1	–	–
Gilliam	1	–	–	–	–	–	–	–	–	–
Grant	47	44	44	–	–	–	–	–	–	–
Harney	49	47	47	–	–	–	–	–	–	–
Hood River	359	354	285	–	–	69	–	–	–	–
Jackson	2,263	2,197	1,933	14	–	243	5	1	–	1
Jefferson	207	203	188	1	–	11	3	–	–	–
Josephine	770	746	705	–	–	24	16	–	1	–
Klamath	871	868	740	2	–	126	–	–	–	–
Lake	50	50	36	14	–	–	–	–	–	–
Lane	3,935	3,765	3,213	4	–	530	14	–	2	2
Lincoln	368	340	174	129	–	37	–	–	–	–
Linn	999	975	572	268	–	135	–	–	–	–
Malheur	710	710	374	176	–	160	–	–	–	–
Marion	5,112	5,072	3,825	155	–	1,002	74	2	2	12
Morrow	–	–	–	–	–	–	–	–	–	–
Multnomah	11,170	10,941	9,063	284	–	1,558	27	2	5	2
Polk	8	–	–	–	–	–	–	–	–	–
Sherman	–	–	–	–	–	–	–	–	–	–
Tillamook	165	160	159	–	–	–	–	–	–	1
Umatilla	922	911	763	147	–	–	1	–	–	–
Union	345	338	230	107	–	–	1	–	–	–
Wallowa	53	51	49	2	–	–	–	–	–	–
Wasco	284	280	180	96	–	–	3	–	–	1
Washington	7,485	7,342	6,413	131	–	745	48	3	1	1
Wheeler	–	–	–	–	–	–	–	–	–	–
Yamhill	1,017	997	694	44	–	255	4	–	–	–

– Quantity is zero.

M.D. = Medical Doctor  
D.O. = Doctor of Osteopathy  
N.D. = Naturopathic Doctor

C.N.M. = Certified Nurse Midwife  
R.N. = Registered Nurse  
L.D.E.M. = Licensed Direct Entry Midwife

**TABLE 2-28. County of Occurrence by Type of Institution and Delivery Attendant, Oregon Occurrence Births, 2003 (Continued)**

County of Occurrence	Born Out-of-Hospital								
	Total Out-of-Hospital Births	M.D.	D.O.	N.D.	C.N.M.	R.N.	L.D. E.M.	Other Licensed Medical	Non-Medical
Total	1,000	7	—	130	117	6	197	5	538
Baker	3	—	—	—	—	—	3	—	—
Benton	34	1	—	—	2	—	4	—	27
Clackamas	48	—	—	11	2	1	6	—	28
Clatsop	14	1	—	—	1	—	—	—	12
Columbia	9	—	—	—	1	—	—	—	8
Coos	17	—	—	—	1	—	1	—	15
Crook	4	—	—	—	—	—	1	—	3
Curry	2	—	—	—	—	—	—	—	2
Deschutes	28	—	—	—	—	—	5	—	23
Douglas	42	—	—	1	34	—	1	—	6
Gilliam	1	—	—	—	—	—	1	—	—
Grant	3	—	—	—	—	—	3	—	—
Harney	2	—	—	—	—	—	2	—	—
Hood River	5	—	—	—	—	—	1	—	4
Jackson	66	1	—	—	7	—	32	—	26
Jefferson	4	—	—	—	—	—	1	—	3
Josephine	24	—	—	—	—	—	9	—	15
Klamath	3	1	—	—	—	—	1	—	1
Lake	—	—	—	—	—	—	—	—	—
Lane	170	—	—	6	60	4	17	—	83
Lincoln	28	—	—	4	—	—	18	—	6
Linn	24	—	—	—	2	1	5	—	16
Malheur	—	—	—	—	—	—	—	—	—
Marion	40	—	—	4	1	—	5	—	30
Morrow	—	—	—	—	—	—	—	—	—
Multnomah	229	1	—	81	5	—	24	5	113
Polk	8	—	—	—	—	—	2	—	6
Sherman	—	—	—	—	—	—	—	—	—
Tillamook	5	—	—	1	—	—	2	—	2
Umatilla	11	—	—	3	—	—	4	—	4
Union	7	—	—	—	—	—	6	—	1
Wallowa	2	—	—	—	—	—	1	—	1
Wasco	4	—	—	2	—	—	1	—	1
Washington	143	1	—	14	1	—	38	—	89
Wheeler	—	—	—	—	—	—	—	—	—
Yamhill	20	1	—	3	—	—	3	—	13

— Quantity is zero.  
M.D. = Medical Doctor  
D.O. = Doctor of Osteopathy  
N.D. = Naturopathic Doctor

C.N.M. = Certified Nurse Midwife  
R.N. = Registered Nurse  
L.D.E.M. = Licensed Direct Entry Midwife

**TABLE 2-29. Age of Mother by Birthweight, Oregon Resident Births, 2003**

Birthweight (in grams)	Total Births	Age of Mother								
		<15	15-19	20-24	25-29	30-34	35-39	40-44	45+	N.S.
<b>Total</b>	45,935	47	4,116	11,901	13,033	10,840	4,842	1,067	80	9
499 and Less	53	–	13	16	10	6	6	2	–	–
500-999	160	–	9	34	53	34	25	5	–	–
1000-1499	253	2	21	75	67	52	26	10	–	–
1500-1999	570	–	45	133	138	151	76	23	4	–
2000-2499	1,786	2	170	449	449	410	226	67	12	1
<b>&lt;2500</b>	<b>2,822</b>	<b>4</b>	<b>258</b>	<b>707</b>	<b>717</b>	<b>653</b>	<b>359</b>	<b>107</b>	<b>16</b>	<b>1</b>
2500-2999	6,554	10	744	1,787	1,760	1,453	627	153	19	1
3000-3499	16,936	20	1,721	4,642	4,706	3,806	1,669	346	21	5
3500-3999	14,341	11	1,104	3,593	4,306	3,527	1,472	309	18	1
4000-4499	4,385	2	254	995	1,277	1,143	593	116	4	1
4500-4999	800	–	32	161	233	229	111	32	2	–
5000 & Over	91	–	3	13	32	29	10	4	–	–
Unknown	6	–	–	3	2	–	1	–	–	–
<b>Column Percent:</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1499 & less	1.0	4.3	1.0	1.1	1.0	0.8	1.2	1.6	–	–
1500-2499	5.1	4.3	5.2	4.9	4.5	5.2	6.2	8.4	20.0	11.1
2500-4499	91.9	91.5	92.9	92.6	92.5	91.6	90.1	86.6	77.5	88.9
4500 & over	1.9	–	0.9	1.5	2.0	2.4	2.5	3.4	2.5	–

– Quantity is zero.

NOTE: Rates and percentages are calculated excluding missing and unknown values.

WARNING: Rates and percentages based on less than 5 events are unreliable.

**TABLE 2-30. Age of Mother by Birthweight for Unmarried Mothers,  
Oregon Resident Births, 2003**

Birthweight (in grams)	Total Births	Age of Mother								
		<15	15-19	20-24	25-29	30-34	35-39	40-44	45+	N.S.
<b>Total</b>	14,553	46	3,289	5,702	3,121	1,509	700	176	10	—
499 and Less	28	—	12	8	4	2	2	—	—	—
500-999	49	—	5	15	16	9	3	1	—	—
1000-1499	101	2	18	43	22	12	4	—	—	—
1500-1999	188	—	38	68	40	23	17	2	—	—
2000-2499	651	2	138	245	129	80	42	14	1	—
<b>&lt;2500</b>	<b>1,017</b>	<b>4</b>	<b>211</b>	<b>379</b>	<b>211</b>	<b>126</b>	<b>68</b>	<b>17</b>	<b>1</b>	<b>—</b>
2500-2999	2,366	9	606	901	475	234	108	29	4	—
3000-3499	5,654	20	1,372	2,286	1,124	545	244	59	4	—
3500-3999	4,174	11	878	1,622	996	431	188	47	1	—
4000-4499	1,129	2	198	435	256	140	80	18	—	—
4500-4999	191	—	22	71	54	28	11	5	—	—
5000 & Over	20	—	2	7	5	5	—	1	—	—
Unknown	2	—	—	1	—	—	1	—	—	—
<b>Column Percent:</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	—
1499 & less	1.2	4.3	1.1	1.2	1.3	1.5	1.3	0.6	—	—
1500-2499	5.8	4.3	5.4	5.5	5.4	6.8	8.4	9.1	10.0	—
2500-4499	91.6	91.3	92.9	92.0	91.3	89.5	88.7	86.9	90.0	—
4500 & over	1.5	—	0.7	1.4	1.9	2.2	1.6	3.4	—	—

— Quantity is zero.

WARNING: Rates and percentages based on less than 5 events are unreliable.

NOTE: Rates and percentages are calculated excluding missing and unknown values.

**TABLE 2-31. Race of Mother and Birthweight, Oregon Residents, 2003**

Mother's Race/Ethnicity	Total Births	499 & Less	500-999	1,000-1,499	1,500-1,999	2,000-2,499	2,500-2,999	3,000-3,499	3,500-3,999	4,000-4,499	4,500-4,999	5,000 & Over	Unk.
<b>Total Births</b>	45,935	53	160	253	570	1,786	6,554	16,936	14,341	4,385	800	91	6
<b>Hispanic</b>													
<b>Total Births</b>	8,433	7	32	37	81	292	1,246	3,355	2,517	721	127	15	3
White	8,206	7	31	36	78	280	1,211	3,269	2,453	702	122	14	3
African American	31	-	1	-	2	2	6	12	7	1	-	-	-
American Indian	153	-	-	1	1	8	27	55	41	14	5	1	-
Chinese	3	-	-	-	-	-	1	1	1	-	-	-	-
Japanese	1	-	-	-	-	-	-	-	-	1	-	-	-
Hawaiian	3	-	-	-	-	-	-	2	1	-	-	-	-
Other Nonwhite	29	-	-	-	-	1	-	14	12	2	-	-	-
Filipino	3	-	-	-	-	1	1	1	-	-	-	-	-
Other Asian & Pacific Islander	4	-	-	-	-	-	-	1	2	1	-	-	-
Unknown Race	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Non-Hispanic</b>													
<b>Total Births</b>	37,203	44	126	216	486	1,480	5,263	13,475	11,723	3,640	671	76	3
White	32,989	39	109	192	417	1,257	4,469	11,792	10,644	3,388	617	63	2
African American	976	-	9	14	23	67	197	387	220	47	8	4	-
American Indian	706	3	2	2	12	35	98	245	222	65	16	6	-
Chinese	226	-	-	-	4	12	36	92	62	19	1	-	-
Japanese	122	-	1	-	-	4	26	54	32	5	-	-	-
Hawaiian	44	-	-	-	2	2	8	16	15	1	-	-	-
Other Nonwhite	10	-	-	-	-	1	1	4	1	2	1	-	-
Filipino	189	-	-	1	-	5	41	78	48	11	4	1	-
Other Asian & Pacific Islander	1,881	2	5	7	28	95	376	784	460	98	23	2	1
Unknown Race	60	-	-	-	-	2	11	23	19	4	1	-	-
<b>Unknown Ethnicity</b>	299	2	2	-	3	14	45	106	101	24	2	-	-

- Quantity is zero.

**TABLE 2-32. Low Birthweight Infants by County of Residence, Oregon, 2003**

County of Residence	Total Births	Low Birthweight Infants			Low Birthweight Rates <sup>1</sup>		
		Total Low Birthweight	<= 1,499 grams	1,500-2,499 grams	Rate for All Low Birthweight	Rate for <= 1,499 grams	Rate for 1,500-2,499 grams
Total	45,935	2,822	466	2,356	61.4	10.1	51.3
Baker	146	10	4	6	68.5	27.4	41.1
Benton	770	41	10	31	53.2	13.0	40.3
Clackamas	4,019	242	43	199	60.2	10.7	49.5
Clatsop	367	23	3	20	62.7	8.2	54.5
Columbia	539	34	7	27	63.1	13.0	50.1
Coos	631	46	3	43	72.9	4.8	68.1
Crook	235	9	1	8	38.3	4.3	34.0
Curry	156	6	3	3	38.5	19.2	19.2
Deschutes	1,575	98	14	84	62.3	8.9	53.4
Douglas	1,107	77	14	63	69.6	12.6	56.9
Gilliam	21	—	—	—	—	—	—
Grant	65	8	2	6	123.1	30.8	92.3
Harney	66	2	2	—	30.3	30.3	—
Hood River	290	12	1	11	41.4	3.4	37.9
Jackson	2,137	113	18	95	52.9	8.4	44.5
Jefferson	315	22	2	20	69.8	6.3	63.5
Josephine	802	44	8	36	54.9	10.0	44.9
Klamath	836	61	11	50	73.0	13.2	59.8
Lake	70	4	1	3	57.1	14.3	42.9
Lane	3,754	255	42	213	67.9	11.2	56.7
Lincoln	429	22	1	21	51.3	2.3	49.0
Linn	1,356	87	16	71	64.3	11.8	52.4
Malheur	455	34	9	25	74.7	19.8	54.9
Marion	4,635	266	43	223	57.4	9.3	48.1
Morrow	186	11	2	9	59.1	10.8	48.4
Multnomah	9,340	611	94	517	65.4	10.1	55.4
Polk	775	40	5	35	51.6	6.5	45.2
Sherman	22	1	—	1	45.5	—	45.5
Tillamook	254	20	4	16	78.7	15.7	63.0
Umatilla	1,120	68	13	55	60.7	11.6	49.1
Union	323	17	3	14	52.6	9.3	43.3
Wallowa	66	2	—	2	30.3	—	30.3
Wasco	262	10	3	7	38.2	11.5	26.7
Washington	7,630	460	76	384	60.3	10.0	50.3
Wheeler	6	*	*	*	*	*	*
Yamhill	1,175	66	8	58	56.2	6.8	49.4

— Quantity is zero.

<sup>1</sup> All rates are per 1,000 births.

§ Rate is significantly different from the state rate.

\* Detailed reporting of small numbers may breach confidentiality.

WARNING: Rates based on less than 5 events are unreliable.

NOTE: Rates and percentages are calculated excluding missing and unknown values.

**TABLE 2-33. Weight Gain of Mother by Period of Gestation, Hispanic Ethnicity, and Race of Mother, Oregon Resident Births, 2003**

Period of Gestation <sup>1</sup> and Race and Hispanic Origin of Mother	Mother's Weight Gain During Pregnancy								
	All Births <sup>2</sup>	Less than 16 pounds	16-20 pounds	21-25 pounds	26-30 pounds	31-35 pounds	36-40 pounds	41+ pounds	Not Stated
<b>All Gestation Periods</b>	45,935	6,442	4,838	6,246	7,389	6,070	5,345	8,452	1,153
Non-Hispanic White	32,989	4,167	3,120	4,340	5,385	4,545	4,084	6,645	703
Non-Hispanic African American	976	157	133	140	131	95	101	195	24
Non-Hispanic American Indian	706	117	62	80	99	75	75	160	38
Non-Hispanic Asian <sup>3</sup>	2,418	298	280	361	426	362	280	325	86
Total Hispanic	8,433	1,648	1,208	1,279	1,282	927	764	1,035	290
<b>Under 37 Weeks</b>	3,846	814	486	504	535	387	344	611	165
Non-Hispanic White	2,837	551	333	375	403	296	267	507	105
Non-Hispanic African American	100	19	16	10	7	10	10	22	6
Non-Hispanic American Indian	76	27	6	12	6	2	5	9	9
Non-Hispanic Asian <sup>3</sup>	181	39	21	28	35	24	12	14	8
Total Hispanic	619	170	106	74	82	50	47	55	35
<b>37-39 Weeks</b>	23,527	3,364	2,636	3,307	3,906	3,105	2,666	4,042	501
Non-Hispanic White	16,960	2,197	1,712	2,322	2,864	2,334	2,055	3,165	311
Non-Hispanic African American	508	84	75	85	67	46	42	99	10
Non-Hispanic American Indian	374	61	34	44	64	40	37	82	12
Non-Hispanic Asian <sup>3</sup>	1,300	171	169	193	231	187	145	162	42
Total Hispanic	4,185	827	622	641	657	461	365	489	123
<b>40 Weeks and Over</b>	18,488	2,262	1,716	2,435	2,947	2,578	2,335	3,798	417
Non-Hispanic White	13,135	1,417	1,075	1,643	2,117	1,915	1,762	2,972	234
Non-Hispanic African American	368	54	42	45	57	39	49	74	8
Non-Hispanic American Indian	251	29	22	24	29	33	33	69	12
Non-Hispanic Asian <sup>3</sup>	935	88	90	140	160	151	123	149	34
Total Hispanic	3,621	651	480	564	543	416	352	491	124

<sup>1</sup> Expressed in complete weeks.

<sup>2</sup> The subtotals for gestation period may not add to the 'All gestation periods' total because of births of unknown gestation periods and births to mothers of unknown race or ethnicity.

<sup>3</sup> Includes Chinese, Japanese, Filipino, and Other Asian & Pacific Islander.

**TABLE 2-34. Percent Low Birthweight by Weight Gain of Mother, Period of Gestation, Hispanic Ethnicity, and Race of Mother, Oregon Residents, 2003**

Period of Gestation <sup>1</sup> and Race and Hispanic Origin of Mother	Mother's Weight Gain During Pregnancy								
	Total Births	Less than 16 pounds	16-20 pounds	21-25 pounds	26-30 pounds	31-35 pounds	36-40 pounds	41+ pounds	Not Stated
	Percent Low Birthweight Infants								
<b>All Gestation Periods</b>	6.1	10.2	7.8	5.8	5.0	5.0	4.3	4.6	11.6
Non-Hispanic White	6.1	10.5	8.3	5.7	5.1	5.0	4.5	4.6	11.7
Non-Hispanic African American	11.6	13.4	14.3	10.7	6.1	13.7	7.9	10.8	33.3
Non-Hispanic American Indian	7.6	17.9	3.2	10.0	3.0	–	4.0	7.5	13.2
Non-Hispanic Asian <sup>2</sup>	6.8	11.1	8.6	8.0	7.0	4.7	3.2	3.4	12.8
Total Hispanic	5.3	8.3	5.8	4.5	4.4	4.3	3.5	3.4	9.3
<b>Under 37 weeks</b>	52.6	61.2	57.4	50.6	48.0	49.4	48.3	44.2	65.5
Non-Hispanic White	51.9	61.3	59.5	46.9	48.4	50.3	48.7	43.2	62.9
Non-Hispanic African American	79.0	89.5	93.8	70.0	71.4	70.0	80.0	63.6	100.0
Non-Hispanic American Indian	53.9	63.0	33.3	50.0	50.0	–	60.0	55.6	55.6
Non-Hispanic Asian <sup>2</sup>	54.1	66.7	47.6	71.4	42.9	37.5	41.7	42.9	87.5
Total Hispanic	51.2	54.7	50.9	56.8	47.6	44.0	42.6	43.6	65.7
<b>37-39 Weeks</b>	3.0	4.2	3.6	3.0	2.5	3.2	2.1	2.6	4.0
Non-Hispanic White	2.9	4.1	3.5	2.9	2.3	3.2	2.4	2.5	4.5
Non-Hispanic African American	6.1	4.8	5.3	8.2	3.0	13.0	–	7.1	10.0
Non-Hispanic American Indian	3.2	6.6	–	4.5	–	–	–	7.3	–
Non-Hispanic Asian <sup>2</sup>	4.2	3.5	8.3	3.6	5.2	3.2	1.4	3.1	4.8
Total Hispanic	2.6	4.2	2.3	2.3	2.1	3.0	1.6	1.8	2.4
<b>40 Weeks and Over</b>	0.4	0.9	0.2	0.3	0.6	0.4	0.3	0.3	0.7
Non-Hispanic White	0.3	0.6	0.2	0.2	0.5	0.2	0.2	0.3	–
Non-Hispanic African American	0.8	–	–	2.2	1.8	–	–	–	12.5
Non-Hispanic American Indian	0.4	–	–	–	–	–	–	1.4	–
Non-Hispanic Asian <sup>2</sup>	1.3	1.1	–	1.4	1.9	1.3	1.6	–	5.9
Total Hispanic	0.6	1.2	0.4	–	0.7	1.0	0.3	0.4	–

– Quantity is zero.

<sup>1</sup> Expressed in complete weeks.

<sup>2</sup> Includes Chinese, Japanese, Filipino, and Other Asian & Pacific Islander.

NOTE: Rates and percentages are calculated excluding missing and unknown values.

**TABLE 2-35. Live Births with Selected Abnormal Conditions of the Newborn by Age of Mother, Oregon Residents, 2003**

Conditions of New Born	Total Births	Mother's Age								
		<15	15-19	20-24	25-29	30-34	35-39	40-44	45+	N.S.
<b>Total Births</b>	45,935	47	4,116	11,901	13,033	10,840	4,842	1,067	80	9
Anemia (Hct. <39/Hgb. <13)	75	–	5	14	29	23	4	–	–	–
Injury	632	1	79	206	175	102	52	13	4	–
Fetal Alcohol	16	–	3	–	3	6	4	–	–	–
Hyaline Membrane	211	1	23	55	66	43	19	4	–	–
Meconium Aspire	71	–	8	23	16	15	6	3	–	–
Ventilator < 30 mins.	1,747	–	161	509	478	389	164	44	2	–
Ventilator > 30 mins.	765	2	76	191	214	153	96	28	5	–
Seizures	38	–	4	9	10	8	4	3	–	–

– Quantity is zero.

**TABLE 2-36. Live Births with Selected Abnormal Conditions of the Newborn by Race of Mother, Oregon Residents, 2003**

Conditions of New Born	Total Births	Mother's Race							
		Non-Hispanic White	Non-Hispanic African American	Non-Hispanic American Indian	Non-Hispanic Asian <sup>1</sup>	Total Hispanic	Mexican	Central or South American	Other Hispanic
<b>Total Births</b>	45,935	32,989	976	706	2,418	8,433	7,830	325	278
Anemia (Hct. <39/Hgb. <13)	75	46	3	2	5	16	16	–	–
Injury	632	468	5	15	38	95	89	2	4
Fetal Alcohol	16	13	–	–	1	2	2	–	–
Hyaline Membrane	211	152	10	8	9	31	31	–	–
Meconium Aspire	71	49	1	7	2	12	11	1	–
Ventilator < 30 mins.	1,747	1,378	23	34	46	257	242	7	8
Ventilator > 30 mins.	765	594	28	17	22	98	89	3	6
Seizures	38	29	–	1	3	4	4	–	–

– Quantity is zero.

<sup>1</sup> Includes Chinese, Japanese, Filipino, and Other Asian & Pacific Islander.

**TABLE 2-37. Congenital Anomalies by Age of Mother,  
Oregon Resident Births, 2003**

Reported Congenital Anomaly	All Ages	Age of Mother					
		<20	20-24	25-29	30-34	35-39	40-54
Total Births <sup>1</sup>	45,935	4,163	11,901	13,033	10,840	4,842	1,147
No Congenital Anomaly reported	45,313	4,108	11,720	12,878	10,710	4,768	1,120
Anencephalus	5	2	1	1	—	1	—
Spina Bifida/Meningocele	20	3	6	4	3	3	1
Hydrocephalus	15	1	2	5	5	2	—
Microcephalus	1	—	1	—	—	—	—
Other Central Nervous System	10	—	3	3	2	2	—
Heart Malformations	87	9	18	28	21	6	5
Other Circulatory/Respiratory	21	1	4	7	7	2	—
Rectal Atresia/Stenosis	2	—	—	1	1	—	—
Tracheo-Esophageal <sup>2</sup>	5	1	2	—	2	—	—
Omphalocele/Gastroschisis	26	4	15	3	3	—	1
Other Gastrointestinal	14	—	7	2	3	2	—
Malformed Genitalia	91	5	30	23	18	11	4
Renal Agenesis	16	2	6	4	2	1	1
Other Urogenital	49	2	16	19	3	6	3
Cleft Lip/Palate	51	1	19	14	12	5	—
Polydactyly/Syndactyly/Adactyly	45	7	12	10	6	7	3
Club Foot	60	8	20	12	16	4	—
Diaphragmatic Hernia	5	—	—	3	1	1	—
Musculoskeletal/Integumental	75	7	17	18	21	11	1
Down's Syndrome	50	2	9	7	9	12	11
Other Chromosomal	13	1	3	1	3	4	1
Other	59	4	16	14	14	10	1

— Quantity is zero.

<sup>1</sup> Total births include nine births where mother's age was not stated. No congenital anomalies were reported for those births.

<sup>2</sup> Includes Tracheo-Esophageal Fistula and Esophageal Atresia.

Note: More than one type of malformation may be reported for a given birth.

**TABLE 2-38.**  
**Most Popular Baby Names,**  
**Oregon Occurrence, 2003**

Rank	Boys	Count	Rank	Girls	Count
1	JACOB	331	1	EMMA	290
2	ETHAN	290	2	EMILY	286
3	ANDREW	246	3	HANNAH	248
4	JOSHUA	216	4	MADISON	230
5	DANIEL	213	5	OLIVIA	222
6	RYAN	209	6	GRACE	209
7	ZACHARY	204	7	ABIGAIL	185
8	SAMUEL	201	8	ELIZABETH	179
9	MICHAEL	200	9	ISABELLA	175
9	TYLER	200	9	SAMANTHA	175
9	ALEXANDER	200	11	SOPHIA	169
12	DYLAN	194	12	HAILEY	152
13	JOSEPH	191	13	ALEXIS	148
14	BENJAMIN	188	14	CHLOE	132
15	MATTHEW	185	15	SARAH	128
16	DAVID	183	16	ASHLEY	118
16	ANTHONY	183	17	TAYLOR	114
18	NATHAN	178	18	SYDNEY	113
19	ISAAC	177	19	ANNA	112
20	LOGAN	175	20	JESSICA	106
Total Boys' Names: 3,851			Total Girls' Names: 5,652		

Total 2003 Oregon Occurrence Births: 46,829

# Induced Terminations of Pregnancy

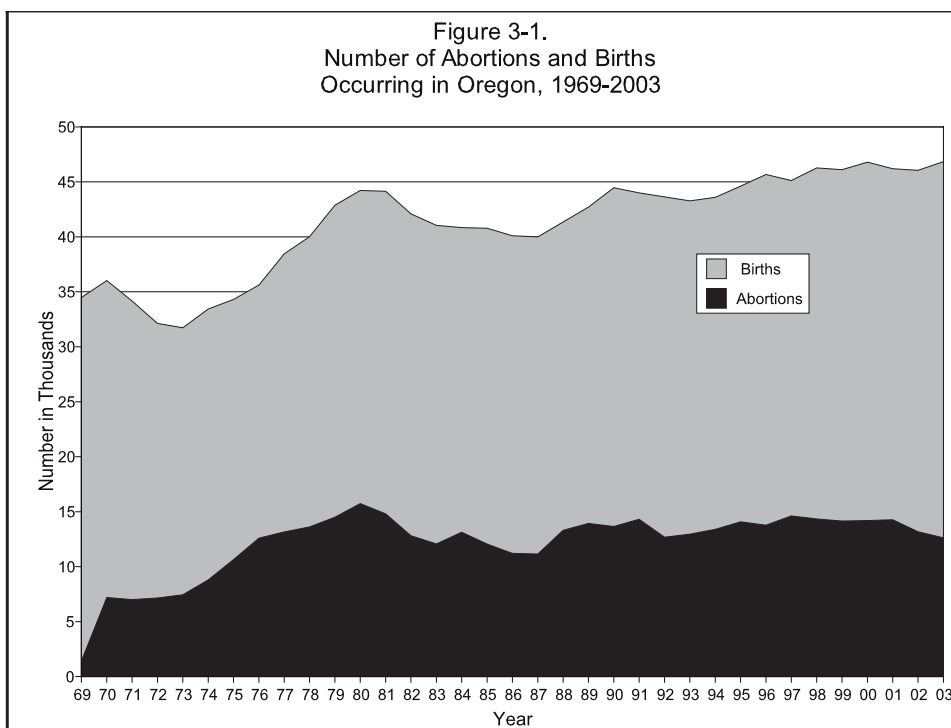
## CURRENT TRENDS

During 2003, 12,622 induced terminations of pregnancy occurred in Oregon. This total represents a 4.2 percent decrease from 2002 and a decrease of 19.8 percent from the record high of 15,735 abortions reported in 1980. [Figure 3-1].

This chapter reports occurrence data; that is, all abortions occurring in Oregon whether obtained by Oregon residents or residents of another state. During the 1990s, out-of-state residents generally accounted for 11 to 12 percent of abortions in Oregon. In 2003, 1,474 (11.7%) of patients were out-of-state residents. [Table 3-6]. Oregonians who obtained abortions out of state are not included in this data. Because rate calculations use Oregon population numbers, these calculations substitute out-of-state residents for the unknown number of Oregonians who obtained an abortion in another state. (See Appendix B, Technical Notes section for a more extensive discussion of the completeness of abortion data.)

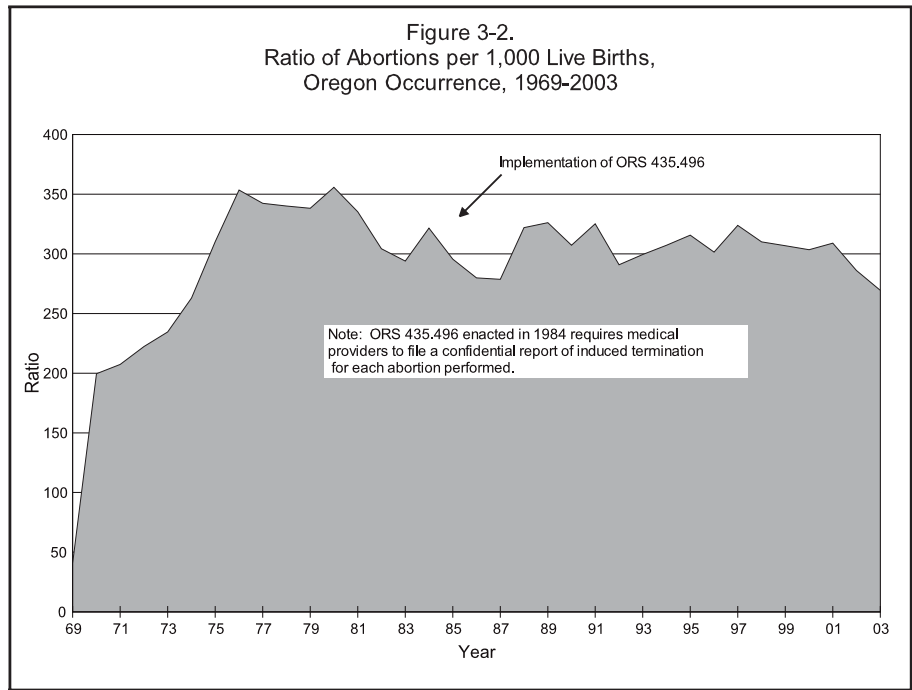
Changes of behavior are revealed more by shifts in rates, which account for population change, than changes in the number of events. The U.S. abortion rate has been declining since 1980 from approximately 25 per 1,000 women age 15-44 to 16 per 1,000 in 2001.<sup>1</sup> In 2003, the Oregon rate declined to 16.7 per 1,000 women age 15-44, a 5.6 percent decrease from 2002 and 33.5 percent lower than the record high of 1980 (25.1 per 1,000). During the past twenty years, Oregon's abortion rate has fluctuated little; from a low of 17.5 per 1,000 women age 15-44 in 1987, to a high of 21.4 in 1991.

1. CDC. Abortion Surveillance - United States, 2001, MMWR, Nov. 26, 2004; V53, No. SS-09. This is the most current national data available.



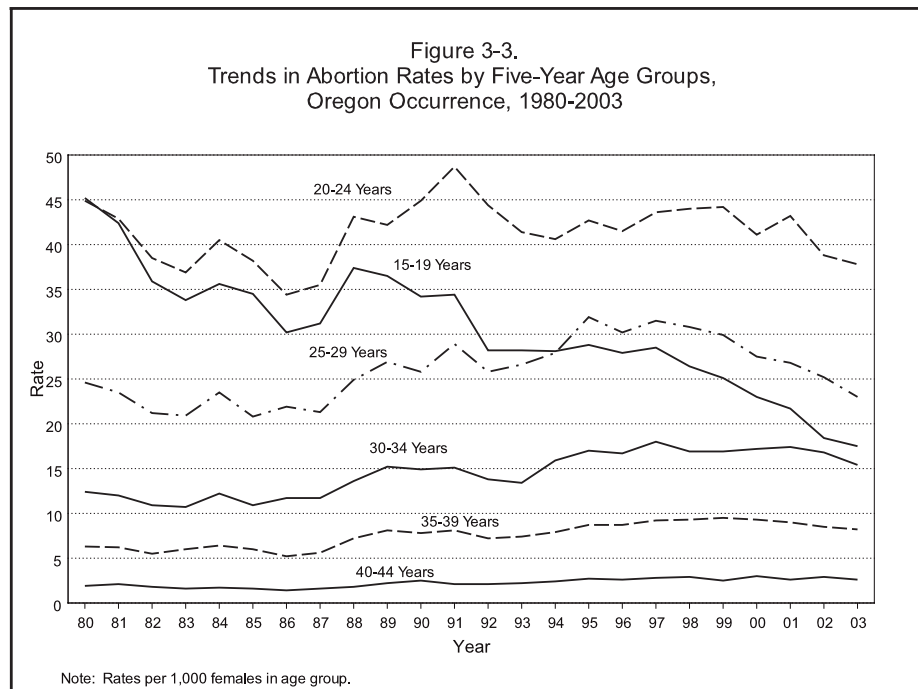
Comparison of Oregon and U.S. Abortion Ratios, 1972-2001		
Year	U.S. Abortion Ratio <sup>1</sup>	Oregon's Abortion Ratio <sup>2</sup> as Percent Difference from U.S.
1972	180	+23%
1973	196	+19%
1974	242	+9%
1975	**	**
1976	312	+13%
1977	**	**
1978	347	-2%
1979	**	**
1980	359	-1%
1981	**	**
1982	354	-14%
1983	**	**
1984	364	-12%
1985	354	-16%
1986	354	-21%
1987	356	-21%
1988	352	-9%
1989	346	-6%
1990	344	-11%
1991	338	-4%
1992	334	-13%
1993	333	-10%
1994	321	-4%
1995 <sup>3</sup>	311	+2%
1996	315	-4%
1997	306	+6%
1998	264 <sup>3</sup>	+17%
1999	256 <sup>3</sup>	+12%
2000	245 <sup>4</sup>	+24%
*2001	246 <sup>4</sup>	+25.6%

1 Estimated Number of Abortions per 1,000 Live Births.  
 2 See Table 3-2.  
 3 Alaska, California, New Hampshire, and Oklahoma did not report.  
 4 Alaska, California, and New Hampshire did not report.  
 \* Most recent data available.  
 \*\* Data not available.



### PREGNANCY OUTCOMES

Figure 3-2 shows the ratio of abortions to births occurring in Oregon, indicating the prevalence of unwanted pregnancies that occurred in the state. Both the highest abortion rate (number of abortions per 1,000 female population) and the highest ratio of abortions (number of abortions per 1,000 births) occurred in 1980. Between 1980 and 1987, the ratio of abortions to births declined, although an increased level of reporting beginning in 1984 (as a requirement of new legislation) obscures this fact. In



2003, there were 269.4 abortions per 1,000 occurrence births. This represents a 5.8 percent decrease from 2002 and a 24.3 percent decrease from 1980, when this ratio was 355.8 per 1,000 births. [Table 3-2].

In 1973, when the U.S. Supreme Court legalized abortion with the Roe v. Wade decision, Oregon’s abortion ratio was about one-fifth higher than that of the U.S. [see sidebar, page 3-2]. In the mid-1980s and early 1990s this changed: Oregonians were less likely than residents of other states to terminate a pregnancy with an induced abortion. Since 1995, Oregon’s abortion ratio has fluctuated around the U.S. ratio. The 2003 abortion ratio in Oregon was higher than the 2001 U.S. ratio (the most recent comparison available) 269.4 to 246; however this may be due in part to some states not reporting (Alaska, California, and New Hampshire).

**ABORTION PATIENTS**

Similar to birth rates, abortion rates differ by age group, race, ethnicity, marital status, and prior pregnancy.

Almost two-thirds of abortion patients have never been married. [Table 3-3]. More than half have previously given birth. [Table 3-5].

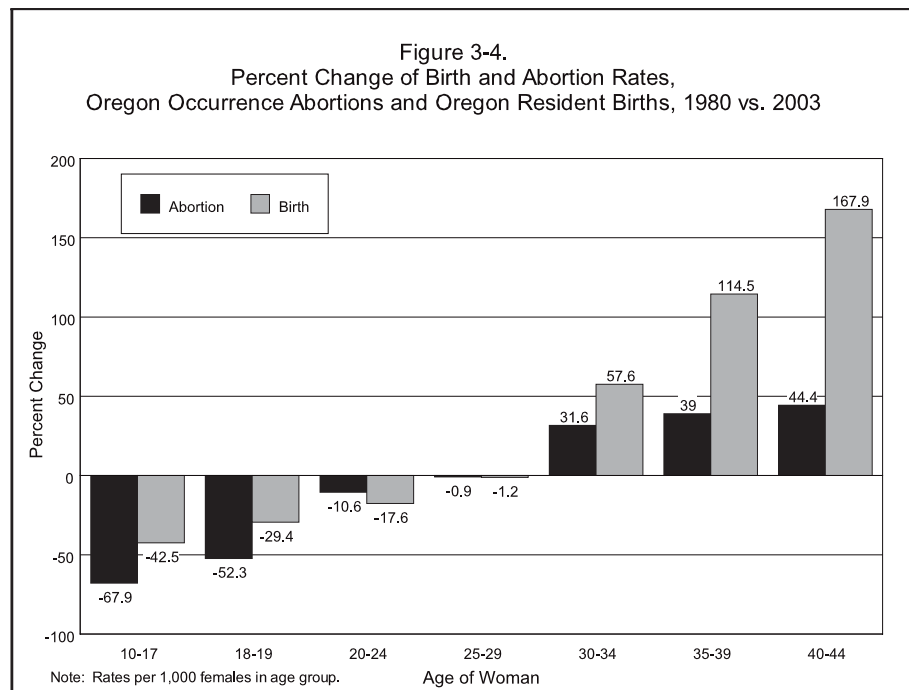
**Age**

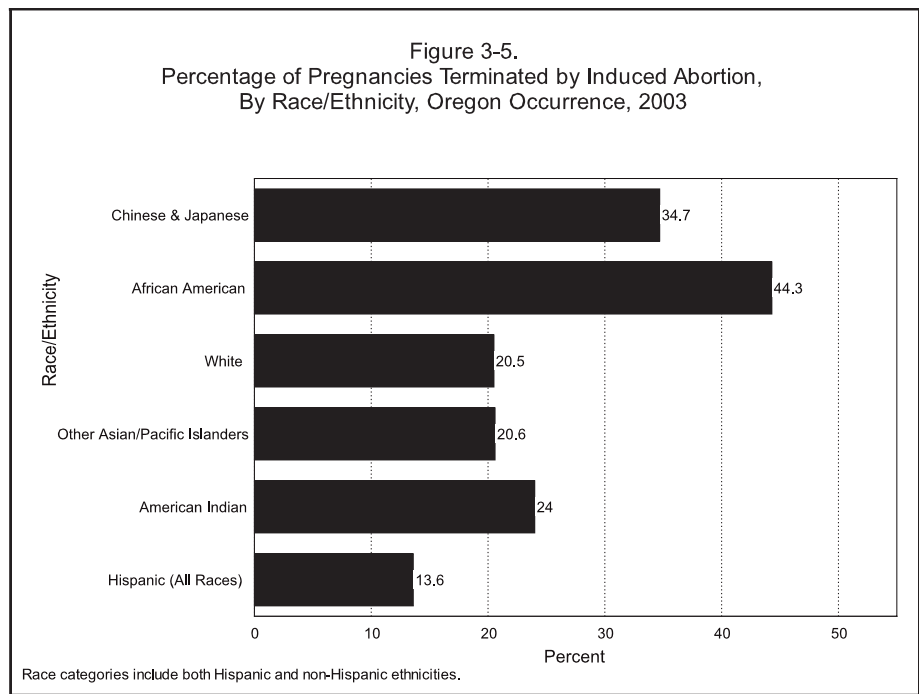
There is wide variation in abortion rates among age groups (see sidebar): The highest rate in 2003 occurred among women age 20-24 (37.8 per 1,000). The lowest rates were among women 45-49, (0.2 per 1,000) and women under age 15 (0.4 per 1,000). [Figure 3-3, sidebar].

Abortion Rates by Age and Percentage Distribution, Oregon Occurrence <sup>1</sup> , 2003		
Age	Rate <sup>2</sup>	%
< 15	0.4	0.4
15-19	17.5	17.1
20-24	37.8	34.9
25-29	23.0	21.4
30-34	15.4	14.5
35-39	8.2	8.5
40-44	2.6	2.9
45-49	0.2	0.3
15-44	16.7	99.3

<sup>1</sup> Occurrence data include all abortions reported by providers located in Oregon, regardless of the patient's residence. Because rate calculations employ Oregon population figures, these calculations, in effect, substitute out-of-state residents for Oregonians who may have obtained an abortion in another state.

<sup>2</sup> Per 1,000 females in age group.





The 2003 abortion rate among teens age 10-17 was 67.9 percent lower than the rate in 1980 (when the statewide abortion rate was highest); the rate for 18- to 19-year-olds was 52.3 percent lower. [Figure 3-4]. The absence of a corresponding increase in the birth rates among teens suggests success in avoiding unwanted pregnancy, rather than an increase in decisions to carry unwanted pregnancies to term. In contrast, among women age 30 and older, both abortion rates and birth rates were markedly higher in 2003 than in 1980.

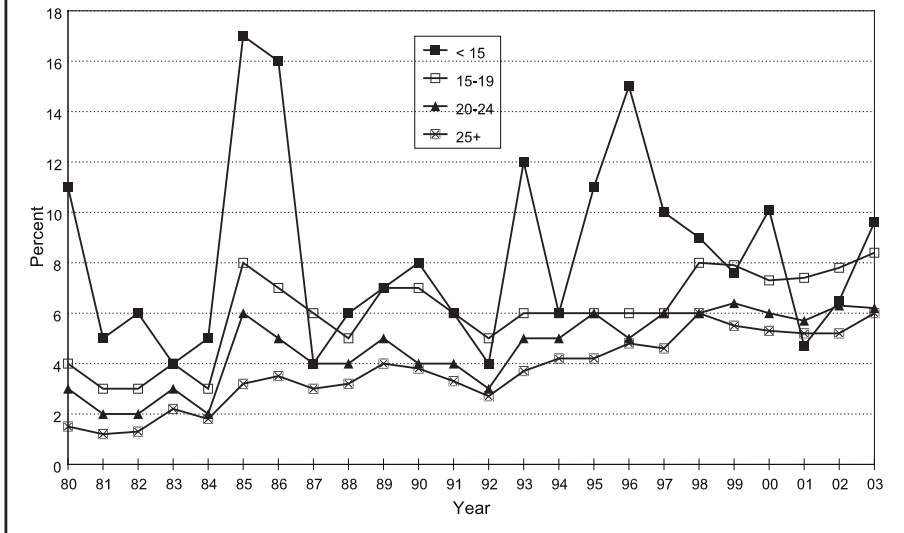
### Race and Ethnicity

The frequency with which abortion procedures were used to terminate a pregnancy varied among ethnic and racial groups. African American women and Hawaiian women were most likely to have an abortion. In 2003, African American women terminated 44.3 percent of their pregnancies, Hawaiian women terminated 52.5 percent; Chinese and Japanese women terminated 34.7 percent. Because Oregon's demographic composition is predominantly white, white women obtained the majority of abortions by count in 2003 (86.3%), although the group was second lowest in percentage of pregnancies terminated. As in past years, Hispanic women were least likely to terminate a pregnancy (13.6%). [Figure 3-5].

### Contraceptive Use

In the majority of abortions that occur in Oregon, the pregnancy is not a result of contraceptive failure. In 2003, based upon data obtained from abortion reports, only 34.5 percent of women had used some method of contraception to avoid the pregnancy. [Table 3-5].

Figure 3-6.  
 Percentage of Abortions After 16 Weeks Gestation  
 By Five-Year Age Groups, Oregon Occurrence, 1980-2003



### MEDICAL PROCEDURES

Nearly eighty-seven percent of abortions with known gestation were performed prior to the thirteenth week of pregnancy. Just one in sixteen (6.5%) of induced terminations were performed after sixteen weeks gestation. Suction curettage was the procedure used in 80.8 percent of terminations prior to the thirteenth week where method was reported. Dilation and evacuation was the procedure in 81.3 percent of terminations occurring after sixteen weeks gestation. Women age 15-19 were nearly 39 percent more likely to obtain an abortion after sixteen weeks gestation than were women age 20 and older. [Table 3-4]. The percentage of abortions occurring after sixteen weeks gestation increased for every group except for women age 20-24 which declined slightly from 6.3 % in 2002 to 6.2% in 2003. [Figure 3-6].

Complications at the time of the procedure were reported for 308 terminations (2.4% of abortion patients): retained products (85 patients) and infection (42 patients) were the most common complications. In Oregon, no woman has died as the result of a legally induced termination.

### GEOGRAPHIC DISTRIBUTION

Abortion rates varied widely within the state, yet all of Oregon's 36 counties had at least one resident who sought an abortion in 2003. The providers of such services, however, were geographically concentrated. In 2003, abortions were reported in 10 of Oregon's 36 counties. The degree of concentration was evident in the fact that 97.4 percent of all abortions were obtained in the five counties of highest occurrence: Jackson, Lane, Marion, Multnomah, and Washington. [Table 3-7]. Although

abortions may often be sought outside a patient's community to help insure anonymity, this degree of concentration suggests that access to abortion services may be limited for some Oregon women.

**TABLE 3-1. Number, Rate, and Percent Change for Pregnancies, Births, and Abortions to 15- to 44-year-olds, Oregon, 1980-2003**

Year	Pregnancies <sup>1</sup>			Births <sup>2</sup>			Abortions <sup>3</sup>				
	Number	Rate	% Change in Rate from Previous Year	Number	Rate	% Change in Rate from Previous Year	Number	Rate	% Change in Rate from Previous Year	Percent of Pregnancies Ending in Abortion	% Change in Percent from Previous Year
1980	58,592	94.4	1.6	43,007	69.3	0.3	15,585	25.1	5.3	26.6	3.7
1981	57,586	91.4	-3.2	42,901	68.1	-1.7	14,685	23.3	-7.1	25.5	-4.1
1982	53,633	85.4	-6.6	40,947	65.2	-4.3	12,686	20.2	-13.3	23.7	-7.1
1983	51,847	83.3	-2.5	39,886	64.1	-1.7	11,961	19.2	-4.8	23.1	-2.5
1984	52,490	83.5	0.2	39,466	62.8	-2.0	13,024	20.7	7.8	24.8	7.4
1985	51,287	81.1	-2.9	39,364	62.2	-1.0	11,923	18.8	-9.1	23.2	-6.5
1986	49,894	79.5	-2.0	38,769	61.8	-0.6	11,125	17.7	-6.0	22.3	-3.9
1987	49,672	78.3	-1.5	38,600	60.9	-1.5	11,072	17.5	-1.5	22.3	0.0
1988	53,010	82.3	5.1	39,782	61.8	1.5	13,228	20.5	17.7	25.0	12.1
1989	54,989	84.7	2.9	41,139	63.3	2.4	13,850	21.3	3.8	25.2	0.8
1990	56,315	85.8	1.3	42,741	65.2	3.0	13,754	20.7	-3.0	24.1	-4.4
1991	56,561	85.1	-0.8	42,360	63.7	-2.3	14,201	21.4	3.3	25.1	4.1
1992	54,420	81.3	-4.5	41,826	62.5	-1.9	12,594	18.8	-12.0	23.1	-8.0
1993	54,286	80.0	-1.6	41,447	61.1	-2.2	12,839	18.9	0.5	23.7	2.6
1994	54,970	80.6	0.8	41,670	61.1	0.0	13,300	19.5	3.2	24.2	2.1
1995	56,521	82.8	2.7	42,568	62.4	2.1	13,953	20.4	4.6	24.7	2.1
1996	57,175	83.1	0.4	43,515	63.2	1.3	13,660	19.9	-2.5	24.4	-1.2
1997	58,106	84.0	3.1	43,619	63.0	-0.3	14,487	20.9	5.0	24.9	2.0
1998	59,284	84.5	0.6	45,075	64.2	1.9	14,209	20.3	-2.9	24.0	-3.6
1999	59,067	84.2	-0.4	45,039	64.2	0.0	14,028	20.0	1.5	23.7	-1.3
2000	59,758	82.4	-2.1	45,654	62.9	-2.0	14,104	19.4	-3.0	23.6	-0.4
2001	59,348	81.0	-1.7	45,177	61.6	-2.1	14,171	19.3	-0.5	23.9	1.3
2002	58,172	78.6	-3.0	45,071	60.9	-1.1	13,101	17.7	-8.3	22.5	-5.9
2003	58,337	77.9	-0.9	45,799	61.2	0.5	12,538	16.7	-5.6	21.5	-4.4
Change 1980-2003	-255	-16.5		2,792	-8.1		-3,047	-8.4		-5.1	
Percent Change 1980-2003	-0.4	-17.5		6.5	-11.7		-19.6	-33.5		-19.2	

1 Pregnancies include resident births and occurrence abortions, but exclude fetal deaths and spontaneous abortions.

2 Oregon residence figures for births (includes 15-44 year old females only).

3 Oregon occurrence figures for abortions (includes 15-44 and unknown age females).

All rates per 1,000 population of 15-44 year old females. 2003: 748,534

**Table 3-2. Live Births and Induced Abortions  
Occurring in Oregon, 1968-2003**

Year	Births	Induced Abortions	
		Number	Ratio
1968	32,675	323	9.9
1969	34,477	1,407	40.8
1970	36,031	7,187	199.5
1971	33,753	6,997	207.3
1972	32,123	7,143	222.4
1973	31,738	7,447	234.6
1974	33,438	8,794	263.0
1975	34,312	10,641	310.1
1976	35,612	12,590	353.5
1977	38,448	13,163	342.4
1978	40,015	13,605	340.0
1979	42,874	14,501	338.2
1980	44,223	*15,735	355.8
1981	44,150	14,799	335.2
1982	42,093	12,807	304.3
1983	41,047	12,064	293.9
1984	40,841	**13,133	321.6
1985	40,778	12,056	295.6
1986	40,093	11,217	279.8
1987	39,996	11,147	278.7
1988	41,345	13,309	321.9
1989	42,710	13,928	326.1
1990	44,464	13,658	307.2
1991	44,007	14,310	325.2
1992	43,627	12,685	290.8
1993	43,272	12,961	299.5
1994	43,591	13,392	307.2
1995	44,609	14,079	315.6
1996	45,677	13,767	301.4
1997	45,117	14,612	323.9
1998	46,277	14,344	310.0
1999	46,106	14,145	306.8
2000	46,790	14,194	303.4
2001	46,200	14,272	308.9
2002	46,053	13,172	286.0
2003	46,844	12,622	269.4

\* The increase in the 1980 figure reflects improved reporting rather than an increase in the number of abortions performed. Approximately 1,000-1,400 of the abortions were performed by providers who did not participate in the voluntary abortion reporting system prior to 1980 even though they were performing abortions in previous years.

\*\*The increase in the 1984 figure is probably a consequence of the implementation of ORS 435.496, which requires that an induced termination of pregnancy report be filed by abortion providers whenever an induced abortion is performed.

NOTE: Induced abortion ratio is the number of abortions per 1,000 live births.

**TABLE 3-3. Induced Abortions by Race/Ethnicity, Marital Status and Age, Oregon Occurrence, 2003**

Race/Ethnicity and Marital Status	Total	<15	15-19	20-24	25-29	30-34	35-39	40-44	45+	N.S.
<b>Total</b> .....	12,622	52	2,154	4,398	2,690	1,829	1,077	367	32	23
White .....	10,819	47	1,895	3,778	2,271	1,549	922	312	27	18
African American .....	823	3	141	338	196	89	47	6	-	3
American Indian .....	278	4	53	89	69	31	23	7	-	2
Chinese .....	148	-	10	27	32	36	26	16	1	-
Japanese .....	44	-	3	14	12	5	7	3	-	-
Hawaiian .....	52	-	9	21	11	6	3	2	-	-
Filipino .....	56	-	7	22	11	10	3	1	2	-
Other Asian or Pacific Islander .....	501	-	58	152	120	99	47	23	2	-
Other Non-white .....	9	-	-	3	-	2	3	1	-	-
Unknown .....	92	-	17	29	19	19	7	1	-	-
<b>Hispanic</b> .....	1,315	6	242	437	317	184	106	19	1	3
White .....	1,226	5	223	407	297	173	100	18	1	2
African American .....	21	-	8	9	4	-	-	-	-	-
American Indian .....	51	1	11	18	12	4	4	-	-	1
Chinese .....	2	-	-	1	1	-	-	-	-	-
Japanese .....	-	-	-	-	-	-	-	-	-	-
Hawaiian .....	1	-	-	-	-	1	-	-	-	-
Filipino .....	2	-	-	1	-	1	-	-	-	-
Other Asian or Pacific Islander .....	7	-	2	1	2	1	1	-	-	-
Other Non-white .....	9	-	-	3	-	2	3	1	-	-
Unknown .....	34	-	5	12	9	6	2	-	-	-
<b>Non-Hispanic</b> .....	11,274	46	1,908	3,948	2,368	1,639	968	347	31	19
White .....	9,573	42	1,670	3,364	1,970	1,373	820	293	26	15
African American .....	800	3	133	328	192	89	46	6	-	3
American Indian .....	227	3	42	71	57	27	19	7	-	1
Chinese .....	145	-	10	26	31	36	25	16	1	-
Japanese .....	43	-	3	13	12	5	7	3	-	-
Hawaiian .....	50	-	9	20	11	5	3	2	-	-
Filipino .....	54	-	7	21	11	9	3	1	2	-
Other Asian or Pacific Islander .....	492	-	56	150	118	97	46	23	2	-
Other Non-white .....	-	-	-	-	-	-	-	-	-	-
Unknown .....	51	-	10	15	9	11	5	1	-	-
<b>Ethnicity Unknown</b> .....	33	-	4	13	5	6	3	1	-	1
<b>Marital Status</b>										
Never Married .....	8,381	51	2,065	3,581	1,611	721	280	56	2	14
Now Married .....	2,151	1	47	449	529	537	394	169	18	7
Widowed .....	49	-	1	7	12	9	12	8	-	-
Divorced .....	1,169	-	6	132	306	333	288	93	10	1
Separated .....	618	-	12	151	169	183	73	28	2	-
Unknown .....	254	-	23	78	63	46	30	13	-	1

- Quantity is zero.

NOTE: Persons may report multiple races, therefore the subsets may not add to the category totals.

**TABLE 3-4. Abortions in Relation to Length of Gestation by Method, Complications, and Age of Patient, Oregon Occurrence, 2003**

Method, Complications and Age of Patient	Total	Weeks Gestation						
		< 9	9-12	13-16	17-20	21-22	23+	Unk.
<b>Total</b> .....	12,622	7,922	2,953	859	519	172	120	77
Suction Curette .....	9,501	5,908	2,873	549	69	34	10	58
Medical (Non-surgical) .....	1,965	1,910	28	1	9	2	3	12
Dilation & Evacuation .....	1,082	70	45	304	426	132	101	4
Intra-uterine Instillation .....	9	7	1	-	-	-	1	-
Vaginal Prostaglandin .....	41	17	-	3	12	3	5	1
Sharp Curettage .....	10	4	4	1	1	-	-	-
Other .....	8	4	-	-	2	1	-	1
Unknown .....	6	2	2	1	-	-	-	1
<b>Complications</b>								
None .....	12,300	7,669	2,910	851	505	171	118	76
Hemorrhage .....	5	4	-	-	1	-	-	-
Infection .....	42	29	10	-	3	-	-	-
Uterine Perforation .....	2	1	1	-	-	-	-	-
Cervical Laceration .....	3	-	3	-	-	-	-	-
Retained Products .....	85	69	7	5	4	-	-	-
Failure of First Method .....	26	25	1	-	-	-	-	-
Other .....	110	90	12	2	4	1	-	1
Multiple Complications .....	35	25	7	1	1	-	1	-
<b>Age Groups</b>								
< 15 .....	52	30	10	7	2	1	2	-
15-19 .....	2,154	1,154	602	206	114	42	24	12
20-24 .....	4,398	2,704	1,088	313	166	59	45	23
25-29 .....	2,690	1,790	579	153	97	37	18	16
30-34 .....	1,829	1,227	379	105	76	15	17	10
35-39 .....	1,077	727	215	62	41	14	9	9
40-44 .....	367	253	71	10	22	3	5	3
45+ .....	32	23	3	3	-	1	-	2
N.S. ....	23	14	6	-	1	-	-	2

- Quantity is zero.

**TABLE 3-5. Contraceptive Use, Number of Previous Abortions, and Number of Living Children by Age of Patient, Oregon Occurrence, 2003**

Contraceptive Used, Previous Abortions, and Number of Living Children	Total	Age Groups								
		< 15	15-19	20-24	25-29	30-34	35-39	40-44	45+	N.S.
<b>Total</b> .....	12,622	52	2,154	4,398	2,690	1,829	1,077	367	32	23
<b>None Used</b> .....	8,308	35	1,506	2,885	1,772	1,149	674	252	20	15
No Previous Abortion	4,603	34	1,262	1,648	826	451	260	108	7	7
One	2,130	1	194	800	488	353	205	75	8	6
Two	922	–	38	276	261	188	111	43	5	–
Three	352	–	3	103	100	88	43	14	–	1
Four or More	261	–	2	52	85	63	48	11	–	–
<b>Pills Used</b> .....	1,250	3	221	472	283	172	85	10	–	4
No Previous Abortion	684	2	170	268	130	71	38	4	–	1
One	345	1	39	129	92	52	28	3	–	1
Two	134	–	7	48	29	36	12	2	–	–
Three	53	–	3	16	20	9	4	1	–	–
Four or More	27	–	1	8	12	3	3	–	–	–
<b>Condoms Used</b> .....	2,301	13	358	819	464	349	215	74	6	3
No Previous Abortion	1,256	13	297	470	205	152	80	32	5	2
One	625	–	48	237	149	98	69	23	–	1
Two	271	–	10	70	78	63	39	10	1	–
Three	82	–	3	26	19	15	13	6	–	–
Four or More	61	–	–	14	11	19	14	3	–	–
<b>Other Contraceptive</b> .....	917	1	90	273	201	180	127	37	7	1
No Previous Abortion	414	1	72	141	82	58	41	14	4	1
One	266	–	12	76	61	61	44	9	3	–
Two	140	–	5	43	32	32	21	7	–	–
Three	55	–	1	8	15	18	10	3	–	–
Four or More	39	–	–	5	11	9	10	4	–	–
<b>Contraceptive Use Unknown</b>	7	–	1	2	1	1	–	2	–	–
No Previous Abortion	5	–	1	2	–	1	–	1	–	–
One	–	–	–	–	–	–	–	–	–	–
Two	1	–	–	–	1	–	–	–	–	–
Three	–	–	–	–	–	–	–	–	–	–
Four or More	–	–	–	–	–	–	–	–	–	–
<b>Previous Abortions Unknown</b> ...	7	–	2	1	2	1	1	–	–	–
<b>Number of Living Children</b>										
<b>No Children</b> .....	5,575	51	1,771	2,186	893	409	194	62	2	7
<b>Total with Children</b> .....	7,029	1	381	2,208	1,792	1,416	881	305	30	15
One	3,208	1	327	1,337	736	468	254	69	8	8
Two	2,488	–	50	709	682	547	351	132	11	6
Three	903	–	3	142	265	252	168	64	8	1
Four	281	–	–	16	79	91	68	26	1	–
Five or More	149	–	1	4	30	58	40	14	2	–

– Quantity is zero.

NOTE: Contraceptive totals include abortions where the number of previous abortions is unknown. Multiple contraceptive methods may be reported for a single patient.

**TABLE 3-6. Induced Terminations of Pregnancy by Residence and Age Group of Patient, Oregon Occurrence, 2003**

Place of Residence	Total	Age Groups								
		<15	15-19	20-24	25-29	30-34	35-39	40-44	45+	N.S.
<b>Total</b>	12,622	52	2,154	4,398	2,690	1,829	1,077	367	32	23
Baker	4	—	1	1	1	1	—	—	—	—
Benton	153	1	27	58	34	21	6	6	—	—
Clackamas	978	5	192	306	203	133	94	41	2	2
Clatsop	86	1	14	37	12	12	7	1	1	1
Columbia	83	—	13	32	18	12	6	1	—	1
Coos	109	—	21	41	22	15	8	2	—	—
Crook	30	—	8	7	6	3	3	3	—	—
Curry	36	1	7	10	7	4	5	2	—	—
Deschutes	349	—	73	126	63	46	28	11	1	1
Douglas	191	1	43	66	41	19	16	4	1	—
Gilliam	2	—	—	*	*	*	—	—	—	—
Grant	5	—	1	2	—	1	—	1	—	—
Harney	10	—	1	1	2	4	2	—	—	—
Hood River	45	—	12	16	3	6	6	2	—	—
Jackson	500	1	92	181	106	63	45	11	1	—
Jefferson	38	1	9	11	11	4	2	—	—	—
Josephine	147	—	27	47	25	20	15	12	1	—
Klamath	123	—	28	44	20	19	10	2	—	—
Lake	6	—	2	2	—	—	2	—	—	—
Lane	1,063	8	186	402	210	153	65	35	3	1
Lincoln	120	1	24	28	35	18	10	3	1	—
Linn	203	—	40	69	39	30	15	8	2	—
Malheur	12	—	3	4	2	3	—	—	—	—
Marion	829	7	172	324	152	102	57	13	2	—
Morrow	2	—	—	1	—	1	—	—	—	—
Multnomah	3,865	11	546	1,302	921	620	332	113	8	12
Polk	100	1	14	45	15	14	8	3	—	—
Sherman	4	—	1	*	*	*	1	—	—	1
Tillamook	54	—	16	10	11	10	7	—	—	—
Umatilla	31	—	7	10	7	5	1	1	—	—
Union	18	1	2	5	4	4	1	1	—	—
Wallowa	7	—	1	2	2	1	1	—	—	—
Wasco	45	—	3	15	13	10	3	1	—	—
Washington	1,662	6	259	564	351	248	174	52	7	1
Wheeler	—	—	—	—	—	—	—	—	—	—
Yamhill	234	1	46	84	38	34	19	10	2	—
Out of State	1,474	5	263	542	315	192	128	27	—	2
Not stated	4	—	—	1	1	—	—	1	—	1

— Quantity is zero.

\* Detailed reporting of small numbers may breach confidentiality.

**TABLE 3-7. Induced Terminations of Pregnancy by County of Residence and County of Occurrence, Oregon, 2003**

County of Residence	Total	County of Occurrence									
		Benton	Clackamas	Coos	Crook	Deschutes	Jackson	Lane	Marion	Multnomah	Washington
Total	12,622	16	8	1	2	307	709	1,091	823	9,104	561
Baker	4	—	—	—	—	—	—	—	—	3	1
Benton	153	8	—	—	—	1	—	31	48	62	3
Clackamas	978	—	—	—	—	1	—	1	9	944	23
Clatsop	86	—	—	—	—	—	—	1	1	70	14
Columbia	83	—	—	—	—	—	—	—	—	78	5
Coos	109	—	—	1	—	—	3	44	4	56	1
Crook	30	—	—	—	2	15	—	2	—	11	—
Curry	36	—	—	—	—	—	21	5	—	10	—
Deschutes	349	—	—	—	—	236	—	20	5	88	—
Douglas	191	—	—	—	—	—	10	94	9	77	1
Gilliam	2	—	—	—	—	—	—	—	—	1	1
Grant	5	—	—	—	—	5	—	—	—	—	—
Harney	10	—	—	—	—	6	—	1	—	3	—
Hood River	45	—	—	—	—	—	—	—	—	45	—
Jackson	500	—	—	—	—	1	450	18	1	30	—
Jefferson	38	—	—	—	—	21	—	1	—	16	—
Josephine	147	—	—	—	—	—	122	6	1	18	—
Klamath	123	—	—	—	—	7	89	10	—	17	—
Lake	6	—	—	—	—	3	2	—	—	1	—
Lane	1,063	—	—	—	—	1	1	782	49	224	6
Lincoln	120	3	—	—	—	1	—	18	32	62	4
Linn	203	4	—	—	—	—	—	28	65	105	1
Malheur	12	—	—	—	—	1	—	1	—	10	—
Marion	829	1	—	—	—	1	—	2	488	329	8
Morrow	2	—	—	—	—	—	—	—	—	2	—
Multnomah	3,865	—	—	—	—	3	1	2	4	3,786	69
Polk	100	—	—	—	—	—	—	2	63	34	1
Sherman	4	—	—	—	—	—	—	—	—	4	—
Tillamook	54	—	—	—	—	—	—	1	1	46	6
Umatilla	31	—	—	—	—	1	—	—	1	29	—
Union	18	—	—	—	—	—	—	—	—	18	—
Wallowa	7	—	—	—	—	—	—	—	—	7	—
Wasco	45	—	—	—	—	—	—	—	—	45	—
Washington	1,662	—	5	—	—	—	—	7	7	1,273	370
Wheeler	—	—	—	—	—	—	—	—	—	—	—
Yamhill	234	—	1	—	—	—	—	1	32	163	37
Out of State	1,474	—	2	—	—	2	10	13	3	1,435	9

— Quantity is zero.

# Teen Pregnancy

## CURRENT TRENDS

In 2003, there were 6,179 pregnancies to Oregon females under age 20. Of these, 54.5 percent had neither completed high school nor obtained a general equivalency diploma (GED). Of those who took their pregnancies to term, 80.2 percent were unmarried at the time of birth. [Table 4-10.] Because of differences in risk and severity of outcomes, this report bases its analysis on two separate age groups to aid in understanding teen pregnancy trends: females under age 18 and females age 18 to 19. These two groups are compared to each other and to women age 20 and older. The number of pregnancies is determined by adding the numbers of births and abortions reported for Oregon residents. Because some neighboring states (e.g., California) do not exchange abortion reports with Oregon, those who obtain an out-of-state abortion are not always included in this count. [See Appendix B].

## OREGON FEMALES UNDER 18

Efforts at preventing teen pregnancies are focused primarily on females under age 18. During 2003, at least 2,069 pregnancies occurred among Oregon females under age 18, 58 fewer than in 2002. [Table 4-2]. In 2003, the statewide pregnancy rate among women age 10 to 17 decreased 3.7 percent, from 10.9 in 2002 to 10.5 in 2003 (see Table 4-2). This continues an eight-year decline and indicates that teens are showing improvement in protecting themselves against becoming pregnant. Pregnancy rates for teens age 10 to 17 varied by county and seven counties had rates statistically significantly different than the state rate. [Table 4-5]. The 2003 rate for teens 15-17 was 26.7 percent below the Oregon Benchmark goal for the year 2010: 36 pregnancies per 1,000 females. [Figure 4-1].

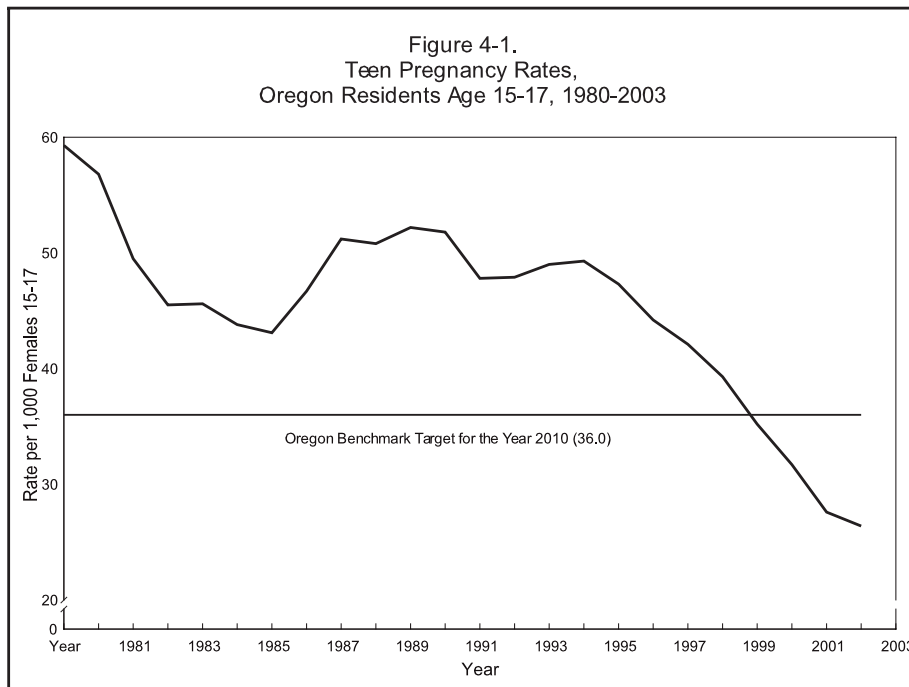
*Pregnancy rates for Oregonians age 10 to 17 declined 3.7 percent from 2002.*

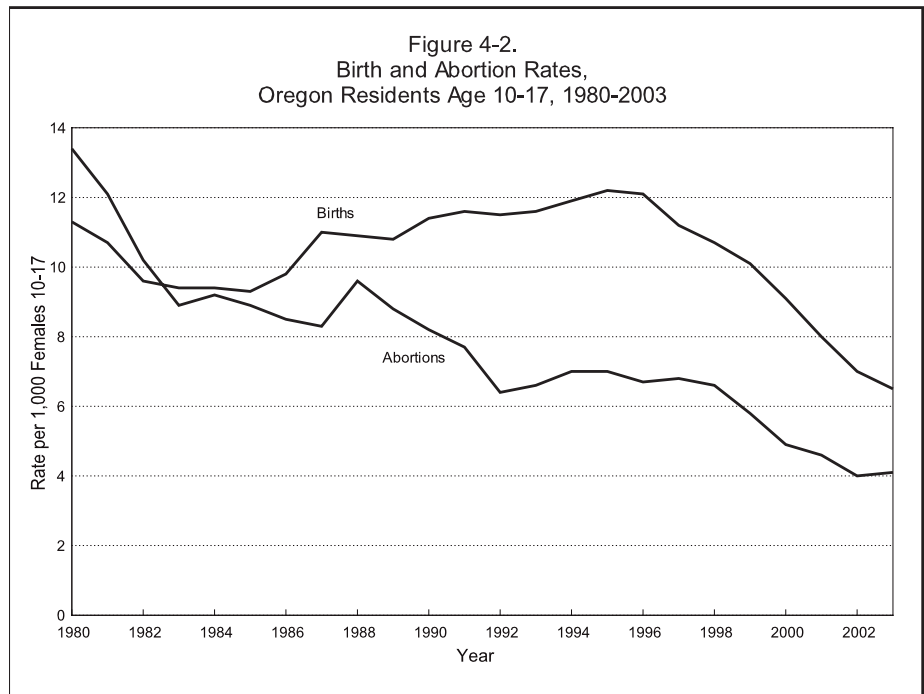
### OREGON BENCHMARKS Teen Pregnancy Rates 15-17

**YEAR 2010 GOAL: 36.0**

YEAR	RATE
1980	59.3
1981	56.8
1982	49.5
1983	45.5
1984	45.6
1985	43.8
1986	43.1
1987	46.7
1988	51.2
1989	50.8
1990	52.2
1991	51.8
1992	47.8
1993	47.9
1994	49.0
1995	49.3
1996	47.3
1997	44.2
1998	42.1
1999	39.3
2000	35.2
2001	31.7
2002	27.6
2003	26.4

Pregnancy rate per 1,000 Oregon resident females ages 15-17.





In 2003, the three youngest teens to become pregnant were age 12. There were 104 pregnancies to females under age 15.

### Births to Teens Under 18

There were 1,272 births to Oregon teens under age 18 in 2003. Sixty-two percent of the pregnancies among teens age 10 to 17 resulted in a live birth, compared to 46 percent in 1980. [Table 4-2]. It was the mother's first child in 91 percent of these births. [Table 4-9]. The birth rate for teens age 10 to 17 was 6.5, a 7.1 percent decrease from 2002. Forty-seven girls age 10 to 14 gave birth during 2003, four fewer than the previous year. [Table 4-2].

### Abortions to Teens Under 18

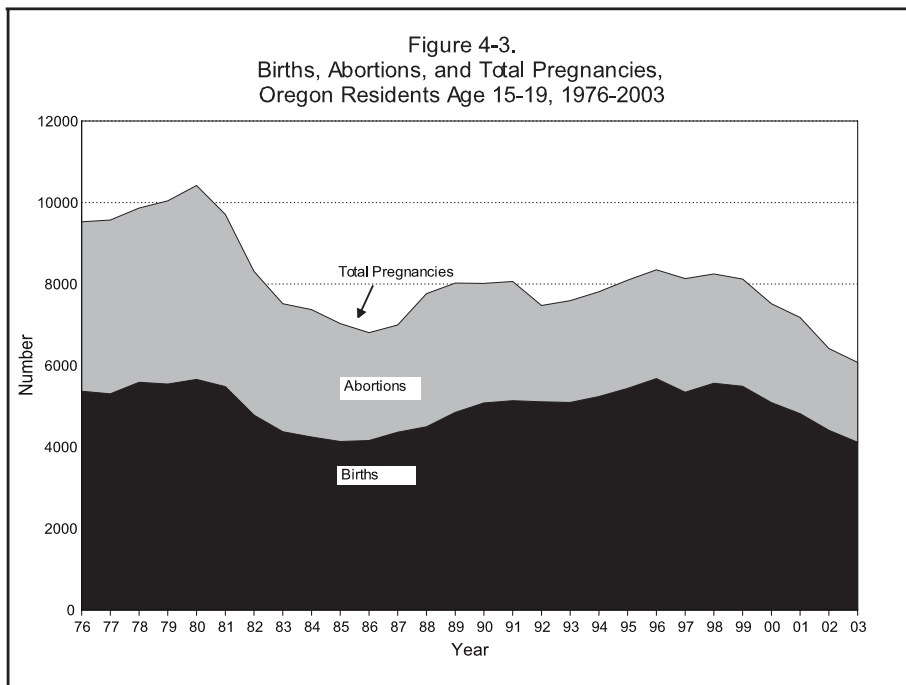
Abortion rates among teens increased slightly compared to 2002; for females age 10 to 17, the abortion rate increased by 2.5 percent. [Table 4-2; Figure 4-2]. There were 797 abortions to Oregonians age 10 to 17 reported during 2003, 28 more abortions than in 2002. Since the record high abortion rate recorded in 1980, the rate for females age 10 to 17 has decreased by more than 69 percent (from 13.4 to 4.1 per 1,000 females).

Figures 4-3 and 4-4 present the historical pattern of the result of pregnancies (birth and abortion). As Figure 4-4 indicates, teens are more likely to carry a pregnancy to term now than they were in 1980. Since 1980, the younger the teen, the more likely the pregnancy would be terminated. However, even among teens under 15, nearly half of the pregnancies resulted in a live birth in 2003. [Table 4-2; Figure 4-4].

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***Abortion rates for teens age 10 to 17 increased 2.5 percent from 2002***

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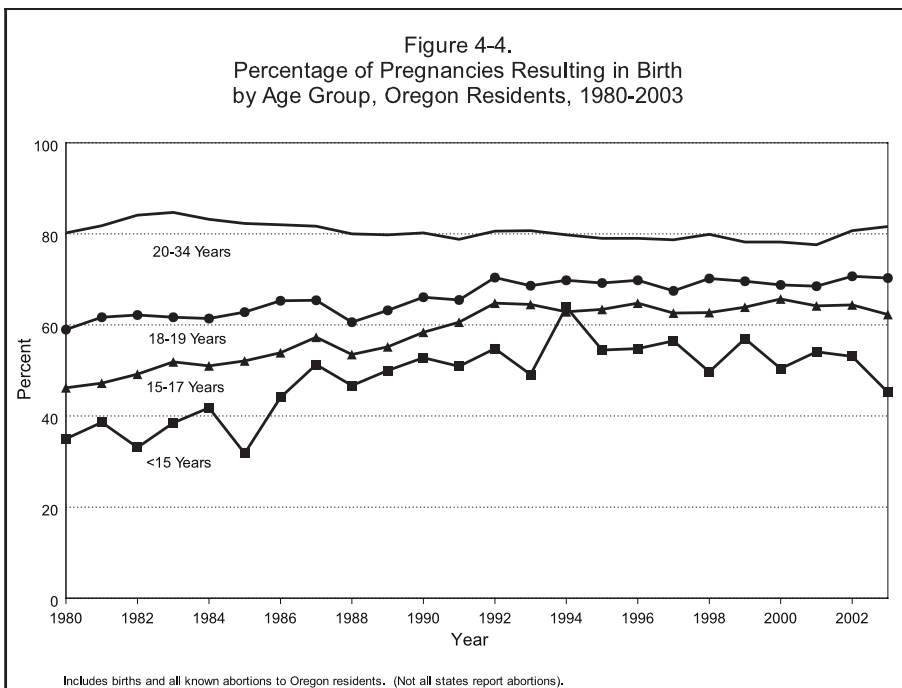


### OREGON FEMALES 18-19

In 2003, the pregnancy rate for Oregonians age 18 to 19 was 84.2 per 1,000 females, a 7.3 percent decrease from 2002. Comparisons with the 2002 figures show decreases in both the birth rate (7.8%) and the abortion rate (6.0%) among women age 18 to 19. [Table 4-1].

**Abortion rates for teens  
age 18 to 19 fell  
6.0 percent.**

Of the 4,110 pregnancies to women age 18 to 19, 70.3 percent (2,891) resulted in birth. [Figure 4-4]. It was the first child for 76.2 percent of the women giving birth.



### OREGON RATES VS. U.S. RATES

In Oregon, the birth rate among 15- to 19-year-olds (commonly used in historical and national comparisons) decreased 7.7 percent in 2003 (33.4 vs. 36.2 per 1,000 females in 2002). [Table 4-1]. The 2003 rate was 39.5 percent lower than the 1991 rate of 55.2 per 1,000, which is the highest rate recorded during the past quarter century. [Figure 4-5].

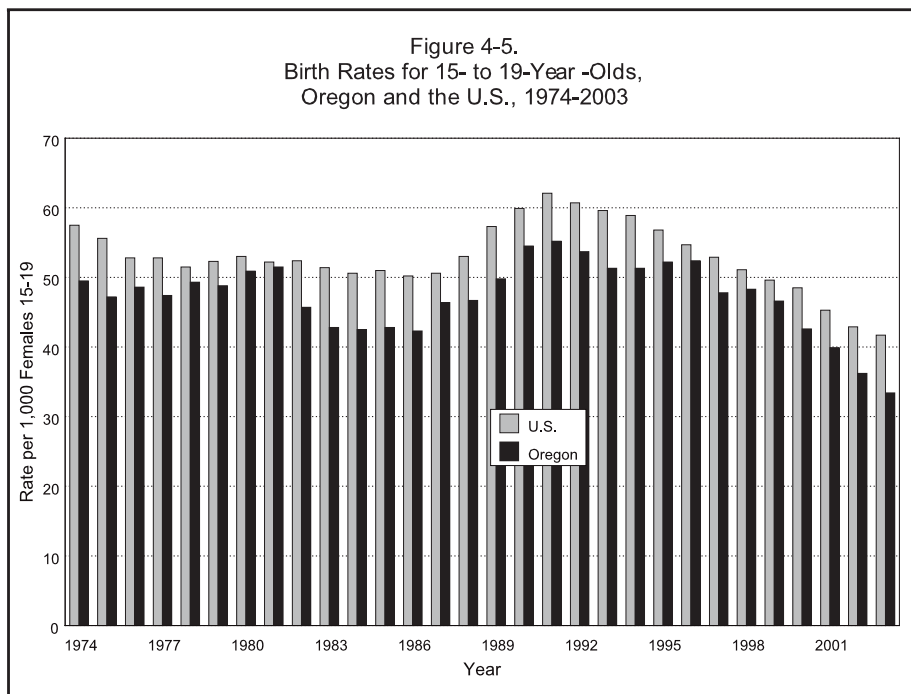
Oregon's 2003 birth rate for 15- to 19-year-old teens was 19.9 percent below the national rate (33.4 vs. 41.7 per 1,000 females, see sidebar). Oregon's lower teen birth rate may be attributed in large part to its demographic characteristics. Historically, African American and Hispanic populations have had higher teen birth rates and have been under-represented in the state. Oregon's diversity, however, is increasing. Between the 1990 and the 2000 census, the proportion of Hispanic residents doubled from 4 percent to 8 percent while the proportion of racial minorities was relatively unchanged.<sup>1</sup> During this time period, Oregon's teen pregnancy rate for 15- to 19-year-olds fell from 86.0 per 1,000 females in 1990 to 49.3 in 2003, a 42.7 percent decrease. [Table 4-1]. (For further discussion of Oregon's demographic characteristics and teen pregnancy rates, see the Methodology section of Appendix B).

Teen Birth Rates <sup>1</sup>			
Age	Oregon		U.S.
	2003	2002	2003
10-17	6.5	7.0	NA
10-14	0.4	0.4	0.6
15-17	16.5	17.7	22.4
18-19	59.2	64.2	70.8
15-19	33.4	36.2	41.7

<sup>1</sup> All rates per 1,000 females.

### LEVEL OF INFANT HEALTH Low Birthweight

Whether reflecting premature delivery or small size for gestational age, the low birthweight (LBW) rate (less than 2,500 grams or 5.5 pounds) is the best single measure of health for newborn infants. Changes in the low birthweight rate of a group



might indicate aggregate changes in the mothers' personal behavior during pregnancy or other conditions that affect fetal health such as nutrition or access to prenatal care.

In 2003, the low birthweight rate for teen mothers age 15-19 was 62.7 per 1,000 births (Table 4-4), a 6.3% decrease from 2002. For 15- to 17-year-olds, the rate (72.7 per 1,000) increased by 2.1 percent. The teen rate for low birthweight remained higher than those for mothers age 20 and older (61.3 per 1,000). [Table 2-29]. The difference in the low birthweight rates between the two groups has narrowed recently. [Figure 4-6].

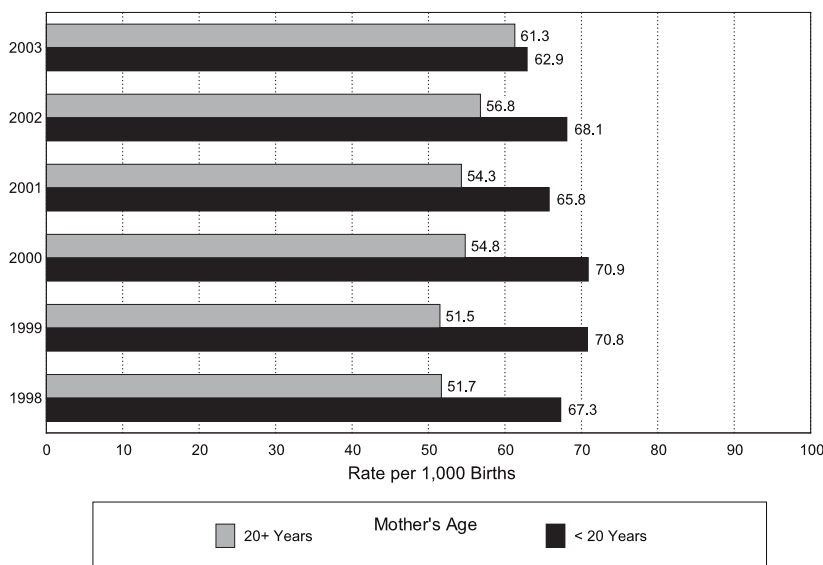
### Race and Ethnicity

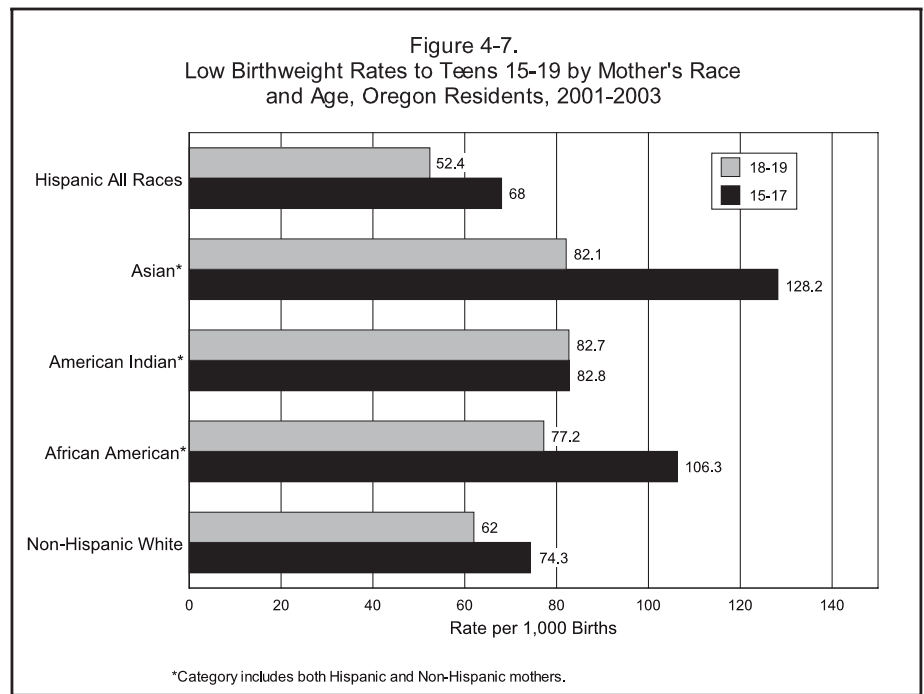
Demographic factors such as race, ethnicity, and marital status combine with age to influence the likelihood that a teenager will receive early prenatal care. In 2003, for example, 55.3 percent of unmarried Hispanics age 15-17 started prenatal care during their first trimester, compared to 75.0 percent of married non-Hispanic whites age 18-19. [Table 4-4].

Low birthweight rates to teen mothers by racial/ethnic grouping are displayed in the sidebar and in Table 4-4. Between 2002 and 2003, the rate of low birthweight for Hispanic teens age 15-17 decreased by 3.6 percent, while the rate for teens age 18-19 decreased 31.0 percent. Among non-Hispanic, non-white groups, the low birthweight rate for teens age 15-17 and 18-19 both decreased, by 15.9 and 54.2 percent respectively. (see sidebar).

Low Birthweight Rates <sup>1</sup> By Race/Ethnicity and Age, 2003		
Race/Ethnicity	Age	
	15-17	18-19
Rates		
Non-Hispanic White	74.8	66.6
Hispanic (All Races)	64.4	40.8
Non-Hispanic, Non-white	98.2	44.8
Percent Change, 2003 vs. 2002		
Non-Hispanic White	14.4	5.0
Hispanic (All Races)	-3.6	-31.0
Non-Hispanic, Non-white	-15.9	-54.2
1 All rates per 1,000 births.		

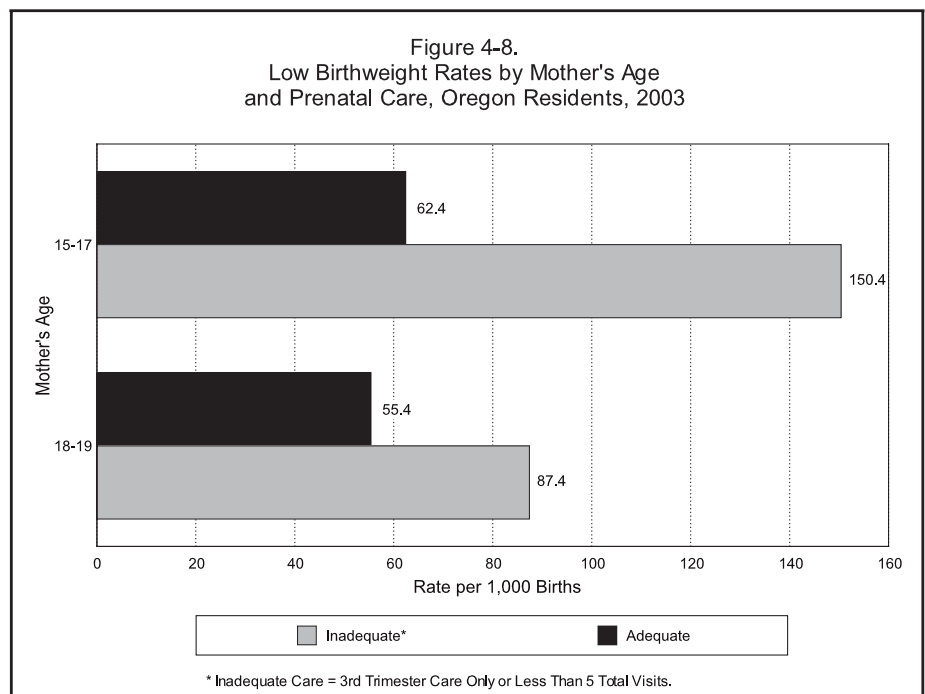
Figure 4-6.  
Rates of Low Birthweight Birth,  
Oregon Residents <20 and 20+, 1998-2003





### Prenatal Care

Table 4-3 shows the association between inadequate prenatal care and frequency of low birthweight infants among teens who gave birth in 2003. Among mothers age 15-19, those who received inadequate prenatal care were more likely to have low birthweight babies than those who had received adequate care (107.4 vs. 57.5 per 1,000 live births). Figure 4-8 shows low birthweight rates per 1,000 live births by adequate and inadequate prenatal care. For mothers 15-17, the rates were 62.4 vs. 150.4; for mothers 18-19, they were 55.4 vs. 87.4.



### Early Prenatal Care

Prenatal care should begin within the first three months of pregnancy to allow early detection of complications and to ensure the health of both the mother and the infant. An Oregon Benchmark goal is that by the year 2010, ninety percent of pregnant women, regardless of age, will begin medical care during the first trimester of pregnancy. Teens are farther from this goal than any other age group: in 2003, only 65.1 percent of teens giving birth started prenatal care during the first trimester compared to 82.7 percent for women age 20 and older (see sidebar). Only 61.4 percent of those under age 18 received early prenatal care, a slight increase from 61.0 percent in 2002. [Table 4-10].

<b>Oregon Benchmark: First Trimester Prenatal Care, 2003</b>	
<b>Year 2010 Goal: 90%</b>	
<b>All Women</b>	81.1
<b>All Teens</b>	65.1
10-17 Years	61.4
18-19 Years	66.8
20+ Years	82.7

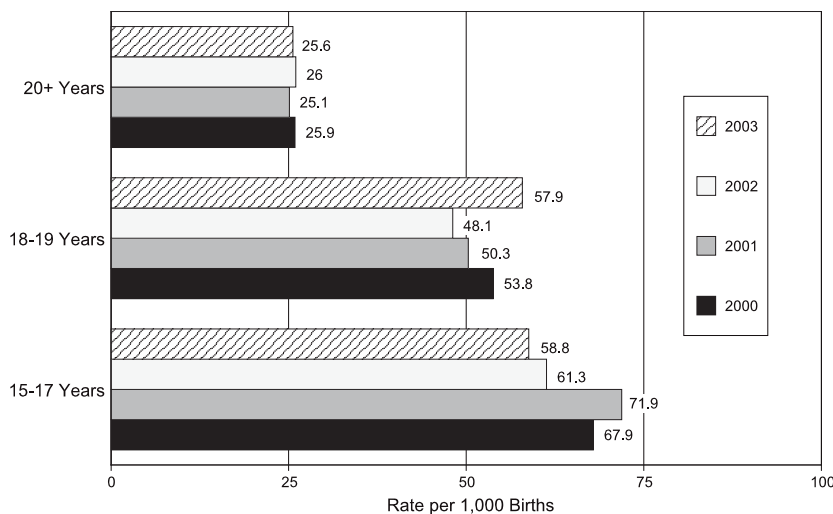
### Inadequate Prenatal Care

Inadequate prenatal care has been defined as care that begins after the second trimester of pregnancy, or that involves fewer than five prenatal visits. By this measure, 10.9 percent of 15- to 17- year-old teens and 9.9 percent of 18- to 19- year-old teens received inadequate prenatal care in 2003. This compares with 5.1 percent of women age 20 or older that received inadequate care. [Table 4-10]. The proportion of women under age 20 who received inadequate prenatal care increased by 9.6 percent in 2003, from 9.4 percent in 2002 to 10.3 percent.

### Late Care and No Prenatal Care

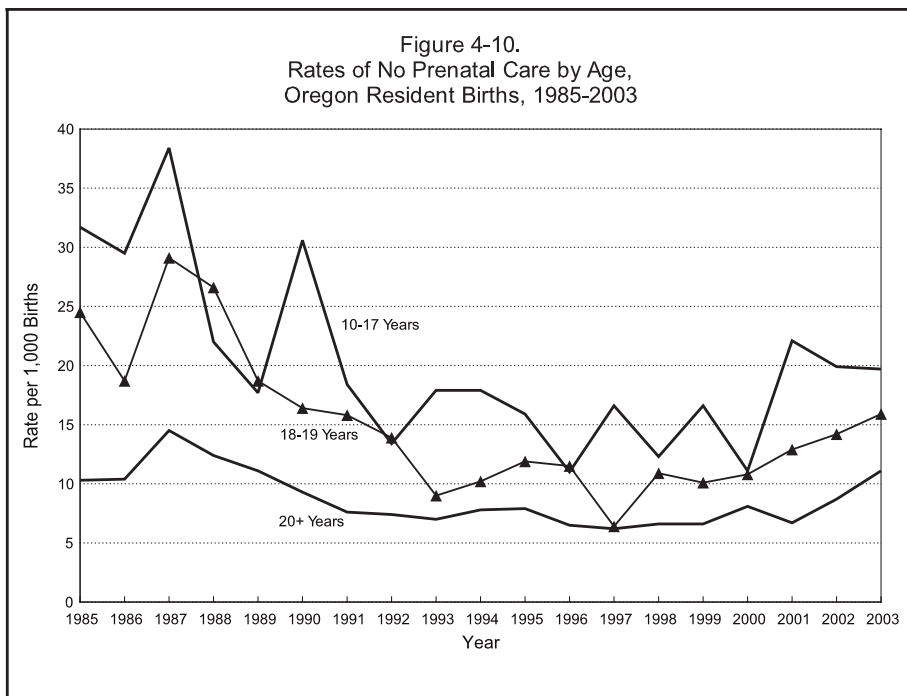
The proportion of teens age 15-17 who began prenatal care during the third trimester decreased 4.1 percent to 58.8 per 1,000 live births in 2003. [Figure 4-9]. Teens under age 18 are

Figure 4-9.  
Rates of Late Prenatal Care  
by Age Group, Oregon Residents, 2000-2003



Late Prenatal Care = Care began during third trimester. Calculations exclude births with unknown prenatal care.

<b>Low Birthweight Rates<sup>1</sup> By Mother's Age and Smoking Status, Oregon, 2003</b>		
	<b>&lt;20</b>	<b>20+</b>
Nonsmokers	59.9	56.6
Smokers	70.0	92.6
1 All Rates per 1,000 births.		



more likely than older women to go through pregnancy without a single visit to a medical provider; in 2003, the rate of no prenatal care among teens under age 18 was 19.7 per 1,000 live births, almost two times the rate of women age 20 and older (11.1 per 1,000 live births). [Figure 4-10.]

### Low Apgar Score

The Apgar score recorded by the birth attendant five minutes after birth provides another measure of infant health at the time of delivery. A score of less than seven is considered low and indicates that an infant is at greater than normal risk for morbidity and mortality. The 2003 low Apgar rate for newborns of mothers age 10-19 was 21.7 per 1,000 births (Table 4-9), a 17.9 percent increase from 2002 (18.4 per 1,000). The low Apgar rate for infants born to women under age 20 was 23.3 percent higher than the rate for infants born to women 20 years or older (17.6).

### SUBSTANCE USE DURING PREGNANCY

Estimates of tobacco and alcohol use during pregnancy are presumed to be minimum counts due to under-reporting on birth certificates. The legal age to purchase or possess alcohol in Oregon is 21 years old. The legal age to purchase tobacco products is age 18.

### Tobacco

Teens age 15 to 19 were twice as likely to report smoking during pregnancy than were women age 20 and over (22.3% vs. 11.0%). [Table 4-9]. Women who smoked during pregnancy

were more likely to have low birthweight babies than non-smokers. Mothers age 20 or older show the greatest difference between low birthweight rates by tobacco use (92.6 vs. 56.6 per 1,000 live births). However, this is in part because the low birthweight rate for teen mothers is already higher than that of women age 20 and older (see sidebar). Tobacco use remains one of the most important preventable causes of low birthweight infants for teen mothers.

**Alcohol**

Reported alcohol use by teens age 15 to 19 during pregnancy increased from 11.4 per 1,000 live births in 2002 to 16.4 in 2003, an increase of 43.9 percent. Teens age 15 to 19 were more likely to report the use of alcohol during pregnancy than were women age 20 and over (16.4 vs. 15.6 per 1,000 births). [Table 4-9]. Alcohol use for women age 20 and over increased 15.6 percent, from 13.5 per 1,000 live births in 2002 to 15.6 in 2003.

**SOURCE OF PAYMENT**

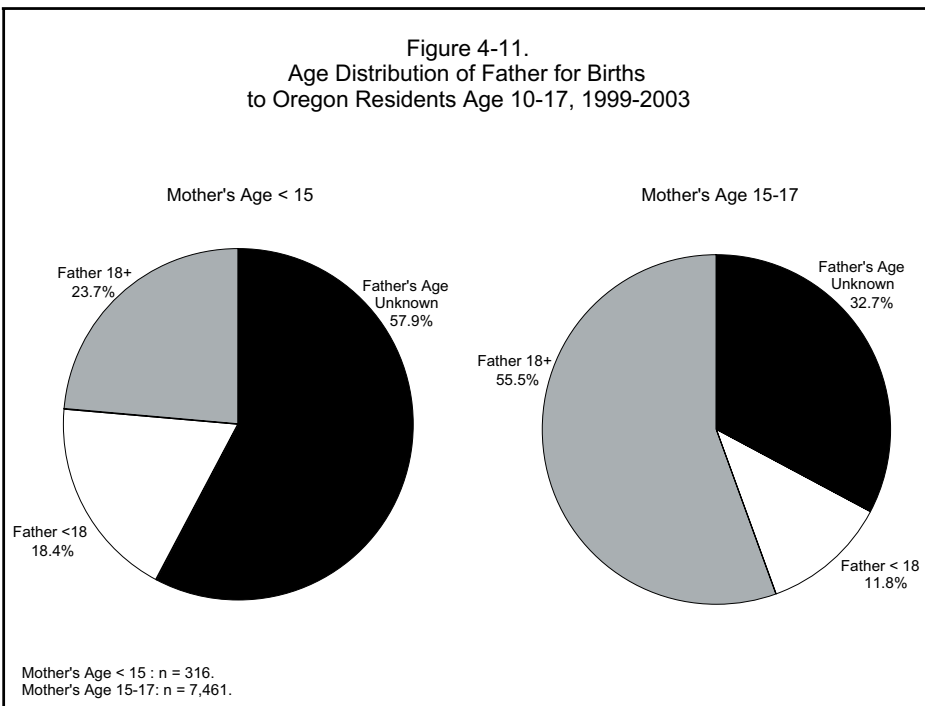
Costs associated with births to teen mothers were more than twice as likely to be paid with public funds as births to older women. In 2003, Medicaid paid for 68.9 percent of births to teens (under age 20) and 34.3 percent of births to women age 20 and older where payor source was reported. [Table 4-10].

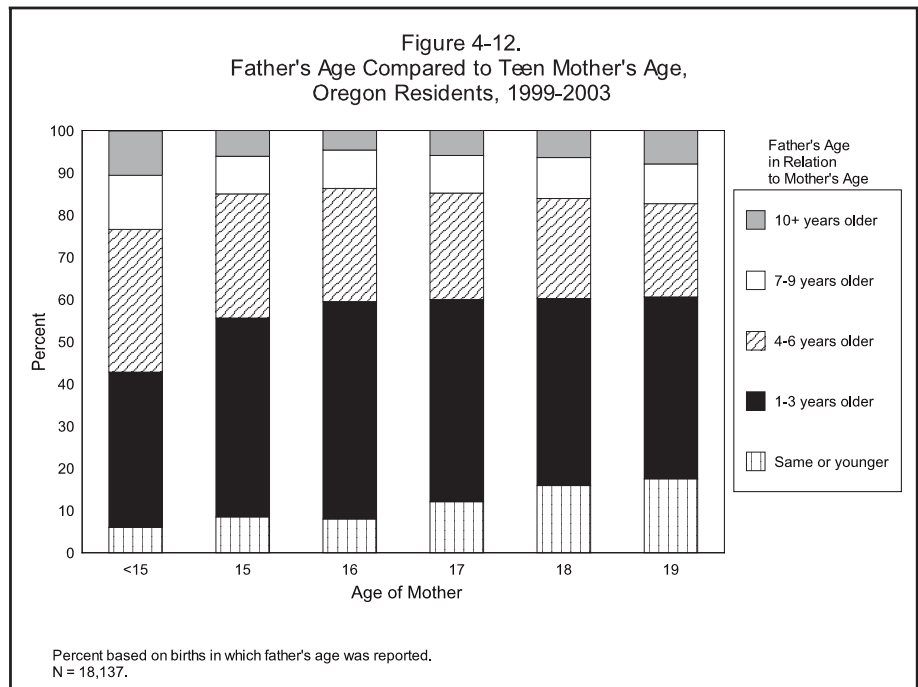
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**Medicaid paid for 68.9 percent of births to teens.**

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Figure 4-11.  
Age Distribution of Father for Births  
to Oregon Residents Age 10-17, 1999-2003





### AGE OF FATHER

During 1999-2003, 33.8 percent of birth records for babies born to teens age 10 to 17 didn't indicate father's age, because the father wasn't identified on the certificate. [Figure 4-11; Table 4-13]. Over half (57.9%) of the birth records where mother was under age 15 did not list father's age. Where father's age was reported for teen mothers under age 15, 43.6 percent were younger than age 18 and 56.4 percent were age 18 or older. Birth records for mothers age 15 to 17 report father's age for 67.3 percent of the births. Where father's age was reported, 17.6 percent of fathers were under age 18 and 82.4 percent were age 18 or older.

For all teens, including the youngest mothers (age less than 15 years), the father was more than six years older than

**TABLE 4-1. Oregon Pregnancies to Teens 15-19 Years, 1974-2003**

	Pregnancies <sup>1</sup>						Births			
	15 to 17		18 to 19		15 to 19		15 to 17		18 to 19	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1974	3,361	---	4,881	---	8,242	77.2	1,918	---	3,438	---
1975	3,718	---	5,135	---	8,853	80.2	1,868	---	3,338	---
1976	3,883	---	5,644	---	9,527	85.7	1,837	---	3,530	---
1977	3,853	---	5,718	---	9,571	85.5	1,793	---	3,510	---
1978	3,895	---	5,968	---	9,863	87.1	1,892	---	3,696	---
1979	3,802	---	6,240	---	10,042	88.4	1,790	---	3,754	---
1980	3,844	59.3	6,576	141.9	10,420	93.8	1,775	27.4	3,883	83.8
1981	3,504	56.8	6,202	138.6	9,706	91.2	1,655	26.8	3,828	85.6
1982	2,978	49.5	5,332	119.9	8,310	79.4	1,466	24.4	3,317	74.6
1983	2,694	45.5	4,823	112.3	7,517	73.6	1,397	23.6	2,978	69.3
1984	2,677	45.6	4,693	114.3	7,370	73.9	1,365	23.2	2,880	70.2
1985	2,589	43.8	4,440	118.0	7,029	72.7	1,349	22.8	2,787	74.1
1986	2,536	43.1	4,271	108.3	6,807	69.2	1,368	23.2	2,791	70.8
1987	2,629	46.7	4,365	115.6	6,994	74.4	1,507	26.8	2,856	75.6
1988	2,893	51.2	4,869	122.2	7,762	80.6	1,547	27.4	2,949	74.0
1989	2,751	50.8	5,271	121.9	8,022	82.4	1,519	28.0	3,331	77.1
1990	2,842	52.2	5,174	133.4	8,016	86.0	1,660	30.5	3,420	88.2
1991	2,913	51.8	5,147	139.9	8,060	86.6	1,764	31.4	3,373	91.7
1992	2,756	47.8	4,715	125.9	7,471	78.6	1,787	31.0	3,321	88.6
1993	2,858	47.9	4,734	120.0	7,592	76.6	1,843	30.9	3,248	82.3
1994	3,031	49.0	4,780	118.6	7,811	76.5	1,905	30.8	3,333	82.7
1995	3,093	49.3	4,999	120.3	8,092	77.6	1,977	31.5	3,460	83.3
1996	3,108	47.3	5,242	122.9	8,350	77.1	2,015	30.7	3,661	85.8
1997	3,013	44.2	5,121	117.5	8,134	72.8	1,886	27.6	3,458	79.4
1998	2,985	42.1	5,263	118.5	8,248	71.5	1,872	26.4	3,693	83.2
1999	2,810	39.3	5,311	114.8	8,121	68.9	1,796	25.1	3,695	79.8
2000	2,522	35.2	4,993	104.4	7,515	62.9	1,656	23.1	3,434	71.8
2001	2,300	31.7	4,880	101.0	7,180	59.4	1,477	20.4	3,342	69.2
2002	2,031	27.6	4,387	90.8	6,418	52.6	1,307	17.7	3,103	64.2
2003	1,965	26.4	4,110	84.2	6,075	49.3	1,225	16.5	2,891	59.2
Change Between 1993 and 2003	-893	-21.5	-624	-35.8	-1,517	-27.3	-618	-14.4	-357	-23.1
% Change Between 1993 and 2003	-31.2%	-44.9%	-13.2%	-29.8%	-20.0%	-35.6%	-33.5%	-46.6%	-11.0%	-28.1%
Change Between 1998 and 2003	-1,020	-15.7	-1,153	-34.3	-2,173	-22.2	-647	-9.9	-802	-24.0
% Change Between 1998 and 2003	-34.2%	-37.3%	-21.9%	-28.9%	-26.3%	-31.0%	-34.6%	-37.5%	-21.7%	-28.8%
Change Between 2002 and 2003	-66	-1.2	-277	-6.6	-343	-3.3	-82	-1.2	-212	-5.0
% Change Between 2002 and 2003	-3.2%	-4.3%	-6.3%	-7.3%	-5.3%	-6.3%	-6.3%	-6.8%	-6.8%	-7.8%

<sup>1</sup> Pregnancy estimates are based on the to □ age change calculations may vary due to computer rounding.

---Data not available.

All rates are per 1,000 females.

TABLE 4-1. Oregon Pregnancies to Teens 15-19 Years, 1974-2003 (Continued)

Births		Abortions <sup>2</sup>						Age Not Stated	
15 to 19		15 to 17		18 to 19		15 to 19			
No.	Rate	No.	Rate	No.	Rate	No.	Rate		
5,356	50.1	1,443	---	1,443	---	2,886	27.0	30	1974
5,206	47.2	1,850	---	1,797	---	3,647	33.1	23	1975
5,367	48.3	2,046	---	2,114	---	4,160	37.4	14	1976
5,303	47.4	2,060	---	2,208	---	4,268	38.1	25	1977
5,588	49.3	2,003	---	2,272	---	4,275	37.7	33	1978
5,544	48.8	2,012	---	2,486	---	4,498	39.6	34	1979
5,658	50.9	2,069	31.9	2,693	58.1	4,762	42.9	903	1980
5,483	51.5	1,849	30.0	2,374	53.1	4,223	39.7	1,541	1981
4,783	45.7	1,512	25.1	2,015	45.3	3,527	33.7	2,091	1982
4,375	42.8	1,297	21.9	1,845	42.9	3,142	30.8	1,850	1983
4,245	42.5	1,312	22.3	1,813	44.2	3,125	31.3	1,700	1984
4,136	42.8	1,240	21.0	1,653	43.9	2,893	29.9	737	1985
4,159	42.3	1,168	19.8	1,480	37.5	2,648	26.9	114	1986
4,363	46.4	1,122	19.9	1,509	40.0	2,631	28.0	47	1987
4,496	46.7	1,346	23.8	1,920	48.2	3,266	33.9	48	1988
4,850	49.8	1,232	22.7	1,940	44.9	3,172	32.6	222	1989
5,080	54.5	1,182	21.7	1,754	45.2	2,936	31.5	122	1990
5,137	55.2	1,149	20.4	1,774	48.2	2,923	31.4	131	1991
5,108	53.7	969	16.8	1,394	37.2	2,363	24.9	169	1992
5,091	51.3	1,015	17.0	1,486	37.7	2,501	25.2	256	1993
5,238	51.3	1,126	18.2	1,447	35.9	2,573	25.2	180	1994
5,437	52.2	1,116	17.8	1,539	37.0	2,655	25.5	25	1995
5,676	52.4	1,093	16.6	1,581	37.1	2,674	24.7	21	1996
5,344	47.8	1,127	16.5	1,663	38.2	2,790	25.0	3	1997
5,565	48.3	1,113	15.7	1,570	35.4	2,683	23.3	43	1998
5,491	46.6	1,014	14.2	1,616	34.9	2,630	22.3	18	1999
5,090	42.6	866	12.1	1,554	32.6	2,425	20.3	20	2000
4,819	39.9	823	11.4	1,538	31.8	2,361	19.5	8	2001
4,410	36.2	724	9.8	1,284	26.6	2,008	16.5	7	2002
4,116	33.4	740	9.9	1,219	25.0	1,959	15.9	33	2003
-975	-17.9	-275	-7.1	-267	-12.7	-542	-9.3		Change Between 1993 and 2003
-19.2%	-34.9%	-27.1%	-41.8%	-18.0%	-33.7%	-21.7%	-36.9%		% Change Between 1993 and 2003
-1,449	-14.9	-373	-5.8	-351	-10.4	-724	-7.4		Change Between 1998 and 2003
-26.0%	-30.8%	-33.5%	-36.9%	-22.4%	-29.4%	-27.0%	-31.8%		% Change Between 1998 and 2003
-294	-2.8	16	0.1	-65	-1.6	-49	-0.6		Change Between 2002 and 2003
-6.7%	-7.7%	2.2%	1.0%	-5.1%	-6.0%	-2.4%	-3.6%		% Change Between 2002 and 2003

<sup>2</sup> For 1985 and 1988 to current abortion estimates are based on reports for Oregon residents whether occurring in Oregon or another state. For years prior to 1985 (and in 1986-1987) abortion estimates were based on Oregon occurrences only, but included abortions obtained by out-of-state residents. Because some neighboring states do not report abortions to the state of residence (especially California), this results in minimal estimates for both abortions and pregnancies.

--- Data not available.

All rates are per 1,000 females.

**TABLE 4-2. Oregon Pregnancies to Young Teens 10-17 Years, 1974-2003**

	Pregnancies <sup>1</sup>			Births			Abortions <sup>2</sup>			Live Births <sup>3</sup>	
	10-14	10-17		10-14	10-17		10-14	10-17		10-14	10-17
	No.	No.	Rate	No.	No.	Rate	No.	No.	Rate	Percent	
1974	191	3,552	---	67	1,985	---	124	1,567	---	35.1%	55.9%
1975	216	2,934	---	67	1,935	---	149	1,999	---	31.0%	49.2%
1976	221	4,104	---	67	1,904	---	154	2,200	---	30.3%	46.4%
1977	209	4,062	---	69	1,862	---	140	2,200	---	33.0%	45.8%
1978	174	4,069	---	72	1,964	---	102	2,105	---	41.4%	48.3%
1979	201	4,003	---	70	1,860	---	131	2,143	---	34.8%	46.5%
1980	203	4,047	24.7	71	1,846	11.3	132	2,201	13.4	35.0%	45.6%
1981	158	3,662	22.8	61	1,716	10.7	97	1,946	12.1	38.6%	46.9%
1982	157	3,135	19.8	52	1,518	9.6	105	1,617	10.2	33.1%	48.4%
1983	135	2,829	18.3	52	1,449	9.4	83	1,380	8.9	38.5%	51.2%
1984	134	2,811	18.6	56	1,421	9.4	78	1,390	9.2	41.8%	50.6%
1985	132	2,721	18.2	42	1,391	9.3	90	1,330	8.9	31.8%	51.1%
1986	145	2,681	18.4	64	1,432	9.8	81	1,249	8.5	44.1%	53.4%
1987	115	2,744	19.2	59	1,566	11.0	56	1,178	8.3	51.3%	57.1%
1988	122	3,015	20.6	57	1,604	10.9	64	1,410	9.6	46.7%	53.2%
1989	136	2,887	19.6	68	1,587	10.8	68	1,300	8.8	50.0%	55.0%
1990	144	2,986	19.7	76	1,736	11.4	68	1,250	8.2	52.8%	58.1%
1991	173	3,086	19.3	88	1,852	11.6	85	1,234	7.7	50.9%	60.0%
1992	157	2,913	17.9	86	1,873	11.5	71	1,040	6.4	54.8%	64.3%
1993	169	3,027	18.2	83	1,926	11.6	86	1,101	6.6	49.7%	63.6%
1994	183	3,214	18.9	117	2,022	11.9	66	1,192	7.0	63.9%	62.9%
1995	191	3,284	19.2	104	2,081	12.2	87	1,203	7.0	54.5%	63.4%
1996	166	3,274	18.8	91	2,106	12.1	75	1,168	6.7	54.8%	64.3%
1997	184	3,197	18.0	104	1,990	11.2	80	1,207	6.8	56.5%	62.2%
1998	191	3,176	17.2	95	1,967	10.7	96	1,209	6.6	49.7%	61.9%
1999	151	2,961	15.9	86	1,882	10.1	65	1,079	5.8	57.0%	63.6%
2000	131	2,653	14.0	66	1,722	9.1	65	931	4.9	50.4%	64.9%
2001	122	2,422	12.6	66	1,545	8.0	56	879	4.6	54.1%	63.7%
2002	96	2,127	10.9	51	1,358	7.0	45	769	4.0	53.1%	63.8%
2003	104	2,069	10.5	47	1,272	6.5	57	797	4.1	45.2%	61.5%
Change Between 1993 and 2003	-65	-958	-7.7	-36	-654	-5.1	-29	-304	-2.5		
% Change Between 1993 and 2003	-38.5%	-31.6%	-42.3%	-43.4%	-34.0%	-44.0%	-33.7%	-27.6%	-37.9%		
Change Between 1998 and 2003	-87	-1,107	-6.7	-48	-695	-4.2	-39	-412	-2.5		
% Change Between 1998 and 2003	-45.5%	-34.9%	-39.0%	-50.5%	-35.3%	-39.3%	-40.6%	-34.1%	-37.9%		
Change Between 2002 and 2003	8	-58	-0.4	-4	-86	-0.5	12	28	0.1		
% Change Between 2002 and 2003	8.3%	-2.7%	-3.7%	-7.8%	-6.3%	-7.1%	26.7%	3.6%	2.5%		

1 Pregnancy estimates are based on the total number of births and abortions.

2 For 1985 and 1988 - current; □ 1985 (and in 1 □

This change permits closer comparison with the figures in Table 4-7 (and Table 4-5) but, because some neighboring states do not report abortions to the state of residence (especially California), this results in minimal estimates for both abortions and pregnancies.

3 Percentage of pregnancies resulting in a live birth.

---Data not available.

Rates per 1,000 females 10-17 years of age. 2003: 196,641.

**TABLE 4-3. Births to 15- to 19-year-old Teens by Race/Ethnicity, Adequacy of Prenatal Care, and Birthweight, Oregon Residents, 2003**

Race/Ethnicity and Age of Mother	Total Births	Adequacy of Prenatal Care					
		Inadequate <sup>1</sup>		Adequate		Not Stated	
		<2500 Grams	2500+ Grams	<2500 Grams	2500+ Grams	<2500 Grams	2500+ Grams
<b>Total Births</b>							
15-19	4,116	45	374	212	3,477	1	7
15-17	1,225	20	113	68	1,021	1	2
18-19	2,891	25	261	144	2,456	–	5
<b>Non-Hispanic</b>							
<b>Total</b>							
15-19	2,930	33	232	165	2,493	1	6
15-17	768	14	63	45	644	1	1
18-19	2,162	19	169	120	1,849	–	5
White	2,591	28	188	149	2,219	1	6
15-17	655	10	52	38	553	1	1
18-19	1,936	18	136	111	1,666	–	5
African American	135	1	12	10	112	–	–
15-17	44	1	3	4	36	–	–
18-19	91	–	9	6	76	–	–
American Indian	125	4	17	3	101	–	–
15-17	44	3	4	2	35	–	–
18-19	81	1	13	1	66	–	–
Asian <sup>2</sup>	67	–	14	3	50	–	–
15-17	22	–	4	1	17	–	–
18-19	45	–	10	2	33	–	–
<b>Hispanic</b>							
<b>Total</b>							
15-19	1,160	11	142	47	959	–	1
15-17	450	6	50	23	370	–	1
18-19	710	5	92	24	589	–	–
Mexican	1,094	11	136	42	904	–	1
15-17	420	6	47	20	346	–	1
18-19	674	5	89	22	558	–	–
Central or South American	25	–	4	–	21	–	–
15-17	11	–	2	–	9	–	–
18-19	14	–	2	–	12	–	–
Other Hispanic	41	–	2	5	34	–	–
15-17	19	–	1	3	15	–	–
18-19	22	–	1	2	19	–	–

– Quantity is zero.

<sup>1</sup> Less than 5 prenatal visits or care began in the third trimester.

<sup>2</sup> Includes Chinese, Japanese, Filipino, and Other Asian & Pacific Islander.

NOTE: The sum of the subsets may not equal the total because of cases with unknown birthweight.

**TABLE 4-4. Births to Teens 15-19 by Marital Status, Race/Ethnicity, and Age by Adequacy of Prenatal Care and Birthweight, Oregon Residents, 2003**

Marital Status, Race/Ethnicity and Age of Mother		Total Births <sup>1</sup>	Low Weight Births		First Trimester Care		Inadequate Care <sup>3</sup>	
			Number	Rate <sup>2</sup>	Number	Rate <sup>2</sup>	Number	Rate <sup>2</sup>
<b>Total Births</b>								
	15-19	4,116	258	62.7	2,685	653.3	419	102.0
	15-17	1,225	89	72.7	757	618.5	133	108.8
	18-19	2,891	169	58.5	1,928	668.1	286	99.1
<b>Non-Hispanic</b>								
<b>Total</b>								
	15-19	2,930	199	67.9	2,002	684.7	265	90.7
	15-17	768	60	78.1	502	654.5	77	100.5
	18-19	2,162	139	64.3	1,500	695.4	188	87.2
<b>White</b>		2,591	178	68.7	1,797	695.2	216	83.6
	15-17	655	49	74.8	435	665.1	62	94.9
	Married	55	4	72.7	33	600.0	7	127.3
	Unmarried	599	45	75.1	401	670.6	55	92.1
	18-19	1,936	129	66.6	1,362	705.3	154	79.8
	Married	465	31	66.7	348	750.0	30	64.7
	Unmarried	1,467	98	66.8	1,011	690.6	124	84.7
<b>African American</b>		135	11	81.5	92	681.5	13	96.3
	15-17	44	5	113.6	31	704.5	4	90.9
	Married	—	—	—	—	—	—	—
	Unmarried	44	5	113.6	31	704.5	4	90.9
	18-19	91	6	65.9	61	670.3	9	98.9
	Married	6	1	166.7	4	666.7	1	166.7
	Unmarried	85	5	58.8	57	670.6	8	94.1
<b>American Indian</b>		125	7	56.0	72	576.0	21	168.0
	15-17	44	5	113.6	22	500.0	7	159.1
	Married	1	—	—	—	—	—	—
	Unmarried	43	5	116.3	22	511.6	7	162.8
	18-19	81	2	24.7	50	617.3	14	172.8
	Married	15	—	—	11	733.3	2	133.3
	Unmarried	66	2	30.3	39	590.9	12	181.8
<b>Asian<sup>4</sup></b>		67	3	44.8	35	522.4	14	209.0
	15-17	22	1	45.5	13	590.9	4	181.8
	Married	2	—	—	1	500.0	—	—
	Unmarried	20	1	50.0	12	600.0	4	200.0
	18-19	45	2	44.4	22	488.9	10	222.2
	Married	12	—	—	5	416.7	4	333.3
	Unmarried	33	2	60.6	17	515.2	6	181.8

See footnotes at end of table.

**TABLE 4-4. Births to Teens 15-19 by Marital Status, Race/Ethnicity, and Age by Adequacy of Prenatal Care and Birthweight, Oregon Residents, 2003 — Continued**

Marital Status, Race/Ethnicity and Age of Mother		Total Births <sup>1</sup>	Low Weight Births		First Trimester Care		Inadequate Care <sup>3</sup>	
			Number	Rate <sup>2</sup>	Number	Rate <sup>2</sup>	Number	Rate <sup>2</sup>
<b>Hispanic</b>								
<b>Total</b>								
	15-19	1,160	58	50.0	668	575.9	153	132.0
	15-17	450	29	64.4	250	555.6	56	124.7
	18-19	710	29	40.8	418	588.7	97	136.6
Mexican		1,094	53	48.4	628	574.0	147	134.5
	15-17	420	26	61.9	233	554.8	53	126.5
	Married	48	3	62.5	28	583.3	5	104.2
	Unmarried	371	23	62.0	205	552.6	48	129.7
	18-19	674	27	40.1	395	586.1	94	139.5
	Married	205	7	34.1	116	565.9	33	161.0
	Unmarried	469	20	42.6	279	594.9	61	130.1
Central or South American		25	—	—	12	480.0	4	160.0
	15-17	11	—	—	5	454.5	2	181.8
	Married	—	—	—	—	—	—	—
	Unmarried	11	—	—	5	454.5	2	181.8
	18-19	14	—	—	7	500.0	2	142.9
	Married	5	—	—	3	600.0	—	—
	Unmarried	9	—	—	4	444.4	2	222.2
Other Hispanic		41	5	122.0	28	682.9	2	48.8
	15-17	19	3	157.9	12	631.6	1	52.6
	Married	1	—	—	1	1000.0	—	—
	Unmarried	18	3	166.7	11	611.1	1	55.6
	18-19	22	2	90.9	16	727.3	1	45.5
	Married	4	1	250.0	2	500.0	—	—
	Unmarried	18	1	55.6	14	777.8	1	55.6

— Quantity is zero.

<sup>1</sup> The subtotals of an age group may not add to the total for that age group because of unstated characteristics such as marital status or race/ethnicity.

<sup>2</sup> All rates per 1,000 females.

<sup>3</sup> Less than 5 prenatal visits or care began in the third trimester.

<sup>4</sup> Includes Chinese, Japanese, Filipino, and Other Asian & Pacific Islander.

WARNING: Rates based on less than 5 events are unreliable.

NOTE: Rates and percentages are calculated excluding missing and unknown values.

**TABLE 4-5. Pregnancy Rates of Teens by County of Residence, Oregon, 2003**

County of Residence	Total Pregnancies	Age				Pregnancy Rate <sup>1</sup>			
		<15	15-17	18-19	15-19	10-17	15-17	18-19	15-19
Total	6,179	104	1,965	4,110	6,075	10.5	26.4	84.2	49.3
Baker	26	—	7	19	26	6.9	18.0	104.4	45.6
Benton	71	1	15	55	70	§ 3.8	§ 9.0	§ 23.4	§ 17.4
Clackamas	457	8	173	276	449	§ 8.5	§ 22.2	§ 61.4	§ 36.5
Clatsop	62	2	18	42	60	9.5	20.8	74.9	42.1
Columbia	50	—	12	38	50	§ 4.1	§ 11.0	72.1	§ 30.9
Coos	102	1	26	75	101	7.8	19.5	90.4	46.7
Crook	39	—	10	29	39	7.8	19.6	129.5	53.1
Curry	29	1	7	21	28	8.0	19.4	111.7	51.0
Deschutes	218	1	70	147	217	9.3	25.0	93.5	49.6
Douglas	206	3	56	147	203	10.0	24.9	§ 112.3	57.1
Gilliam	1	—	*	*	1	*	*	*	16.1
Grant	8	—	1	7	8	2.1	5.1	76.1	§ 28.0
Harney	6	—	2	4	6	4.4	12.4	55.6	25.8
Hood River	38	—	9	29	38	7.2	19.6	110.7	52.6
Jackson	327	4	105	218	323	10.0	25.1	88.0	48.5
Jefferson	68	2	18	48	66	15.4	39.6	§ 213.3	§ 97.3
Josephine	128	—	43	85	128	9.8	26.3	98.2	51.2
Klamath	149	2	57	90	147	§ 15.5	§ 40.9	105.9	§ 65.5
Lake	14	—	2	12	14	4.2	10.8	§ 200.0	56.9
Lane	529	9	184	336	520	10.9	26.8	§ 62.8	§ 42.5
Lincoln	71	2	21	48	69	9.4	21.6	100.0	47.5
Linn	211	2	70	139	209	11.7	30.0	100.2	56.1
Malheur	77	2	25	50	75	14.2	34.6	99.0	61.0
Marion	719	13	210	496	706	§ 12.8	§ 31.5	§ 110.2	§ 63.2
Moorow	25	—	5	20	25	6.6	17.7	105.8	53.1
Multnomah	1,282	26	423	833	1,256	§ 14.1	§ 35.0	§ 95.9	§ 60.5
Polk	91	1	30	60	90	8.0	19.8	§ 54.6	§ 34.5
Sherman	4	—	*	*	4	*	*	*	58.8
Tillamook	38	1	8	29	37	6.7	15.3	98.3	45.3
Umatilla	190	6	53	131	184	13.7	31.8	§ 125.4	§ 67.9
Union	54	3	16	35	51	12.8	26.5	78.0	48.5
Wallowa	7	—	2	5	7	4.2	11.1	76.9	28.6
Wasco	39	—	13	26	39	9.4	23.9	97.4	48.1
Washington	681	11	224	446	670	§ 9.1	23.5	77.4	§ 43.9
Wheeler	3	—	*	*	3	*	*	*	54.5
Yamhill	159	3	48	108	156	9.4	23.3	§ 69.2	43.0

— Quantity is zero.

\* Detailed reporting of small numbers may breach confidentiality.

<sup>1</sup> All rates per 1,000 females.

§ Pregnancy rate is significantly different from the state.

WARNING: Rates based on less than 5 events are unreliable.

NOTE: Includes births and reported abortions including those obtained out-of-state by Oregon residents. Because some states (e.g., California) do not record data on residence for abortion patients, not all out-of-state abortions are included.

**TABLE 4-6. Birth Rates of Teens by County of Residence, Oregon, 2003**

County of Residence	Total Births (All Ages)	Age				Birth Rate <sup>1</sup>			
		<15	15-17	18-19	15-19	10-17	15-17	18-19	15-19
Total	45,935	47	1,225	2,891	4,116	6.5	16.5	59.2	33.4
Baker	146	–	4	17	21	4.0	10.3	93.4	36.8
Benton	770	–	11	32	43	§ 2.6	§ 6.6	§ 13.6	§ 10.7
Clackamas	4,019	3	87	167	254	§ 4.2	§ 11.1	§ 37.1	§ 20.6
Clatsop	367	1	12	34	46	6.1	13.9	60.6	32.3
Columbia	539	–	5	32	37	§ 1.7	§ 4.6	60.7	§ 22.9
Coos	631	1	18	62	80	5.5	13.5	74.7	37.0
Crook	235	–	7	24	31	5.5	13.7	§ 107.1	42.2
Curry	156	–	4	17	21	4.0	11.1	90.4	38.3
Deschutes	1,575	1	40	103	143	5.4	14.3	65.5	32.7
Douglas	1,107	2	35	125	160	6.3	15.6	§ 95.5	§ 45.0
Gilliam	21	–	*	*	1	*	*	*	16.1
Grant	65	–	1	6	7	2.1	5.1	65.2	24.5
Harney	66	–	1	4	5	2.2	6.2	55.6	21.5
Hood River	290	–	4	22	26	3.2	8.7	84.0	36.0
Jackson	2,137	3	68	162	230	6.5	16.2	65.4	34.5
Jefferson	315	1	17	40	57	§ 13.8	§ 37.4	§ 177.8	§ 84.1
Josephine	802	–	27	74	101	6.2	16.5	§ 85.5	40.4
Klamath	836	2	46	73	119	§ 12.6	§ 33.0	§ 85.9	§ 53.0
Lake	70	–	2	10	12	4.2	10.8	§ 166.7	48.8
Lane	3,754	1	112	222	334	6.4	16.3	§ 41.5	§ 27.3
Lincoln	429	1	12	33	45	5.3	12.3	68.8	31.0
Linn	1,356	2	54	115	169	§ 9.1	23.1	§ 82.9	§ 45.4
Malheur	455	2	22	47	69	§ 12.6	§ 30.4	§ 93.1	§ 56.1
Marion	4,635	6	150	384	534	§ 9.0	§ 22.5	§ 85.4	§ 47.8
Morrow	186	–	3	19	22	4.0	10.6	100.5	46.7
Multnomah	9,340	9	232	468	700	§ 7.6	§ 19.2	§ 53.9	33.7
Polk	775	–	26	50	76	6.7	17.2	45.5	29.1
Sherman	22	–	*	*	3	*	*	*	44.1
Tillamook	254	1	3	18	21	3.0	5.7	61.0	25.7
Umatilla	1,120	4	41	103	144	§ 10.5	§ 24.6	§ 98.6	§ 53.2
Union	323	1	11	33	44	8.1	18.2	73.5	41.8
Wallowa	66	–	–	5	5	–	–	76.9	20.4
Wasco	262	–	10	26	36	7.2	18.4	§ 97.4	44.4
Washington	7,630	4	127	280	407	§ 5.1	§ 13.3	§ 48.6	§ 26.6
Wheeler	6	–	*	*	3	*	*	*	54.5
Yamhill	1,175	2	32	78	110	6.3	15.5	50.0	30.3

– Quantity is zero.

\* Detailed reporting of small numbers may breach confidentiality.

<sup>1</sup> All rates per 1,000 females.

§ Birth rate is significantly different from the state.

WARNING: Rates based on less than 5 events are unreliable.

**TABLE 4-7. Abortion Rates of Teens by County of Residence, Oregon, 2003**

County of Residence	Total Abortions (All Ages)	Age				Abortion Rate <sup>1</sup>			
		<15	15-17	18-19	15-19	10-17	15-17	18-19	15-19
Total <sup>2</sup>	11,472	57	740	1,219	1,959	4.1	9.9	25.0	15.9
Baker	13	—	3	2	5	3.0	7.7	11.0	8.8
Benton	154	1	4	23	27	§ 1.2	§ 2.4	§ 9.8	§ 6.7
Clackamas	990	5	86	109	195	4.3	11.0	24.2	15.9
Clatsop	87	1	6	8	14	3.3	6.9	14.3	9.8
Columbia	83	—	7	6	13	2.4	6.4	11.4	§ 8.0
Coos	109	—	8	13	21	2.3	6.0	15.7	§ 9.7
Crook	30	—	3	5	8	2.3	5.9	22.3	10.9
Curry	36	1	3	4	7	4.0	8.3	21.3	12.8
Deschutes	352	—	30	44	74	3.9	10.7	28.0	16.9
Douglas	191	1	21	22	43	3.7	9.3	16.8	12.1
Gilliam	2	—	*	*	—	*	*	*	—
Grant	5	—	—	1	1	—	—	10.9	3.5
Harney	12	—	1	—	1	2.2	6.2	—	4.3
Hood River	46	—	5	7	12	4.0	10.9	26.7	16.6
Jackson	502	1	37	56	93	3.5	8.8	22.6	14.0
Jefferson	38	1	1	8	9	1.5	2.2	35.6	13.3
Josephine	147	—	16	11	27	3.7	9.8	§ 12.7	10.8
Klamath	123	—	11	17	28	2.9	7.9	20.0	12.5
Lake	6	—	—	2	2	—	—	33.3	8.1
Lane	1,064	8	72	114	186	4.5	10.5	21.3	15.2
Lincoln	121	1	9	15	24	4.1	9.2	31.2	16.5
Linn	203	—	16	24	40	2.6	6.9	17.3	§ 10.7
Malheur	25	—	3	3	6	1.6	4.1	§ 5.9	§ 4.9
Marion	833	7	60	112	172	3.8	9.0	24.9	15.4
Morrow	22	—	2	1	3	2.6	7.1	5.3	6.4
Multnomah	3,930	17	191	365	556	§ 6.5	§ 15.8	§ 42.0	§ 26.8
Polk	100	1	4	10	14	§ 1.3	§ 2.6	§ 9.1	§ 5.4
Sherman	4	—	*	*	1	*	*	*	14.7
Tillamook	54	—	5	11	16	3.7	9.6	37.3	19.6
Umatilla	165	2	12	28	40	3.3	7.2	26.8	14.8
Union	43	2	5	2	7	4.7	8.3	§ 4.5	§ 6.7
Wallowa	13	—	2	—	2	4.2	11.1	—	8.2
Wasco	48	—	3	—	3	2.2	5.5	—	§ 3.7
Washington	1,680	7	97	166	263	4.0	10.2	28.8	17.2
Wheeler	—	—	*	*	—	*	*	*	—
Yamhill	235	1	16	30	46	3.1	7.8	19.2	12.7

— Quantity is zero.

\* Detailed reporting of small numbers may breach confidentiality.

<sup>1</sup> All rates per 1,000 females.

<sup>2</sup> Total includes six abortions where county of residence was unknown.

§ Abortion rate is significantly different from the state.

WARNING: Rates based on less than 5 events are unreliable.

NOTE: Includes abortions obtained out-of-state by Oregon residents. Because some states (e.g., California) do not record data on residence for abortion patients, not all out-of-state abortions are included.

Department of Human Services - Center for Health Statistics  
**TABLE 4-8. Teens 15-19: Births, Level of Prenatal Care and Low Birthweight  
 Rates by County of Residence, Oregon, 2003**

County of Residence	Total		Low Weight Births		First Trimester Care		Inadequate Care <sup>1</sup>	
	Number	Rate <sup>2</sup>	Number	Rate <sup>3</sup>	Number	Rate <sup>3</sup>	Number	Rate <sup>3</sup>
Total	4,116	33.4	258	62.7	2,685	653.3	419	102.0
Baker	21	36.8	2	95.2	16	761.9	1	47.6
Benton	43	§ 10.7	4	93.0	30	697.7	1	23.3
Clackamas	254	§ 20.6	18	70.9	168	661.4	24	94.5
Clatsop	46	32.3	1	21.7	34	739.1	2	43.5
Columbia	37	§ 22.9	1	27.0	22	594.6	7	189.2
Coos	80	37.0	4	50.0	59	737.5	8	100.0
Crook	31	42.2	1	32.3	25	806.5	1	32.3
Curry	21	38.3	2	95.2	13	619.0	4	190.5
Deschutes	143	32.7	14	97.9	110	769.2	13	90.9
Douglas	160	§ 45.0	14	87.5	131	§ 818.8	8	50.0
Gilliam	1	16.1	–	–	1	1000.0	–	–
Grant	7	24.5	–	–	7	1000.0	–	–
Harney	5	21.5	–	–	3	600.0	1	200.0
Hood River	26	36.0	1	38.5	21	807.7	1	38.5
Jackson	230	34.5	13	56.5	154	669.6	22	95.7
Jefferson	57	§ 84.1	5	87.7	25	438.6	11	196.4
Josephine	101	40.4	5	49.5	74	732.7	5	49.5
Klamath	119	§ 53.0	9	75.6	80	672.3	7	58.8
Lake	12	48.8	1	83.3	8	666.7	–	–
Lane	334	§ 27.3	32	95.8	217	651.7	34	102.1
Lincoln	45	31.0	3	66.7	28	622.2	9	200.0
Linn	169	§ 45.4	15	88.8	110	654.8	14	82.8
Malheur	69	§ 56.1	6	87.0	38	550.7	7	102.9
Marion	534	§ 47.8	24	44.9	273	§ 511.2	86	§ 161.4
Morrow	22	46.7	1	45.5	11	500.0	6	272.7
Multnomah	700	33.7	43	61.4	448	640.0	86	122.9
Polk	76	29.1	3	39.5	47	618.4	9	118.4
Sherman	3	44.1	–	–	3	1000.0	–	–
Tillamook	21	25.7	2	95.2	17	809.5	2	95.2
Umatilla	144	§ 53.2	9	62.5	77	550.0	17	121.4
Union	44	41.8	4	90.9	27	613.6	5	113.6
Wallowa	5	20.4	–	–	4	800.0	–	–
Wasco	36	44.4	1	27.8	30	833.3	4	111.1
Washington	407	§ 26.6	14	34.4	305	§ 749.4	15	§ 36.9
Wheeler	3	54.5	–	–	–	–	2	666.7
Yamhill	110	30.3	6	54.5	69	627.3	7	63.6

– Quantity is zero.

<sup>1</sup> Inadequate care is care that began in the third trimester or the total number of visits was less than 5.

<sup>2</sup> Rates per 1,000 females 15-19 years of age.

<sup>3</sup> Rates per 1,000 births to 15-19 year olds.

WARNING: Rates based on less than 5 events are unreliable.

NOTE: Rates and percentages are calculated excluding missing and unknown values.

§ Rate is significantly different than the state rate.

**TABLE 4-9. Birth Outcomes of Infants by Age of Mother, Oregon Residents, 2003**

Birth Outcomes	Total Births	Mother's Age								
		<15	15	16	17	18	19	15-19	20+	N.S.
<b>Total Births</b>	45,935	47	157	369	699	1,182	1,709	4,116	41,763	9
<b>Birthweight<sup>1</sup></b>										
1499 Grams or Less										
<28 Weeks	209	1	3	4	6	6	5	24	184	—
28-36 Weeks	248	1	—	1	3	9	6	19	228	—
37-41 Weeks	9	—	—	—	—	—	—	—	9	—
42+ Weeks	—	—	—	—	—	—	—	—	—	—
Unknown	—	—	—	—	—	—	—	—	—	—
1500-2499 Grams										
<28 Weeks	1	—	—	—	—	—	—	—	1	—
28-36 Weeks	1,566	2	11	8	31	37	54	141	1,422	1
37-41 Weeks	783	—	3	5	14	18	34	74	709	—
42+ Weeks	2	—	—	—	—	—	—	—	2	—
Unknown	4	—	—	—	—	—	—	—	4	—
2500+ Grams										
<28 Weeks	—	—	—	—	—	—	—	—	—	—
28-36 Weeks	1,819	5	4	14	23	53	53	147	1,667	—
37-41 Weeks	40,552	38	134	330	610	1,040	1,533	3,647	36,860	7
42+ Weeks	666	—	2	6	11	16	23	58	608	—
Unknown	70	—	—	1	1	3	1	6	63	1
<b>5 Minute Apgar</b>										
0-3	196	—	3	4	7	8	4	26	170	—
4-6	627	1	3	9	10	16	25	63	563	—
7-10	44,932	46	150	355	680	1,154	1,675	4,014	40,864	8
Not Stated	180	—	1	1	2	4	5	13	166	1
<b>Tobacco Used</b>										
Yes	5,452	8	19	79	118	267	423	906	4,538	—
No	40,003	39	133	285	575	899	1,272	3,164	36,794	6
Unknown	480	—	5	5	6	16	14	46	431	3
<b>Alcohol Used</b>										
Yes	701	—	2	6	10	22	26	66	635	—
No	44,152	45	146	349	675	1,127	1,651	3,948	40,153	6
Unknown	1,082	2	9	14	14	33	32	102	975	3
<b>Birth Order</b>										
1 <sup>st</sup>	18,245	45	153	346	614	968	1,234	3,315	14,883	2
2 <sup>nd</sup>	14,846	2	3	23	78	198	404	706	14,136	2
3 <sup>rd</sup>	7,745	—	1	—	7	15	66	89	7,654	2
4 <sup>th</sup>	3,123	—	—	—	—	—	4	4	3,117	2
5+	1,949	—	—	—	—	—	—	—	1,948	1
Unknown	27	—	—	—	—	1	1	2	25	—
<b>Prenatal Care</b>										
No Care	541	2	6	5	12	22	25	70	468	1
Little or Late <sup>2</sup>	2,004	6	20	37	53	117	122	349	1,647	2
Adequate <sup>3</sup>	43,342	39	130	326	633	1,040	1,560	3,689	39,609	5
Unknown	48	—	1	1	1	3	2	8	39	1

— Quantity is zero.

1 The birthweight was unknown for 6 infants.

2 Less than 5 prenatal visits or care began in the third trimester.

3 Prenatal care began prior to the third trimester; patient made at least 5 visits to a medical provider.

**TABLE 4-10. Demographic Characteristics of Mother by Age, Oregon Residents, 2003**

Demographics of Mother	Total Births	Mother's Age								
		<15	15	16	17	18	19	15-19	20+	N.S.
<b>Total Births</b>	45,935	47	157	369	699	1,182	1,709	4,116	41,763	9
<b>Ethnicity/Race</b>										
Non-Hispanic White	32,989	18	60	204	391	777	1,159	2,591	30,374	6
Non-Hispanic African American	976	3	3	7	34	35	56	135	838	—
Non-Hispanic American Indian	706	2	11	8	25	32	49	125	578	1
Non-Hispanic Asian <sup>1</sup>	2,418	1	4	3	15	19	26	67	2,349	1
Total Hispanic	8,433	23	78	143	229	309	401	1,160	7,250	—
<b>Marital Status</b>										
Unmarried	14,553	46	153	339	624	949	1,224	3,289	11,218	—
Married	31,300	1	4	29	74	230	484	821	30,472	6
Unknown	82	—	—	1	1	3	1	6	73	3
<b>Education</b>										
8 <sup>th</sup> Grade or Less	2,774	32	37	42	65	87	118	349	2,393	—
9 <sup>th</sup> Grade	1,876	11	86	87	72	93	101	439	1,426	—
10 <sup>th</sup> Grade	1,773	2	26	139	167	144	157	633	1,138	—
11 <sup>th</sup> Grade	2,625	1	4	65	226	284	259	838	1,786	—
12 <sup>th</sup> Grade	14,353	—	—	23	143	517	871	1,554	12,795	4
Some College	10,572	—	—	—	5	43	179	227	10,342	3
College	6,549	—	—	—	—	—	3	3	6,546	—
Postbaccalaureate	4,648	—	—	—	—	—	—	—	4,648	—
Unknown	765	1	4	13	21	14	21	73	689	2
<b>Other Children Now Alive</b>										
One	15,009	2	3	23	79	196	399	700	14,305	2
Two	7,725	—	1	—	5	13	65	84	7,639	2
Three	3,041	—	—	—	—	—	3	3	3,036	2
Four+	1,791	—	—	—	—	—	—	—	1,790	1
Unknown	15	—	—	—	—	1	1	2	13	—
<b>Start of Prenatal Care</b>										
1 <sup>st</sup> Trimester	37,207	23	83	216	458	774	1,154	2,685	34,494	5
2 <sup>nd</sup> Trimester	6,838	16	53	124	195	302	443	1,117	5,704	1
3 <sup>rd</sup> Trimester	1,313	6	14	24	34	82	85	239	1,067	1
No Care	535	2	6	5	12	21	25	69	463	1
Unknown	42	—	1	—	—	3	2	6	35	1
<b>Prenatal Care</b>										
Inadequate <sup>2</sup>	2,545	8	26	42	65	139	147	419	2,115	3
Adequate <sup>3</sup>	43,342	39	130	326	633	1,040	1,560	3,689	39,609	5
Unknown	48	—	1	1	1	3	2	8	39	1
<b>Source of Payment</b>										
Private Insurance	26,543	9	32	114	179	322	424	1,071	25,463	—
Medicaid/OHP*	16,927	33	105	231	473	783	1,195	2,787	14,107	—
Self-Pay	1,570	3	17	12	32	52	65	178	1,388	1
Other Coverage	54	—	—	1	—	1	2	4	50	—
Unknown Mention	772	2	3	11	13	20	22	69	693	8
Multiple Mention	69	—	—	—	2	4	1	7	62	—

— Quantity is zero.

<sup>1</sup> Includes Chinese, Japanese, Filipino, and Other Asian & Pacific Islander.

<sup>2</sup> Less than 5 prenatal visits or care began in the third trimester.

<sup>3</sup> Prenatal care began prior to the third trimester; patient made at least five visits to a medical provider.

\* Oregon Health Plan.

**TABLE 4-11. Demographic Characteristics of Abortion Patients by Age,  
Oregon Residents, 2003**

Demographics of Patient	Total <sup>1</sup>	Patient's Age								
		<15	15	16	17	18	19	15-19	20+	N.S.
<b>Total Abortions</b>	11,472	57	104	249	387	549	670	1,959	9,434	22
<b>Ethnicity/Race</b>										
Non-Hispanic White	8,595	44	81	196	294	437	489	1,497	7,039	15
Non-Hispanic African American	732	3	6	15	29	28	49	127	599	3
Non-Hispanic American Indian	199	3	3	5	5	7	17	37	159	–
Non-Hispanic Asian <sup>2</sup>	653	–	4	5	13	20	23	65	588	–
Total Hispanic	1,261	6	11	29	46	56	90	232	1,020	3
<b>Marital Status</b>										
Unmarried	8,500	46	99	230	370	508	616	1,823	6,617	14
Married	2,441	1	–	5	5	15	30	55	2,379	6
Unknown	531	10	5	14	12	26	24	81	438	2
<b>Education</b>										
8 <sup>th</sup> Grade or Less	310	35	19	10	4	7	11	51	223	1
9 <sup>th</sup> Grade	327	10	59	43	12	19	20	153	164	–
10 <sup>th</sup> Grade	546	–	20	122	82	31	37	292	253	1
11 <sup>th</sup> Grade	919	–	1	51	188	123	69	432	483	4
12 <sup>th</sup> Grade	4,448	1	–	8	80	295	372	755	3,684	8
Some College	2,834	–	–	2	6	49	134	191	2,639	4
College/Postbaccalaureate	1,678	–	–	–	1	2	3	6	1,671	1
Unknown	410	11	5	13	14	23	24	79	317	3
<b>Children Now Alive</b>										
One	2,796	1	4	14	41	80	154	293	2,494	8
Two	2,198	–	–	–	1	14	30	45	2,148	5
Three	790	–	–	–	–	–	3	3	786	1
Four+	382	–	–	–	1	–	–	1	381	–
Unknown	310	10	4	11	11	18	18	62	236	2
<b>Previous Abortions</b>										
None	6,341	56	100	230	345	457	489	1,621	4,654	10
One	2,982	1	4	17	37	78	131	267	2,705	9
Two	1,272	–	–	2	4	13	35	54	1,218	–
Three+	827	–	–	–	–	1	11	12	814	1
Unknown	50	–	–	–	1	–	4	5	43	2
<b>Gestation</b>										
Eight Weeks or Less	7,250	33	50	127	213	285	386	1,061	6,143	13
9-12	2,734	12	33	77	106	164	186	566	2,150	6
13-16	745	7	7	27	42	46	54	176	562	–
17+	671	5	14	18	25	50	40	147	518	1
Unknown	66	–	–	–	1	4	4	9	55	2
<b>Contraceptive Used</b>										
None Used	7,336	30	80	176	271	363	445	1,335	5,957	14
Pills Used	1,109	3	3	10	43	64	76	196	907	3
Condom Used	2,024	13	15	42	57	85	107	306	1,702	3
Other/Unknown Used	813	1	3	9	12	25	29	78	733	1
<b>Medical Procedure</b>										
Suction Curettage	8,673	47	77	200	308	411	514	1,510	7,102	14
Dilation Evacuation	908	6	18	27	37	66	55	203	699	–
Other Specified	1,883	4	8	22	41	72	101	244	1,628	7

– Quantity is zero.

<sup>1</sup> Includes all abortions known to have been obtained in-state by Oregon residents.

<sup>2</sup> Includes Chinese, Japanese, Filipino, and Other Asian & Pacific Islander.

**TABLE 4-12. Age of Father by Age of Mother, Oregon Residents, 2003**

Father's Age	Total	Mother's Age								
		<15	15	16	17	18	19	20-24	25+	N.S.
Total	45,935	47	157	369	699	1,182	1,709	11,901	29,862	9
<15	1	1	—	—	—	—	—	—	—	—
15	22	3	12	2	1	2	1	1	—	—
16	73	3	15	22	20	6	6	1	—	—
17	173	3	14	38	56	36	16	9	1	—
18	359	2	8	41	89	83	66	64	6	—
19	669	1	13	42	75	138	167	204	29	—
20	981	2	7	35	73	144	213	461	46	—
21	1,125	—	3	25	56	104	197	651	89	—
22	1,534	1	3	18	21	97	170	1,028	196	—
23	1,751	—	3	11	28	88	132	1,213	276	—
24	1,920	—	1	5	24	52	101	1,256	481	—
25+	32,914	1	6	9	55	143	305	5,473	26,922	—
N.S.	4,413	30	72	121	201	289	335	1,540	1,816	9

— Quantity is zero.

**TABLE 4-13. Age of Father by Age of Mother, Oregon Residents, 1999-2003**

Father's Age	Total	Mother's Age								
		<15	15	16	17	18	19	20-24	25+	N.S.
Total	227,422	316	897	2,354	4,210	6,834	9,631	60,303	142,845	32
<15	16	8	4	2	—	1	—	1	—	—
15	106	18	39	21	11	11	1	4	1	—
16	357	14	71	99	89	56	15	12	1	—
17	955	18	74	210	262	206	102	77	6	—
18	2,216	16	94	308	480	562	353	365	37	1
19	3,741	14	68	269	498	798	881	1,089	124	—
20	5,168	15	44	180	451	801	1,150	2,307	220	—
21	6,410	6	37	132	331	734	1,143	3,586	441	—
22	7,994	7	24	98	245	557	1,032	5,258	773	—
23	8,858	4	14	57	175	413	716	6,081	1,398	—
24	9,801	1	7	49	115	277	583	6,372	2,396	1
25+	159,232	12	31	104	326	853	1,740	27,254	128,910	2
N.S.	22,568	183	390	825	1,227	1,565	1,915	7,897	8,538	28

— Quantity is zero.

**TABLE A-1. Population Distribution by Age and Sex, Oregon, 1950, 1960, 1970, 1975, 1980, 1985, 1990-2003**

Year and Sex	Total	Age Groups															
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+
<b>1950</b>	1,521,341	163,915	131,596	108,140	96,738	105,070	117,706	116,800	117,361	105,575	93,228	86,118	77,843	68,230	54,455	37,095	41,471
M	772,776	83,614	67,244	55,528	47,652	51,469	57,940	57,930	59,391	54,452	48,574	44,802	40,426	36,027	28,498	19,085	20,144
F	748,565	80,301	64,352	52,612	49,086	53,601	59,766	58,870	57,970	51,123	44,654	41,316	37,417	32,203	25,957	18,010	21,327
<b>1960</b>	1,768,675	185,403	189,333	170,768	131,315	95,773	96,636	107,999	118,152	116,218	114,074	101,313	87,606	74,007	65,908	52,734	61,436
M	879,929	94,330	96,553	87,191	64,463	46,011	47,318	52,924	57,451	57,832	57,574	52,052	43,615	37,003	32,257	25,175	28,180
F	888,746	91,073	92,780	83,577	66,852	49,762	49,318	55,075	60,701	58,386	56,500	49,261	43,991	37,004	33,651	27,559	33,256
<b>1970</b>	2,091,385	164,060	194,345	211,284	203,362	162,638	138,978	115,599	107,832	117,950	124,395	118,996	110,739	94,408	75,601	60,321	90,877
M	1,023,952	83,836	99,274	107,664	100,952	75,549	68,827	57,764	52,738	57,790	60,407	58,563	54,576	45,809	35,886	26,956	37,361
F	1,067,433	80,224	95,071	103,620	102,410	87,089	70,151	57,835	55,094	60,160	63,988	60,433	56,163	48,599	39,715	33,365	53,516
<b>1975</b>	2,292,734	166,930	176,125	211,149	224,538	222,013	180,346	152,553	122,891	114,611	120,938	125,783	117,631	106,710	86,844	66,077	97,597
M	1,120,178	85,331	89,859	107,668	114,204	108,866	84,271	76,482	61,305	55,959	58,944	60,547	56,993	51,149	40,571	29,622	38,407
F	1,172,556	81,599	86,266	103,481	110,334	113,146	96,075	76,071	61,586	58,652	61,994	65,236	60,638	55,561	46,273	36,455	59,190
<b>1980</b>	2,632,663	197,951	189,293	202,546	225,814	237,788	253,472	227,565	170,694	133,101	119,249	124,344	129,886	117,676	105,165	79,367	118,752
M	1,296,355	101,815	96,965	103,594	114,690	117,800	126,867	115,071	86,047	67,073	58,948	60,356	62,001	56,031	49,287	35,404	44,406
F	1,336,308	96,136	92,328	98,952	111,124	119,988	126,605	112,494	84,647	66,028	60,301	63,988	67,885	61,645	55,878	43,963	74,346
<b>1985</b>	2,675,800	198,995	195,271	184,845	197,808	215,641	227,827	243,741	222,457	165,140	128,521	112,530	115,551	118,327	113,657	93,372	142,117
M	1,313,949	101,338	100,344	94,619	101,111	109,413	112,518	121,577	112,168	83,090	64,509	55,332	55,429	55,393	52,316	41,694	53,098
F	1,361,851	97,657	94,927	90,226	96,697	106,228	115,309	122,164	110,289	82,050	64,012	57,198	60,122	62,934	61,341	51,678	89,019
<b>1990</b>	2,847,000	203,678	205,765	199,955	190,781	199,581	221,902	233,898	249,986	223,597	166,333	128,276	112,111	112,679	120,405	99,641	178,413
M	1,396,242	104,769	106,052	102,738	97,540	101,520	112,129	115,287	124,674	112,602	83,400	63,928	54,393	52,976	54,892	43,473	65,870
F	1,450,758	98,909	99,713	97,217	93,241	98,061	109,773	118,611	125,312	110,995	82,933	64,348	57,718	59,703	65,513	56,168	112,543
<b>1991</b>	2,930,000	213,789	216,325	213,018	191,353	197,708	208,392	242,260	256,348	241,789	173,728	136,221	115,980	119,464	122,668	104,389	176,568
M	1,440,221	109,314	111,143	109,057	98,310	100,273	105,635	120,453	127,437	121,245	87,254	67,836	56,314	56,341	56,351	46,435	66,823
F	1,489,779	104,475	105,182	103,961	93,043	97,435	102,757	121,807	128,911	120,544	86,474	68,385	59,666	63,123	66,317	57,954	109,745
<b>1992</b>	2,979,000	217,940	217,090	214,983	195,858	203,918	205,434	239,514	258,908	244,961	194,079	144,574	118,598	116,262	121,730	108,014	177,137
M	1,466,610	112,089	111,233	110,140	100,794	103,741	104,300	119,323	128,677	122,474	97,351	72,091	57,903	54,932	55,914	48,097	67,551
F	1,512,390	105,851	105,857	104,843	95,064	100,177	101,134	120,191	130,231	122,487	96,728	72,483	60,695	61,330	65,816	59,917	109,586
<b>1993</b>	3,038,000	224,939	216,116	218,756	203,348	209,199	204,576	238,809	260,400	251,059	205,319	152,790	120,968	115,116	121,313	111,552	183,740
M	1,495,551	115,151	110,546	112,259	104,204	106,918	104,012	119,252	129,191	125,233	102,879	76,383	59,035	54,266	55,988	49,604	70,630
F	1,542,449	109,788	105,570	106,497	99,144	102,281	100,564	119,557	131,209	125,826	102,440	76,407	61,933	60,850	65,325	61,948	113,110

**TABLE A-1. Population Distribution by Age and Sex, Oregon, 1950, 1960, 1970, 1975, 1980, 1985, 1990-2003 (Continued)**

Year and Sex	Total	Age Groups															
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+
<b>1994</b>	3,082,000	228,650	218,658	222,394	209,032	214,579	203,053	233,132	257,033	256,634	216,758	160,859	124,151	112,391	120,767	113,874	190,035
M	1,516,836	117,546	111,748	114,132	106,906	109,861	102,570	116,584	127,635	127,477	108,569	80,459	60,835	53,182	56,075	50,587	72,668
F	1,565,164	111,104	106,910	108,262	102,126	104,718	100,481	116,548	129,398	129,157	108,189	80,400	63,316	59,209	64,692	62,287	117,367
<b>1995</b>	3,132,000	231,584	225,513	222,660	213,595	208,322	199,568	232,116	258,273	264,101	232,380	170,663	129,959	113,424	121,428	113,812	194,602
M	1,543,133	118,939	115,314	114,532	109,361	106,964	101,281	116,723	128,027	130,894	116,149	85,147	64,015	53,857	56,309	50,528	75,093
F	1,588,867	112,645	110,199	108,128	104,234	101,358	98,287	115,393	130,246	133,207	116,231	85,516	65,944	59,567	65,119	63,284	119,509
<b>1996</b>	3,181,000	233,523	227,533	223,118	221,021	210,106	204,872	226,069	258,725	266,757	248,215	175,889	137,004	114,195	120,260	113,338	200,375
M	1,566,932	119,872	116,490	114,560	112,700	108,335	103,960	114,107	128,330	132,074	123,879	87,740	67,582	54,443	55,793	50,378	76,689
F	1,614,068	113,651	111,043	108,558	108,321	101,771	100,912	111,962	130,395	134,683	124,336	88,149	69,422	59,752	64,467	62,960	123,686
<b>1997</b>	3,217,000	231,023	229,318	223,940	229,066	216,134	206,595	219,687	255,281	269,136	249,316	192,710	142,154	115,901	118,342	113,382	205,015
M	1,585,778	118,672	117,666	114,812	117,278	110,995	104,822	110,989	126,785	133,109	124,192	96,123	70,037	55,565	54,885	50,545	79,303
F	1,631,222	112,351	111,652	109,128	111,788	105,139	101,773	108,698	128,496	136,027	125,124	96,587	72,117	60,336	63,457	62,837	125,712
<b>1998</b>	3,267,550	216,270	225,755	233,772	238,498	205,409	208,599	227,758	264,229	278,458	254,656	201,902	149,998	123,399	117,429	110,808	210,610
M	1,616,250	110,610	115,817	120,141	123,211	105,811	105,501	113,540	132,531	140,697	128,089	100,799	72,906	59,060	54,968	49,739	82,830
F	1,651,300	105,660	109,938	113,631	115,287	99,598	103,098	114,218	131,698	137,761	126,567	101,103	77,092	64,339	62,461	61,069	127,780
<b>1999</b>	3,300,800	219,527	226,789	235,796	243,007	209,296	206,740	222,194	259,743	276,330	259,973	211,826	160,646	128,037	115,151	110,524	215,221
M	1,629,897	112,126	116,290	121,080	125,200	107,042	103,662	110,184	129,946	139,523	130,560	105,568	78,041	61,304	53,926	50,053	85,393
F	1,670,903	107,401	110,499	114,716	117,807	102,255	103,077	112,010	129,797	136,807	129,413	106,258	82,606	66,733	61,225	60,471	129,828
<b>2000</b>	3,421,399	223,005	234,474	242,098	244,427	230,406	233,850	236,845	255,751	270,823	271,315	235,840	173,008	131,380	112,614	106,728	218,835
M	1,696,550	114,006	120,115	124,235	125,429	118,100	121,031	122,237	129,083	134,072	134,761	117,417	85,369	64,218	53,193	48,510	84,774
F	1,724,849	108,999	114,359	117,863	118,998	112,306	112,819	114,608	126,668	136,751	136,554	118,423	87,639	67,162	59,421	58,218	134,061
<b>2001</b>	3,471,700	226,401	238,102	245,858	248,078	233,672	237,225	240,353	259,636	274,967	275,401	239,420	175,643	133,350	114,046	108,064	221,484
M	1,721,063	115,854	122,068	126,161	127,300	119,797	122,845	123,903	131,103	136,095	136,730	119,229	86,575	65,245	53,832	49,142	85,186
F	1,750,637	110,547	116,034	119,697	120,778	113,875	114,380	116,450	128,533	138,872	138,671	120,191	89,069	68,105	60,214	58,923	136,297
<b>2002</b>	3,504,700	227,668	240,525	248,332	250,518	235,989	239,632	242,805	262,277	277,752	278,150	241,802	177,357	134,599	115,039	108,983	223,273
M	1,737,468	116,502	123,310	127,431	128,552	120,984	124,091	125,167	132,437	137,473	138,095	120,415	87,420	65,856	54,300	49,559	85,876
F	1,767,232	111,166	117,215	120,902	121,965	115,004	115,541	117,638	129,840	140,279	140,055	121,387	89,938	68,743	60,739	59,423	137,397
<b>2003</b>	3,541,500	228,681	243,209	251,015	253,202	238,586	242,417	245,610	265,216	280,796	281,125	244,359	179,190	135,956	116,295	110,163	225,680
M	1,755,699	117,020	124,686	128,807	129,929	122,316	125,533	126,613	133,921	138,980	139,572	121,689	88,323	66,520	54,893	50,096	86,801
F	1,785,801	111,661	118,523	122,208	123,273	116,270	116,884	118,997	131,295	141,816	141,553	122,670	90,867	69,436	61,402	60,067	138,879

Source: 1950, 1960, 1970, 1980, 1990, and 2000 data are U.S. Census. All other years' data are estimates provided by Center for Population Research and Census, Portland State University.

TABLE A-2. Population Estimates for Oregon and Its Counties by Age and Sex: July 1, 2003

County	Both Sexes																		
	All Ages	0-4	5-9	10-14	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+
<b>Oregon</b>	<b>3,541,500</b>	<b>228,681</b>	<b>243,208</b>	<b>251,016</b>	<b>152,885</b>	<b>100,317</b>	<b>238,586</b>	<b>242,417</b>	<b>245,611</b>	<b>265,215</b>	<b>280,796</b>	<b>281,125</b>	<b>244,359</b>	<b>179,190</b>	<b>135,955</b>	<b>116,295</b>	<b>110,164</b>	<b>98,051</b>	<b>127,629</b>
Baker	16,500	846	1,003	1,274	798	374	588	645	830	1,095	1,281	1,306	1,166	1,026	948	874	824	657	967
Benton	80,500	3,987	4,553	5,179	3,438	4,829	11,358	5,625	4,783	5,171	5,949	6,341	5,110	3,441	2,387	2,139	1,999	1,810	2,402
Clackamas	353,450	20,687	26,033	27,775	16,032	9,236	19,578	20,398	22,814	27,737	31,279	31,276	27,808	20,244	13,421	10,323	9,450	8,517	10,842
Clatsop	36,300	1,974	2,216	2,566	1,775	1,153	2,049	1,854	1,970	2,513	2,830	3,200	2,732	2,016	1,705	1,526	1,434	1,202	1,585
Columbia	45,000	2,632	3,373	3,820	2,236	1,082	2,104	2,329	2,923	3,556	3,866	3,833	3,374	2,643	1,847	1,523	1,363	1,130	1,364
Coos	63,000	3,146	3,569	4,333	2,735	1,705	2,790	2,837	3,188	4,122	4,873	5,116	4,757	4,009	3,556	3,333	3,095	2,537	3,297
Crook	20,300	1,126	1,469	1,586	1,051	460	1,086	1,148	1,176	1,339	1,557	1,477	1,518	1,196	1,083	884	814	584	748
Curry	21,100	774	1,067	1,309	742	385	638	670	847	1,176	1,476	1,606	1,553	1,486	1,476	1,561	1,587	1,386	1,361
Deschutes	130,500	7,260	9,011	9,896	5,758	3,230	7,156	8,151	8,628	9,966	11,094	11,065	9,692	7,267	5,987	4,740	4,246	3,373	3,980
Douglas	101,800	5,471	6,478	7,526	4,616	2,689	5,026	4,837	5,400	6,622	7,770	7,995	7,464	6,090	5,354	5,224	4,722	3,905	4,612
Gilliam	1,900	88	118	141	87	40	66	84	99	126	172	153	132	104	107	97	95	98	93
Grant	7,650	370	545	573	400	188	248	339	372	513	610	630	579	488	428	383	320	246	417
Harney	7,300	434	520	597	331	147	299	339	395	547	606	564	508	405	376	388	297	244	304
Hood River	20,500	1,626	1,610	1,614	945	537	1,166	1,331	1,388	1,586	1,680	1,586	1,206	901	692	669	609	539	814
Jackson	189,100	10,564	12,882	13,807	8,599	5,089	11,416	10,468	10,951	12,858	14,481	15,384	14,103	10,761	8,269	7,379	7,138	6,568	8,385
Jefferson	19,900	1,544	1,624	1,743	932	461	1,047	1,197	1,279	1,395	1,344	1,289	1,211	1,036	984	935	774	473	632
Josephine	78,350	3,895	4,975	5,629	3,360	1,780	3,259	3,509	4,020	4,946	5,726	6,099	5,899	5,070	4,302	4,171	3,887	3,653	4,173
Klamath	64,600	4,110	4,659	4,949	2,866	1,746	3,791	3,676	3,674	4,377	4,715	5,058	4,588	3,571	3,027	2,819	2,519	2,033	2,422
Lake	7,400	366	478	586	381	124	250	342	348	472	607	621	550	464	418	410	359	297	328
Lane	329,400	18,455	20,415	22,198	14,115	10,996	28,128	22,037	20,858	22,853	24,939	27,013	23,574	16,893	12,818	10,960	10,870	9,827	12,453
Lincoln	45,000	2,160	2,503	3,020	1,999	986	1,935	1,950	2,321	2,885	3,498	3,930	3,669	2,922	2,638	2,504	2,199	1,839	2,041
Linn	104,900	7,055	7,460	7,864	4,797	2,850	5,934	6,266	6,654	7,523	7,874	7,908	7,127	5,745	4,490	3,901	3,724	3,337	4,391
Malheur	32,000	2,455	2,461	2,424	1,486	1,038	2,363	2,033	2,122	2,275	2,219	2,196	1,779	1,489	1,227	1,117	1,094	902	1,321
Marion	295,900	22,814	22,605	22,041	13,707	9,241	21,386	21,102	20,833	21,593	21,709	20,859	18,259	13,458	10,447	8,898	8,571	7,907	10,471
Morrow	11,750	832	1,057	980	580	388	707	747	713	829	956	868	734	589	482	423	341	253	271
Multnomah	677,850	47,045	42,129	40,588	24,827	17,848	50,911	60,598	57,514	55,044	54,744	54,448	45,377	30,108	21,380	17,586	17,705	16,648	23,349
Polk	64,000	3,688	4,442	4,890	3,106	2,255	5,117	3,459	3,645	4,188	4,633	5,005	4,374	3,268	2,453	2,265	2,084	2,054	3,074
Sherman	1,900	83	122	179	90	50	69	61	80	133	161	150	131	113	96	95	119	78	90
Tillamook	24,900	1,189	1,520	1,673	1,071	606	1,051	1,100	1,256	1,572	1,887	1,980	1,917	1,586	1,447	1,446	1,414	1,022	1,162
Umatilla	71,100	5,227	5,579	5,407	3,419	2,146	4,641	4,760	4,742	5,321	5,327	5,298	4,406	3,360	2,762	2,217	2,189	1,894	2,405
Union	24,650	1,518	1,582	1,810	1,238	923	2,013	1,293	1,202	1,480	1,786	2,003	1,755	1,299	1,069	981	839	701	1,156
Wallowa	7,150	299	412	600	370	133	215	259	270	456	563	723	560	464	398	385	374	291	380
Wasco	23,550	1,473	1,611	1,731	1,117	549	1,189	1,211	1,312	1,566	1,846	1,835	1,757	1,295	1,097	989	951	905	1,117
Washington	472,600	37,389	36,461	33,716	19,549	11,828	32,132	40,239	40,952	40,568	39,585	35,637	29,538	20,142	13,724	10,518	9,573	8,873	12,175
Wheeler	1,550	50	77	110	93	19	31	50	75	84	88	124	108	139	121	116	108	76	80
Yamhill	88,150	6,051	6,589	6,882	4,240	3,207	6,849	5,471	5,977	6,729	7,063	6,549	5,347	4,101	2,936	2,515	2,480	2,194	2,970

Source: Center for Population Research and Census, Portland State University.

TABLE A-2. Population Estimates for Oregon and Its Counties by Age and Sex: July 1, 2003 (Continued)

County	Female																		
	All Ages	0-4	5-9	10-14	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+
<b>Oregon</b>	<b>1,785,801</b>	<b>111,661</b>	<b>118,523</b>	<b>122,208</b>	<b>74,433</b>	<b>48,840</b>	<b>116,270</b>	<b>116,884</b>	<b>118,997</b>	<b>131,295</b>	<b>141,816</b>	<b>141,553</b>	<b>122,670</b>	<b>90,867</b>	<b>69,436</b>	<b>61,402</b>	<b>60,067</b>	<b>56,481</b>	<b>82,398</b>
Baker	8,442	413	489	620	388	182	287	311	402	542	647	658	585	520	484	462	449	378	625
Benton	40,375	1,947	2,219	2,521	1,674	2,351	5,535	2,712	2,317	2,560	3,004	3,193	2,565	1,745	1,219	1,129	1,090	1,042	1,550
Clackamas	177,913	10,101	12,686	13,522	7,805	4,496	9,541	9,835	11,053	13,731	15,797	15,748	13,960	10,266	6,854	5,451	5,152	4,906	7,006
Clatsop	18,418	964	1,080	1,249	864	561	998	894	955	1,244	1,430	1,611	1,371	1,022	871	806	782	693	1,023
Columbia	22,664	1,285	1,644	1,860	1,089	527	1,025	1,123	1,416	1,760	1,953	1,930	1,694	1,340	943	804	743	651	876
Coos	32,172	1,536	1,740	2,109	1,332	830	1,360	1,368	1,545	2,041	2,461	2,576	2,388	2,033	1,816	1,760	1,688	1,461	2,128
Crook	10,267	550	716	772	511	224	529	553	570	663	787	744	762	607	553	467	444	336	481
Curry	10,914	378	520	637	361	188	311	323	410	582	746	809	780	754	754	824	865	798	874
Deschutes	65,770	3,545	4,392	4,818	2,803	1,572	3,488	3,930	4,180	4,934	5,603	5,571	4,865	3,685	3,058	2,503	2,315	1,943	2,566
Douglas	51,792	2,671	3,157	3,664	2,247	1,309	2,450	2,332	2,616	3,278	3,924	4,026	3,747	3,088	2,734	2,758	2,575	2,249	2,966
Gilliam	972	43	58	68	42	19	32	40	48	62	87	77	66	52	55	51	52	56	61
Grant	3,901	180	265	279	195	92	121	164	180	254	308	317	291	247	219	202	175	142	270
Harey	3,705	212	253	291	161	72	146	163	191	271	306	284	255	205	192	205	162	141	195
Hood River	10,340	794	785	786	460	262	568	642	672	785	848	799	606	457	353	353	332	310	527
Jackson	95,904	5,158	6,278	6,722	4,186	2,477	5,563	5,047	5,306	6,365	7,314	7,746	7,080	5,457	4,223	3,896	3,892	3,783	5,410
Jefferson	10,028	754	792	849	454	225	510	577	620	691	679	649	608	525	502	494	422	273	406
Josephine	40,054	1,902	2,425	2,740	1,636	866	1,588	1,692	1,947	2,449	2,892	3,071	2,961	2,571	2,197	2,202	2,119	2,104	2,692
Klamath	32,681	2,007	2,270	2,409	1,395	850	1,847	1,772	1,780	2,167	2,382	2,547	2,303	1,811	1,546	1,488	1,373	1,171	1,561
Lake	3,770	179	233	285	185	60	122	165	169	234	306	312	276	235	213	216	196	171	211
Lane	166,295	9,011	9,949	10,807	6,872	5,353	13,707	10,625	10,105	11,313	12,596	13,602	11,834	8,566	6,547	5,787	5,927	5,661	8,032
Lincoln	22,940	1,055	1,220	1,471	973	480	943	940	1,125	1,428	1,767	1,979	1,842	1,482	1,347	1,322	1,199	1,059	1,309
Linn	53,081	3,445	3,636	3,829	2,335	1,387	2,892	3,021	3,224	3,724	3,977	3,982	3,578	2,913	2,293	2,060	2,030	1,922	2,832
Malheur	16,152	1,199	1,199	1,180	723	505	1,152	980	1,028	1,126	1,121	1,106	893	755	627	590	596	520	852
Marion	148,925	11,140	11,016	10,731	6,673	4,499	10,422	10,174	10,093	10,690	10,964	10,503	9,166	6,824	5,336	4,698	4,673	4,555	6,768
Morrow	5,894	406	515	477	282	189	344	360	346	411	483	437	368	298	246	223	186	146	175
Multnomah	340,833	22,971	20,531	19,761	12,087	8,689	24,810	29,218	27,865	27,250	27,649	27,416	22,780	15,268	10,919	9,285	9,654	9,590	15,090
Polk	32,439	1,801	2,165	2,381	1,512	1,098	2,494	1,668	1,766	2,073	2,340	2,520	2,196	1,657	1,253	1,196	1,136	1,183	2,001
Sherman	970	41	59	87	44	24	34	29	39	66	81	76	66	57	49	50	65	45	58
Tillamook	12,709	580	741	814	522	295	512	530	608	778	953	997	963	804	739	764	771	589	748
Umatilla	35,791	2,552	2,719	2,633	1,665	1,045	2,261	2,295	2,297	2,634	2,690	2,668	2,212	1,704	1,411	1,171	1,194	1,091	1,550
Union	12,492	741	771	881	603	449	981	623	582	733	902	1,009	881	659	546	518	457	404	751
Wallowa	3,656	146	201	292	180	65	105	125	131	226	284	364	281	235	203	203	204	168	245
Wasco	11,970	719	785	843	544	267	579	584	635	775	932	924	882	657	560	522	519	521	721
Washington	236,441	18,256	17,768	16,415	9,518	5,759	15,659	19,402	19,841	20,083	19,992	17,944	14,828	10,214	7,009	5,553	5,220	5,111	7,868
Wheeler	797	24	38	54	45	9	15	24	36	42	45	63	54	71	62	61	59	44	52
Yamhill	44,335	2,955	3,211	3,351	2,064	1,561	3,338	2,638	2,896	3,331	3,567	3,298	2,684	2,080	1,499	1,328	1,352	1,264	1,918

Source: Center for Population Research and Census, Portland State University.

TABLE A-2. Population Estimates for Oregon and Its Counties by Age and Sex: July 1, 2003 (Continued)

County	Male																		
	All Ages	0-4	5-9	10-14	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+
<b>Oregon</b>	<b>1,755,699</b>	<b>117,020</b>	<b>124,686</b>	<b>128,807</b>	<b>78,452</b>	<b>51,477</b>	<b>122,316</b>	<b>125,533</b>	<b>126,613</b>	<b>133,921</b>	<b>138,980</b>	<b>139,572</b>	<b>121,689</b>	<b>88,323</b>	<b>66,520</b>	<b>54,893</b>	<b>50,096</b>	<b>41,570</b>	<b>45,231</b>
Baker	8,058	433	514	654	409	192	302	334	428	553	634	648	580	506	464	413	375	278	342
Benton	40,125	2,040	2,334	2,657	1,764	2,478	5,823	2,913	2,466	2,611	2,944	3,148	2,545	1,696	1,168	1,010	909	767	852
Clackamas	175,537	10,586	13,346	14,253	8,227	4,739	10,037	10,563	11,761	14,006	15,482	15,528	13,848	9,979	6,567	4,873	4,297	3,611	3,836
Clatsop	17,882	1,010	1,136	1,317	911	592	1,050	960	1,016	1,269	1,401	1,589	1,360	994	834	720	652	510	562
Columbia	22,336	1,347	1,729	1,960	1,148	555	1,078	1,206	1,507	1,795	1,914	1,903	1,680	1,303	904	719	620	479	489
Coos	30,828	1,610	1,830	2,223	1,404	875	1,431	1,469	1,644	2,081	2,412	2,540	2,369	1,976	1,740	1,573	1,407	1,076	1,169
Crook	10,033	576	753	814	539	236	557	594	606	676	771	733	756	590	530	417	370	247	268
Curry	10,186	396	547	672	381	198	327	347	436	594	731	798	773	733	722	737	722	588	486
Deschutes	64,730	3,715	4,620	5,078	2,955	1,657	3,669	4,221	4,448	5,032	5,491	5,493	4,826	3,582	2,929	2,238	1,931	1,430	1,415
Douglas	50,008	2,799	3,321	3,862	2,369	1,380	2,577	2,505	2,784	3,344	3,846	3,969	3,717	3,002	2,619	2,466	2,147	1,655	1,646
Gilliam	928	45	61	72	45	21	34	43	51	64	85	76	66	51	53	46	43	41	33
Grant	3,749	189	279	294	205	97	127	176	192	259	302	313	289	241	210	181	146	104	147
Hamey	3,595	222	267	307	170	75	153	175	204	276	300	280	253	200	184	183	135	103	108
Hood River	10,160	832	825	828	485	276	598	689	715	801	831	788	601	444	339	316	277	228	286
Jackson	93,196	5,406	6,604	7,085	4,412	2,611	5,853	5,421	5,645	6,493	7,168	7,638	7,023	5,304	4,046	3,483	3,246	2,784	2,975
Jefferson	9,872	790	833	894	478	237	537	620	660	704	665	640	603	511	481	441	352	201	225
Josephine	38,296	1,993	2,551	2,888	1,724	913	1,671	1,817	2,072	2,498	2,834	3,028	2,937	2,499	2,105	1,969	1,768	1,549	1,481
Klamath	31,919	2,103	2,388	2,540	1,471	896	1,944	1,903	1,894	2,210	2,334	2,511	2,285	1,760	1,481	1,331	1,145	862	861
Lake	3,630	187	245	301	195	63	128	177	179	238	300	308	274	229	205	193	163	126	117
Lane	163,105	9,444	10,466	11,391	7,243	5,643	14,420	11,411	10,752	11,540	12,344	13,411	11,739	8,326	6,272	5,173	4,943	4,166	4,420
Lincoln	22,060	1,106	1,283	1,550	1,026	506	992	1,010	1,197	1,457	1,732	1,951	1,827	1,440	1,291	1,182	1,000	780	732
Linn	51,819	3,610	3,825	4,036	2,461	1,462	3,042	3,245	3,430	3,799	3,897	3,926	3,549	2,832	2,197	1,841	1,693	1,415	1,559
Malheur	15,848	1,256	1,262	1,244	763	532	1,212	1,053	1,094	1,149	1,098	1,090	886	734	600	527	497	382	468
Marion	146,975	11,674	11,589	11,310	7,034	4,742	10,964	10,927	10,739	10,904	10,745	10,356	9,093	6,633	5,112	4,200	3,898	3,352	3,703
Morrow	5,856	426	542	503	297	199	362	387	368	419	473	431	365	290	236	200	155	107	96
Multnomah	337,017	24,074	21,598	20,828	12,740	9,159	26,100	31,380	29,649	27,795	27,096	27,032	22,597	14,840	10,461	8,301	8,051	7,058	8,258
Polk	31,561	1,887	2,277	2,509	1,594	1,157	2,624	1,791	1,879	2,115	2,293	2,485	2,178	1,611	1,200	1,069	947	871	1,073
Sherman	930	43	63	92	46	26	35	32	41	67	80	75	65	56	47	45	54	33	32
Tillamook	12,191	608	779	858	550	311	539	570	647	794	934	983	955	782	708	683	643	433	415
Umatilla	35,309	2,675	2,860	2,775	1,754	1,101	2,379	2,465	2,444	2,687	2,636	2,630	2,194	1,656	1,352	1,047	995	803	854
Union	12,158	777	811	929	635	474	1,032	670	620	747	884	995	874	640	523	463	382	297	406
Wallowa	3,494	153	211	308	190	68	110	134	139	230	279	359	279	229	195	182	170	123	135
Wasco	11,580	754	826	888	573	282	609	627	676	791	914	911	875	638	537	467	433	384	396
Washington	236,159	19,132	18,692	17,301	10,032	6,070	16,473	20,838	21,111	20,485	19,593	17,693	14,710	9,928	6,715	4,965	4,353	3,762	4,307
Wheeler	753	26	40	57	48	10	16	26	39	42	44	62	54	69	59	55	49	32	28
Yamhill	43,815	3,096	3,378	3,531	2,176	1,646	3,511	2,833	3,081	3,398	3,496	3,251	2,663	2,022	1,436	1,187	1,128	930	1,051

Source: Center for Population Research and Census, Portland State University.

**Table A-3. Forecasts of Oregon's County Populations and Components of Change, 2005 - 2040**

Area Name	2005	2010	2015	2020	2025	2030	2035	2040
Oregon	3,618,200	3,843,900	4,095,708	4,359,258	4,626,015	4,891,225	5,154,793	5,425,408
Baker	16,471	16,498	16,717	16,957	17,135	17,221	17,304	17,460
Benton	82,138	85,721	88,995	91,982	94,549	96,517	98,235	99,886
Clackamas	363,240	391,536	424,648	460,323	497,926	536,123	576,231	620,703
Clatsop	36,734	37,162	37,652	37,939	38,290	38,643	38,983	39,368
Columbia	45,977	48,292	50,882	53,562	56,354	59,024	61,623	64,411
Coos	63,112	63,386	63,897	64,259	64,634	64,929	64,919	64,839
Crook	21,035	23,051	25,249	27,590	30,125	32,796	35,569	38,553
Curry	21,115	21,530	22,112	22,671	23,057	23,225	23,299	23,432
Deschutes	139,994	158,792	178,418	197,150	214,479	229,933	244,069	257,088
Douglas	102,958	106,379	112,043	117,632	123,341	129,062	134,713	140,619
Gilliam	1,917	1,946	2,016	2,101	2,187	2,275	2,366	2,464
Grant	7,578	7,553	7,562	7,563	7,610	7,637	7,646	7,678
Harney	7,203	7,454	7,779	8,098	8,415	8,745	9,120	9,584
Hood River	20,698	21,998	23,485	25,027	26,667	28,404	30,310	32,498
Jackson	194,005	208,370	223,464	238,865	253,881	268,385	282,669	297,496
Jefferson	20,491	22,168	24,079	26,065	28,298	30,831	33,390	36,094
Josephine	79,956	84,186	89,211	94,385	100,001	105,552	111,133	117,216
Klamath	65,330	66,968	68,851	70,595	72,631	74,924	77,366	80,159
Lake	7,411	7,428	7,468	7,525	7,543	7,559	7,576	7,614
Lane	333,855	347,494	365,639	387,574	409,159	430,454	451,038	471,511
Lincoln	45,365	46,945	48,776	50,379	52,039	53,710	55,364	57,247
Linn	106,023	110,123	115,156	120,465	126,140	132,133	138,717	146,260
Malheur	32,328	33,826	35,552	37,312	39,122	40,854	42,629	44,519
Marion	302,913	323,128	344,443	367,018	388,898	410,022	429,824	448,671
Morrow	12,286	13,581	15,011	16,520	18,101	19,703	21,358	23,122
Multnomah	687,073	711,909	735,445	756,390	778,028	800,565	821,768	842,009
Polk	65,434	72,845	83,338	95,594	107,118	117,557	127,019	135,937
Sherman	1,893	1,933	1,986	2,043	2,081	2,102	2,127	2,165
Tillamook	25,401	26,589	27,897	29,097	30,094	30,887	31,538	32,146
Umatilla	71,495	75,271	79,701	85,242	90,660	95,844	101,001	106,149
Union	24,804	25,596	26,545	27,551	28,535	29,525	30,566	31,793
Wallowa	7,147	7,315	7,611	7,892	8,112	8,232	8,431	8,783
Wasco	23,420	23,753	24,297	24,896	25,670	26,563	27,522	28,653
Washington	489,742	542,678	599,377	660,367	723,669	788,162	854,164	920,852
Wheeler	1,557	1,563	1,591	1,597	1,614	1,622	1,636	1,652
Yamhill	90,098	98,932	108,812	119,011	129,850	141,505	153,549	166,776

Note: Total population estimates for July 1 of each time period. Release date: April 2004.

This information is from the Office of Economic Analysis, Department of Administrative Services, State of Oregon. Additional statewide population projections are also available on the Office of Economic Analysis website (<http://www.oea.state.or.us/DAS/OEA/demographic.shtml>).

**TABLE A-1. Population Distribution by Age and Sex, Oregon, 1950, 1960, 1970, 1975, 1980, 1985, 1990-2003**

Year and Sex	Total	Age Groups															
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+
<b>1950</b>	1,521,341	163,915	131,596	108,140	96,738	105,070	117,706	116,800	117,361	105,575	93,228	86,118	77,843	68,230	54,455	37,095	41,471
M	772,776	83,614	67,244	55,528	47,652	51,469	57,940	57,930	59,391	54,452	48,574	44,802	40,426	36,027	28,498	19,085	20,144
F	748,565	80,301	64,352	52,612	49,086	53,601	59,766	58,870	57,970	51,123	44,654	41,316	37,417	32,203	25,957	18,010	21,327
<b>1960</b>	1,768,675	185,403	189,333	170,768	131,315	95,773	96,636	107,999	118,152	116,218	114,074	101,313	87,606	74,007	65,908	52,734	61,436
M	879,929	94,330	96,553	87,191	64,463	46,011	47,318	52,924	57,451	57,832	57,574	52,052	43,615	37,003	32,257	25,175	28,180
F	888,746	91,073	92,780	83,577	66,852	49,762	49,318	55,075	60,701	58,386	56,500	49,261	43,991	37,004	33,651	27,559	33,256
<b>1970</b>	2,091,385	164,060	194,345	211,284	203,362	162,638	138,978	115,599	107,832	117,950	124,395	118,996	110,739	94,408	75,601	60,321	90,877
M	1,023,952	83,836	99,274	107,664	100,952	75,549	68,827	57,764	52,738	57,790	60,407	58,563	54,576	45,809	35,886	26,956	37,361
F	1,067,433	80,224	95,071	103,620	102,410	87,089	70,151	57,835	55,094	60,160	63,988	60,433	56,163	48,599	39,715	33,365	53,516
<b>1975</b>	2,292,734	166,930	176,125	211,149	224,538	222,013	180,346	152,553	122,891	114,611	120,938	125,783	117,631	106,710	86,844	66,077	97,597
M	1,120,178	85,331	89,859	107,668	114,204	108,866	84,271	76,482	61,305	55,959	58,944	60,547	56,993	51,149	40,571	29,622	38,407
F	1,172,556	81,599	86,266	103,481	110,334	113,146	96,075	76,071	61,586	58,652	61,994	65,236	60,638	55,561	46,273	36,455	59,190
<b>1980</b>	2,632,663	197,951	189,293	202,546	225,814	237,788	253,472	227,565	170,694	133,101	119,249	124,344	129,886	117,676	105,165	79,367	118,752
M	1,296,355	101,815	96,965	103,594	114,690	117,800	126,867	115,071	86,047	67,073	58,948	60,356	62,001	56,031	49,287	35,404	44,406
F	1,336,308	96,136	92,328	98,952	111,124	119,988	126,605	112,494	84,647	66,028	60,301	63,988	67,885	61,645	55,878	43,963	74,346
<b>1985</b>	2,675,800	198,995	195,271	184,845	197,808	215,641	227,827	243,741	222,457	165,140	128,521	112,530	115,551	118,327	113,657	93,372	142,117
M	1,313,949	101,338	100,344	94,619	101,111	109,413	112,518	121,577	112,168	83,090	64,509	55,332	55,429	55,393	52,316	41,694	53,098
F	1,361,851	97,657	94,927	90,226	96,697	106,228	115,309	122,164	110,289	82,050	64,012	57,198	60,122	62,934	61,341	51,678	89,019
<b>1990</b>	2,847,000	203,678	205,765	199,955	190,781	199,581	221,902	233,898	249,986	223,597	166,333	128,276	112,111	112,679	120,405	99,641	178,413
M	1,396,242	104,769	106,052	102,738	97,540	101,520	112,129	115,287	124,674	112,602	83,400	63,928	54,393	52,976	54,892	43,473	65,870
F	1,450,758	98,909	99,713	97,217	93,241	98,061	109,773	118,611	125,312	110,995	82,933	64,348	57,718	59,703	65,513	56,168	112,543
<b>1991</b>	2,930,000	213,789	216,325	213,018	191,353	197,708	208,392	242,260	256,348	241,789	173,728	136,221	115,980	119,464	122,668	104,389	176,568
M	1,440,221	109,314	111,143	109,057	98,310	100,273	105,635	120,453	127,437	121,245	87,254	67,836	56,314	56,341	56,351	46,435	66,823
F	1,489,779	104,475	105,182	103,961	93,043	97,435	102,757	121,807	128,911	120,544	86,474	68,385	59,666	63,123	66,317	57,954	109,745
<b>1992</b>	2,979,000	217,940	217,090	214,983	195,858	203,918	205,434	239,514	258,908	244,961	194,079	144,574	118,598	116,262	121,730	108,014	177,137
M	1,466,610	112,089	111,233	110,140	100,794	103,741	104,300	119,323	128,677	122,474	97,351	72,091	57,903	54,932	55,914	48,097	67,551
F	1,512,390	105,851	105,857	104,843	95,064	100,177	101,134	120,191	130,231	122,487	96,728	72,483	60,695	61,330	65,816	59,917	109,586
<b>1993</b>	3,038,000	224,939	216,116	218,756	203,348	209,199	204,576	238,809	260,400	251,059	205,319	152,790	120,968	115,116	121,313	111,552	183,740
M	1,495,551	115,151	110,546	112,259	104,204	106,918	104,012	119,252	129,191	125,233	102,879	76,383	59,035	54,266	55,988	49,604	70,630
F	1,542,449	109,788	105,570	106,497	99,144	102,281	100,564	119,557	131,209	125,826	102,440	76,407	61,933	60,850	65,325	61,948	113,110

**TABLE A-1. Population Distribution by Age and Sex, Oregon, 1950, 1960, 1970, 1975, 1980, 1985, 1990-2003 (Continued)**

Year and Sex	Total	Age Groups															
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+
<b>1994</b>	3,082,000	228,650	218,658	222,394	209,032	214,579	203,053	233,132	257,033	256,634	216,758	160,859	124,151	112,391	120,767	113,874	190,035
M	1,516,836	117,546	111,748	114,132	106,906	109,861	102,570	116,584	127,635	127,477	108,569	80,459	60,835	53,182	56,075	50,587	72,668
F	1,565,164	111,104	106,910	108,262	102,126	104,718	100,481	116,548	129,398	129,157	108,189	80,400	63,316	59,209	64,692	62,287	117,367
<b>1995</b>	3,132,000	231,584	225,513	222,660	213,595	208,322	199,568	232,116	258,273	264,101	232,380	170,663	129,959	113,424	121,428	113,812	194,602
M	1,543,133	118,939	115,314	114,532	109,361	106,964	101,281	116,723	128,027	130,894	116,149	85,147	64,015	53,857	56,309	50,528	75,093
F	1,588,867	112,645	110,199	108,128	104,234	101,358	98,287	115,393	130,246	133,207	116,231	85,516	65,944	59,567	65,119	63,284	119,509
<b>1996</b>	3,181,000	233,523	227,533	223,118	221,021	210,106	204,872	226,069	258,725	266,757	248,215	175,889	137,004	114,195	120,260	113,338	200,375
M	1,566,932	119,872	116,490	114,560	112,700	108,335	103,960	114,107	128,330	132,074	123,879	87,740	67,582	54,443	55,793	50,378	76,689
F	1,614,068	113,651	111,043	108,558	108,321	101,771	100,912	111,962	130,395	134,683	124,336	88,149	69,422	59,752	64,467	62,960	123,686
<b>1997</b>	3,217,000	231,023	229,318	223,940	229,066	216,134	206,595	219,687	255,281	269,136	249,316	192,710	142,154	115,901	118,342	113,382	205,015
M	1,585,778	118,672	117,666	114,812	117,278	110,995	104,822	110,989	126,785	133,109	124,192	96,123	70,037	55,565	54,885	50,545	79,303
F	1,631,222	112,351	111,652	109,128	111,788	105,139	101,773	108,698	128,496	136,027	125,124	96,587	72,117	60,336	63,457	62,837	125,712
<b>1998</b>	3,267,550	216,270	225,755	233,772	238,498	205,409	208,599	227,758	264,229	278,458	254,656	201,902	149,998	123,399	117,429	110,808	210,610
M	1,616,250	110,610	115,817	120,141	123,211	105,811	105,501	113,540	132,531	140,697	128,089	100,799	72,906	59,060	54,968	49,739	82,830
F	1,651,300	105,660	109,938	113,631	115,287	99,598	103,098	114,218	131,698	137,761	126,567	101,103	77,092	64,339	62,461	61,069	127,780
<b>1999</b>	3,300,800	219,527	226,789	235,796	243,007	209,296	206,740	222,194	259,743	276,330	259,973	211,826	160,646	128,037	115,151	110,524	215,221
M	1,629,897	112,126	116,290	121,080	125,200	107,042	103,662	110,184	129,946	139,523	130,560	105,568	78,041	61,304	53,926	50,053	85,393
F	1,670,903	107,401	110,499	114,716	117,807	102,255	103,077	112,010	129,797	136,807	129,413	106,258	82,606	66,733	61,225	60,471	129,828
<b>2000</b>	3,421,399	223,005	234,474	242,098	244,427	230,406	233,850	236,845	255,751	270,823	271,315	235,840	173,008	131,380	112,614	106,728	218,835
M	1,696,550	114,006	120,115	124,235	125,429	118,100	121,031	122,237	129,083	134,072	134,761	117,417	85,369	64,218	53,193	48,510	84,774
F	1,724,849	108,999	114,359	117,863	118,998	112,306	112,819	114,608	126,668	136,751	136,554	118,423	87,639	67,162	59,421	58,218	134,061
<b>2001</b>	3,471,700	226,401	238,102	245,858	248,078	233,672	237,225	240,353	259,636	274,967	275,401	239,420	175,643	133,350	114,046	108,064	221,484
M	1,721,063	115,854	122,068	126,161	127,300	119,797	122,845	123,903	131,103	136,095	136,730	119,229	86,575	65,245	53,832	49,142	85,186
F	1,750,637	110,547	116,034	119,697	120,778	113,875	114,380	116,450	128,533	138,872	138,671	120,191	89,069	68,105	60,214	58,923	136,297
<b>2002</b>	3,504,700	227,668	240,525	248,332	250,518	235,989	239,632	242,805	262,277	277,752	278,150	241,802	177,357	134,599	115,039	108,983	223,273
M	1,737,468	116,502	123,310	127,431	128,552	120,984	124,091	125,167	132,437	137,473	138,095	120,415	87,420	65,856	54,300	49,559	85,876
F	1,767,232	111,166	117,215	120,902	121,965	115,004	115,541	117,638	129,840	140,279	140,055	121,387	89,938	68,743	60,739	59,423	137,397
<b>2003</b>	3,541,500	228,681	243,209	251,015	253,202	238,586	242,417	245,610	265,216	280,796	281,125	244,359	179,190	135,956	116,295	110,163	225,680
M	1,755,699	117,020	124,686	128,807	129,929	122,316	125,533	126,613	133,921	138,980	139,572	121,689	88,323	66,520	54,893	50,096	86,801
F	1,785,801	111,661	118,523	122,208	123,273	116,270	116,884	118,997	131,295	141,816	141,553	122,670	90,867	69,436	61,402	60,067	138,879

Source: 1950, 1960, 1970, 1980, 1990, and 2000 data are U.S. Census. All other years' data are estimates provided by Center for Population Research and Census, Portland State University.

TABLE A-2. Population Estimates for Oregon and Its Counties by Age and Sex: July 1, 2003

County	Both Sexes																		
	All Ages	0-4	5-9	10-14	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+
<b>Oregon</b>	<b>3,541,500</b>	<b>228,681</b>	<b>243,208</b>	<b>251,016</b>	<b>152,885</b>	<b>100,317</b>	<b>238,586</b>	<b>242,417</b>	<b>245,611</b>	<b>265,215</b>	<b>280,796</b>	<b>281,125</b>	<b>244,359</b>	<b>179,190</b>	<b>135,955</b>	<b>116,295</b>	<b>110,164</b>	<b>98,051</b>	<b>127,629</b>
Baker	16,500	846	1,003	1,274	798	374	588	645	830	1,095	1,281	1,306	1,166	1,026	948	874	824	657	967
Benton	80,500	3,987	4,553	5,179	3,438	4,829	11,358	5,625	4,783	5,171	5,949	6,341	5,110	3,441	2,387	2,139	1,999	1,810	2,402
Clackamas	353,450	20,687	26,033	27,775	16,032	9,236	19,578	20,398	22,814	27,737	31,279	31,276	27,808	20,244	13,421	10,323	9,450	8,517	10,842
Clatsop	36,300	1,974	2,216	2,566	1,775	1,153	2,049	1,854	1,970	2,513	2,830	3,200	2,732	2,016	1,705	1,526	1,434	1,202	1,585
Columbia	45,000	2,632	3,373	3,820	2,236	1,082	2,104	2,329	2,923	3,556	3,866	3,833	3,374	2,643	1,847	1,523	1,363	1,130	1,364
Coos	63,000	3,146	3,569	4,333	2,735	1,705	2,790	2,837	3,188	4,122	4,873	5,116	4,757	4,009	3,556	3,333	3,095	2,537	3,297
Crook	20,300	1,126	1,469	1,586	1,051	460	1,086	1,148	1,176	1,339	1,557	1,477	1,518	1,196	1,083	884	814	584	748
Curry	21,100	774	1,067	1,309	742	385	638	670	847	1,176	1,476	1,606	1,553	1,486	1,476	1,561	1,587	1,386	1,361
Deschutes	130,500	7,260	9,011	9,896	5,758	3,230	7,156	8,151	8,628	9,966	11,094	11,065	9,692	7,267	5,987	4,740	4,246	3,373	3,980
Douglas	101,800	5,471	6,478	7,526	4,616	2,689	5,026	4,837	5,400	6,622	7,770	7,995	7,464	6,090	5,354	5,224	4,722	3,905	4,612
Gilliam	1,900	88	118	141	87	40	66	84	99	126	172	153	132	104	107	97	95	98	93
Grant	7,650	370	545	573	400	188	248	339	372	513	610	630	579	488	428	383	320	246	417
Haremy	7,300	434	520	597	331	147	299	339	395	547	606	564	508	405	376	388	297	244	304
Hood River	20,500	1,626	1,610	1,614	945	537	1,166	1,331	1,388	1,586	1,680	1,586	1,206	901	692	669	609	539	814
Jackson	189,100	10,564	12,882	13,807	8,599	5,089	11,416	10,468	10,951	12,858	14,481	15,384	14,103	10,761	8,269	7,379	7,138	6,568	8,385
Jefferson	19,900	1,544	1,624	1,743	932	461	1,047	1,197	1,279	1,395	1,344	1,289	1,211	1,036	984	935	774	473	632
Josephine	78,350	3,895	4,975	5,629	3,360	1,780	3,259	3,509	4,020	4,946	5,726	6,099	5,899	5,070	4,302	4,171	3,887	3,653	4,173
Klamath	64,600	4,110	4,659	4,949	2,866	1,746	3,791	3,676	3,674	4,377	4,715	5,058	4,588	3,571	3,027	2,819	2,519	2,033	2,422
Lake	7,400	366	478	586	381	124	250	342	348	472	607	621	550	464	418	410	359	297	328
Lane	329,400	18,455	20,415	22,198	14,115	10,996	28,128	22,037	20,858	22,853	24,939	27,013	23,574	16,893	12,818	10,960	10,870	9,827	12,453
Lincoln	45,000	2,160	2,503	3,020	1,999	986	1,935	1,950	2,321	2,885	3,498	3,930	3,669	2,922	2,638	2,504	2,199	1,839	2,041
Linn	104,900	7,055	7,460	7,864	4,797	2,850	5,934	6,266	6,654	7,523	7,874	7,908	7,127	5,745	4,490	3,901	3,724	3,337	4,391
Malheur	32,000	2,455	2,461	2,424	1,486	1,038	2,363	2,033	2,122	2,275	2,219	2,196	1,779	1,489	1,227	1,117	1,094	902	1,321
Marion	295,900	22,814	22,605	22,041	13,707	9,241	21,386	21,102	20,833	21,593	21,709	20,859	18,259	13,458	10,447	8,898	8,571	7,907	10,471
Morrow	11,750	832	1,057	980	580	388	707	747	713	829	956	868	734	589	482	423	341	253	271
Multnomah	677,850	47,045	42,129	40,588	24,827	17,848	50,911	60,598	57,514	55,044	54,744	54,448	45,377	30,108	21,380	17,586	17,705	16,648	23,349
Polk	64,000	3,688	4,442	4,890	3,106	2,255	5,117	3,459	3,645	4,188	4,633	5,005	4,374	3,268	2,453	2,265	2,084	2,054	3,074
Sherman	1,900	83	122	179	90	50	69	61	80	133	161	150	131	113	96	95	119	78	90
Tillamook	24,900	1,189	1,520	1,673	1,071	606	1,051	1,100	1,256	1,572	1,887	1,980	1,917	1,586	1,447	1,446	1,414	1,022	1,162
Umatilla	71,100	5,227	5,579	5,407	3,419	2,146	4,641	4,760	4,742	5,321	5,327	5,298	4,406	3,360	2,762	2,217	2,189	1,894	2,405
Union	24,650	1,518	1,582	1,810	1,238	923	2,013	1,293	1,202	1,480	1,786	2,003	1,755	1,299	1,069	981	839	701	1,156
Wallowa	7,150	299	412	600	370	133	215	259	270	456	563	723	560	464	398	385	374	291	380
Wasco	23,550	1,473	1,611	1,731	1,117	549	1,189	1,211	1,312	1,566	1,846	1,835	1,757	1,295	1,097	989	951	905	1,117
Washington	472,600	37,389	36,461	33,716	19,549	11,828	32,132	40,239	40,952	40,568	39,585	35,637	29,538	20,142	13,724	10,518	9,573	8,873	12,175
Wheeler	1,550	50	77	110	93	19	31	50	75	84	88	124	108	139	121	116	108	76	80
Yamhill	88,150	6,051	6,589	6,882	4,240	3,207	6,849	5,471	5,977	6,729	7,063	6,549	5,347	4,101	2,936	2,515	2,480	2,194	2,970

Source: Center for Population Research and Census, Portland State University.

TABLE A-2. Population Estimates for Oregon and Its Counties by Age and Sex: July 1, 2003 (Continued)

County	Female																		
	All Ages	0-4	5-9	10-14	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+
<b>Oregon</b>	<b>1,785,801</b>	<b>111,661</b>	<b>118,523</b>	<b>122,208</b>	<b>74,433</b>	<b>48,840</b>	<b>116,270</b>	<b>116,884</b>	<b>118,997</b>	<b>131,295</b>	<b>141,816</b>	<b>141,553</b>	<b>122,670</b>	<b>90,867</b>	<b>69,436</b>	<b>61,402</b>	<b>60,067</b>	<b>56,481</b>	<b>82,398</b>
Baker	8,442	413	489	620	388	182	287	311	402	542	647	658	585	520	484	462	449	378	625
Benton	40,375	1,947	2,219	2,521	1,674	2,351	5,535	2,712	2,317	2,560	3,004	3,193	2,565	1,745	1,219	1,129	1,090	1,042	1,550
Clackamas	177,913	10,101	12,686	13,522	7,805	4,496	9,541	9,835	11,053	13,731	15,797	15,748	13,960	10,266	6,854	5,451	5,152	4,906	7,006
Clatsop	18,418	964	1,080	1,249	864	561	998	894	955	1,244	1,430	1,611	1,371	1,022	871	806	782	693	1,023
Columbia	22,664	1,285	1,644	1,860	1,089	527	1,025	1,123	1,416	1,760	1,953	1,930	1,694	1,340	943	804	743	651	876
Coos	32,172	1,536	1,740	2,109	1,332	830	1,360	1,368	1,545	2,041	2,461	2,576	2,388	2,033	1,816	1,760	1,688	1,461	2,128
Crook	10,267	550	716	772	511	224	529	553	570	663	787	744	762	607	553	467	444	336	481
Curry	10,914	378	520	637	361	188	311	323	410	582	746	809	780	754	754	824	865	798	874
Deschutes	65,770	3,545	4,392	4,818	2,803	1,572	3,488	3,930	4,180	4,934	5,603	5,571	4,865	3,685	3,058	2,503	2,315	1,943	2,566
Douglas	51,792	2,671	3,157	3,664	2,247	1,309	2,450	2,332	2,616	3,278	3,924	4,026	3,747	3,088	2,734	2,758	2,575	2,249	2,966
Gilliam	972	43	58	68	42	19	32	40	48	62	87	77	66	52	55	51	52	56	61
Grant	3,901	180	265	279	195	92	121	164	180	254	308	317	291	247	219	202	175	142	270
Harney	3,705	212	253	291	161	72	146	163	191	271	306	284	255	205	192	205	162	141	195
Hood River	10,340	794	785	786	460	262	568	642	672	785	848	799	606	457	353	353	332	310	527
Jackson	95,904	5,158	6,278	6,722	4,186	2,477	5,563	5,047	5,306	6,365	7,314	7,746	7,080	5,457	4,223	3,896	3,892	3,783	5,410
Jefferson	10,028	754	792	849	454	225	510	577	620	691	679	649	608	525	502	494	422	273	406
Josephine	40,054	1,902	2,425	2,740	1,636	866	1,588	1,692	1,947	2,449	2,892	3,071	2,961	2,571	2,197	2,202	2,119	2,104	2,692
Klamath	32,681	2,007	2,270	2,409	1,395	850	1,847	1,772	1,780	2,167	2,382	2,547	2,303	1,811	1,546	1,488	1,373	1,171	1,561
Lake	3,770	179	233	285	185	60	122	165	169	234	306	312	276	235	213	216	196	171	211
Lane	166,295	9,011	9,949	10,807	6,872	5,353	13,707	10,625	10,105	11,313	12,596	13,602	11,834	8,566	6,547	5,787	5,927	5,661	8,032
Lincoln	22,940	1,055	1,220	1,471	973	480	943	940	1,125	1,428	1,767	1,979	1,842	1,482	1,347	1,322	1,199	1,059	1,309
Linn	53,081	3,445	3,636	3,829	2,335	1,387	2,892	3,021	3,224	3,724	3,977	3,982	3,578	2,913	2,293	2,060	2,030	1,922	2,832
Malheur	16,152	1,199	1,199	1,180	723	505	1,152	980	1,028	1,126	1,121	1,106	893	755	627	590	596	520	852
Marion	148,925	11,140	11,016	10,731	6,673	4,499	10,422	10,174	10,093	10,690	10,964	10,503	9,166	6,824	5,336	4,698	4,673	4,555	6,768
Morrow	5,894	406	515	477	282	189	344	360	346	411	483	437	368	298	246	223	186	146	175
Multnomah	340,833	22,971	20,531	19,761	12,087	8,689	24,810	29,218	27,865	27,250	27,649	27,416	22,780	15,268	10,919	9,285	9,654	9,590	15,090
Polk	32,439	1,801	2,165	2,381	1,512	1,098	2,494	1,668	1,766	2,073	2,340	2,520	2,196	1,657	1,253	1,196	1,136	1,183	2,001
Sherman	970	41	59	87	44	24	34	29	39	66	81	76	66	57	49	50	65	45	58
Tillamook	12,709	580	741	814	522	295	512	530	608	778	953	997	963	804	739	764	771	589	748
Umatilla	35,791	2,552	2,719	2,633	1,665	1,045	2,261	2,295	2,297	2,634	2,690	2,668	2,212	1,704	1,411	1,171	1,194	1,091	1,550
Union	12,492	741	771	881	603	449	981	623	582	733	902	1,009	881	659	546	518	457	404	751
Wallowa	3,656	146	201	292	180	65	105	125	131	226	284	364	281	235	203	203	204	168	245
Wasco	11,970	719	785	843	544	267	579	584	635	775	932	924	882	657	560	522	519	521	721
Washington	236,441	18,256	17,768	16,415	9,518	5,759	15,659	19,402	19,841	20,083	19,992	17,944	14,828	10,214	7,009	5,553	5,220	5,111	7,868
Wheeler	797	24	38	54	45	9	15	24	36	42	45	63	54	71	62	61	59	44	52
Yamhill	44,335	2,955	3,211	3,351	2,064	1,561	3,338	2,638	2,896	3,331	3,567	3,298	2,684	2,080	1,499	1,328	1,352	1,264	1,918

Source: Center for Population Research and Census, Portland State University.

**TABLE A-2. Population Estimates for Oregon and Its Counties by Age and Sex: July 1, 2003 (Continued)**

County	Male																		
	All Ages	0-4	5-9	10-14	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+
<b>Oregon</b>	<b>1,755,699</b>	<b>117,020</b>	<b>124,686</b>	<b>128,807</b>	<b>78,452</b>	<b>51,477</b>	<b>122,316</b>	<b>125,533</b>	<b>126,613</b>	<b>133,921</b>	<b>138,980</b>	<b>139,572</b>	<b>121,689</b>	<b>88,323</b>	<b>66,520</b>	<b>54,893</b>	<b>50,096</b>	<b>41,570</b>	<b>45,231</b>
Baker	8,058	433	514	654	409	192	302	334	428	553	634	648	580	506	464	413	375	278	342
Benton	40,125	2,040	2,334	2,657	1,764	2,478	5,823	2,913	2,466	2,611	2,944	3,148	2,545	1,696	1,168	1,010	909	767	852
Clackamas	175,537	10,586	13,346	14,253	8,227	4,739	10,037	10,563	11,761	14,006	15,482	15,528	13,848	9,979	6,567	4,873	4,297	3,611	3,836
Clatsop	17,882	1,010	1,136	1,317	911	592	1,050	960	1,016	1,269	1,401	1,589	1,360	994	834	720	652	510	562
Columbia	22,336	1,347	1,729	1,960	1,148	555	1,078	1,206	1,507	1,795	1,914	1,903	1,680	1,303	904	719	620	479	489
Coos	30,828	1,610	1,830	2,223	1,404	875	1,431	1,469	1,644	2,081	2,412	2,540	2,369	1,976	1,740	1,573	1,407	1,076	1,169
Crook	10,033	576	753	814	539	236	557	594	606	676	771	733	756	590	530	417	370	247	268
Curry	10,186	396	547	672	381	198	327	347	436	594	731	798	773	733	722	737	722	588	486
Deschutes	64,730	3,715	4,620	5,078	2,955	1,657	3,669	4,221	4,448	5,032	5,491	5,493	4,826	3,582	2,929	2,238	1,931	1,430	1,415
Douglas	50,008	2,799	3,321	3,862	2,369	1,380	2,577	2,505	2,784	3,344	3,846	3,969	3,717	3,002	2,619	2,466	2,147	1,655	1,646
Gilliam	928	45	61	72	45	21	34	43	51	64	85	76	66	51	53	46	43	41	33
Grant	3,749	189	279	294	205	97	127	176	192	259	302	313	289	241	210	181	146	104	147
Hamey	3,595	222	267	307	170	75	153	175	204	276	300	280	253	200	184	183	135	103	108
Hood River	10,160	832	825	828	485	276	598	689	715	801	831	788	601	444	339	316	277	228	286
Jackson	93,196	5,406	6,604	7,085	4,412	2,611	5,853	5,421	5,645	6,493	7,168	7,638	7,023	5,304	4,046	3,483	3,246	2,784	2,975
Jefferson	9,872	790	833	894	478	237	537	620	660	704	665	640	603	511	481	441	352	201	225
Josephine	38,296	1,993	2,551	2,888	1,724	913	1,671	1,817	2,072	2,498	2,834	3,028	2,937	2,499	2,105	1,969	1,768	1,549	1,481
Klamath	31,919	2,103	2,388	2,540	1,471	896	1,944	1,903	1,894	2,210	2,334	2,511	2,285	1,760	1,481	1,331	1,145	862	861
Lake	3,630	187	245	301	195	63	128	177	179	238	300	308	274	229	205	193	163	126	117
Lane	163,105	9,444	10,466	11,391	7,243	5,643	14,420	11,411	10,752	11,540	12,344	13,411	11,739	8,326	6,272	5,173	4,943	4,166	4,420
Lincoln	22,060	1,106	1,283	1,550	1,026	506	992	1,010	1,197	1,457	1,732	1,951	1,827	1,440	1,291	1,182	1,000	780	732
Linn	51,819	3,610	3,825	4,036	2,461	1,462	3,042	3,245	3,430	3,799	3,897	3,926	3,549	2,832	2,197	1,841	1,693	1,415	1,559
Malheur	15,848	1,256	1,262	1,244	763	532	1,212	1,053	1,094	1,149	1,098	1,090	886	734	600	527	497	382	468
Marion	146,975	11,674	11,589	11,310	7,034	4,742	10,964	10,927	10,739	10,904	10,745	10,356	9,093	6,633	5,112	4,200	3,898	3,352	3,703
Morrow	5,856	426	542	503	297	199	362	387	368	419	473	431	365	290	236	200	155	107	96
Multnomah	337,017	24,074	21,598	20,828	12,740	9,159	26,100	31,380	29,649	27,795	27,096	27,032	22,597	14,840	10,461	8,301	8,051	7,058	8,258
Polk	31,561	1,887	2,277	2,509	1,594	1,157	2,624	1,791	1,879	2,115	2,293	2,485	2,178	1,611	1,200	1,069	947	871	1,073
Sherman	930	43	63	92	46	26	35	32	41	67	80	75	65	56	47	45	54	33	32
Tillamook	12,191	608	779	858	550	311	539	570	647	794	934	983	955	782	708	683	643	433	415
Umatilla	35,309	2,675	2,860	2,775	1,754	1,101	2,379	2,465	2,444	2,687	2,636	2,630	2,194	1,656	1,352	1,047	995	803	854
Union	12,158	777	811	929	635	474	1,032	670	620	747	884	995	874	640	523	463	382	297	406
Wallowa	3,494	153	211	308	190	68	110	134	139	230	279	359	279	229	195	182	170	123	135
Wasco	11,580	754	826	888	573	282	609	627	676	791	914	911	875	638	537	467	433	384	396
Washington	236,159	19,132	18,692	17,301	10,032	6,070	16,473	20,838	21,111	20,485	19,593	17,693	14,710	9,928	6,715	4,965	4,353	3,762	4,307
Wheeler	753	26	40	57	48	10	16	26	39	42	44	62	54	69	59	55	49	32	28
Yamhill	43,815	3,096	3,378	3,531	2,176	1,646	3,511	2,833	3,081	3,398	3,496	3,251	2,663	2,022	1,436	1,187	1,128	930	1,051

Source: Center for Population Research and Census, Portland State University.

Table A-3. Forecasts of Oregon's County Populations and Components of Change, 2005 - 2040								
Area Name	2005	2010	2015	2020	2025	2030	2035	2040
Oregon	3,618,200	3,843,900	4,095,708	4,359,258	4,626,015	4,891,225	5,154,793	5,425,408
Baker	16,471	16,498	16,717	16,957	17,135	17,221	17,304	17,460
Benton	82,138	85,721	88,995	91,982	94,549	96,517	98,235	99,886
Clackamas	363,240	391,536	424,648	460,323	497,926	536,123	576,231	620,703
Clatsop	36,734	37,162	37,652	37,939	38,290	38,643	38,983	39,368
Columbia	45,977	48,292	50,882	53,562	56,354	59,024	61,623	64,411
Coos	63,112	63,386	63,897	64,259	64,634	64,929	64,919	64,839
Crook	21,035	23,051	25,249	27,590	30,125	32,796	35,569	38,553
Curry	21,115	21,530	22,112	22,671	23,057	23,225	23,299	23,432
Deschutes	139,994	158,792	178,418	197,150	214,479	229,933	244,069	257,088
Douglas	102,958	106,379	112,043	117,632	123,341	129,062	134,713	140,619
Gilliam	1,917	1,946	2,016	2,101	2,187	2,275	2,366	2,464
Grant	7,578	7,553	7,562	7,583	7,610	7,637	7,646	7,678
Harney	7,203	7,454	7,779	8,098	8,415	8,745	9,120	9,584
Hood River	20,698	21,998	23,485	25,027	26,667	28,404	30,310	32,498
Jackson	194,005	208,370	223,464	238,865	253,881	268,385	282,669	297,496
Jefferson	20,491	22,168	24,079	26,065	28,298	30,831	33,390	36,094
Josephine	79,956	84,186	89,211	94,385	100,001	105,552	111,133	117,216
Klamath	65,330	66,968	68,851	70,595	72,631	74,924	77,366	80,159
Lake	7,411	7,428	7,468	7,525	7,543	7,559	7,576	7,614
Lane	333,855	347,494	365,639	387,574	409,159	430,454	451,038	471,511
Lincoln	45,365	46,945	48,776	50,379	52,039	53,710	55,364	57,247
Linn	106,023	110,123	115,156	120,465	126,140	132,133	138,717	146,260
Malheur	32,328	33,826	35,552	37,312	39,122	40,854	42,629	44,519
Marion	302,913	323,128	344,443	367,018	388,898	410,022	429,824	448,671
Morrow	12,286	13,581	15,011	16,520	18,101	19,703	21,358	23,122
Multnomah	687,073	711,909	735,445	756,390	778,028	800,565	821,768	842,009
Polk	65,434	72,845	83,338	95,594	107,118	117,557	127,019	135,937
Sherman	1,893	1,933	1,986	2,043	2,081	2,102	2,127	2,165
Tillamook	25,401	26,589	27,897	29,097	30,094	30,887	31,538	32,146
Umatilla	71,495	75,271	79,701	85,242	90,660	95,844	101,001	106,149
Union	24,804	25,596	26,545	27,551	28,535	29,525	30,586	31,793
Wallowa	7,147	7,315	7,611	7,892	8,112	8,232	8,431	8,783
Wasco	23,420	23,753	24,297	24,896	25,670	26,563	27,522	28,653
Washington	489,742	542,678	599,377	660,367	723,669	788,162	854,164	920,852
Wheeler	1,557	1,563	1,591	1,597	1,614	1,622	1,636	1,652
Yamhill	90,098	98,932	108,812	119,011	129,850	141,505	153,549	166,776

Note: Total population estimates for July 1 of each time period. Release date: April 2004.  
This information is from the Office of Economic Analysis, Department of Administrative Services, State of Oregon. Additional statewide population projections are also available on the Office of Economic Analysis website (<http://www.oea.das.state.or.us/DAS/OEA/demographic.shtml>).

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# Appendix B: Technical Notes – Definitions

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## **BIRTHS**

**Apgar Score** is a numerical expression of the condition of a newborn shortly after birth. It is the sum of points accumulated upon assessment of the heart rate, respiratory effort, muscle tone, reflex irritability, and color. The highest possible score is ten. A low Apgar score (seven or less) measured five minutes after birth indicates the infant is at increased risk of morbidity and mortality.

**Births to Unmarried Mothers Ratio** is the number of births to unmarried mothers per 1,000 live births. Ratios differ from rates.

**Crude Birth Rate** is the number of live births per 1,000 total population.

**Live Birth** is the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy, which, after such a separation, breathes or shows any other evidence of life such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached; each product of such a birth is considered live born.<sup>1</sup>

**Low Birthweight Infant** is a live born infant with a birthweight of less than 5 pounds, 8 ounces (2,500 grams) as reported on the birth certificate.

**Birth rate per 1,000 men** is the number of births per 1,000 males in Oregon. In computing birth rates by age of father, the National Center for Health Statistics (NCHS) method of distributing births where age of father was not stated in the same proportion as births where age of father was stated within each 5-year age interval of mother was used to facilitate national comparisons. NCHS uses this procedure to avoid distortion in rates that would result if the relationship between age of mother and age of father were disregarded.

## **DEATHS**

**Crude Death Rate** is the number of deaths per 1,000 or 100,000 total population.

**Fetal Death** is death prior to the complete expulsion or extraction from its mother of a product of conception of at least 20 weeks gestation, except where such expulsion results from a therapeutic abortion; the death is indicated by the fact that after such separation, the fetus does not breathe or show any other evidence of life such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles.

**Fetal Death Ratio** is the number of fetal deaths per 1,000 live births. Ratios differ from rates.

**Infant Death** is the death of a child prior to its first birthday.

**Infant Death Rate** is the number of infant deaths per 1,000 live births.

**Maternal Death Rate** is the number of female deaths attributed to childbirth or to complications of pregnancy or the puerperium, per 100,000 live births.

**Neonatal Death** is the death of a child within the first 27 days of life.

**Neonatal Death Rate** is the number of neonatal deaths per 1,000 live births.

**Postneonatal Death** is the death of a child after 27 days of life and before its first birthday.

**Postneonatal Death Rate** is the number of postneonatal deaths per 1,000 live births.

**Perinatal Death** is the death of a fetus after 20 weeks gestation or the death of a live-born infant prior to the 28th day of life. Other medical literature may include different time periods.

**Perinatal Death Ratio** is the number of perinatal deaths per 1,000 total live births. Ratios differ from rates.

## **MEDICAL PERSONNEL — ABBREVIATIONS USED IN TABLES**

C.N.M. — certified nurse midwife.

D.C. — doctor of chiropractic medicine.

D.O. — doctor of osteopathic medicine.

L.D.E.M. — licensed direct entry midwife.

M.D. — medical doctor.

N.D. — naturopathic doctor.

R.N. — registered nurse.

## **ENDNOTE**

- 1 *Vital Statistics of the United States*, 1982, vol. 1, section 4, page 1. U.S. Department of Health and Human Services, Public Health Service, National Center for Health Statistics, Maryland, 1986.

# Technical Notes — Methodology

***"That, sir, is the good of counting; it brings everything to a certainty, which before floated in the mind indefinitely."***

**—Samuel Johnson**

## INDUCED TERMINATIONS OF PREGNANCY

Except for incomplete reporting by providers, the data represent *all* abortions performed in Oregon during the current data year. That is, the data constitute events associated with the place of occurrence rather than the "residence data" used in estimating births. This is necessary because many abortions obtained out-of-state by Oregon residents are not reported to Oregon's Center for Health Statistics. It reflects the great variation in abortion reporting procedures among states (e.g., some states do not record the patient's residence) as well as the fact that a comprehensive data collection network among all states, similar to that used in reporting births, does not exist in regard to abortions.

In using "occurrence" data rather than "residence" data to estimate abortion rates for Oregon residents, an implicit assumption is made that the number of Oregon residents who leave the state to obtain an abortion equals the number of out-of-state residents who obtain an abortion in Oregon. In formulating generalizations which involve trends or long-term behavioral patterns, annual totals are treated as sample values generated by ongoing social, economic, or political processes and thus subject to "chance" variability. For most purposes, numbers offered in this report should be viewed only as careful approximations and interpreted only within the framework of statistical safeguards developed to take sampling variability into account.

Some rates in this section are based on relatively *few events* and for most comparisons may be used only with extreme caution--due to the chance fluctuations associated with small numbers. A small percentage of abortion reports lack certain data items. This may

**NUMBER OF FIRST-TIME ABORTIONS BY YEAR AND AGE GROUP,  
OREGON OCCURRENCE, 1975-1989**

YEAR	AGE GROUPS					
	15-19	20-24	25-29	30-34	35-39	40-44
1975	3,470	2,751	1,331	620	296	107
1976	3,877	3,125	1,551	616	297	108
1977	3,605	2,921	1,467	650	300	107
1978	3,620	3,041	1,573	786	327	98
1979	3,821	3,149	1,552	811	289	108
1980	3,792	2,965	1,540	795	345	90
1981	3,261	2,643	1,361	760	343	96
1982	2,530	2,066	1,093	607	263	83
1983	2,340	1,976	971	519	287	67
1984	2,340	2,091	995	580	299	80
1985	2,442	2,041	915	496	324	64
1986	2,065	1,694	880	506	270	70
1987	2,375	1,926	935	584	322	83
1988	2,844	2,281	1,086	661	379	94
1989	2,801	2,453	1,245	637	415	110

greatly affect the estimation of rates. To minimize the potential bias inherent in such estimates, unknown events in some cases (Table 4-1) are assigned to the categories of analysis proportional to the distribution of known events. In this way, rates calculated for subsets (e.g., “abortions per thousand teen females”) are, on average, less affected by incomplete data.

### ESTIMATION OF THE CUMULATIVE PROPORTION OF FEMALES WHO HAVE EXPERIENCED AN ABORTION

This figure is estimated by tracing the abortion experience of a specific cohort of females over an extended time period. In the table on the previous page, an approximation of the “cumulative total” of first-time abortions by one of the cohorts may be obtained by summing the figures in the boxed area.

To obtain this value, it is necessary to sum the number of first-time abortions for 15- to 19-year-olds from 1975 to 1979 and those of 20- to 24-year-olds from 1980 to 1984 with those of 25- to 29-year-olds from 1985 to 1989. This provides an estimate of the numerator in the following equation:

$$\text{Cumulative proportion of females who have had an abortion} = \frac{\text{Total number of first time abortions among a specific cohort of females}}{\text{Number of females in cohort}}$$

The denominator may be estimated by averaging the size of the cohort during 1975-1989. Table A-1 lists the annual estimate of the number of females within each cohort. For example, in 1975 the number of 15- to 19-year-old females was estimated to be 110,334; in the next year it was 111,184. The average size of this age group from 1975 to 1979 was 112,047. Similarly, the number of 20- to 24-year-old women between 1980 and 1984 was 114,553 on average; the number of 25- to 29-year-olds averaged 111,724 between 1985 and 1989. Thus, between 1975 and 1989 the cohort of interest had an average population size of 112,775.

Substituting into the formula given above:

$$Cp = \frac{\text{Sum of First Abortions}}{N} = \frac{35,195}{112,775} = .312 \text{ or } 31.2 \text{ percent}$$

This figure approximates the proportion of females in the 25- to 29-year-old cohort who, by 1989, had *ever had an abortion*. This method of estimation assumes that factors such as deaths and migration have not altered the composition of the female population in Oregon--that is, the women who have left the state display the same characteristics as those who have moved into Oregon. It also assumes that patients with a history of previous abortions do not report the current procedure as a first abortion.

## TEEN PREGNANCY

Pregnancy estimates are based upon the estimated number of teen births and induced terminations among Oregon teens; they do not include the number of fetal deaths or miscarriages (spontaneous abortions) which occur. The estimation of teen births is considered to be relatively complete and includes births to resident teens even when they occur out-of-state. The estimation of teen abortions is based on all reported abortions to teen age residents of Oregon; however, because states often do not report abortions obtained within their borders to the state of residence as occurs with vital events such as birth and death, an unknown number of Oregon teens obtain abortion services out-of-state. As a consequence, estimates of teen abortions and teen pregnancies should be considered minimal in nature.

Furthermore, because estimates of abortion for teens are based on “residence data,” figures given in Chapter 4 do not correspond exactly to those in Chapter 3, which are based on “occurrence data.” (See Induced Terminations of Pregnancy methodology section.)

The estimation of rates requires an estimate of the size of the appropriate population. Such estimates are now available for 15- to 17-year-olds and 18- to 19-year-olds for each county on an annual basis. Because estimated rates based on a small population may vary greatly due to chance factors, rates of teen pregnancy, birth, and abortion were calculated for these age groups only if there were 50 or more female residents of the appropriate age group in the county. Similarly, rates for 15- to 19-year-olds were calculated whenever a county had 50 or more female residents in this age group.

Great caution must be taken in the use of pregnancy statistics associated with females under 15 years of age. This is due to the fact that relatively few events are recorded each year for this group. Also, rates are based on the estimated population cohort of 10-14 year old females—many of whom are physiologically not yet at risk of pregnancy. Thus, any *direct* comparison of rates between this group and another age group—e.g., 15- to 17-year-olds—would be inappropriate.

## DEMOGRAPHICS

The extent to which Oregon’s demographic composition may affect its national ranking is indicated by comparisons shown in the sidebar. In 1990, Oregon’s birth rate for all teens (regardless of race or ethnic affiliation) was nine percent lower than that of the U.S. and, among all 50 states, it had the 24th lowest teen birth rate. Yet, if comparisons were made in terms of births to non-Hispanic white teens only, Oregon would have been 36th and the rate would have been 19 percent *higher* than that of the U.S. This results from the fact that 87 percent of 15- to 19-year-old females in Oregon were non-Hispanic whites and only seven percent were either Hispanic or non-Hispanic African Americans. By comparison, 70 percent of the U.S. female population of that age were non-Hispanic whites and 26 percent were Hispanics or non-Hispanic African Americans.

TEEN BIRTH RATES, U.S. VS. OREGON, AGES 15-19, 1990		
RACE/ETHNICITY	BIRTH RATE „	
	U.S.	OREGON
TOTAL †	59.9	54.8
NON-HISPANIC WHITES	42.5	50.6
„ ALL RATES PER 1,000 FEMALES.		
† ALL RACES AND ETHNICITIES COMBINED.		



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# Technical Notes — Step-by-Step Instructions

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*"Through and through the world is infested with quantity: To talk sense is to talk quantities. It is no use saying the nation is large—How large? It is no use saying that radium is scarce—How scarce? You cannot evade quantity. You may fly to poetry and music, and quantity and number will face you in your rhythms and your octaves."*

—Alfred North Whitehead

Data users are diverse, including public health officials evaluating a program by using death data, demographers projecting school enrollments with birth data, and business people deciding to open a formal-wear shop based on marriage data. Many of these users

**DEATHS**  
**INFANT DEATHS**  
**NEONATAL DEATHS**  
**POSTNEONATAL DEATHS**  
**FETAL DEATHS**  
**LOW BIRTH WEIGHT**  
**INFANTS**  
**PREGNANCIES**  
**INDUCED ABORTIONS**  
**MARRIAGES**  
**ANNULMENTS**  
**DIVORCES**

have a thorough knowledge of statistics. But others find the entire subject-matter confusing and intimidating. For either group, a misunderstanding of what vital statistics mean can lead to wrong conclusions. Therefore, this section is included to provide an overview of how to use vital statistics. It is addressed to the person looking at vital events for the first time, but the experienced user may also find a review helpful.

## **STEP 1: FINDING THE CORRECT NUMBER**

The first step is to determine how many of a particular vital event took place during the year. This involves asking two questions:

### **Which event or events are appropriate?**

This may not be as simple as it sounds. For one thing, examining more than one type of event may be required. For example, someone concerned with teenage pregnancies will have to consider the number of induced abortions as well as the number of births which occur among teens. Taken together, they provide a useful measure of the number of pregnancies.<sup>1</sup>

Deciding which events to use is important since sometimes the choice of one event over another can easily lead to different conclusions. To determine which events are appropriate, read the "Technical Notes: Definitions" section. The narratives also contain useful examples.

***Who should be counted?***

If you are a hospital planner who is deciding to expand or contract delivery services, you want to count the number of births which *occurred* in your area, regardless of where the parents live. If you are projecting school enrollment, you want to count only how many children will potentially be *residing* in your area. Fortunately, vital events are usually reported so that both of these data needs can be met.

**Occurrence Data:**

The event (the death, birth, marriage, etc.) actually took place in the geographic region indicated (either Oregon or a particular county). The person participating in the event may have lived in Podunk, New York.

**Residence Data:**

The person involved in the event lived in the geographic region mentioned, but the event itself may have taken place anywhere in the United States or Canada. In other words, a resident of Marion County who died in an accident while on vacation in Michigan has been added to the Marion County resident death figure.

When in doubt about which type of data to use, resident figures are usually the best choice. Most birth and death data are published by residence, which means that comparisons with other states or the United States as a whole will be easier. Exceptions to this rule are listed in the individual sections.

Once the right event has been determined, and the choice between occurrence and residence data has been made, the statistician can find the correct figures in the table(s) in this book. If the needed table is not listed, contact the Center for Health Statistics for more information.

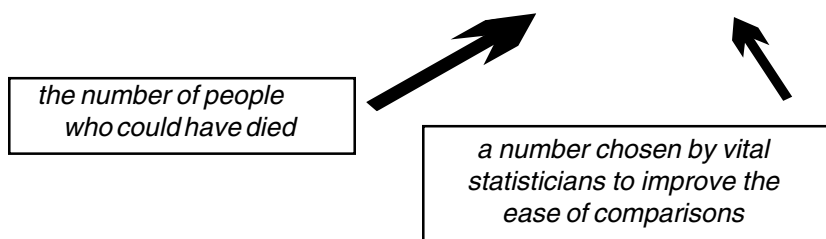
**STEP 2: MAKING THE NUMBER MEANINGFUL WITH RATES AND RATIOS**

In many instances simply knowing the number of events is not sufficient. For example, we know more people died in Multnomah County than in Wheeler County, because Multnomah County has a much larger population. But what is the *likelihood* of dying in each county?

In order to answer this question, statisticians calculate rates. This means that the number of events which occurred is compared to the population for which that event *could* have occurred, and the figure is then standardized to some number (such as 1,000 or 100,000) for convenience.

Here is an example:

$$\text{CRUDE DEATH RATE} = (\text{DEATHS} / \text{POPULATION}) \times 1,000$$



The more specifically a statistician can define the “population at risk” (the denominator or bottom part of the formula), the more meaningful the rate is. For example, the *crude birth rate*, which compares the number of births to the population, is not nearly as informative as the *fertility rate*, which uses only the number of women of childbearing age (15-44) for comparative purposes. The fertility rate is not distorted by changes in the number of men or pre-pubescent or post-menopausal women in the population. (The turn of the century notion that only *married* women between the age of 15 and 44 would be considered at risk of pregnancy has been abandoned for obvious reasons.)

Unfortunately we do not always have the correct denominator for the equation. In these situations a substitute is used. For example, how many people are at risk of getting divorced? The number of married people is only available for census years. As a substitute, the crude divorce rate is calculated using the total population regardless of marital status. In other situations, the event is simply compared to another related number. For instance, the abortion ratio compares the number of abortions to the number of births. This is easier and more accurate than trying to determine the true denominator, which is the total number of pregnant women.

**When calculating rates and ratios, great care must be taken to make certain that the appropriate time periods, geographical boundaries, and populations are used.**

### STEP 3: COMPARING TWO OR MORE NUMBERS

Numbers are more meaningful when they are converted into rates and ratios. But problems can arise when rates or ratios are compared for different geographical areas, different time periods, or different categories such as men versus women.

#### Chance Variation

Statisticians expect a certain amount of chance variation and have methods to take this into account. The *confidence interval* uses the number of cases and their distributions to determine what

the rate “really is.” For example, a statistician will say, “We are 95% sure that the *true* infant death rate for Oregon in 1986 was  $9.47 \pm 0.97$ ; that is, it lies somewhere between 8.50 and 10.44.” If two rates have overlapping confidence intervals, then the difference between them may be due to this chance variation. In other words the difference is not *statistically significant*.

**When comparing rates and ratios, differences should be tested for *statistical significance*. Formulas are listed in the next section of this chapter.**

**Small Numbers**

Chance variation is a common problem when the numbers being used to calculate rates are extremely small. Large swings often occur in the rates which do not reflect real changes. Consider Tillamook County’s infant mortality rates for a five-year period.

<b>TILLAMOOK COUNTY</b>			
YEAR	BIRTHS	INFANT DEATHS	INFANT DEATH RATES
1981	324	5	15.4
1982	318	2	6.3
1983	306	4	13.1
1984	264	1	3.8
1985	266	3	11.3
1981-1985	1,478	15	10.1

The overall rate of 10.1 is quite close to the state rate for the same time period (10.2). Yet, for some years the rate is four times as high as the rate of other years simply because four additional infants died. Public health officials would waste a good deal of energy reacting to these annual rates.

Many rates based on small numbers are published in this book because readers demand them. But, anyone preparing to make important decisions based on these rates should be wary. Consider this rule of thumb: a rate based on 20 cases has a 95% confidence interval about as wide as the rate itself (i.e., the interval for a rate of 50 is between 25 and 75). Even large differences between two rates based on 20 cases or less are probably not statistically significant.

If 20 is too few, how many cases are sufficient to say that a true difference exists? Unfortunately, we have no easy rules for this. To be safe, the vital statistician should always try to combine several years of data or consolidate geographical areas. Confidence intervals should be calculated, and differences should be tested for statistical significance.

### Changes in measurement

Another problem is that the numbers being compared have not always been based on the same type of measurement. Definitions, population estimates, certificates, and coding procedures change from time to time as the need arises. This can create “artificial” differences and can disguise “real” differences. The cause-of-death item provides an excellent example in comparability:

During the late 1970s, approximately 80 to 85 people died each year due to hypertensive disease.	Rate = 3.3 per 100,000 population
In 1979, 250 people died from this cause.	Rate = 9.8 per 100,000 population

It appears that the incidence of hypertensive disease increased. But actually, a new coding scheme resulted in more deaths being coded as due to hypertensive disease.

### Taking Age, Sex, and Race into Account

Mr. G.C. Whipple noted in 1923 that, “We might find that the death rate of bank presidents was higher than that of newsboys; but this would not be because of different occupations, but because of different ages.” We expect older people to die at a higher rate than younger people. We also expect people in their twenties to have more babies than the very young or the very old. Sex and race, as well as age, can affect rates drastically.

When comparing two places or two points in time, it is necessary to take these influencing characteristics into account. Here is an example:

The crude death rate increased between 1950 and 1960 from 9.1 to 9.5 deaths per 1,000 population. But, an examination of the age-specific death rates for each group indicates that all these rates decreased. This apparent contradiction is explained by the fact that in 1960

	1950	1960
<b>Crude Death Rate</b>	9.1	9.5
<b>Age-Specific Death Rates</b>		
0-4	5.9	5.7
5-14	0.6	0.4
15-24	1.5	1.1
25-44	2.4	2.1
45-64	11.1	10.6
65+	58.4	56.8

a larger proportion of the population was older. Because the risk of death is higher in older persons, the crude death rate increased.

**Before comparing two places or two time periods, always compare the population characteristics first. If discrepancies are noted in any relevant variables, then the rates should be adjusted or standardized in order to make the comparisons free of differences in the structure of the populations. The formulas for doing this are listed in the following section.**

## STEP 4: ANALYZING THE DATA

The first three steps have been fairly mechanical:

- (1) = Choose the correct events and the correct group to determine the number of events which took place for the geographical areas and time periods.
- (2) = Calculate the rates.
- (3) = Compare these rates to determine if the differences are statistically significant.

*NOW* the vital statistician must begin to ask the difficult questions. If we find that two rates are statistically significantly different, how can we find out *why* they are different? If the differences which we expected did not prove to be significant, is there another item which perhaps is masking an actual difference? Frequently, the statistician has to refine the research question and begin all over again.

Consider the researcher who asks, "Since 1985, has chronic lower respiratory disease posed a greater risk to Oregonians?" If the researcher looked at the overall rate, the answer would be "yes," but closer examination reveals that the death rate for males has declined. It is among women that the rate has moved sharply upward, reflecting their increased smoking prevalence during recent decades. This gender dichotomy would need to be addressed in a study of CLRD fatalities.

### Help

Several sources of help are available. Many of the widely used rates and ratios are presented in the Quick Reference section, and narratives and figures are included throughout this report to illustrate changes. And finally, the staff of the Center for Health Statistics are available for data users who need assistance.

## ENDNOTE

- 1 A more complete and accurate estimate of pregnancies based on outcomes would include: (1) births; (2) fetal deaths (stillbirths); (3) induced abortions; and (4) spontaneous abortions (miscarriages). However, fetal deaths occur in less than one percent of all pregnancies and are relatively constant in relation to births (see the *Fetal and Infant Mortality* chapter in Volume 2) and the number of miscarriages which occur is not available in vital records. Nevertheless, a measure which excludes these outcomes provides an adequate indicator of the number of pregnancies.

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# Technical Notes — Formulas

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## GENERAL:

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$$\text{PERCENT CHANGE} = \frac{\text{New Data} - \text{Old Data}}{\text{Old Data}} \times 100$$

$$\text{Birth rate, Oregon, 1993} = 13.7$$

$$\text{Birth rate, Oregon, 1994} = 13.6$$

$$\text{Percent change} = \frac{13.6 - 13.7}{13.7} \times 100 = -0.7\%$$

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## PREGNANCY:

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$$1. \text{ (CRUDE) BIRTH RATE} = \frac{\text{Resident Births}}{\text{Population}} \times 1,000$$

$$\text{Oregon, 1994} = \frac{41,832}{3,082,800} \times 1,000 = 13.6$$

---

$$2. \text{ AGE-SPECIFIC BIRTH RATE} = \frac{\text{Resident Births To Mothers in Age Category}}{\text{Female Population in Age Category}} \times 1,000$$

$$\text{Oregon, 1994, Age 20-24} = \frac{10,999}{104,718} \times 1,000 = 105.0$$

---

$$3. \text{ FERTILITY RATE} = \frac{\text{Resident Births to Mothers Aged 15-44}}{\text{Female Population Aged 15-44}} \times 1,000$$

NOTE: Some publications use the following:  $\frac{\text{All Resident Births}}{\text{Female Population Aged 15-44}}$

$$\text{Oregon, 1994} = \frac{41,659}{682,428} \times 1,000 = 61.0$$

---

$$4. \text{ TOTAL FERTILITY RATE} = \left( \text{The Sum of Age Specific Birth Rates in 5-Year Categories between 15 and 44} \right) \times 5$$

$$\text{Oregon, 1994} = 5 (51.3 + 105. + 115.4 + 78.5 + 30.2 + 6.0) = 1,932.0$$

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$$5. \text{ FETAL DEATH RATIO} = \frac{\text{Resident Fetal Deaths (350+ grams Birthweight)}}{\text{Resident Live Births}} \times 1,000$$

$$\text{Oregon, 1994} = \frac{224}{41,832} \times 1,000 = 5.4$$


---

$$6. \text{ FETAL DEATH RATE} = \frac{\text{Resident Fetal Deaths (350+ grams Birthweight)}}{\text{Resident Live Births} + \text{Resident Fetal Deaths}} \times 1,000$$

$$\text{Oregon, 1994} = \frac{224}{43,591 + 224} \times 1,000 = 5.1$$


---

$$7. \text{ PERINATAL DEATH RATE} = \frac{\text{Resident Neonatal Deaths} + \text{Resident Fetal Deaths (350+ grams Birthweight)}}{\text{Resident Live Births} + \text{Resident Fetal Deaths}} \times 1,000$$

$$\text{Oregon, 1994} = \frac{148 + 203}{41,566 + 203} \times 1,000 = 8.4$$

*Note: Publications vary in the definition of fetal deaths. In addition, some measures employ gestational age in place of birthweight. Fetal and perinatal death rates are based on year of birth.*

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$$8. \text{ ABORTION RATIO} = \frac{\text{Resident Abortions}}{\text{Resident Births}} \times 1,000 \text{ or } \frac{\text{Occurrence Abortions}}{\text{Occurrence Births}} \times 1,000$$

$$\text{Oregon, 1994, Occurrence} = \frac{13,392}{43,591} \times 1,000 = 307.2$$


---

$$9. \text{ ABORTION RATE} = \frac{\text{Resident Abortions or Occurrence Abortions}}{\text{Female Resident Population Aged 15-44}} \times 1,000$$

$$\begin{aligned} \text{Oregon 1994, Occurrence} \\ \text{with total adjusted} \\ \text{for unknown ages} \end{aligned} = \frac{13,300}{682,428} \times 1,000 = 19.5$$

**DEATHS:**

---

$$10. \text{ (CRUDE) DEATH RATE} = \frac{\text{Resident Deaths}}{\text{Population}} \times 1,000$$

$$\text{Oregon, 1994} = \frac{27,361}{3,082,000} \times 1,000 = 8.9$$


---

$$11. \text{ INFANT DEATH RATE} = \frac{\text{Resident Infant Deaths}}{\text{Resident Births}} \times 1,000$$

$$\text{Oregon, 1994} = \frac{295}{41,832} \times 1,000 = 7.1$$


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$$12. \text{ NEONATAL DEATH RATE} = \frac{\text{Resident Neonatal Deaths}}{\text{Resident Births}} \times 1,000$$

$$\text{Oregon, 1994} = \frac{164}{41,832} \times 1,000 = 3.9$$


---

$$13. \text{ POSTNEONATAL DEATH RATE} = \frac{\text{Resident Postneonatal Deaths}}{\text{Resident Births}} \times 1,000$$

$$\text{Oregon, 1994} = \frac{131}{41,832} \times 1,000 = 3.1$$


---

$$14. \text{ CAUSE-SPECIFIC DEATH RATE} = \frac{\text{Resident Deaths Due to Specific Cause}}{\text{Population}} \times 100,000$$

$$\text{Oregon, 1994, Heart Disease} = \frac{7,417}{3,082,000} \times 100,000 = 240.7$$


---

$$15. \text{ AGE AND SEX-SPECIFIC DEATH RATE} = \frac{\text{Resident Deaths in Age-Sex Category}}{\text{Population in Age-Sex Population}} \times 1,000$$

$$\text{Oregon, 1994, Males Aged 5-14} = \frac{63}{225,880} \times 100,000 = 27.9$$

## **MARRIAGE AND DIVORCE:**

$$16. \text{ MARRIAGE RATE} = \frac{\text{Marriages}}{\text{Population}} \times 1,000$$

$$\text{Oregon, 1994} = \frac{25,194}{3,082,000} \times 1,000 = 8.2$$

$$17. \text{ DIVORCE RATE} = \frac{\text{Divorces}}{\text{Population}} \times 1,000$$

$$\text{Oregon, 1994} = \frac{15,844}{3,082,000} \times 1,000 = 5.1$$

Beginning with 1998 data, the following methodology is being used for calculating confidence intervals and statistical significance. This explanation is paraphrased from "*Public Health Data: Our Silent Partner*", a training manual from the Public Health Practice Program Office of the National Center for Health Statistics.<sup>1</sup>

## **CALCULATING CONFIDENCE INTERVALS FOR RATES:**

### **Confidence limits for rates based on less than 100 events**

When the number of events in the numerator is less than 100, the confidence interval for a rate can be estimated using the two formulas which follow and the values in Table B-1.

Lower Limit = R x L

Upper Limit = R x U

where:

R = the rate

L = the value in Table B-1 that corresponds to the number N in the numerator of the rate

U = the value in Table B-1 that corresponds to the number N in the numerator of the rate

### **Example: Confidence limits for rates based on less than 100 events**

In Baker County, the teen pregnancy rate for 10- to 17-year-old teens in 1998 was 13.0 per thousand, based on 12 live births in the numerator. Using Table B-1:

$$\text{Lower Limit} = 13.0 \times 0.51671 = 6.7$$

$$\text{Upper Limit} = 13.0 \times 1.7468 = 22.7$$

This means that the chances are 95 out of 100 that the pregnancy rate in Baker County for teens 10-17 lies between 6.7 and 22.7 per 1,000. So if there were 100 counties like Baker County, the teen pregnancy rate would be expected to lie between 6.7 and 22.7 per 1,000 in 95 of these counties.

TABLE B-1. Values of L and U for calculating 95% confidence limits for the numbers of events and rates when the number of events is less than 100.								
N	L	U	N	L	U	N	L	U
1	0.02532	5.57164	34	0.69253	1.3974	67	0.77499	1.26996
2	0.1211	3.61234	35	0.69654	1.39076	68	0.77654	1.26774
3	0.20622	2.92242	36	0.70039	1.38442	69	0.77806	1.26556
4	0.27247	2.5604	37	0.70409	1.37837	70	0.77955	1.26344
5	0.3247	2.33367	38	0.70766	1.37258	71	0.78101	1.26136
6	0.36698	2.17658	39	0.7111	1.36703	72	0.78244	1.25933
7	0.40205	2.06038	40	0.71441	1.36172	73	0.78384	1.25735
8	0.43173	1.9704	41	0.71762	1.35661	74	0.78522	1.25541
9	0.45726	1.89831	42	0.72071	1.35171	75	0.78656	1.25351
10	0.47954	1.83904	43	0.7237	1.34699	76	0.78789	1.25165
11	0.4992	1.78928	44	0.7266	1.34245	77	0.78918	1.24983
12	0.51671	1.7468	45	0.72941	1.33808	78	0.79046	1.24805
13	0.53246	1.71003	46	0.73213	1.33386	79	0.79171	1.2463
14	0.54671	1.67783	47	0.73476	1.32979	80	0.79294	1.24459
15	0.55969	1.64935	48	0.73732	1.32585	81	0.79414	1.24291
16	0.57159	1.62394	49	0.73981	1.32205	82	0.79533	1.24126
17	0.58254	1.6011	50	0.74222	1.31838	83	0.79649	1.23965
18	0.59266	1.58043	51	0.74457	1.31482	84	0.79764	1.23807
19	0.60207	1.56162	52	0.74685	1.31137	85	0.79876	1.23652
20	0.61083	1.54442	53	0.74907	1.30802	86	0.79987	1.23499
21	0.61902	1.52861	54	0.75123	1.30478	87	0.80096	1.2335
22	0.62669	1.51401	55	0.75334	1.30164	88	0.80203	1.23203
23	0.63391	1.50049	56	0.75539	1.29858	89	0.80308	1.23059
24	0.64072	1.48792	57	0.75739	1.29562	90	0.80412	1.22917
25	0.64715	1.4762	58	0.75934	1.29273	91	0.80514	1.22778
26	0.65323	1.46523	59	0.76125	1.28993	92	0.80614	1.22641
27	0.65901	1.45495	60	0.76311	1.2872	93	0.80713	1.22507
28	0.66449	1.44528	61	0.76492	1.28454	94	0.8081	1.22375
29	0.66972	1.43617	62	0.76669	1.28195	95	0.80906	1.22245
30	0.6747	1.42756	63	0.76843	1.27943	96	0.81	1.22117
31	0.67945	1.41942	64	0.77012	1.27698	97	0.81093	1.21992
32	0.684	1.4117	65	0.77178	1.27458	98	0.81185	1.21868
33	0.68835	1.40437	66	0.7734	1.27225	99	0.81275	1.21746

**Confidence limits for rates based on 100 or more events**

In this case, use the following formula for the rate (R) based on the number of events (N):

$$\text{Upper Limit} = R + [1.96 \times R / \sqrt{N}]$$

where:

R = the rate (birth rate, mortality rate, teen pregnancy rate, etc.)

N = the number of events (births, deaths, teen pregnancy, etc.)

**Example: Confidence limits for rates based on 100 or more events**

In Jackson County, the teen pregnancy rate for teens 10-17 was 13.7 in 1998 based on 143 pregnancies. Therefore, the confidence interval would be:

$$\begin{aligned} \text{Lower Limit} &= 13.7 - [1.96 \times (13.7 / \sqrt{143})] \\ &= 13.7 - [1.96 \times (13.7 / 11.96)] \\ &= 13.7 - [1.96 \times 1.15] \\ &= 13.7 - 2.25 \\ &= 11.5 \end{aligned}$$

$$\begin{aligned} \text{Upper Limit} &= 13.7 + [1.96 \times (13.7 / \sqrt{143})] \\ &= 13.7 + [1.96 \times (13.7 / 11.96)] \\ &= 13.7 + [1.96 \times 1.15] \\ &= 13.7 + 2.25 \\ &= 16.0 \end{aligned}$$

So if there were 100 counties like Jackson County with similar populations, the teen pregnancy rate would be expected to lie between 11.5 and 16.0 per 1,000 in 95 of these counties.

**DETERMINING STATISTICAL SIGNIFICANCE FOR RATES:**

If the difference between two rates would occur due to random variability less than 5 times out of 100, then we say that the difference is statistically significant at the 95% level. Otherwise the difference is not statistically significant.

### Computing statistical significance when at least one of the rates is based on fewer than 100 events

To compare two rates, when one or both rates are based on fewer than 100 events, compute the confidence intervals for both rates. If the intervals overlap, the difference is not statistically significant.

#### Example: comparing rates when one is based on fewer than 100 events

Baker County teen pregnancy rate for age 10-17  
 Lower Limit = 6.7  
 Upper Limit = 22.7  
 Jackson County teen pregnancy rate for age 10-17  
 Lower Limit = 11.5  
 Upper Limit = 16.0

The confidence intervals overlap - the interval for Jackson County is entirely within the range of the interval for Baker County. Therefore, the difference between the teen pregnancy rate for age 10-17 in Baker County and the rate for Jackson County is not statistically significant.

### Computing statistical significance when both rates are based on 100 or more events

When both rates are based on 100 or more events, calculate the difference between the two rates by subtracting the lower rate from the higher rate. The difference is considered statistically significant if it exceeds 1.96 times the standard error for the difference between the two rates.

$$1.96 \sqrt{\frac{R_1^2}{N_1} + \frac{R_2^2}{N_2}}$$

where:

$R_1$  = the first rate

$R_2$  = the second rate

$N_1$  = the first number

$N_2$  = the second number

If the difference is greater than the statistic, the difference would occur by chance less than 5 times out of 100. The difference is statistically significant at the 95 percent confidence level.

If the difference is less than the statistic, the difference might occur by chance more than 5 times out of 100. The difference is not statistically significant at the 95 percent confidence level.

**Example: comparing rates when both are based on 100 or more events**

The teen pregnancy rate for Oregon teens age 10-17 in 1997 was 18.0 and the comparable rate for 1998 was 17.2. Both rates are based on more than 100 pregnancies (3,197 in 1997 and 3,176 in 1998). The difference between the rates is  $18.0 - 17.2 = 0.8$ . The statistic is calculated as follows:

$$1.96 \sqrt{\frac{18.0^2}{3,197} + \frac{17.2^2}{3,176}}$$

$$1.96 \sqrt{\left(\frac{324}{3,197} + \frac{295.84}{3,176}\right)}$$

$$1.96 \sqrt{(0.101 + 0.093)}$$

$$1.96 \sqrt{0.194}$$

$$= 1.96 \times .44$$

$$= 0.86$$

The difference between the rates (0.8) is less than this statistic (0.9). Therefore, the difference is not statistically significant. A difference of 0.8 between these two rates might occur by chance more than 5 times out of 100.

## CALCULATING RATES ADJUSTED FOR SEX/AGE/RACE:

When comparing rates and ratios, the influences of sex, age, and race differences in the populations must be taken into account. Comparing many different age-sex-race specific rates can be cumbersome. The following techniques are used by vital statisticians to summarize these rates into one number.

The *direct adjusted rate* applies each of the specific rates for a particular population (such as a county or a Health Service Area) to a standard population distribution (such as the state).

The *standard mortality ratio* compares the number of deaths for a particular population (such as a county or a Health Service Area) to the number of deaths which would be expected if some standard set of rates (such as the state or the U.S. rates) had occurred.<sup>2</sup>

Both of these techniques have their advantages and disadvantages. The easiest to calculate is the direct adjusted rate. The following example shows how to adjust a county's death rate for sex so that it may be compared to the state rate.

$$\frac{\left[ \frac{\text{county male deaths}}{\text{county male population}} \times \text{state male population} \right] + \left[ \frac{\text{county female deaths}}{\text{county female population}} \times \text{state female population} \right]}{\text{TOTAL STATE POPULATION}} \times 1,000$$

The same logic can be used to adjust for age and/or race.

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**REFERENCES:**

1. US Department of Health & Human Services, Public Health Service, Centers for Disease Control and Prevention, October 1999. The original materials are available on-line at <http://www.cdc.gov/nchs/products/training/phd-osp.htm>.

2. For more information, please see "Direct Standardization (Age-Adjusted Death Rates)," U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Center for Health Statistics, March 1995. The original materials are available on-line at <http://www.cdc.gov/nchs/data/statnt/statnt06rv.pdf>.

For further information about calculating confidence intervals and adjusting rates, see:

National Center for Health Statistics: Infant Mortality, by J. C. Kleinman, Statistical Notes for Health Planners, No. 2. Health Resources Administration, Washington, D.C., July 1976.

National Center for Health Statistics: Mortality, by J. C. Kleinman, Statistical Notes for Health Planners, No. 3. Health Resources Administration, Washington, D.C., July 1977.

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# Appendix C: List of Figures and Tables

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