
Oregon
Vital Statistics
Annual Report
1998
Vol. 1



Quick Reference: Volume 1

Summary of Oregon Vital Events, 1998

Population	3,267,550	Population increased 50,550, or 1.6 percent over 1997.
Live Births	Residents	Number increased by 1,463. Both the crude rate and the fertility rate increased slightly from 1997.
Number	45,228	
Crude Rate	13.8	
Fertility Rate	64.2	
Marriages	Occurrence	Number of Marriages decreased by 650, a decrease of 2.5 percent from 1997. The rate decreased by 3.7 percent.
Number	25,424	
Crude Rate	7.8	
Divorces	Occurrence	Number of divorces increased by 370, an increase of 2.5 percent over 1997. Rate increased by 2.2 percent.
Number	15,234	
Crude Rate	4.7	
Unmarried Mothers	Residents	Number increased by 845. Proportion of births which were to unmarried mothers increased 3.3 percent.
Number	13,451	
Rate	297.6	
Low Birthweight Infants	Residents	Number of low birthweight infants increased by 21. Rate decreased by 2.4 percent.
Number	2,428	
Rate	53.7	
Induced Abortions	Occurrence	The number of reported abortions decreased by 268, a decrease of 1.8 percent from 1997. The abortion ratio decreased by 4.3 percent.
Number	14,344	
Ratio	310.0	

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., 1945-1998

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

TABLE 1-1.
Live Births, Births to Unmarried Mothers,
Marriages, and Divorces, U.S., 1945-1998 (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	220.2	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	*2,244,000	*8.3	*1,135,000	*4.2

* 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: Final Data for 1998. Vol.48, No. 3, March 28, 2000. This publication belongs to the monthly Vital Statistics Report series published by the National Center for Health Statistics (NCHS).

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

Marriage and divorce number and rate, 1997 and 1998: Provisional Data for 1998. Births, Marriages, Divorces and Deaths. Monthly Vital Statistics Report, Vol. 47, No. 21, July 6, 1999, p.1.

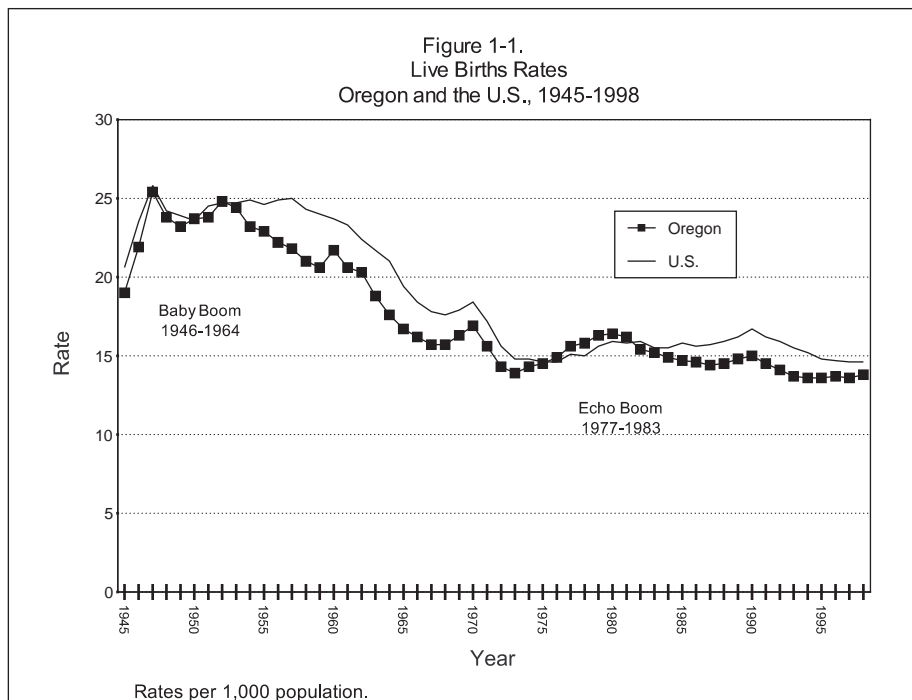


TABLE 1-2.
Population, Live Births, Births to Unmarried Mothers,
Marriages, and Divorces, Oregon, 1908-1998

Year	Population	Live Births		Births to Unmarried Mothers		Marriages		Divorces	
		Number	Rate	Number	Rate	Number	Rate	Number	Rate
1908	621,109	8,322	13.3	-	-	-	-	-	-
1909	647,055	8,656	13.3	-	-	4,863	7.5	-	-
1910	673,002	9,176	13.6	-	-	5,541	8.2	-	-
1911	684,847	9,562	13.8	-	-	6,846	9.9	-	-
1912	696,692	11,189	16.0	-	-	6,613	9.4	-	-
1913	708,537	11,033	15.5	-	-	5,382	7.5	-	-
1914	720,382	11,624	16.1	-	-	5,170	7.1	-	-
1915	732,226	12,232	16.7	-	-	4,983	6.8	-	-
1916	744,071	12,960	17.4	-	-	5,396	7.2	-	-
1917	755,916	13,147	17.4	-	-	6,196	8.2	-	-
1918	767,761	13,295	17.3	-	-	5,281	6.9	-	-
1919	779,606	13,638	17.5	-	-	6,605	8.5	-	-
1920	791,701	14,954	18.8	-	-	7,557	9.5	-	-
1921	808,325	15,607	19.3	-	-	7,643	9.4	-	-
1922	824,949	15,087	18.3	-	-	6,691	8.1	-	-
1923	841,573	14,992	17.8	-	-	7,151	8.4	-	-
1924	858,197	15,818	18.4	-	-	6,937	8.1	-	-
1925	874,800	15,579	17.8	-	-	6,999	8.0	-	-
1926	891,400	14,929	16.7	-	-	7,160	8.0	3,128	3.5
1927	908,100	14,637	16.1	-	-	7,392	8.1	3,149	3.5
1928	924,700	14,159	15.3	-	-	7,625	8.2	3,090	3.3
1929	941,300	13,244	14.1	-	-	8,243	8.7	3,197	3.4
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

TABLE 1-2.
Population, Live Births, Births to Unmarried Mothers,
Marriages, and Divorces, Oregon, 1908-1998 (Continued)

Year	Population	Live Births		Births to Unmarried Mothers		Marriages		Divorces	
		Number	Rate	Number	Rate	Number	Rate	Number	Rate
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
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	161.0	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

- Data not available.

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

Rate per 1,000 live births for births to unmarried mothers calculated excluding unknown marital status.

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, 1998

County	Estimated Population July 1, 1998	Live Births		Births to Unmarried Mothers		Marriages		Dissolutions of Marriage	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate
Total	3,267,550	45,228	13.8	13,451	297.6	25,424	7.8	15,234	4.7
Baker	16,700	184	§11.0	57	309.8	154	9.2	108	§6.5
Benton	76,600	807	§10.5	155	§192.1	493	§6.4	315	§4.1
Clackamas	323,600	4,164	§12.9	949	§228.0	2,878	§8.9	1,380	§4.3
Clatsop	34,700	395	§11.4	131	331.6	407	§11.7	184	5.3
Columbia	42,300	536	§12.7	138	257.9	260	§6.1	242	§5.7
Coos	61,400	626	§10.2	231	§369.0	502	8.2	310	5.0
Crook	16,650	234	14.1	66	284.5	172	§10.3	109	§6.5
Curry	22,000	170	§7.7	70	§451.6	189	8.6	115	5.2
Deschutes	104,900	1,371	13.1	371	270.6	866	8.3	644	§6.1
Douglas	100,300	1,141	§11.4	430	§376.9	834	8.3	647	§6.5
Gilliam	2,100	19	9.0	5	263.2	8	§3.8	8	3.8
Grant	8,000	88	§11.0	32	363.6	58	7.3	47	5.9
Harney	7,600	95	12.5	30	315.8	58	7.6	39	5.1
Hood River	19,500	287	14.7	68	236.9	253	§13.0	75	3.8
Jackson	172,800	2,124	§12.3	721	§339.6	1,399	8.1	1,029	§6.0
Jefferson	17,400	302	§17.4	129	§427.2	180	§10.3	75	4.3
Josephine	73,000	815	§11.2	300	§368.1	504	§6.9	427	§5.8
Klamath	62,000	856	13.8	326	§380.8	457	7.4	287	4.6
Lake	7,400	69	§9.3	25	362.3	46	6.2	45	6.1
Lane	313,000	3,762	§12.0	1,214	§322.8	2,335	7.5	1,621	§5.2
Lincoln	43,200	424	§9.8	192	§452.8	610	§14.1	260	§6.0
Linn	102,200	1,484	14.5	420	283.4	755	7.4	518	5.1
Malheur	29,200	535	§18.3	173	323.4	200	§6.8	117	4.0
Marion	271,900	4,540	§16.7	1,466	§322.9	2,125	7.8	1,227	4.5
Morrow	9,400	151	16.1	37	245.0	76	8.1	43	4.6
Multnomah	641,900	9,303	§14.5	3,095	§332.7	5,345	§8.3	2,275	§3.5
Polk	59,500	716	§12.0	191	266.8	347	§5.8	289	4.9
Sherman	1,900	23	12.1	6	260.9	11	5.8	1	§0.5
Tillamook	24,000	234	§9.8	79	337.6	215	9.0	117	4.9
Umatilla	67,100	1,024	§15.3	374	§365.2	446	§6.6	331	4.9
Union	24,400	278	§11.4	78	280.6	209	8.6	97	4.0
Wallowa	7,200	57	§7.9	14	245.6	80	§11.1	33	4.6
Wasco	22,600	314	13.9	107	340.8	196	8.7	74	§3.3
Washington	397,600	6,931	§17.4	1,444	§208.3	2,122	§5.3	1,749	§4.4
Wheeler	1,600	9	§5.6	3	333.3	7	4.4	8	5.0
Yamhill	81,900	1,160	14.2	324	279.3	627	7.7	388	4.7

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

§ Indicates rate is significantly different than state rate.

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

TABLE 1-4.
Population and Births by City of Residence, Oregon, 1998

City of Residence	Estimated Population July 1, 1998	Births	
		Number	Rate
Albany (Linn, Benton)	38,925	667	17.1
Ashland (Jackson)	19,220	153	8.0
Astoria (Clatsop)	10,090	171	16.9
Baker City (Baker)	10,160	140	13.8
Beaverton (Washington)	68,050	1,697	24.9
Bend (Deschutes)	35,635	664	18.6
Canby (Clackamas)	12,465	237	19.0
Central Point (Jackson)	11,255	180	16.0
Coos Bay (Coos)	15,615	214	13.7
Corvallis (Benton)	49,630	544	11.0
Dallas (Polk)	12,530	199	15.9
Eugene (Lane)	133,460	1,761	13.2
Forest Grove (Washington)	16,170	302	18.7
Gladstone (Clackamas)	11,745	132	11.2
Grants Pass (Josephine)	20,590	387	18.8
Gresham (Multnomah)	83,595	1,367	16.4
Hermiston (Umatilla)	11,595	236	20.4
Hillsboro (Washington)	65,110	1,258	19.3
Keizer (Marion)	29,235	453	15.5
Klamath Falls (Klamath)	18,940	330	17.4
La Grande (Union)	12,795	157	12.3
Lake Oswego (Clackamas) (Multnomah) (Washington)	34,280	353	10.3
Lebanon (Linn)	12,480	219	17.5
McMinnville (Yamhill)	24,265	424	17.5
Medford (Jackson)	58,895	1,009	17.1
Milwaukie (Clackamas)	20,220	751	37.1
Newberg (Yamhill)	17,355	275	15.8
Newport (Lincoln)	10,240	125	12.2
Ontario (Malheur)	10,680	274	25.7
Oregon City (Clackamas)	22,560	512	22.7
Pendleton (Umatilla)	16,915	246	14.5
Portland (Clackamas) (Multnomah) (Washington)	509,610	7,365	14.5
Redmond (Deschutes)	12,435	218	17.5
Roseburg (Douglas)	20,215	375	18.6
Salem (Marion, Polk)	126,635	2,576	20.3
Springfield (Lane)	51,700	1,010	19.5
The Dalles (Wasco)	11,765	220	18.7
Tigard (Washington)	37,200	794	21.3
Troutdale (Multnomah)	14,040	250	17.8
Tualatin (Washington)	21,405	327	15.3
West Linn (Clackamas)	21,405	280	13.1
Wilsonville (Clackamas)	12,290	190	15.5
Woodburn (Marion)	16,585	449	27.1

Cities of 10,000 or more population listed.

Counties listed in parentheses.

Population source: Center for Population Research and Census, Portland State University, July 1, 1998.

Rate per 1,000 population.

TABLE 1-5.
United States Rates of Low Birthweight, and
Measures of Prenatal Care, 1980-1998

Year	Low Birthweight	First Trimester Care	No Care	Inadequate Care	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

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

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

* National Center for Health statistics, National Vital Statistics Reports, Births: Final Data for 1998. Vol. 48, No. 3. 100 pp. (PHS).

TABLE 1-6.
Oregon Rates of Low Birthweight,
and Measures of Prenatal Care, 1980-1998

Year	Low Birthweight	First Trimester	No Care	Inadequate Care	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

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

All rates are per 1,000 live births.

Rates and percentages are calculated excluding missing and unknown values.

Natality

INDICATORS OF BIRTHING TRENDS

In 1998, Oregon recorded 45,228 resident births. There were 1,463 more resident births than in 1997 and the crude birth rate increased slightly, from 13.6 to 13.8 per 1,000 population. [Table 1-2]. The fertility rate increased from 63.0 to 64.2 per 1,000 women 15-44. [Table 2-2]. Oregon's crude birth rate (the number of babies born divided by the total state population) peaked in 1947 at 25.4 per 1,000 population. For the past 30 years, however, Oregon's rates have held in the mid-teens, ranging from the 1994-1995 low of 13.6 to a high of 16.4 in 1980. Except for the period between 1976 and 1981, Oregon's crude birth rate has remained lower than the national rate. In 1998, Oregon's rate was 5.5 percent lower than the nation's (13.8 vs. 14.6).¹ [Figure 1-1].

AGE-SPECIFIC BIRTH AND FERTILITY RATES

The fertility rate is based on the number of births per 1,000 women 15-44. Unlike the crude rate, it consists only of women who are of childbearing age making it a more precise measurement of changes in behavioral patterns. Oregon's 1998 fertility rate increased slightly (1.9%) from the 1997 rate (see sidebar). The largest increase in age-specific birth rates was among women 20-24 (10.1%), followed by women 35-39 (2.1%). [Table 2-2]. Birth rates decreased among women 30-34 (-1.9%) and women 40-44 (-1.5%). [Table 2-2; Figure 2-1]. The youngest mothers in 1998 were 12 years old; the oldest was 52. (For more detailed information, see the Teen Pregnancy section of this report.)

MARITAL STATUS OF MOTHER

Traditionally, 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. Over the last 20 years, the percentage of births to unmarried women has more than doubled in Oregon. [Figure 2-2]. In 1998, 29.8 percent of all Oregon births were to unmarried women, an increase of 3.5 percent. [Table 1-2]. Oregon has consistently had lower non-marital birth rates than the nation; Oregon's rate in 1998 was 9.1 percent lower. [Figure 2-2]. Among women giving birth in 1998, the percentage who were unmarried varied widely by ethnic and racial group (see sidebar). African American women had the highest rate of non-marital births (65.4%), followed by American Indian women (58.4%), and Hispanic women

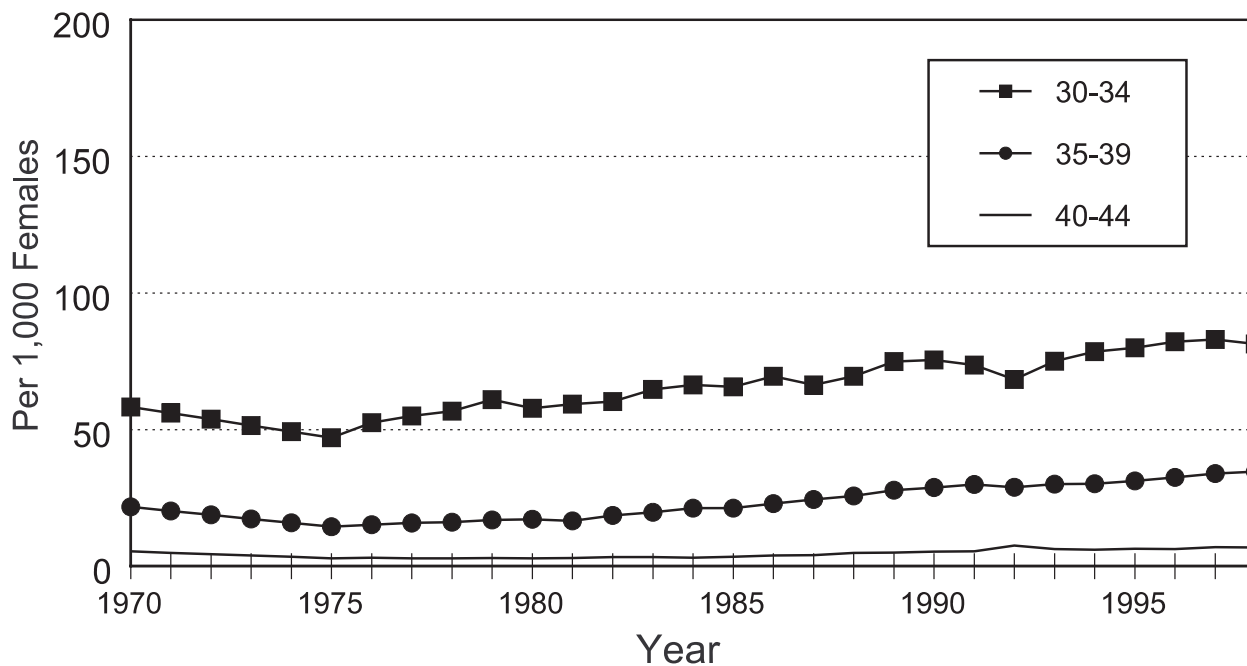
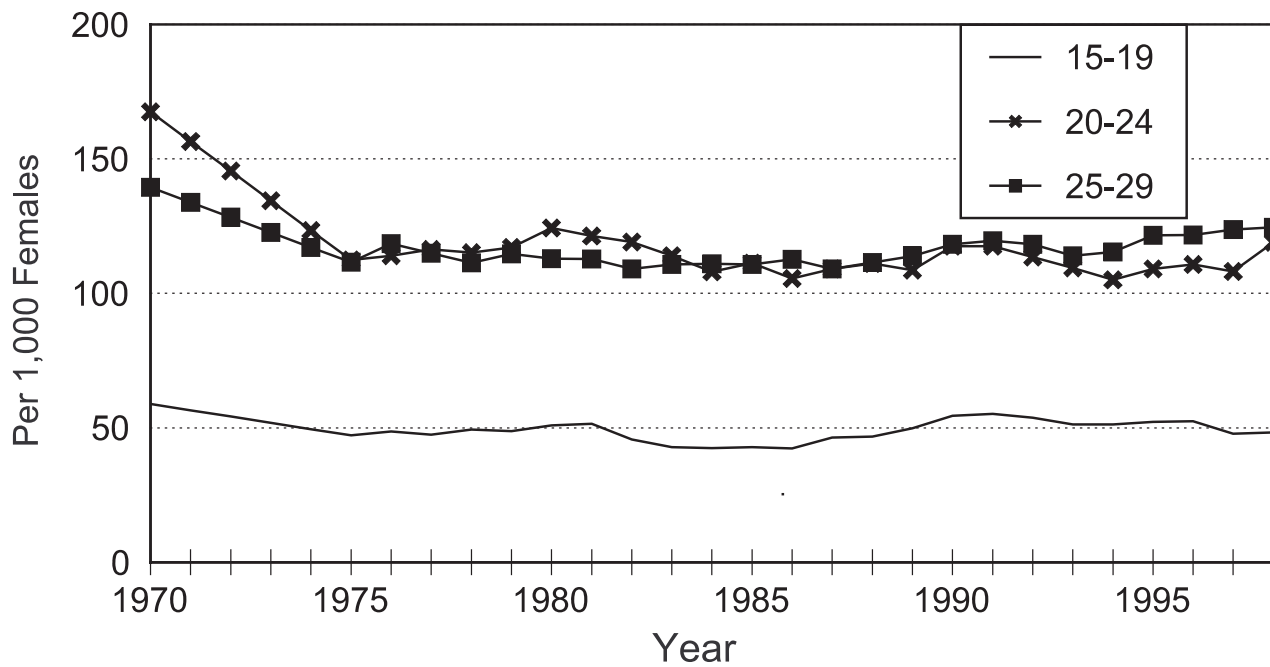
Oregon's crude birth rate and fertility rate both remain below the national rates.

Year	Oregon	U.S.
1980	69.3	68.4
1981	68.1	67.4
1982	65.2	67.3
1983	64.1	65.8
1984	62.8	65.4
1985	62.2	66.2
1986	61.8	65.4
1987	60.9	65.7
1988	61.8	67.2
1989	63.3	68.2
1990	65.1	71.1
1991	63.7	69.6
1992	62.5	69.3
1993	61.1	67.6
1994	61.0	65.8
1995	62.3	65.6
1996	63.2	65.3
1997	63.0	65.0
1998	64.2	65.6*

*Provisional data.

Race/Ethnicity	Unmarried (%)
Total	29.8
African American	65.4
American Indian	58.4
Hispanic (All Races)	38.3
White	28.9
Filipino	22.3
Other Asian & Pacific Islander	18.8
Japanese	7.9
Chinese	4.4

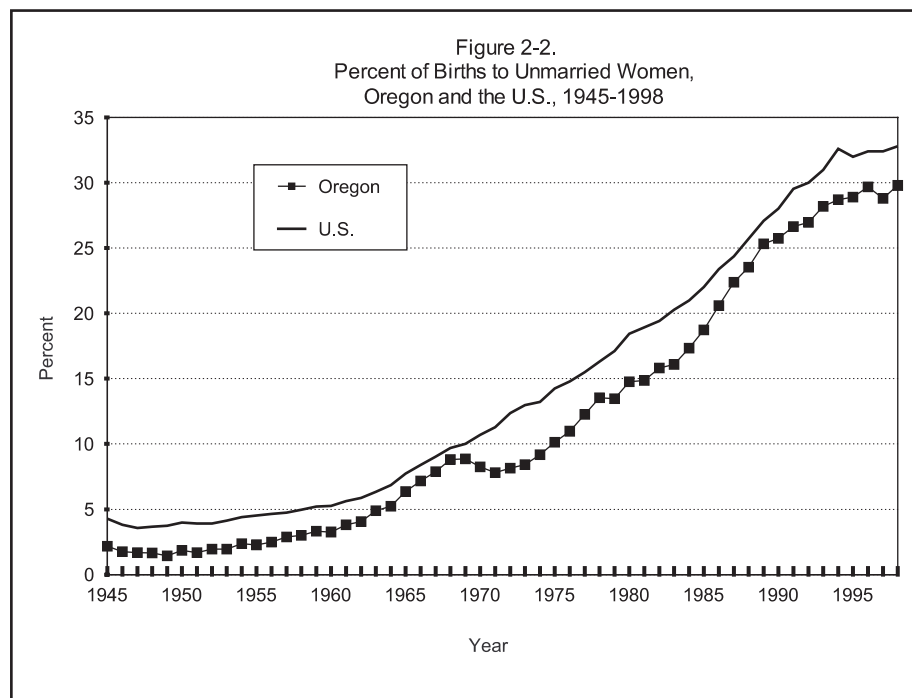
Figure 2-1.
Age-Specific Birth Rates,
Oregon Residents, 1970-1998



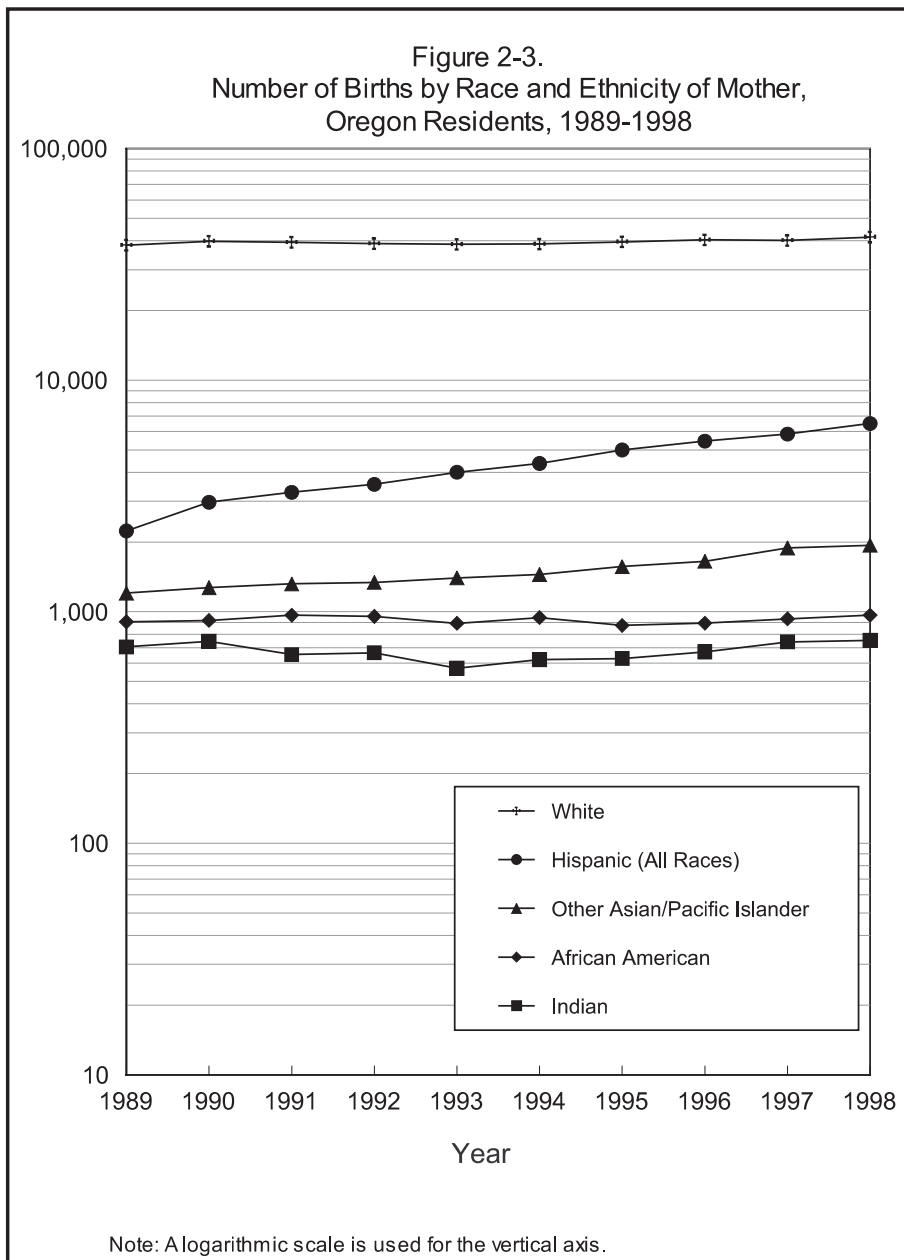
(38.3%). Japanese women (7.9%) and Chinese women (4.4%) were least likely to be unmarried. Young mothers were also likely to be unmarried since Oregon law prohibits marriage before age 17. Although 75.6 percent of births to teens 15-19 were non-marital, this percentage decreased to 39.5 percent for women 20-24 and to 19.5 percent for women 25-29. Mothers 30-39 were least likely to be unmarried (13%), while 16 percent of mothers 40 and older were unmarried. [Table 2-3]. Twelve of Oregon's 36 counties had significantly higher rates of non-marital births compared to the state average. [Table 2-7]. Among counties with statistically significant differences, Lincoln had the highest rate (452.8 per 1,000) followed by Jefferson (427.2 per 1,000). Three Oregon counties had non-marital birth rates significantly lower than the state average. The lowest rate was in Benton County (192.1). A county's non-marital birth rate should be viewed in part as a function of its own specific population mix, especially age and race. Variations in population composition will likely result in significant differences among counties.

MATERNAL RACE/ETHNICITY

Because precise population data are available only for census years, birth rates cannot be calculated by racial and ethnic group, only by the number of births. Beginning in 1981 and continuing through 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 accuracy when self-reporting. These



changes are associated with some of the increase in reporting of births to Hispanic women. Births to Hispanic women increased by 36.7% between 1988, when Hispanic was last categorized as race, and 1989, when Hispanic was first categorized as an ethnic group. Since 1989, the number of births to women of Hispanic ethnicity has increased 191 percent to 13.2 percent of total births.[Table 2-4]. In two Oregon counties, almost half of the residents giving birth in 1998 identified themselves as Hispanic: Hood River (48%) and Malheur (47%). [Table 2-6]. An increased willingness to self-report minority affiliation may also be occurring among all groups.



The number of resident births to white women (Hispanic and non-Hispanic) has increased 8.3 percent since 1989, while the number of births to African American and American Indian women both increased 6.7 percent. [Table 2-4, Figure 2-3].

LOW BIRTHWEIGHT

National Healthy People 2000 Objective

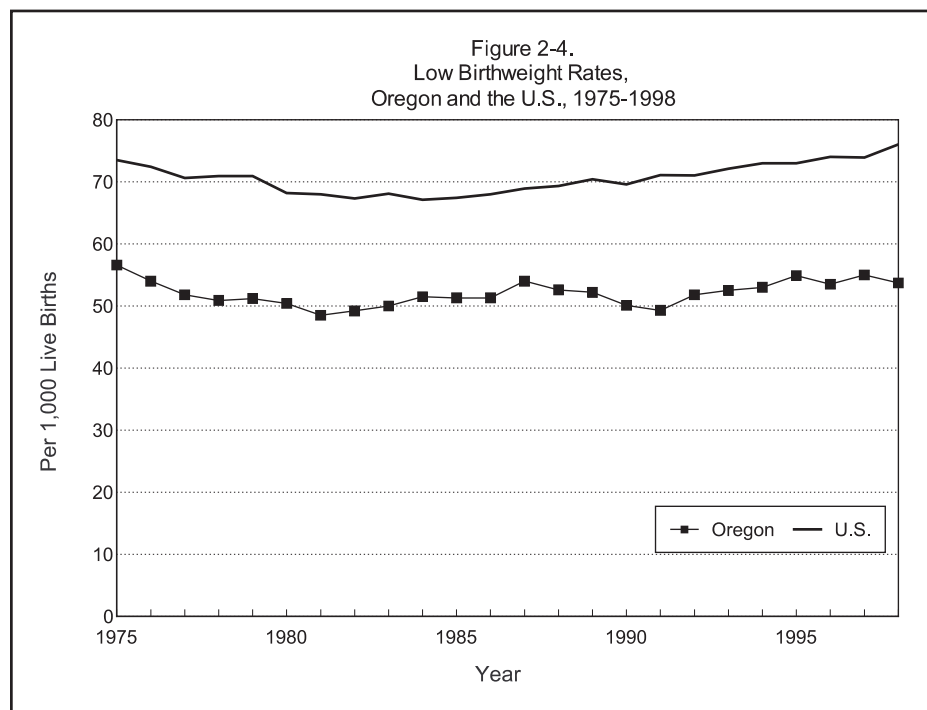
Reduce low birthweight to an incidence of no more than 5.0 percent of live births.

Percentage of Oregon low birthweight births, 1998: 5.4%

There were 2,428 low birthweight babies born to Oregon mothers in 1998.

Of the thousands of infants born every year, not all thrive and become healthy adults. The low birthweight rate is the proportion of infants who weigh less than 2,500 grams (5.5 pounds) at birth. These infants are more likely to need extensive medical treatment, and some may have lifelong disabling conditions.

In 1998, there were 2,428 low birthweight babies born to Oregon mothers. The National Public Health Service has set a Year 2000 Objective to reduce the percentage of low birthweight infants to 5.0 percent.² In 1998, the percentage of low birthweight births in Oregon was slightly above the objective at 5.4 percent, or 53.7 per 1,000 live births. This rate is slightly lower than the 1997 figure of 55.0, but the



rate has fluctuated relatively little over the last 15 years. [Table 1-6; Figure 2-4]. The lowest rate was recorded in 1981 (48.5) and the highest in 1975 (56.6). Oregon's low birthweight rates are typically 25 percent lower than those of the U.S. In 1998, Oregon's rate was 29 percent lower than the national rate. Major factors contributing to the risk of having a low birthweight baby are multiple births, tobacco use, and chronic hypertension. Other factors include: non-white race, mother's age (younger than 18 or older than 35), lack of prenatal care, low income, single marital status, a previous fetal or infant death, low maternal education, and short spacing between births.²

Low birthweight is the major predictor of infant death, which in turn is a fundamental measure of the health of a population. (For more information, see the Fetal and Infant Mortality section to be published in Volume 2 of the Oregon Vital Statistics Annual Report.)

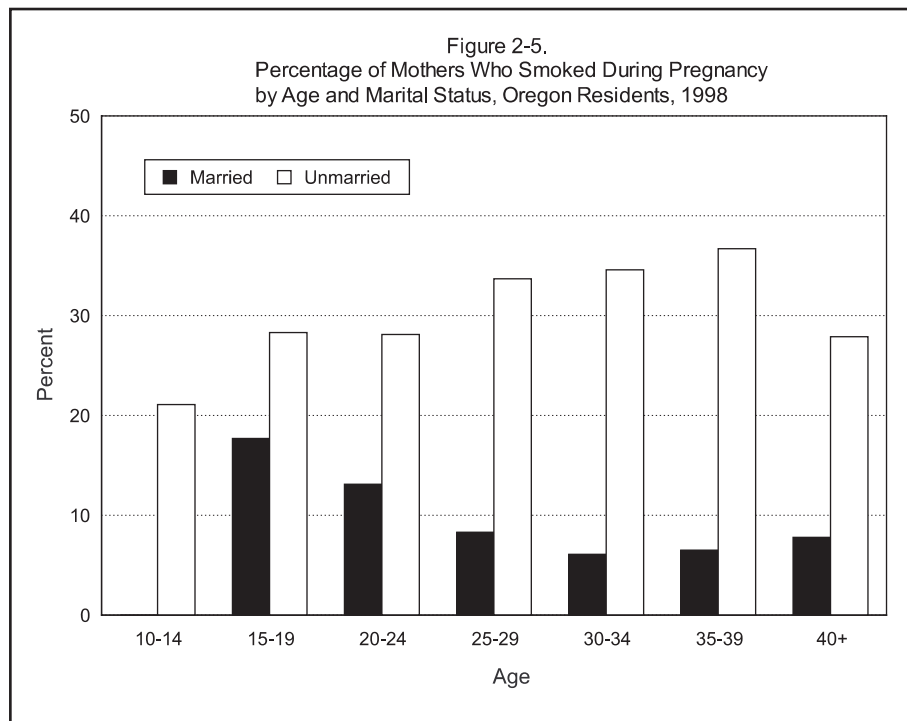
TOBACCO USE

Oregon Benchmark for the Year 2000

Percentage of infants whose mothers (self-reported) used tobacco during pregnancy.

<i>Year 2000 Goal:</i>	<i>15.0 percent</i>
<i>1998</i>	<i>15.2 percent</i>

Women who smoke when pregnant have a far higher incidence of low birthweight babies than nonsmokers.³



In 1998, women who smoked had a low birthweight rate of 80.9 per 1,000 live births, compared to 48.4 per 1,000 among women who did not smoke. One out of six mothers (15.2%) reported using tobacco during pregnancy, a rate that has declined since 1997 by 6 percent. Unmarried women were over three times more likely to smoke than married women (30% vs. 9%). Smoking trends by age differed according to marital status. For unmarried women, the smoking rate was highest among those 35-39 (36.7%). [Figure 2-5]. The rates for married women generally declined with age. The lowest smoking prevalence rates were among married women 30-34 (6.1%). Smoking prevalence as reported on birth certificates also varied among racial and ethnic groups. In 1998, American Indian women (26.3%) and African American women (17.9%) had the highest reported smoking rates during pregnancy, while Chinese women reported the lowest (2.5%). [Table 2-20].

Women who smoked had a low birthweight rate of 80.9 per 1,000.

ALCOHOL USE

Oregon Benchmark for the Year 2000

Percentage of infants whose mothers used alcohol (self-reported) during pregnancy.

<i>Year 2000 Goal:</i>	<i>2.0 percent</i>
<i>1998:</i>	<i>1.6 percent</i>

Used during pregnancy, alcohol can cause deformity, mental retardation, and other severe developmental problems.⁴

Low birthweight rates were 42 percent higher for mothers who consumed alcohol than those who did not (75.2 per 1,000 vs. 53.0). Based on birth certificate data, 1.6 percent of Oregon mothers (731 women) drank alcohol during pregnancy in 1998. This represents a 69 percent decline from 1990, when 5.2 percent of mothers reported alcohol use. American Indian women (4.4%) were most likely to have reported using alcohol during pregnancy. Chinese women and Filipino women reported no alcohol use during pregnancy. [Table 2-20].

PRENATAL CARE

Oregon Benchmark for the Year 2000

Percentage of infants whose mothers received early prenatal care (first trimester).

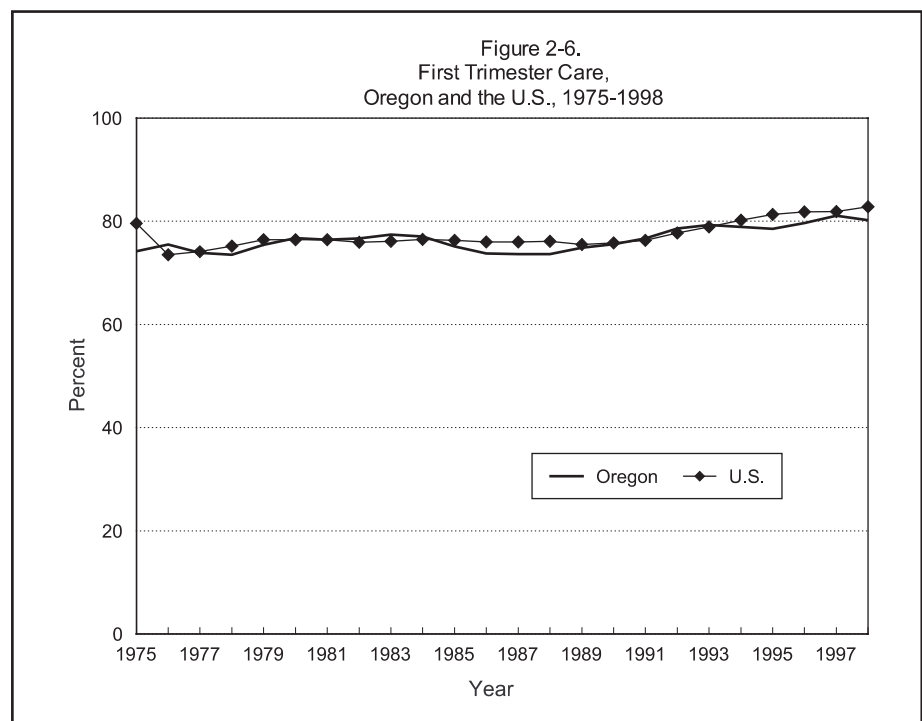
<i>Year 2000 Goal:</i>	<i>90.0 percent</i>
<i>1998:</i>	<i>80.2 percent</i>

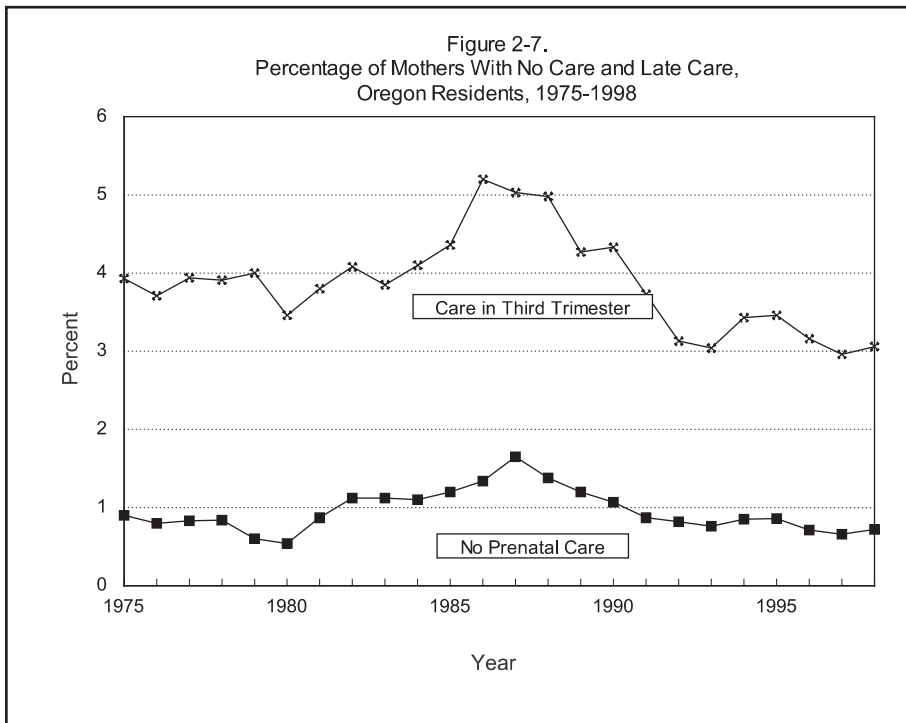
Public health services and private care providers seek to minimize the risk of death and disability, and to reduce costs associated with low birthweight infants by providing comprehensive prenatal care services. Two ways to measure prenatal care are: 1) “inadequate prenatal care,” defined as no care until the third trimester or fewer than five prenatal visits; and 2) “early care,” defined as care beginning during the first three months of pregnancy, regardless of the number of total prenatal visits. Early or first trimester care has been adopted as an Oregon Benchmark with a goal to ensure that 90 percent of pregnant women begin prenatal care in the first three months.

Years of Education	No First Trimester Care (%)
< 12	36.6
12	27.0
> 12	10.2

Five percent of women giving birth during 1998 received inadequate care. They were 2.2 times more likely to give birth to a low birthweight child. In 1998, 19.8 percent of mothers did not receive first trimester care. The percentage (80.2) of women who received early care decreased compared to 1997. [Figure 2-6]. The proportion who received no prenatal care was less than one percent (0.7%); and the proportion who received third trimester care remained about the same (3.0%). [Figure 2-7]. Women under 15 were least likely to have obtained first trimester care and those 30-34 were most likely (45% vs. 87%). [Table 2-15].

Mother's level of education was closely related to patterns of prenatal care. [Table 2-11]. 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 first trimester care. (See sidebar and Table 2-11).





Nine of Oregon’s 36 counties had first trimester care rates significantly lower than the statewide rate: Coos, Curry, Jackson, Jefferson, Klamath, Lane, Malheur, Marion, and Umatilla. Two counties had rates significantly higher than the statewide rate: Clackamas, and Washington. [Table 2-13].

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

BIRTH ATTENDANT

A major shift over the past few years has been the increasing prevalence of births attended by Certified Nurse Midwives (CNM). In 1998, 13.2 percent of hospital deliveries were CNM-attended, a slight increase from 1997, but over twice the proportion in 1988 (5.8%). Most in-hospital births (82.8%) were delivered by MDs, a slightly lower proportion than in 1997. [Table 2-23].

OUT-OF-HOSPITAL BIRTHS

In 1998, Oregon had a higher proportion of out-of-hospital births (2.0%) than the U.S. as a whole (1.0%). Outcomes have generally been positive for out-of-hospital births, which may reflect the screening process used by out-of-hospital birth providers. The mothers who delivered out of hospital were generally not high-risk patients. In 1998, only 11 infants born out of hospital in Oregon had low birthweights (1.2%). However, nine (0.9%) were reported to have a congenital anomaly, which is still a third lower than the percentage for in-hospital births (1.3%). The type of attendant varies by birth setting. Licensed Direct Entry Midwives (LDEM) were predominant in out-of-hospital births,

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

Rates per 1,000 births.

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

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

delivering over one-third (38.7%) of these births in 1998. LDEMs are lay midwives who have volunteered for state licensure to provide natality care for Oregon women. Non-licensed lay midwives delivered 22.3 percent of out-of-hospital births. In addition, Certified Nurse Midwives delivered one in eight babies (16.2%), and naturopathic physicians delivered one in nine babies (11.8%). [Table 2-23].

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. The majority of deliveries in Oregon were paid for by private insurance companies (62.2%), up slightly from 60.8 percent in 1997 (see sidebar). Slightly under one-third of Oregon resident births (30.7%) were paid for by Medicaid (e.g., the Oregon Health Plan). Delivery costs were more likely to be paid for by public insurance if the mother was not married or was under 18. [Table 2-17].

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- 1 Ventura SJ, Martin JA, et al. Births: Final Data for 1998. National Vital Statistics Report; vol 48, no. 3. Hyattsville, Maryland; National Center for Health Statistics. 1998.
- 2 National Center for Health Statistics. Healthy People 2000 Review, 1998. Hyattsville, Maryland: Public Health Service. 1998.
- 3 Tobacco and Oregonians, A Legacy of Illness and Death. Center for Health Statistics, Health Division, Oregon Department of Human Resources. Portland, Oregon. 1992.
- 4 Alcohol and Drugs in Oregon, 1989. Center for Health Statistics, Health Division, Oregon Department of Human Resources. Portland, Oregon. 1992.

**TABLE 2-1.
Resident Births by Age Group of Mother, Oregon 1955-1998**

Year	Total	Age Group of Mother										45+		N.S.* No.				
		Under 15		15-19		20-24		25-29		30-34		35-39			40-44			
		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
1956	38,423	21	0.1	5,230	13.6	13,029	33.9	10,035	26.1	6,119	15.9	3,098	8.1	831	2.2	50	0.1	10
1957	37,828	19	0.1	5,267	13.9	13,162	34.8	9,509	25.1	5,939	15.7	3,051	8.1	832	2.2	47	0.1	2
1958	36,295	26	0.1	5,147	14.2	12,761	35.2	9,222	25.4	5,519	15.2	2,763	7.6	819	2.3	36	0.1	2
1959	36,634	21	0.1	5,351	14.6	13,390	36.6	9,052	24.7	5,314	14.5	2,732	7.5	737	2.0	35	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
1961	37,475	25	0.1	5,738	15.3	14,434	38.5	8,891	23.7	5,012	13.4	2,597	6.9	733	2.0	42	0.1	3
1962	36,983	19	0.1	5,882	15.9	14,246	38.5	8,743	23.6	4,817	13.0	2,497	6.8	737	2.0	39	0.1	3
1963	34,863	32	0.1	5,546	15.9	13,616	39.1	8,322	23.9	4,352	12.5	2,266	6.5	694	2.0	35	0.1	-
1964	33,500	30	0.1	5,356	16.0	13,302	39.7	7,986	23.8	4,088	12.2	2,079	6.2	619	1.8	38	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
1966	32,446	31	0.1	5,989	18.5	13,044	40.2	7,688	23.7	3,352	10.3	1,781	5.5	521	1.6	38	0.1	2
1967	31,446	43	0.1	5,646	18.0	13,012	41.4	7,585	24.1	3,185	10.1	1,518	4.8	430	1.4	25	0.1	2
1968	32,136	39	0.1	5,789	18.0	13,071	40.7	8,304	25.8	3,170	9.9	1,332	4.1	405	1.3	25	0.1	1
1969	33,834	49	0.1	5,771	17.1	13,779	40.7	9,221	27.3	3,365	9.9	1,241	3.7	372	1.1	32	0.1	4
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
1971	33,344	51	0.2	5,591	16.8	13,958	41.9	9,218	27.6	3,222	9.7	1,019	3.1	257	0.8	19	0.1	9
1972	31,308	52	0.2	5,531	17.7	12,374	39.5	9,141	29.2	3,046	9.7	920	2.9	226	0.7	12	0.0	6
1973	30,902	66	0.2	5,349	17.3	11,936	38.6	9,332	30.2	3,145	10.2	848	2.7	201	0.7	20	0.1	5
1974	32,506	66	0.2	5,356	16.5	12,612	38.8	10,039	30.9	3,465	10.7	810	2.5	145	0.4	8	0.0	5
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
1976	34,840	67	0.2	5,367	15.4	12,895	37.0	11,386	32.7	3,992	11.5	935	2.7	180	0.5	11	0.0	7
1977	37,467	69	0.2	5,303	14.2	13,830	36.9	12,285	32.8	4,723	12.6	1,069	2.9	174	0.5	9	0.0	5
1978	38,964	72	0.2	5,588	14.3	13,906	35.7	12,710	32.6	5,319	13.7	1,181	3.0	178	0.5	7	0.0	3
1979	41,564	70	0.2	5,544	13.3	14,451	34.8	13,864	33.4	6,109	14.7	1,316	3.2	193	0.5	12	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

* N.S. Indicates age not stated; the percentage is insignificant.

TABLE 2-2.
Age-Specific Birth Rates, Fertility Rates,
and Total Fertility Rates, Oregon, 1940, 1950-1998

Year	Age-Specific Birth Rates*						Fertility Rate 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
1951	92.4	229.1	171.5	100.5	46.7	12.7	109.1	3,264.2
1952	91.9	235.2	173.5	100.0	46.7	12.8	109.5	3,300.2
1953	91.5	241.2	175.4	99.5	46.6	13.0	109.9	3,336.1
1954	91.0	247.3	177.4	99.1	46.6	13.1	110.3	3,372.1
1955	90.5	253.4	179.4	98.6	46.5	13.2	110.6	3,408.0
1956	90.1	259.5	181.4	98.1	46.5	13.3	111.0	3,444.0
1957	89.6	265.6	183.4	97.7	46.4	13.4	111.4	3,479.9
1958	89.1	271.6	185.4	97.2	46.4	13.5	111.8	3,515.9
1959	88.7	277.7	187.4	96.7	46.3	13.6	112.1	3,551.8
1960	88.2	283.8	189.3	96.3	46.3	13.7	112.5	3,587.8
1961	85.3	272.2	184.3	92.5	43.8	12.9	109.4	3,454.6
1962	82.3	260.5	179.4	88.7	41.3	12.0	106.3	3,321.4
1963	79.4	248.9	174.4	84.9	38.9	11.2	103.2	3,188.2
1964	76.5	237.3	169.4	81.1	36.4	10.4	100.1	3,054.9
1965	73.5	225.6	164.4	77.3	34.0	9.5	97.0	2,921.7
1966	70.6	214.0	159.4	73.5	31.5	8.7	93.9	2,788.5
1967	67.7	202.4	154.4	69.7	29.1	7.9	90.8	2,655.3
1968	64.7	190.8	149.4	65.9	26.6	7.0	87.7	2,522.1
1969	61.8	179.1	144.4	62.1	24.1	6.2	84.6	2,388.9
1970	58.9	167.5	139.4	58.3	21.7	5.4	81.5	2,255.6
1971	56.5	156.5	133.8	56.1	20.2	4.9	78.1	2,139.9
1972	54.2	145.5	128.3	53.8	18.8	4.4	74.7	2,024.2
1973	51.9	134.4	122.7	51.5	17.3	3.9	71.3	1,908.5
1974	49.5	123.4	117.1	49.3	15.9	3.4	67.9	1,792.7
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	2,006.0
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

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

TABLE 2-3.
Percentage of Oregon Resident Births to Unmarried
Mothers, by Age of Mother, 1970-1998

Year	Percent by Age Group					
	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

TABLE 2-4.
Resident Births by Race of Mother, Oregon, 1974-1998

Year	Total	White	African 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

*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 in all racial categories.

TABLE 2-5.
Total Pregnancies by Type of Outcome and Age Groups, Oregon Residents¹, 1998

Type of Outcome	Total	Age of Mother								N.S.
		< 15	15-19	20-24	25-29	30-34	35-39	40-44	45+	
Total	59,805	199	8,646	16,297	16,089	11,285	5,800	1,350	78	61
Births	45,228	95	5,565	11,855	12,850	9,303	4,560	942	46	12
Percent	75.6	47.7	64.4	72.7	79.9	82.4	78.6	69.8	59.0	19.7
Fetal Deaths	233	-	33	62	59	49	20	7	1	2
Percent	0.4	-	0.4	0.4	0.4	0.4	0.3	0.5	1.3	3.3
Induced Abortions	14,344	104	3,048	4,380	3,180	1,933	1,220	401	31	47
Percent	24.0	52.3	35.3	26.9	19.8	17.1	21.0	29.7	39.7	77.0

¹ 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.

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

Percents may not add to 100 due to rounding.

- Quantity is zero.

TABLE 2-6.
Resident Births by Maternal Hispanic Origin, Race, and
County of Residence, Oregon, 1998

County of Residence	Total Births	Hispanic			Non-Hispanic			
		Total	White	Other	White	African American	Indian	Other Races
Total Births	45,228	6,499	6,387	112	35,077	949	698	1,935
Baker	184	4	4	-	173	-	4	3
Benton	807	68	66	2	674	4	10	50
Clackamas	4,164	393	382	11	3,587	30	25	126
Clatsop	395	29	29	-	348	-	7	11
Columbia	536	12	11	1	506	1	8	9
Coos	626	33	32	1	566	-	15	11
Crook	234	22	22	-	208	-	3	1
Curry	170	10	10	-	155	-	4	1
Deschutes	1,371	86	84	2	1,234	1	19	30
Douglas	1,141	50	47	3	1,051	3	17	17
Gilliam	19	-	-	-	19	-	-	-
Grant	88	1	1	-	85	-	2	-
Harney	95	5	5	-	82	-	5	2
Hood River	287	137	137	-	142	1	3	4
Jackson	2,124	266	262	4	1,778	8	27	38
Jefferson	302	82	75	7	132	1	87	-
Josephine	815	50	47	3	732	1	14	16
Klamath	856	117	113	4	673	10	47	7
Lake	69	4	4	-	60	-	3	2
Lane	3,762	272	268	4	3,328	34	35	91
Lincoln	424	39	38	1	345	-	29	7
Linn	1,484	108	105	3	1,327	3	22	24
Malheur	535	250	249	1	276	1	4	3
Marion	4,540	1,346	1,331	15	2,980	27	71	111
Morrow	151	59	59	-	89	1	2	-
Multnomah	9,303	1,149	1,117	32	6,553	717	102	767
Polk	716	127	127	-	566	2	10	10
Sherman	23	3	2	1	20	-	-	-
Tillamook	234	21	21	-	207	-	3	3
Umatilla	1,024	267	265	2	697	7	42	8
Union	278	5	5	-	261	1	-	10
Wallowa	57	5	5	-	50	-	2	-
Wasco	314	40	38	2	257	4	9	4
Washington	6,931	1,254	1,242	12	4,967	88	51	555
Wheeler	9	-	-	-	9	-	-	-
Yamhill	1,160	185	184	1	940	4	16	14

- Quantity is zero.

Note: The sum of the subsets may not equal the total because of unknown ethnicity.

TABLE 2-7.
Births to Unmarried Mothers by County of
Residence, Oregon, 1998

County of Residence	Total Births	Number Unmarried	Rate Unmarried¹
Total	45,228	13,451	297.6
Baker	184	57	309.8
Benton	807	155	§192.1
Clackamas	4,164	949	§228.0
Clatsop	395	131	331.6
Columbia	536	138	257.9
Coos	626	231	§369.0
Crook	234	66	284.5
Curry	170	70	§451.6
Deschutes	1,371	371	270.6
Douglas	1,141	430	§376.9
Gilliam	19	5	263.2
Grant	88	32	363.6
Harney	95	30	315.8
Hood River	287	68	236.9
Jackson	2,124	721	§339.6
Jefferson	302	129	§427.2
Josephine	815	300	§368.1
Klamath	856	326	§380.8
Lake	69	25	362.3
Lane	3,762	1,214	§322.8
Lincoln	424	192	§452.8
Linn	1,484	420	283.4
Malheur	535	173	323.4
Marion	4,540	1,466	§322.9
Morrow	151	37	245.0
Multnomah	9,303	3,095	§332.7
Polk	716	191	266.8
Sherman	23	6	260.9
Tillamook	234	79	337.6
Umatilla	1,024	374	§365.2
Union	278	78	280.6
Wallowa	57	14	245.6
Wasco	314	107	340.8
Washington	6,931	1,444	§208.3
Wheeler	9	3	333.3
Yamhill	1,160	324	279.3

¹ All rates per 1,000 births.

§ Rate is significantly different than state rate.

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

Rates are calculated excluding missing and unknown values.

**TABLE 2-8.
Resident Births by Age of Mother and County of Residence, Oregon 1998**

County of Residence	Total Births	Mother's Age								
		< 15	15-19	20-24	25-29	30-34	35-39	40-44	45 +	N.S.
Total	45,228	95	5,565	11,855	12,850	9,303	4,560	942	46	12
Baker	184	-	31	58	49	29	13	4	-	-
Benton	807	2	58	194	226	190	113	24	-	-
Clackamas	4,164	9	370	930	1,181	990	577	102	5	-
Clatsop	395	1	67	124	97	62	35	9	-	-
Columbia	536	1	70	151	167	93	41	13	-	-
Coos	626	1	94	211	158	99	57	6	-	-
Crook	234	-	41	80	64	32	15	2	-	-
Curry	170	-	33	51	48	15	15	7	-	1
Deschutes	1,371	-	166	336	380	297	153	35	4	-
Douglas	1,141	1	215	378	301	173	60	12	1	-
Gilliam	19	-	1	5	7	4	1	1	-	-
Grant	88	-	13	24	27	16	5	3	-	-
Harney	95	1	14	23	22	18	14	2	-	1
Hood River	287	1	36	87	80	48	32	2	1	-
Jackson	2,124	3	315	644	591	370	162	38	1	-
Jefferson	302	2	66	79	77	53	18	7	-	-
Josephine	815	2	111	253	213	150	76	8	-	2
Klamath	856	2	163	268	226	116	63	18	-	-
Lake	69	-	7	28	20	7	4	2	1	-
Lane	3,762	12	495	1,074	1,035	727	344	70	5	-
Lincoln	424	1	61	129	100	86	38	9	-	-
Linn	1,484	1	204	483	433	241	97	24	1	-
Malheur	535	1	90	173	146	68	46	9	1	1
Marion	4,540	16	623	1,369	1,318	806	329	74	3	2
Morrow	151	-	25	33	39	31	19	4	-	-
Multnomah	9,303	22	1,027	2,220	2,579	2,111	1,067	258	15	4
Polk	716	1	116	184	194	143	63	15	-	-
Sherman	23	-	3	5	5	7	3	-	-	-
Tillamook	234	-	38	63	59	49	22	3	-	-
Umatilla	1,024	3	186	302	292	173	55	13	-	-
Union	278	1	37	81	96	40	19	4	-	-
Wallowa	57	1	8	11	21	8	7	1	-	-
Wasco	314	1	51	93	77	56	30	6	-	-
Washington	6,931	8	564	1,393	2,186	1,780	852	139	8	1
Wheeler	9	-	2	2	-	3	2	-	-	-
Yamhill	1,160	1	164	316	336	212	113	18	-	-

- Quantity is zero.

TABLE 2-9.
Resident Births to Unmarried Mothers by Age of Mother and County of Residence, Oregon, 1998

County of Residence	Total	Mother's Age								N.S.
		< 15	15-19	20-24	25-29	30-34	35-39	40-44	45 +	
Total	13,451	92	4,206	4,685	2,506	1,201	599	150	8	4
Baker	57	-	21	22	12	2	-	-	-	-
Benton	155	2	40	59	28	13	12	1	-	-
Clackamas	949	9	286	311	186	95	46	16	-	-
Clatsop	131	1	44	50	20	7	9	-	-	-
Columbia	138	1	57	40	20	13	6	1	-	-
Coos	231	1	71	89	37	25	6	2	-	-
Crook	66	-	22	26	11	1	5	1	-	-
Curry	70	-	27	23	14	3	2	1	-	-
Deschutes	371	-	119	132	62	34	18	6	-	-
Douglas	430	1	167	129	84	35	12	2	-	-
Gilliam	5	-	1	2	2	-	-	-	-	-
Grant	32	-	9	11	6	4	1	1	-	-
Harney	30	1	10	9	4	3	2	-	-	1
Hood River	68	1	25	23	12	4	3	-	-	-
Jackson	721	3	242	247	133	63	21	11	1	-
Jefferson	129	2	51	28	22	19	6	1	-	-
Josephine	300	2	81	111	56	27	21	2	-	-
Klamath	326	2	115	106	54	28	19	2	-	-
Lake	25	-	5	9	8	1	1	1	-	-
Lane	1,214	12	390	430	232	90	49	10	1	-
Lincoln	192	1	50	67	31	25	15	3	-	-
Linn	420	1	149	151	68	30	16	5	-	-
Malheur	173	1	58	62	32	11	8	1	-	-
Marion	1,466	16	465	556	244	114	55	15	-	1
Morrow	37	-	17	10	5	4	1	-	-	-
Multnomah	3,095	20	818	1,092	629	328	151	51	5	1
Polk	191	-	90	54	21	16	10	-	-	-
Sherman	6	-	2	2	1	1	-	-	-	-
Tillamook	79	-	31	25	17	3	3	-	-	-
Umatilla	374	3	134	126	71	31	8	1	-	-
Union	78	1	31	25	12	6	2	1	-	-
Wallowa	14	1	5	4	3	-	1	-	-	-
Wasco	107	1	37	35	19	10	4	1	-	-
Washington	1,444	8	412	503	305	130	73	11	1	1
Wheeler	3	-	2	-	-	1	-	-	-	-
Yamhill	324	1	122	116	45	24	13	3	-	-

- Quantity is zero.

TABLE 2-10.
Prenatal Care by Mother's Race and Ethnicity, Oregon Residents, 1998

Mother's Race/Ethnicity	Total Births	First Trimester Care		Inadequate Prenatal Care ¹	
		Number	Percent	Number	Percent
RACE					
Total	45,228	36,149	80.2	2,404	5.3
White	41,490	33,260	80.4	2,151	5.2
African American	966	765	79.4	54	5.6
Indian	752	501	67.2	88	11.8
Chinese	161	136	85.5	9	5.7
Japanese	101	94	94.0	3	3.0
Hawaiian	45	32	71.1	3	6.7
Other Nonwhite	28	20	74.1	5	18.5
Filipino	179	142	79.3	7	3.9
Other Asian & Pacific Islander	1,452	1,159	80.1	79	5.5
Unknown Race	54	40	80.0	5	10.0
RACE/ETHNICITY					
Hispanic	6,499	4,345	67.2	631	9.8
White	6,387	4,276	67.3	611	9.6
African American	17	11	64.7	4	23.5
Indian	54	32	60.4	7	13.2
Chinese	2	1	50.0	1	50.0
Hawaiian	4	2	50.0	2	50.0
Other Nonwhite	18	12	66.7	3	16.7
Filipino	4	2	50.0	-	-
Other Asian & Pacific Islander	13	9	69.2	3	23.1
Non-Hispanic	38,659	31,753	82.4	1,764	4.6
White	35,077	28,964	82.8	1,536	4.4
African American	949	754	79.6	50	5.3
Indian	698	469	67.7	81	11.7
Chinese	159	135	86.0	8	5.1
Japanese	101	94	94.0	3	3.0
Hawaiian	41	30	73.2	1	2.4
Other Nonwhite	10	8	88.9	2	22.2
Filipino	174	139	79.9	7	4.0
Other Asian & Pacific Islander	1,439	1,150	80.2	76	5.3
Unknown Race	11	10	90.9	-	-
Unknown Ethnicity	70	51	77.3	9	13.6

- Quantity is zero.

¹ Less than five prenatal visits or care began in the third trimester.

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

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

TABLE 2-11.
Prenatal Care by Mother's Education,
Oregon Residents, 1998

Mother's (in years)	Total Births	First Trimester Care		Inadequate Prenatal Care ¹	
		Number	Percent	Number	Percent
Total	45,228	36,149	80.2	2,404	5.3
None	103	58	56.9	17	16.7
One	43	24	55.8	4	9.3
Two	79	40	50.6	11	13.9
Three	189	101	53.4	23	12.2
Four	170	97	57.4	23	13.6
Five	157	103	66.0	21	13.5
Six	1,014	624	62.1	126	12.5
Seven	196	119	62.0	27	14.0
Eight	740	455	62.1	92	12.6
Nine	1,712	1,088	63.7	210	12.3
Ten	2,099	1,343	64.4	206	9.9
Eleven	2,605	1,723	66.5	225	8.7
Twelve	15,471	12,080	78.3	883	5.7
Thirteen	4,008	3,345	83.7	149	3.7
Fourteen	4,550	4,015	88.5	112	2.5
Fifteen	1,466	1,282	87.6	51	3.5
Sixteen	6,238	5,816	93.4	81	1.3
Seventeen+	3,353	3,120	93.1	45	1.3
Unknown	1,035	716	71.0	98	9.7

¹ Less than five prenatal visits or care began in the third trimester.

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

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

TABLE 2-12.
Prenatal Care by Birthweight, Oregon Residents, 1998

Birthweight (in grams)	Total Births	First Trimester Care		Inadequate Prenatal Care ¹	
		Number	Percent	Number	Percent
Total	45,228	36,149	80.2	2,404	5.3
499 and Less	40	29	74.4	17	43.6
500-999	149	112	76.2	41	28.1
1000-1499	218	174	80.2	26	12.3
1500-1999	495	376	76.4	56	11.4
2000-2499	1,526	1,185	78.4	124	8.3
<2500	2,428	1,876	78.0	264	11.0
2500-2999	6,035	4,608	76.7	404	6.8
3000-3499	16,104	12,803	79.8	849	5.3
3500-3999	14,762	12,028	81.7	622	4.2
4000-4499	4,928	4,024	81.9	220	4.5
4500-4999	874	728	83.6	41	4.7
5000 & Over	95	82	86.3	4	4.2
Unknown	2	-	-	-	-

¹ Less than five prenatal visits or care began in the third trimester.

- Quantity is zero.

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

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

TABLE 2-13.
Prenatal Care by Mother's County of Residence,
Oregon Residents, 1998

County of Residence	Total Births	First Trimester Care		Inadequate Prenatal Care ¹	
		Number	Percent	Number	Percent
Total	45,228	36,149	80.2	2,404	5.3
Baker	184	154	84.2	5	2.8
Benton	807	676	83.8	33	4.1
Clackamas	4,164	3,516	§84.8	196	4.7
Clatsop	395	328	83.2	11	2.8
Columbia	536	426	79.8	27	5.1
Coos	626	386	§62.2	64	§10.4
Crook	234	191	81.6	5	2.1
Curry	170	96	§57.1	16	9.6
Deschutes	1,371	1,148	83.9	52	3.8
Douglas	1,141	960	84.2	52	4.6
Gilliam	19	19	100.0	-	-
Grant	88	71	80.7	4	4.5
Harney	95	74	77.9	8	8.4
Hood River	287	238	83.2	5	1.7
Jackson	2,124	1,582	§75.3	122	5.8
Jefferson	302	195	§64.6	33	§10.9
Josephine	815	625	77.2	44	5.5
Klamath	856	581	§68.1	63	7.4
Lake	69	53	77.9	3	4.4
Lane	3,762	2,825	§75.3	243	§6.5
Lincoln	424	322	76.8	42	10.1
Linn	1,484	1,144	77.2	74	5.0
Malheur	535	378	§70.8	47	8.8
Marion	4,540	3,386	§75.0	353	§7.8
Morrow	151	90	60.0	18	12.0
Multnomah	9,303	7,443	80.3	530	5.7
Polk	716	621	86.7	19	2.7
Sherman	23	17	73.9	3	13.0
Tillamook	234	195	83.3	9	3.8
Umatilla	1,024	746	§73.0	90	8.8
Union	278	217	78.3	13	4.7
Wallowa	57	44	77.2	3	5.3
Wasco	314	265	84.4	8	2.6
Washington	6,931	6,209	§89.8	170	§2.5
Wheeler	9	*	*	*	*
Yamhill	1,160	920	79.8	38	3.3

- Number of events equals zero.

¹ Less than 5 prenatal visits or care began in the third trimester.

§ Percent is significantly different than state.

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

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

* Detailed reporting of small numbers may breach confidentiality.

TABLE 2-14.
Prenatal Care by Resident County for Unmarried Mothers,
Oregon Residents, 1998

County of Residence	Total	First Trimester Care		Inadequate Prenatal Care ¹	
		Number	Percent	Number	Percent
Total	13,451	9,102	68.0	1,279	9.6
Baker	57	43	75.4	5	8.9
Benton	155	106	68.4	12	7.7
Clackamas	949	687	72.8	85	9.0
Clatsop	131	96	73.8	7	5.4
Columbia	138	87	63.0	16	11.6
Coos	231	117	§51.3	36	16.0
Crook	66	42	63.6	5	7.6
Curry	70	32	46.4	9	13.2
Deschutes	371	271	73.2	29	7.9
Douglas	430	338	§78.8	34	7.9
Gilliam	5	*	*	*	*
Grant	32	23	71.9	2	6.3
Harney	30	19	63.3	5	16.7
Hood River	68	48	71.6	2	3.0
Jackson	721	464	65.2	78	10.9
Jefferson	129	62	48.1	27	20.9
Josephine	300	211	70.8	18	6.1
Klamath	326	178	§54.6	44	13.6
Lake	25	15	62.5	3	12.5
Lane	1,214	749	§62.0	127	10.5
Lincoln	192	121	63.7	30	16.1
Linn	420	273	65.2	37	8.8
Malheur	173	106	61.3	23	13.3
Marion	1,466	927	63.7	170	§11.7
Morrow	37	19	51.4	7	18.9
Multnomah	3,095	2,152	69.8	278	9.0
Polk	191	140	73.3	13	6.8
Sherman	6	*	*	*	*
Tillamook	79	58	73.4	4	5.1
Umatilla	374	236	63.1	46	12.3
Union	78	51	65.4	5	6.4
Wallowa	14	6	42.9	2	14.3
Wasco	107	80	74.8	4	3.8
Washington	1,444	1,116	§77.7	95	6.6
Wheeler	3	*	*	*	*
Yamhill	324	217	67.8	18	5.6

* Detailed reporting of small numbers may breach confidentiality.

¹ Less than 5 prenatal visits or care began in the third trimester.

§ Percent is significantly different than state.

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

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

TABLE 2-15.
Prenatal Care by Mother's Age, Oregon Residents, 1998

Mother's Age	Total Births	First Trimester Care		Inadequate Prenatal Care ¹	
		Number	Percent	Number	Percent
Total	45,228	36,149	80.2	2,404	5.3
<15	95	41	44.6	19	20.2
15-19	5,565	3,633	65.6	475	8.6
20-24	11,855	8,899	75.4	782	6.6
25-29	12,850	10,792	84.2	580	4.5
30-34	9,303	8,097	87.3	322	3.5
35-39	4,560	3,887	85.6	182	4.0
40-44	942	757	80.7	42	4.5
45+	46	37	80.4	1	2.2
Unknown	12	6	75.0	1	12.5

¹ Less than five prenatal visits or care began in the third trimester.

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

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

TABLE 2-16.
Resident Births by Age of Mother and Live Birth Order, Oregon, 1998

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	45,228	95	5,565	11,855	12,850	9,303	4,560	942	46	12
First	18,278	93	4,487	5,429	4,484	2,581	1,004	184	12	4
Second	14,777	2	924	4,331	4,506	3,286	1,478	235	13	2
Third	7,339	-	138	1,590	2,466	1,940	997	200	6	2
Fourth	2,869	-	12	374	965	883	511	118	6	-
Fifth	1,077	-	1	91	298	346	264	75	2	-
Sixth	447	-	2	22	76	161	131	52	3	-
Seventh	210	-	-	3	32	57	87	29	2	-
Eighth	92	-	-	-	6	20	47	19	-	-
Ninth+	99	-	-	-	6	23	38	29	2	1
Unknown	40	-	1	15	11	6	3	1	-	3

- Quantity is zero.

TABLE 2-17.
Maternal Characteristics by Method of Payment for Delivery,
Oregon Resident Births, 1998

Characteristics	Total Births	Financial Payment					
		Insurance	Self Pay	Medicaid /OHP*	Other Public	N.S.	Multiple Mention
Mother's Age and Marital Status							
Total	45,228	27,685	2,824	13,668	221	683	147
Married	31,752	23,634	1,752	5,685	112	491	78
Unmarried	13,451	4,051	1,072	7,983	109	167	69
Less Than 18	1,967	624	167	1,110	20	30	16
Married	212	61	36	109	2	1	3
Unmarried	1,755	563	131	1,001	18	29	13
18-24	15,548	6,633	1,223	7,284	110	243	55
Married	8,311	4,665	678	2,744	51	151	22
Unmarried	7,228	1,968	545	4,540	59	83	33
25-34	22,153	16,071	1,166	4,456	78	321	61
Married	18,434	14,874	838	2,365	50	266	41
Unmarried	3,707	1,197	328	2,091	28	43	20
35+	5,548	4,357	268	816	13	79	15
Married	4,788	4,034	200	465	9	68	12
Unmarried	757	323	68	351	4	8	3
First Trimester Care							
Total	36,149	24,599	1,631	9,162	135	503	119
Married	27,029	21,424	1,088	3,994	74	386	63
Unmarried	9,102	3,175	543	5,168	61	99	56
Percent	80.2	89.0	58.3	67.3	61.6	75.5	81.0
Married	85.4	90.8	62.6	70.6	66.1	80.2	80.8
Unmarried	68.0	78.7	51.1	65.0	57.0	61.5	81.2
Inadequate Prenatal Care							
Care Total	2,404	671	450	1,195	31	50	7
Married	1,123	438	219	429	13	20	4
Unmarried	1,279	233	231	766	18	28	3
Percent	5.3	2.4	16.1	8.8	14.2	7.5	4.8
Married	3.6	1.9	12.6	7.6	11.6	4.2	5.1
Unmarried	9.6	5.8	21.8	9.7	16.8	17.4	4.3
Tobacco Use							
Used Tobacco	6,853	2,425	242	4,025	40	89	32
Percent Used Tobacco	15.2	8.8	8.7	29.6	18.3	13.6	21.8
Alcohol Use							
Used Alcohol	731	355	31	334	5	3	3
Percent Used Alcohol	1.6	1.3	1.1	2.5	2.3	2.1	2.0
Birthweight							
Low Birthweight	2,428	1,347	165	839	11	57	9
Rate Low Birthweight	53.7	48.7	58.4	61.4	49.8	83.7	61.2

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 2-18.
Births by Reported Use of Illicit Substances, Alcohol, or Tobacco,
and County of Residence, Oregon, 1998

County of Residence	Total Births	Tobacco Used		Alcohol Used		Illicit Drugs Used			
		Number	%	Number	%	Number	%	Mentions	
								Single	Multiple
Total	45,228	6,853	15.2	731	1.6	330	.7	208	122
Baker	184	48	26.2	8	4.4	1	.5	1	-
Benton	807	91	11.3	21	2.6	2	.2	-	2
Clackamas	4,164	579	14.0	105	2.5	16	.4	10	6
Clatsop	395	96	24.4	5	1.3	5	1.3	1	4
Columbia	536	104	19.5	2	.5	-	-	-	-
Coos	626	191	30.6	8	1.3	16	2.6	4	12
Crook	234	51	22.0	3	1.3	-	-	-	-
Curry	170	47	30.1	8	5.2	3	1.8	2	1
Deschutes	1,371	249	18.2	30	2.2	3	.2	3	-
Douglas	1,141	284	25.0	29	2.6	5	.4	4	1
Gilliam	19	7	36.8	-	-	-	-	-	-
Grant	88	20	22.7	4	4.5	1	1.1	1	-
Harney	95	17	17.9	4	4.2	2	2.1	1	1
Hood River	287	23	8.0	4	1.4	-	-	-	-
Jackson	2,124	365	17.3	35	1.7	21	1.0	20	1
Jefferson	302	44	14.6	10	3.3	2	.7	2	-
Josephine	815	176	21.7	16	2.0	19	2.3	15	4
Klamath	856	203	23.8	17	2.0	15	1.8	5	10
Lake	69	13	18.8	1	1.4	-	-	-	-
Lane	3,762	563	15.0	25	.7	13	.3	8	5
Lincoln	424	120	28.5	11	2.6	2	.5	2	-
Linn	1,484	317	21.4	60	4.1	31	2.1	11	20
Malheur	535	48	9.0	1	.2	-	-	-	-
Marion	4,540	614	13.6	56	1.2	58	1.3	28	30
Morrow	151	20	13.3	-	-	-	-	-	-
Multnomah	9,303	1,385	15.0	148	1.6	84	.9	65	19
Polk	716	102	14.3	14	2.0	6	.8	5	1
Sherman	23	2	8.7	1	4.5	-	-	-	-
Tillamook	234	44	19.0	5	2.2	1	.4	1	-
Umatilla	1,024	169	16.6	10	1.3	11	1.1	9	2
Union	278	48	17.3	-	-	1	.4	1	-
Wallowa	57	13	22.8	1	1.8	-	-	-	-
Wasco	314	65	20.7	3	1.0	5	1.6	2	3
Washington	6,931	562	8.1	74	1.1	6	.1	6	-
Wheeler	9	*	*	*	*	*	*	*	*
Yamhill	1,160	170	15.0	12	1.1	1	.1	1	-

- Quantity is zero.

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

* Detailed reporting of small numbers may breach confidentiality.

NOTE: Percent illicit drug use is percent of total births where illicit drug use mentioned. Percentages for tobacco use and alcohol use exclude missing and unknown values from the rate calculation.

TABLE 2-19.
Maternal Risk Factors by County of Residence, Oregon, 1998

County of Residence	Live Births	Percent of Births with Risk Factor							
		Inadequate Care	Age < 18	Age >= 35	4+ Live Births	Minority Race/Ethnicity ¹	< 12 Years Educ.	Unmarried	Tobacco Use
Total	45,228	5.3	4.4	12.3	10.6	22.3	20.6	29.8	15.2
Baker	184	2.8	5.4	9.2	14.1	6.0	20.2	31.0	26.2
Benton	807	4.1	1.9	17.0	8.9	16.3	10.8	19.2	11.3
Clackamas	4,164	4.7	3.2	16.4	8.9	13.8	14.1	22.8	14.0
Clatsop	395	2.8	3.8	11.1	9.9	11.9	20.4	33.2	24.4
Columbia	536	5.1	4.5	10.1	9.6	5.6	16.1	25.8	19.5
Coos	626	10.4	5.6	10.1	8.6	9.4	22.5	36.9	30.6
Crook	234	2.1	4.3	7.3	9.4	11.1	31.5	28.4	22.0
Curry	170	9.6	4.1	13.0	10.0	8.8	21.2	45.2	30.1
Deschutes	1,371	3.8	3.6	14.0	9.3	9.9	13.7	27.1	18.2
Douglas	1,141	4.6	5.7	6.4	9.9	7.6	20.7	37.7	25.0
Gilliam	19	-	-	10.5	26.3	-	5.6	26.3	36.8
Grant	88	4.5	4.5	9.1	12.5	3.4	14.8	36.4	22.7
Harney	95	8.4	7.4	17.0	16.0	11.8	17.8	31.6	17.9
Hood River	287	1.7	5.2	12.2	5.6	50.5	43.0	23.7	8.0
Jackson	2,124	5.8	4.6	9.5	10.1	15.9	22.3	34.0	17.3
Jefferson	302	10.9	10.9	8.3	18.9	56.3	41.3	42.7	14.6
Josephine	815	5.5	5.4	10.3	10.8	10.0	21.8	36.8	21.7
Klamath	856	7.4	7.0	9.5	12.1	21.2	26.1	38.1	23.8
Lake	69	4.4	7.2	10.1	10.1	13.0	17.4	36.2	18.8
Lane	3,762	6.5	5.1	11.1	8.1	11.5	17.6	32.3	15.0
Lincoln	424	10.1	5.0	11.1	9.9	17.5	23.4	45.3	28.5
Linn	1,484	5.0	3.6	8.2	11.7	10.6	18.8	28.3	21.4
Malheur	535	8.8	6.4	10.5	20.2	48.3	36.2	32.3	9.0
Marion	4,540	7.8	5.4	8.9	13.7	34.3	31.4	32.3	13.6
Morrow	151	12.0	4.0	15.2	21.9	41.1	33.1	24.5	13.3
Multnomah	9,303	5.7	4.1	14.4	10.5	29.4	20.2	33.3	15.0
Polk	716	2.7	5.9	10.9	11.1	20.8	18.8	26.7	14.3
Sherman	23	13.0	4.3	13.0	13.0	13.0	19.0	26.1	8.7
Tillamook	234	3.8	6.0	10.7	11.1	11.5	15.5	33.8	19.0
Umatilla	1,024	8.8	5.4	6.6	13.5	31.6	29.5	36.5	16.6
Union	278	4.7	3.6	8.3	11.6	5.8	14.0	28.1	17.3
Wallowa	57	5.3	5.3	14.0	10.5	12.3	16.1	24.6	22.8
Wasco	314	2.6	4.8	11.5	9.9	18.2	27.5	34.1	20.7
Washington	6,931	2.5	2.9	14.4	9.4	28.1	16.8	20.8	8.1
Wheeler	9	*	*	*	*	*	*	*	*
Yamhill	1,160	3.3	5.4	11.3	12.9	18.9	22.2	27.9	15.0

- Quantity is zero.

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

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

* Detailed reporting of small numbers may breach confidentiality.

¹ Includes nonwhite race and Hispanic ethnicity.

TABLE 2-20.
Maternal Risk Factors by Race and Ethnicity of Mother,
Oregon Residents, 1998

Mother's Race/Ethnicity	Total Births	Percent of Births with Risk Factor							
		Inadequate Care	Age < 18	Age >= 35	4+ Live Births	Alcohol Use	< 12 Years Education	Unmarried	Tobacco Use
Race									
Total	45,228	5.3	4.4	12.3	10.6	1.6	20.6	29.8	15.2
White	41,490	5.2	4.3	12.3	10.6	1.7	20.8	28.9	15.5
African American	966	5.6	8.8	9.5	13.0	1.3	19.6	65.4	17.9
Indian	752	11.8	8.2	7.0	16.3	4.4	32.8	58.4	26.3
Chinese	161	5.7	-	33.8	3.8	-	13.4	4.4	2.5
Japanese	101	3.0	1.0	22.8	4.0	1.0	2.0	7.9	5.0
Hawaiian	45	6.7	9.1	6.8	6.7	2.3	9.1	28.9	15.6
Other Non-White	28	18.5	7.1	17.9	10.7	-	50.0	42.9	3.6
Filipino	179	3.9	4.5	17.9	7.8	-	10.3	22.3	3.9
Other Asian & Pacific Islander	1,452	5.5	2.5	12.8	8.0	.4	12.7	18.8	3.0
Unknown Race	54	10.0	11.5	11.5	12.2	2.2	22.2	50.0	12.2
Ethnicity									
Hispanic	6,499	9.8	7.0	7.2	14.9	.7	59.1	38.3	4.1
White	6,387	9.6	7.0	7.2	15.0	.7	59.6	38.1	3.8
African American	17	23.5	-	11.8	5.9	-	17.6	47.1	23.5
Indian	54	13.2	7.4	9.3	22.2	1.9	38.0	61.1	30.2
Chinese	2	50.0	-	-	-	-	-	-	-
Hawaiian	4	50.0	-	-	-	-	-	50.0	25.0
Other Non-White	18	16.7	-	16.7	11.1	-	52.9	44.4	-
Filipino	4	-	25.0	-	-	-	50.0	75.0	-
Other Asian & Pacific Islander	13	23.1	-	7.7	-	-	30.8	38.5	23.1
Non-Hispanic	38,659	4.6	3.9	13.1	9.9	1.8	14.2	28.3	17.1
White	35,077	4.4	3.8	13.2	9.8	1.8	13.8	27.3	17.7
African American	949	5.3	9.0	9.5	13.2	1.3	19.6	65.8	17.8
Indian	698	11.7	8.3	6.9	15.8	4.6	32.4	58.2	26.0
Chinese	159	5.1	-	34.2	3.8	-	13.5	4.4	2.5
Japanese	101	3.0	1.0	22.8	4.0	1.0	2.0	7.9	5.0
Hawaiian	41	2.4	9.8	7.3	7.3	2.5	10.0	26.8	14.6
Other Non-White	10	22.2	20.0	20.0	10.0	-	44.4	40.0	10.0
Filipino	174	4.0	4.0	18.4	8.0	-	9.4	21.3	4.0
Other Asian & Pacific Islander	1,439	5.3	2.5	12.9	8.1	.4	12.5	18.6	2.9
Unknown Race	11	-	27.3	9.1	-	-	16.7	54.5	9.1
Unknown Ethnicity	70	13.6	4.4	11.8	13.8	1.7	14.3	45.7	15.6

- Quantity is zero.

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

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

TABLE 2-21.
Risk Count Frequencies, by County of Residence, Oregon, 1998

County of Residence	Live Births	Number of Risk Factors (Count)							
		Zero	One	Two	Three	Four	Five	Six	Seven
Total	45,228	16,544	12,992	8,594	4,793	1,924	350	28	3
Baker	184	66	61	30	19	8	-	-	-
Benton	807	364	244	134	52	12	1	-	-
Clackamas	4,164	1,794	1,265	676	295	115	17	1	1
Clatsop	395	149	109	76	43	17	1	-	-
Columbia	536	264	124	93	40	15	-	-	-
Coos	626	199	177	133	84	25	6	2	-
Crook	234	91	64	44	25	7	3	-	-
Curry	170	48	56	37	19	8	1	1	-
Deschutes	1,371	574	424	218	122	26	7	-	-
Douglas	1,141	425	325	213	133	37	8	-	-
Gilliam	19	6	8	3	2	-	-	-	-
Grant	88	33	29	15	8	3	-	-	-
Harney	95	31	28	20	12	4	-	-	-
Hood River	287	67	79	89	39	13	-	-	-
Jackson	2,124	793	591	415	211	99	13	2	-
Jefferson	302	58	47	83	66	38	9	1	-
Josephine	815	285	249	147	99	27	8	-	-
Klamath	856	275	213	181	105	65	14	2	1
Lake	69	29	17	13	4	5	-	1	-
Lane	3,762	1,510	1,134	622	355	124	16	1	-
Lincoln	424	112	125	90	66	26	5	-	-
Linn	1,484	607	403	287	139	42	6	-	-
Malheur	535	132	122	124	101	40	14	2	-
Marion	4,540	1,380	1,154	965	650	331	58	2	-
Morrow	151	37	44	30	21	16	3	-	-
Multnomah	9,303	2,944	2,777	1,906	1,119	450	99	8	-
Polk	716	296	185	138	61	31	4	1	-
Sherman	23	10	7	3	1	1	1	-	-
Tillamook	234	89	70	45	22	6	2	-	-
Umatilla	1,024	298	296	231	129	60	8	1	1
Union	278	124	84	43	20	7	-	-	-
Wallowa	57	25	14	8	8	1	1	-	-
Wasco	314	105	88	65	40	15	-	1	-
Washington	6,931	2,862	2,084	1,190	552	203	38	2	-
Wheeler	9	*	*	*	*	*	*	*	*
Yamhill	1,160	459	294	225	129	46	7	-	-

- Quantity is zero.

Note: The following were considered to be maternal risk factors: inadequate care; age <18 or >= 35; racial/ethnic minority; high birth order (four or more births); less than high school education; being unmarried; smoking.

* Detailed reporting of small numbers may breach confidentiality.

TABLE 2-22.
Risk Count Frequencies (Percentage),
by County of Residence, Oregon, 1998

County of Residence	Live Births	Number of Risk Factors (Percent)							
		Zero	One	Two	Three	Four	Five	Six	Seven
Total	45,228	36.6	28.7	19.0	10.6	4.3	.8	.1	-
Baker	184	35.9	33.2	16.3	10.3	4.3	-	-	-
Benton	807	45.1	30.2	16.6	6.4	1.5	.1	-	-
Clackamas	4,164	43.1	30.4	16.2	7.1	2.8	.4	-	-
Clatsop	395	37.7	27.6	19.2	10.9	4.3	.3	-	-
Columbia	536	49.3	23.1	17.4	7.5	2.8	-	-	-
Coos	626	31.8	28.3	21.2	13.4	4.0	1.0	.3	-
Crook	234	38.9	27.4	18.8	10.7	3.0	1.3	-	-
Curry	170	28.2	32.9	21.8	11.2	4.7	.6	.6	-
Deschutes	1,371	41.9	30.9	15.9	8.9	1.9	.5	-	-
Douglas	1,141	37.2	28.5	18.7	11.7	3.2	.7	-	-
Gilliam	19	31.6	42.1	15.8	10.5	-	-	-	-
Grant	88	37.5	33.0	17.0	9.1	3.4	-	-	-
Harney	95	32.6	29.5	21.1	12.6	4.2	-	-	-
Hood River	287	23.3	27.5	31.0	13.6	4.5	-	-	-
Jackson	2,124	37.3	27.8	19.5	9.9	4.7	.6	.1	-
Jefferson	302	19.2	15.6	27.5	21.9	12.6	3.0	.3	-
Josephine	815	35.0	30.6	18.0	12.1	3.3	1.0	-	-
Klamath	856	32.1	24.9	21.1	12.3	7.6	1.6	.2	.1
Lake	69	42.0	24.6	18.8	5.8	7.2	-	1.4	-
Lane	3,762	40.1	30.1	16.5	9.4	3.3	.4	-	-
Lincoln	424	26.4	29.5	21.2	15.6	6.1	1.2	-	-
Linn	1,484	40.9	27.2	19.3	9.4	2.8	.4	-	-
Malheur	535	24.7	22.8	23.2	18.9	7.5	2.6	.4	-
Marion	4,540	30.4	25.4	21.3	14.3	7.3	1.3	-	-
Morrow	151	24.5	29.1	19.9	13.9	10.6	2.0	-	-
Multnomah	9,303	31.6	29.9	20.5	12.0	4.8	1.1	.1	-
Polk	716	41.3	25.8	19.3	8.5	4.3	.6	.1	-
Sherman	23	43.5	30.4	13.0	4.3	4.3	4.3	-	-
Tillamook	234	38.0	29.9	19.2	9.4	2.6	.9	-	-
Umatilla	1,024	29.1	28.9	22.6	12.6	5.9	.8	.1	.1
Union	278	44.6	30.2	15.5	7.2	2.5	-	-	-
Wallowa	57	43.9	24.6	14.0	14.0	1.8	1.8	-	-
Wasco	314	33.4	28.0	20.7	12.7	4.8	-	.3	-
Washington	6,931	41.3	30.1	17.2	8.0	2.9	.5	-	-
Wheeler	9	*	*	*	*	*	*	*	*
Yamhill	1,160	39.6	25.3	19.4	11.1	4.0	.6	-	-

- Quantity is zero or less than 0.1.

NOTE: Risk factors expressed as percentage of mothers falling into risk category. The following were considered to be maternal risk factors: inadequate care; age <18 or >= 35; racial/ethnic minority; high birth order (four or more births); less than high school education; being unmarried; smoking. Rates and percentages are calculated excluding missing and unknown values.

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

* Detailed reporting of small numbers may breach confidentiality.

TABLE 2-23.
Births by County of Occurrence, Type of Institution, and
Delivery Attendant, Oregon, 1998

County	Total	Born in Hospital or on Arrival										Other Licensed Medical	Non-Medical
		Total Hospital Births	M.D.	D.O.	N.D.	C.N.M.	R.N.	L.D.E.M.	Lay Midwife				
Total	46,277	45,363	37,587	1,427	1	6,004	303	15	-	-	6	20	
Baker	173	149	122	27	-	-	-	-	-	-	-	-	
Benton	1,142	1,058	1,027	25	-	-	5	-	-	-	1	-	
Clackamas	4,593	4,591	3,088	47	-	1,436	18	1	-	-	-	1	
Clatsop	494	488	334	-	-	149	5	-	-	-	-	-	
Columbia	-	-	-	-	-	-	-	-	-	-	-	-	
Coos	623	611	438	-	-	168	5	-	-	-	-	-	
Crook	113	106	94	12	-	-	-	-	-	-	-	-	
Curry	116	114	21	49	-	44	-	-	-	-	-	-	
Deschutes	1,689	1,652	1,548	-	-	99	3	-	-	-	1	1	
Douglas	1,061	1,013	865	26	-	117	4	1	-	-	-	-	
Gilliam	-	-	-	-	-	-	-	-	-	-	-	-	
Grant	64	59	58	1	-	-	-	-	-	-	-	-	
Harney	69	62	62	-	-	-	-	-	-	-	-	-	
Hood River	413	357	298	-	-	52	6	-	-	-	-	1	
Jackson	2,332	2,328	2,142	56	-	111	15	3	-	-	1	-	
Jefferson	206	164	91	1	-	72	-	-	-	-	-	-	
Josephine	631	625	617	-	-	-	8	-	-	-	-	-	
Klamath	876	874	627	-	-	241	4	-	-	-	-	2	
Lake	243	57	57	-	-	-	-	-	-	-	-	-	
Lane	3,822	3,811	3,146	37	-	609	14	-	-	-	-	5	
Lincoln	399	373	362	-	-	9	2	-	-	-	-	-	
Linn	1,084	1,081	670	158	-	248	5	-	-	-	-	-	
Malheur	794	742	580	41	-	121	-	-	-	-	-	-	
Marion	4,492	4,489	3,637	52	-	778	19	-	-	-	1	2	
Morrow	-	-	-	-	-	-	-	-	-	-	-	-	
Multnomah	11,236	11,044	9,492	379	1	1,083	78	4	-	-	1	6	
Polk	211	203	129	40	-	34	-	-	-	-	-	-	
Sherman	-	-	-	-	-	-	-	-	-	-	-	-	
Tillamook	134	128	128	-	-	-	-	-	-	-	-	-	
Umatilla	902	891	670	220	-	-	1	-	-	-	-	-	
Union	299	295	227	65	-	-	1	2	-	-	-	-	
Wallowa	56	52	52	-	-	-	-	-	-	-	-	-	
Wasco	353	308	189	116	-	-	3	-	-	-	-	-	
Washington	6,694	6,675	6,092	71	-	403	102	4	-	-	1	2	
Wheeler	-	-	-	-	-	-	-	-	-	-	-	-	
Yamhill	963	963	724	4	-	230	5	-	-	-	-	-	

L.D.E.M. = Licensed Direct Entry Midwife

N.D. = Naturopathic Doctor

C.N.M. = Certified Nurse Midwife

R.N. = Registered Nurse

- Quantity is zero.

M.D. = Medical Doctor

D.O. = Doctor of Osteopathy

**TABLE 2-23.
Births by County of Occurrence, Type of Institution, and
Delivery Attendant, Oregon, 1998 (Continued)**

County	Born Out-of-Hospital											Non-Medical
	Total Out-of-Hospital Births	M.D.	D.O.	N.D.	D.C.	C.N.M.	R.N.	L.D.E.M.	Lay Midwife	Other Licensed Medical		
Total	914	2	1	108	2	148	6	354	204	5	84	
Baker	-	-	-	-	-	-	-	-	-	-	-	
Benton	24	-	-	-	-	-	-	21	2	-	1	
Clackamas	84	-	-	11	1	19	-	10	12	-	31	
Clatsop	2	-	-	-	-	-	-	1	1	-	-	
Columbia	6	-	-	-	-	-	-	1	5	-	-	
Coos	12	-	-	-	-	-	-	-	12	-	-	
Crook	7	-	-	-	-	-	-	4	1	-	2	
Curry	2	-	-	-	-	-	-	-	2	-	-	
Deschutes	37	-	-	-	-	-	-	26	11	-	-	
Douglas	48	-	-	-	-	44	2	-	1	1	-	
Gilliam	-	-	-	-	-	-	-	-	-	-	-	
Grant	5	-	-	-	-	-	-	5	-	-	-	
Harney	-	-	-	-	-	-	-	-	-	-	-	
Hood River	7	-	-	1	-	-	-	1	4	-	1	
Jackson	56	-	-	-	-	-	-	33	20	-	3	
Jefferson	4	-	-	-	-	-	-	-	3	-	1	
Josephine	42	-	-	-	-	2	-	16	24	-	-	
Klamath	6	-	-	-	-	-	-	2	1	-	3	
Lake	2	-	-	-	-	-	-	1	-	-	1	
Lane	186	-	-	1	-	63	1	53	60	2	6	
Lincoln	11	-	-	1	-	-	-	9	-	-	1	
Linn	26	-	-	-	-	-	-	17	7	-	2	
Malheur	3	-	-	-	-	-	-	-	1	-	2	
Marion	52	-	-	8	-	-	-	29	4	-	11	
Morrow	3	-	-	-	-	-	-	3	-	-	-	
Multnomah	192	1	-	79	-	12	2	61	23	2	12	
Polk	8	-	1	1	-	-	-	6	-	-	-	
Sherman	-	-	-	-	-	-	-	-	-	-	-	
Tillamook	6	-	-	-	-	-	-	5	1	-	-	
Umatilla	11	-	-	-	-	2	-	9	-	-	-	
Union	4	-	-	-	1	-	-	3	-	-	-	
Wallowa	-	-	-	-	-	-	-	-	-	-	-	
Wasco	4	-	-	1	-	-	-	-	3	-	-	
Washington	45	1	-	4	-	6	1	23	5	-	5	
Wheeler	-	-	-	-	-	-	-	-	-	-	-	
Yamhill	19	-	-	1	-	-	-	15	1	-	2	

L.D.E.M. = Licensed Direct Entry Midwife

N.D. = Naturopathic Doctor

C.N.M. = Certified Nurse Midwife

R.N. = Registered Nurse

- Quantity is zero.

M.D. = Medical Doctor

D.O. = Doctor of Osteopathy

TABLE 2-24.
Congenital Malformations Reported on Birth Certificates by County of Residence, Oregon, 1998

County of Residence	Total Births	Total Children without Malformations	Anencephalus	Spina Bifida/Meningocele	Hydrocephalus	Microcephalus	Other Central Nervous System Anomalies	Heart Malformations	Other Circulatory/Respiratory Anomalies	Rectal Atresia/Stenosis	Tracheo-Esophageal Fistula /Esophageal Atresia	Omphalocele/Gastroschisis
Total	45,228	44,636	3	8	13	1	5	81	12	9	6	22
Baker	184	180	-	-	-	-	-	-	-	-	-	-
Benton	807	788	-	-	-	-	-	2	-	-	-	-
Clackamas	4,164	4,117	-	-	2	-	1	12	-	-	-	2
Clatsop	395	389	-	-	-	-	-	1	-	-	-	-
Columbia	536	530	-	-	-	-	-	2	-	-	-	-
Coos	626	619	-	-	-	-	-	1	-	1	-	-
Crook	234	231	-	1	1	-	-	-	-	-	-	-
Curry	170	166	-	-	-	-	-	1	2	-	-	-
Deschutes	1,371	1,354	-	-	-	-	-	2	-	-	-	-
Douglas	1,141	1,124	-	-	-	-	-	2	-	-	-	-
Gilliam	19	17	-	-	-	-	-	1	-	-	-	-
Grant	88	86	-	-	-	-	-	-	-	1	-	-
Harney	95	90	-	-	-	-	-	1	-	-	1	1
Hood River	287	287	-	-	-	-	-	-	-	-	-	-
Jackson	2,124	2,097	-	-	1	-	1	8	2	-	-	1
Jefferson	302	275	-	-	1	-	-	-	-	-	-	-
Josephine	815	798	-	-	-	-	-	2	-	-	-	1
Klamath	856	841	-	-	-	-	-	3	1	-	-	1
Lake	69	69	-	-	-	-	-	-	-	-	-	-
Lane	3,762	3,745	2	1	1	-	1	3	1	-	1	2
Lincoln	424	418	-	-	-	-	-	2	-	-	-	-
Linn	1,484	1,427	-	-	2	-	-	3	-	-	-	-
Malheur	535	531	-	-	-	-	-	1	-	-	-	-
Marion	4,540	4,477	-	2	1	-	1	7	-	-	-	1
Morrow	151	148	-	-	-	-	-	1	-	-	-	-
Multnomah	9,303	9,222	1	3	1	-	1	5	-	3	2	4
Polk	716	708	-	-	-	-	-	1	-	-	-	-
Sherman	23	22	-	-	-	-	-	-	-	-	-	1
Tillamook	234	229	-	-	-	-	-	1	-	-	-	-
Umatilla	1,024	1,000	-	-	-	-	-	4	1	1	-	1
Union	278	273	-	-	-	-	-	2	1	-	-	-
Wallowa	57	54	-	-	-	-	-	-	-	1	-	-
Wasco	314	312	-	-	-	-	-	-	-	-	-	-
Washington	6,931	6,862	-	1	3	-	-	12	3	1	2	6
Wheeler	9	*	*	*	*	*	*	*	*	*	*	*
Yamhill	1,160	1,141	-	-	-	1	-	1	1	1	-	1

- Quantity is zero.

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

* Detailed reporting of small numbers may breach confidentiality.

TABLE 2-24.
Congenital Malformations Reported on Birth Certificates by County of Residence, Oregon, 1998 (Continued)

County of Residence	Other Gastrointestinal Anomalies	Malformed Genitalia	Renal Agenesis	Other Urogenital Anomalies	Cleft Lip/Palate	Polydactyly/Syndactyly/Adactyly	Club Foot	Diaphragmatic Hernia	Musculoskeletal/Integumental Anomalies	Down Syndrome	Other Chromosomal Anomalies	Other
Total	7	79	7	33	43	52	59	11	49	28	11	37
Baker	-	1	-	-	2	-	-	-	1	-	-	-
Benton	-	1	-	2	2	2	2	-	1	1	-	2
Clackamas	2	5	1	5	4	3	3	-	5	3	3	3
Clatsop	1	2	-	1	1	-	-	-	-	-	-	-
Columbia	-	1	-	-	1	1	-	-	-	1	-	-
Coos	-	2	-	1	-	1	-	-	1	-	-	1
Crook	-	1	-	-	-	-	1	-	1	-	-	-
Curry	-	1	-	-	-	-	1	-	1	-	-	-
Deschutes	-	4	-	1	3	4	1	-	2	-	1	1
Douglas	1	1	-	-	2	3	3	-	3	1	-	1
Gilliam	-	-	-	-	-	-	-	-	-	-	-	-
Grant	-	-	-	1	-	-	-	-	-	-	-	1
Harney	-	2	-	1	-	-	1	-	-	1	-	-
Hood River	-	-	-	-	-	-	-	-	-	-	-	-
Jackson	-	4	1	3	2	1	1	2	1	-	-	1
Jefferson	-	1	-	1	-	2	-	-	-	-	-	-
Josephine	-	-	1	1	2	-	-	-	2	-	2	-
Klamath	1	1	-	2	-	1	-	-	3	2	-	1
Lake	-	-	-	-	-	-	-	-	-	-	-	-
Lane	-	-	1	-	-	-	1	-	1	1	3	1
Lincoln	-	-	-	-	1	-	1	-	-	1	-	1
Linn	1	13	-	-	2	3	6	2	3	2	-	1
Malheur	-	-	-	1	-	-	1	-	-	1	-	-
Marion	-	17	-	1	7	8	4	1	4	5	-	3
Morrow	-	-	-	-	-	1	-	-	-	-	-	1
Multnomah	1	8	1	7	6	11	12	2	4	5	1	5
Polk	-	1	-	-	1	2	2	-	1	-	-	1
Sherman	-	-	-	-	-	-	-	-	-	-	-	-
Tillamook	-	1	-	-	-	-	1	1	-	-	-	-
Umatilla	-	2	1	1	1	-	2	-	4	1	1	6
Union	-	-	-	-	-	-	2	-	1	-	-	-
Wallowa	-	2	-	-	-	-	-	-	-	-	-	-
Wasco	-	1	-	-	-	-	-	1	1	1	-	1
Washington	-	7	-	4	5	4	11	2	7	2	-	5
Wheeler	*	*	*	*	*	*	*	*	*	*	*	*
Yamhill	-	-	1	-	1	5	3	-	2	-	-	1

- Quantity is zero.

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

* Detailed reporting of small numbers may breach confidentiality.

TABLE 2-25.
Low Birthweight Infants by County of Residence, Oregon, 1998

County of Residence	Total Births	Low Birthweight Infants			Rate for All Low Birthweight ¹	Rate for <= 1499 grams ¹	Rate for 1500-2499 grams ¹
		Total Low Birth-weight	<= 1499 grams	1500-2499 grams			
Total	45,228	2,428	407	2,021	53.7	9.0	44.7
Baker	184	6	-	6	32.6	-	32.6
Benton	807	45	14	31	55.8	17.3	38.4
Clackamas	4,164	239	48	191	57.4	11.5	45.9
Clatsop	395	15	2	13	38.0	5.1	32.9
Columbia	536	24	9	15	44.9	16.8	28.0
Coos	626	33	6	27	52.7	9.6	43.1
Crook	234	15	2	13	64.1	8.5	55.6
Curry	170	8	2	6	47.1	11.8	35.3
Deschutes	1,371	77	22	55	56.2	§16.0	40.1
Douglas	1,141	58	11	47	50.8	9.6	41.2
Gilliam	19	6	3	3	§315.8	§157.9	157.9
Grant	88	4	1	3	45.5	11.4	34.1
Harney	95	5	1	4	52.6	10.5	42.1
Hood River	287	9	-	9	31.4	-	31.4
Jackson	2,124	111	16	95	52.3	7.5	44.7
Jefferson	302	15	2	13	49.7	6.6	43.0
Josephine	815	48	12	36	58.9	14.7	44.2
Klamath	856	43	4	39	50.2	4.7	45.6
Lake	69	5	1	4	72.5	14.5	58.0
Lane	3,762	196	35	161	52.1	9.3	42.8
Lincoln	424	23	3	20	54.2	7.1	47.2
Linn	1,484	79	12	67	53.2	8.1	45.1
Malheur	535	21	4	17	39.3	7.5	31.8
Marion	4,540	232	36	196	51.1	7.9	43.2
Morrow	151	6	3	3	39.7	19.9	19.9
Multnomah	9,303	551	81	470	§59.2	8.7	§50.5
Polk	716	32	1	31	44.7	§1.4	43.3
Sherman	23	1	-	1	43.5	-	43.5
Tillamook	234	8	4	4	34.2	17.1	17.1
Umatilla	1,024	50	11	39	48.8	10.7	38.1
Union	278	10	1	9	36.0	3.6	32.4
Wallowa	57	3	1	2	52.6	17.5	35.1
Wasco	314	21	1	20	66.9	3.2	63.7
Washington	6,931	369	51	318	53.2	7.4	45.9
Wheeler	9	*	*	*	*	*	*
Yamhill	1,160	59	7	52	50.9	6.0	44.8

- Quantity is zero.

§ Rate is significantly different than state.

¹ All rates are per 1,000 births.

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

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

* Detailed reporting of small numbers may breach confidentiality.

TABLE 2-26.
Resident Births by Age of Mother and Birthweight, Oregon, 1998

Birthweight (in grams)	Total Births	Age of Mother								
		< 15	15-19	20-24	25-29	30-34	35-39	40-44	45+	N.S.
Total	45,228	95	5,565	11,855	12,850	9,303	4,560	942	46	12
499 and Less	40	2	4	11	10	7	4	2	-	-
500-999	149	1	28	44	27	25	21	3	-	-
1000-1499	218	1	32	58	41	44	33	7	1	1
1500-1999	495	-	94	120	121	91	50	15	4	-
2000-2499	1,526	5	214	404	391	274	185	48	4	1
<2500	2,428	9	372	637	590	441	293	75	9	2
2500-2999	6,035	17	942	1,641	1,640	1,078	595	108	11	3
3000-3499	16,104	35	2,151	4,400	4,527	3,181	1,479	315	14	2
3500-3999	14,762	27	1,636	3,724	4,386	3,209	1,464	305	8	3
4000-4499	4,928	6	392	1,242	1,431	1,161	581	110	4	1
4500-4999	874	1	69	185	255	210	130	24	-	-
5000 & Over	95	-	3	25	21	23	18	5	-	-
Unknown	2	-	-	1	-	-	-	-	-	1
Column Percent:										
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1499 & Less	0.9	4.2	1.2	1.0	0.6	0.8	1.3	1.3	2.2	9.1
1500-2499	4.5	5.3	5.5	4.4	4.0	3.9	5.2	6.7	17.4	9.1
2500-4499	92.5	89.5	92.0	92.9	93.3	92.8	90.3	89.0	80.4	81.8
4500 & Over	2.1	1.1	1.3	1.8	2.1	2.5	3.2	3.1	-	-

- Quantity is zero.

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

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

TABLE 2-27.
**Resident Births to Unmarried Mothers
by Age of Mother and Birthweight, Oregon, 1998**

Birthweight (in grams)	Total Unmarried	Age of Mother								
		< 15	15-19	20-24	25-29	30-34	35-39	40-44	45+	N.S.
Total	13,451	92	4,206	4,685	2,506	1,201	599	150	8	4
499 and Less	18	2	3	8	4	-	1	-	-	-
500-999	58	1	21	19	8	6	3	-	-	-
1000-1499	80	-	23	34	7	9	6	-	-	1
1500-1999	180	-	68	50	33	16	11	2	-	-
2000-2499	571	5	159	200	102	49	39	15	1	1
<2500	907	8	274	311	154	80	60	17	1	2
2500-2999	2,234	17	727	746	418	176	122	25	2	1
3000-3499	5,064	34	1,639	1,764	926	444	200	52	4	1
3500-3999	3,889	26	1,223	1,350	734	366	143	46	1	-
4000-4499	1,144	6	287	446	222	114	61	8	-	-
4500-4999	191	1	54	61	45	17	11	2	-	-
5000 & Over	22	-	2	7	7	4	2	-	-	-
Column Percent:										
1499 & Less	1.2	3.3	1.1	1.3	0.8	1.2	1.7	-	-	25.0
1500-2499	5.6	5.4	5.4	5.3	5.4	5.4	8.3	11.3	12.5	25.0
2500-4499	91.7	90.2	92.2	91.9	91.8	91.6	87.8	87.3	87.5	50.0
4500 & Over	1.6	1.1	1.3	1.5	2.1	1.7	2.2	1.3	-	-

-Quantity is zero.

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

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

TABLE 2-28. Resident Births by Race of Mother and Birthweight, Oregon, 1998

Mother's Race/Ethnicity	Total Births	Birthweight in Grams											
		499 & Less	500-999	1000-1499	1500-1999	2000-2499	2500-2999	3000-3499	3500-3999	4000-4499	4500-4999	5000 & Over	Unknown
Mother's Race													
Total	45,228	40	149	218	495	1,526	6,035	16,104	14,762	4,928	874	95	2
White	41,490	35	134	197	442	1,351	5,319	14,637	13,757	4,696	833	88	1
African American	966	2	5	4	24	60	211	347	252	50	10	1	-
Indian	752	1	2	4	13	26	103	282	233	73	12	3	-
Chinese	161	1	-	4	2	5	21	74	43	9	1	-	1
Japanese	101	-	-	-	1	3	26	43	21	6	1	-	-
Hawaiian	45	-	1	-	-	1	12	10	15	6	-	-	-
Other Non-white	28	-	-	-	-	2	4	9	11	2	-	-	-
Filipino	179	-	-	2	2	7	28	75	52	8	5	-	-
Other Asian and Pacific Islander	1,452	1	7	7	11	69	301	607	364	71	11	3	-
Unknown Race	54	-	-	-	-	2	10	20	14	7	1	-	-
Mother's Race/Ethnicity													
Hispanic	6,499	9	28	42	81	219	938	2,467	2,037	571	99	8	-
White	6,387	9	25	39	80	217	922	2,425	1,999	566	97	8	-
African American	17	-	1	-	-	-	1	5	10	-	-	-	-
Indian	54	-	-	2	-	-	6	28	12	4	2	-	-
Chinese	2	-	-	-	-	-	-	-	2	-	-	-	-
Hawaiian	4	-	-	-	-	-	3	1	-	-	-	-	-
Other Nonwhite	18	-	-	-	-	1	3	4	10	-	-	-	-
Filipino	4	-	-	-	-	-	1	1	1	1	-	-	-
Other Asian and Pacific Islander	13	-	2	1	1	1	2	3	3	-	-	-	-
Non-Hispanic	38,659	31	121	175	414	1,303	5,083	13,612	12,710	4,347	774	87	2
White	35,077	26	109	157	362	1,132	4,392	12,204	11,754	4,124	736	80	1
African American	949	2	4	4	24	60	210	342	242	50	10	1	-
Indian	698	1	2	2	13	26	97	254	221	69	10	3	-
Chinese	159	1	-	4	2	5	21	74	41	9	1	-	1
Japanese	101	-	-	-	1	3	26	43	21	6	1	-	-
Hawaiian	41	-	1	-	-	1	9	9	15	6	-	-	-
Other Nonwhite	10	-	-	-	-	1	1	5	1	2	-	-	-
Filipino	174	-	-	2	2	7	27	73	51	7	5	-	-
Other Asian and Pacific Islander	1,439	1	5	6	10	68	299	604	361	71	11	3	-
Unknown Race	11	-	-	-	-	-	1	4	3	3	-	-	-
Unknown Ethnicity	70	-	-	1	-	4	14	25	15	10	1	-	-

- Quantity is zero.

**TABLE 2-29.
Most Popular Baby Names,
Oregon Occurrence, 1998**

Rank	Boys	Count	Rank	Girls	Count
1	Jacob	494	1	Emily	351
2	Austin	335	2	Hannah	328
3	Tyler	295	3	Madison	233
4	Joshua	293	4	Emma	223
5	Michael	290	5	Jessica	222
6	Andrew	287	6	Samantha	220
7	Ryan	263	7	Ashley	210
8	Daniel	251	8	Sarah	207
9	David	247	9	Alexis	197
10	Zachary	243	10	Megan	190
11	Nicholas	242	11	Taylor	186
12	Joseph	240	12	Elizabeth	184
13	Alexander	239	13	Alyssa	162
14	Matthew	236	14	Olivia	137
15	Brandon	229	15	Abigail	132
16	Kyle	224	16	Kayla	131
16	Christopher	224	17	Rachel	129
18	Samuel	198	18	Sierra	122
19	Benjamin	191	19	Amanda	120
20	Noah	183	20	Nicole	116
Total Boys' Names: 2,248			Total Girls' Names: 3,352		

Total 1998 Oregon Occurrence Births: 46,277

Induced Terminations of Pregnancy

CURRENT TRENDS

During 1998, 14,344 induced terminations of pregnancy occurred in Oregon. This figure includes out-of-state residents who obtained abortion services in Oregon, but does not include Oregonians who obtained abortions elsewhere. It represents a 1.8 percent decrease from 1997 and a decrease of 8.8 percent from the 15,735 abortions reported in the peak year of 1980. [Figure 3-1].

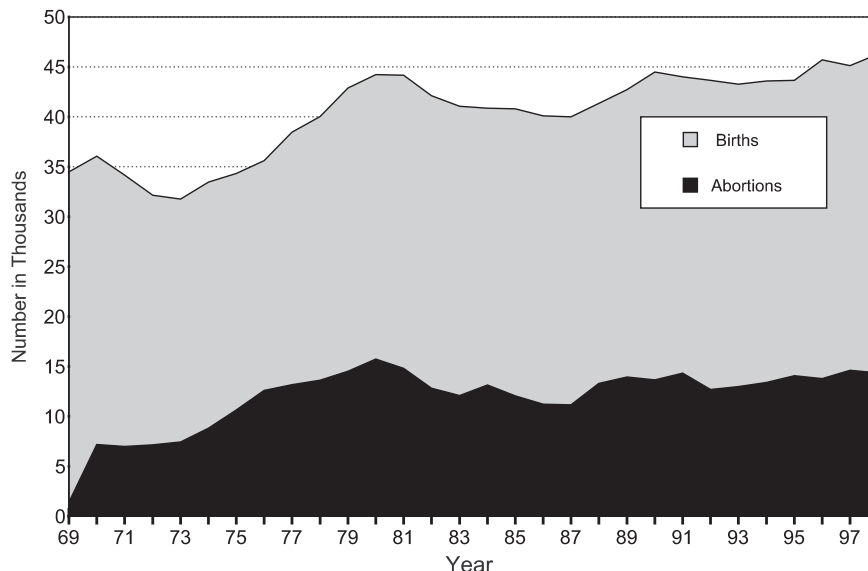
Changes in behavior are revealed by shifts in rate more than by changes in the number of events. The U.S. abortion rate has been declining since 1980 from approximately 25 per 1,000 women of childbearing age to 20 per 1,000 in 1997.¹ From 1988 to 1998, Oregon's rate has fluctuated around 20 per 1,000. [Table 3-1]. In 1997, the Oregon rate was 20.9 per 1,000; in 1998, it decreased 2.9 percent to 20.3 per 1,000. The 1998 rate was 19.1 percent lower than the record high of 1980 (25.1 per 1,000).

Abortion patients in Oregon are typically non-Hispanic white women who are not married. Almost half have previously given birth. Out-of-state residents accounted for 12.5 percent (1,791) of abortions in 1998, approximately the same number as the previous year. [Table 3-6].

Abortion counts are generally less accurate than those for births and deaths. In particular, the total number of women who travel to another state to obtain an abortion is unknown. (See Appendix B, Technical Notes section, for a more extensive discussion of the completeness of abortion data.)

***Oregon's abortion
rate drops
19 percent
below its 1980 peak.***

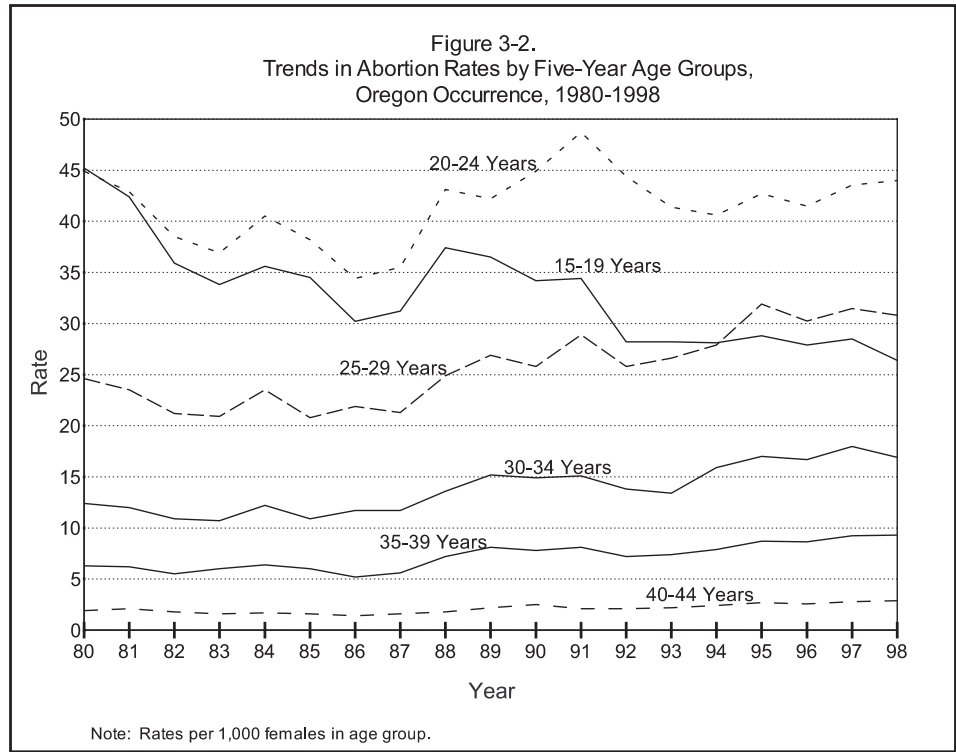
Figure 3-1.
Number of Abortions and Births
Occurring in Oregon, 1969-1998



Abortion Rates by Age and Percentage Distribution, Oregon Occurrence ¹ , 1998		
Age	Rate ²	%
< 15	0.9	0.7
15-19	26.4	21.2
20-24	44.0	30.5
25-29	30.8	22.2
30-34	16.9	13.5
35-39	9.3	8.5
40-44	2.9	2.8
45-49	0.2	0.2
15-44	20.2	98.7

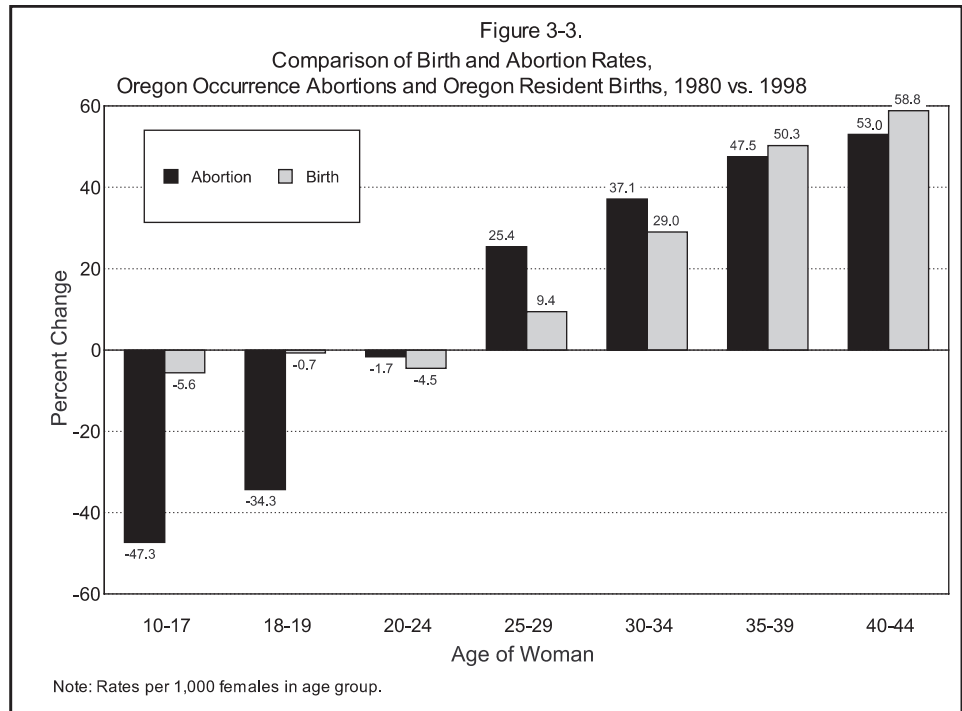
¹ Occurrence data include all abortions reported by providers located in Oregon, regardless of the patient's residence. Because rate calculations employ Oregon population figures, these calculations, in effect, substitute out-of-state residents for Oregonians who may have obtained an abortion in another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

² Per 1,000 females in age group.



AGE

Abortion rates vary greatly by age group. The highest rate in 1998 occurred among women age 20-24 (44.0 per 1,000), with older teens and women in their late 20s also showing high rates (see sidebar). The lowest rate was among women 45-49: 0.2 per 1,000 obtained an abortion. [Figure 3-2].



The 1998 abortion rate among teens age 10-17 was 47.3 percent lower than the rate in 1980, when the statewide abortion rate was highest. [Figure 3-3]. The rate for 18- to 19-year-olds was 34 percent below that of 1980. The absence of a corresponding increase in the birth rates among teens indicates that the reduction in abortions is associated with success in avoiding unwanted pregnancy, rather than an increase in decisions to carry unwanted pregnancies to term. In contrast, among women 25 and older, both abortion rates and birth rates were markedly higher than in 1980.

PREGNANCY OUTCOMES

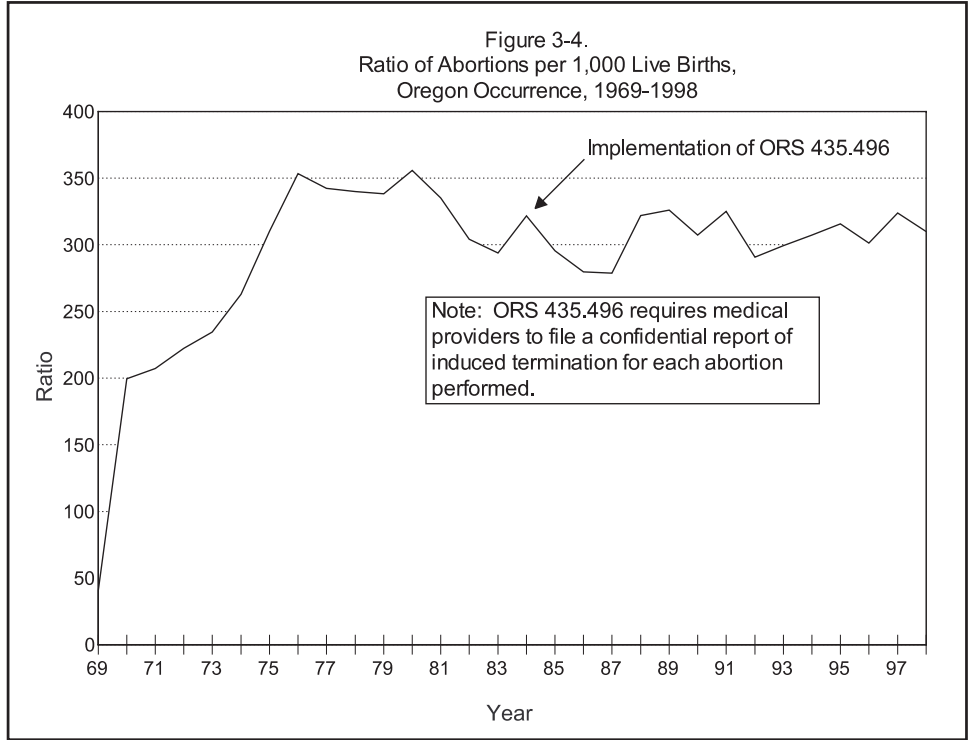
Figure 3-4 shows the ratio of abortions to births occurring in Oregon, indicating the prevalence of unwanted pregnancies that occurred in the state. The highest ratio of abortions to births was in 1980. Between 1980 and 1987, the ratio of abortions to births declined, although this fact is obscured by the increased level of reporting that began in 1984 as a requirement of new legislation. In 1998, there were 310.0 abortions per 1,000 occurrence births. This represents a 4.3 percent decrease from 1997, and a 12.9 percent decrease from 1980, when this ratio was 355.8 per 1,000 births. [Table 3-2].

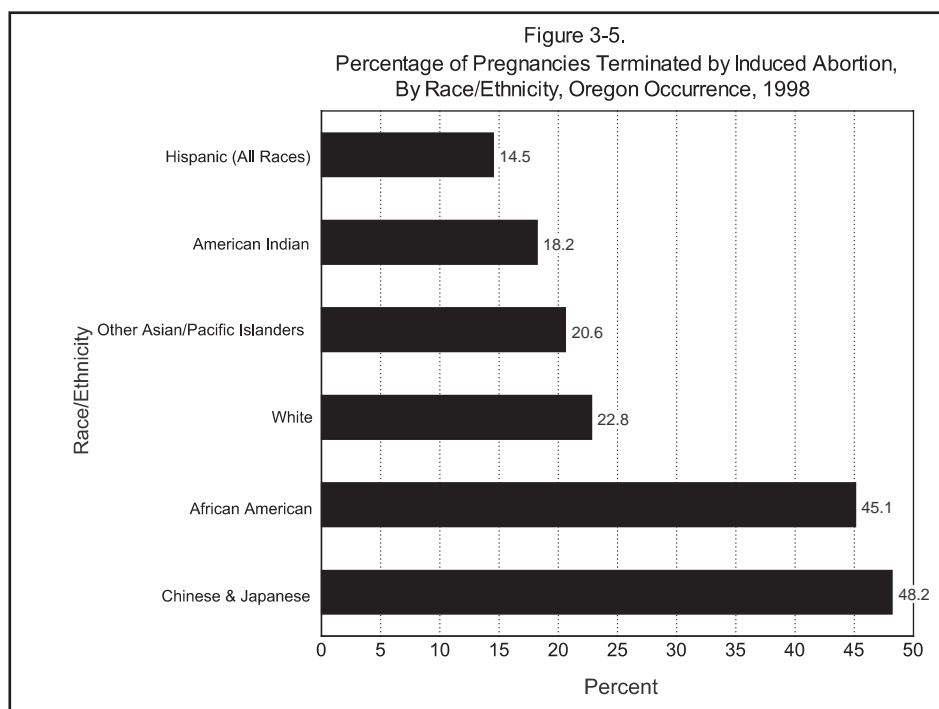
In 1973, when the U.S. Supreme Court legalized abortion with the Roe v. Wade decision, Oregon's abortion ratio was about one-fifth higher than that of the U.S. [Table 3-2]. During the mid-1980s this changed: Oregonians were less likely than residents of other states to terminate pregnancy by abortion (see sidebar). The most recent comparison available (1997) indicates that the abortion ratio in Oregon was 6.2 percent above that of the nation.

Comparison of Oregon and U.S. Abortion Ratios, 1972-1997

Year	U.S. Abortion Ratio ¹	Oregon's Abortion Ratio ² 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	345	-11%
1991	339	-4%
1992	335	-13%
1993	334	-10%
1994	321	-4%
1995	311	+2%
1996	314	-4%
*1997	305	+6%

1 Estimated Number of Abortions per 1,000 Live Births.
 2 See Table 3-2.
 * Preliminary Estimate.
 ** Data not available.





CONTRACEPTIVE USE

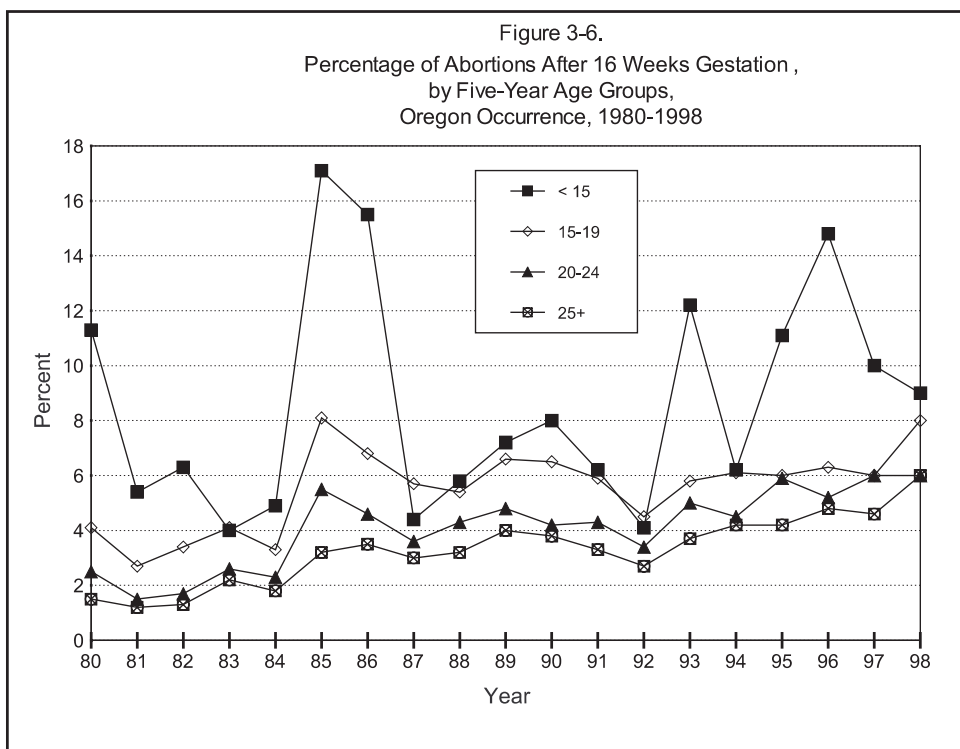
In the majority of abortions that occur in Oregon, the pregnancy is not a result of contraceptive failure. In 1998, based upon data obtained from abortion reports, 33 percent of women having abortions had tried to avoid pregnancy by using some method of contraception. [Table 3-5].

RACE/ETHNICITY

The frequency with which abortion procedures were used to terminate a pregnancy varied among ethnic and racial groups. African American women and women of Chinese and Japanese origin were most likely to have an abortion. In 1998, African American women terminated 45 percent of their pregnancies, Chinese women terminated 50 percent, and Japanese women terminated 45 percent. Because of Oregon's demographic composition, white women obtain the majority of abortions. In 1998, this group had 12,555, or nearly 90 percent of the abortions performed in Oregon. Hispanic women were least likely to terminate a pregnancy (15%). [Figure 3-5].

MEDICAL PROCEDURES

Eighty-six percent of abortions with known gestation were performed prior to the 13th week of pregnancy. Suction curettage was the procedure used in 98 percent of terminations prior to the 13th week where method was reported. Just one in sixteen (6.3%) induced terminations were performed after 16 weeks gestation. Eighty percent (79.5%) of the procedures performed after 16 weeks gestation were dilation and evacuation. [Table 3-4]. Teenage women were more likely to obtain an abortion after 16 weeks gestation than were women over 20. [Figure 3-6]. Complications at the time of the



procedure were reported for 147 termination: infection (44 patients) and retained products (38 patients) were the most common complications. In Oregon, there have been no deaths in which a woman died as the result of a legally induced termination.

GEOGRAPHIC DISTRIBUTION

Abortion rates vary widely within the state, yet all 36 counties had at least one resident who sought an abortion in 1998. The providers of such services, however, were geographically concentrated. In 1998, abortions were reported in 10 of Oregon’s 36 counties, compared to 9 in 1997. The degree of concentration is evident in the fact that 98 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 ensure anonymity, this degree of concentration suggests that access to abortion may be limited for some Oregon women.

References

1. CDC. Abortion Surveillance: Preliminary Analysis – United States, 1997. *MMWR* Jan 07, 2000; v48, n51:1171-1174; 1191 preliminary data.

**TABLE 3-1.
Number, Rate, and Percent Change for Pregnancies, Births, and Abortions to 15- to 44-year-olds, Oregon,
1980-1998**

Year	Pregnancies ¹			Births ²			Abortions ³				
	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 Abortions	% 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	56,065	81.5	-1.6	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
Change 1980-1998	692	-9.9		2,068	-5.1		-1,376	-4.8		-2.6	
Percent Change 1980-1998	1.2	-10.5		4.8	-7.4		-8.8	-19.1		-9.8	

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

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

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

All rates per 1,000 population of 15-44 year old females. 1998: 701,660.

Note: ORS 435.496 was implemented in 1984 requiring all providers of abortions to file a report of induced termination of pregnancy for each abortion performed.

**TABLE 3-2.
Live Births and Induced Abortions
Occurring in Oregon, 1968-1998**

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

* 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.
Number of Induced Abortions by Race/Ethnicity, Marital Status,
and Age, Oregon Occurrence, 1998

Race/Ethnicity and Marital Status	Total	Age Groups								
		< 15	15-19	20-24	25-29	30-34	35-39	40-44	45+	UNK.
Total	14,344	104	3,048	4,380	3,180	1,933	1,220	401	31	47
White	12,555	95	2,681	3,811	2,776	1,697	1,083	347	27	38
African American	813	6	203	277	183	96	35	11	-	2
American Indian	169	1	34	61	40	19	6	6	2	-
Chinese	163	-	19	34	45	33	19	12	1	-
Japanese	86	-	8	33	18	11	12	4	-	-
Hawaiian	16	-	4	5	4	-	2	1	-	-
Filipino	50	-	11	16	6	8	9	-	-	-
Other Asian and Pacific Islander	380	-	71	115	80	58	40	12	-	4
Other Nonwhite	12	-	-	4	2	2	2	1	-	1
Unknown	100	2	17	24	26	9	12	7	1	2
Hispanic	1,113	12	238	376	248	118	87	26	-	8
White	1,034	11	221	347	231	110	82	25	-	7
African American	21	1	7	7	4	-	2	-	-	-
American Indian	27	-	5	10	8	4	-	-	-	-
Chinese	-	-	-	-	-	-	-	-	-	-
Japanese	1	-	1	-	-	-	-	-	-	-
Hawaiian	-	-	-	-	-	-	-	-	-	-
Filipino	1	-	1	-	-	-	-	-	-	-
Other Asian and Pacific Islander	5	-	1	2	1	-	1	-	-	1
Other Nonwhite	9	-	-	4	1	2	1	-	-	1
Unknown	15	-	2	6	3	2	1	1	-	-
Non-Hispanic	13,146	91	2,793	3,987	2,908	1,806	1,122	371	31	37
White	11,494	84	2,456	3,454	2,537	1,585	999	322	27	30
African American	790	5	196	269	178	96	33	11	-	2
American Indian	139	1	29	51	30	14	6	6	2	-
Chinese	162	-	19	34	45	32	19	12	1	-
Japanese	85	-	7	33	18	11	12	4	-	-
Hawaiian	16	-	4	5	4	-	2	1	-	-
Filipino	49	-	10	16	6	8	9	-	-	-
Other Asian and Pacific Islander	369	-	67	112	78	58	38	12	-	4
Other Nonwhite	3	-	-	-	1	-	1	1	-	-
Unknown	39	1	5	13	11	2	3	2	1	1
Ethnicity Unknown	85	1	17	17	24	9	11	4	-	2
Marital Status										
Never married	9,031	100	2,906	3,388	1,652	644	274	42	1	24
Now married	2,601	2	72	540	704	596	461	199	17	10
Widowed	79	-	1	12	18	22	20	5	1	-
Divorced	1,594	-	2	201	465	460	339	116	8	3
Separated	693	1	21	149	249	154	94	22	2	1
Unknown	346	1	46	90	92	57	32	17	2	9

- Quantity is zero.

TABLE 3-4.
Number of Abortions in Relation to Length of Gestation by Method, Complications, and Age of Patient, Oregon Occurrence, 1998

Method, Complications and Age of Patient	Total	Weeks Gestation						
		< 9	9-12	13-16	17-20	21-22	23+	UNK.
Total	14,344	8,271	4,034	1,040	606	206	89	98
Method								
Suction curettage	12,982	8,066	3,955	752	83	31	9	86
Medical (Non-surgical)	78	53	-	2	13	6	4	-
Dilation and Evacuation	1,040	16	26	278	487	160	69	4
Intra-uterine Instillation	9	4	4	-	1	-	-	-
Vaginal Prostaglandin	30	-	-	1	13	9	6	1
Sharp Curettage	19	9	4	1	1	-	-	4
Hysterotomy/Hysterectomy	1	1	-	-	-	-	-	-
Other	182	122	45	5	8	-	1	1
Unknown	3	-	-	1	-	-	-	2
Complications								
None	14,197	8,195	3,994	1,028	592	204	89	95
Hemorrhage	8	3	2	2	1	-	-	-
Infection	44	23	10	4	5	-	-	2
Uterine perforation	1	-	1	-	-	-	-	-
Cervical laceration	2	-	-	1	1	-	-	-
Retained products	38	21	10	2	5	-	-	-
Failure of first method	5	3	-	1	-	-	-	1
Other	43	23	16	2	1	1	-	-
Multiple Complications	6	3	1	-	1	1	-	-
Age Groups								
<15	104	42	43	10	3	2	4	-
15-19	3,048	1,515	986	281	162	59	25	20
20-24	4,380	2,543	1,237	337	150	64	24	25
25-29	3,180	1,893	865	214	123	44	17	24
30-34	1,933	1,202	484	101	99	21	10	16
35-39	1,220	770	297	76	50	12	6	9
40-44	401	266	96	18	14	3	3	1
45+	31	20	8	2	1	-	-	-
Unknown	47	20	18	1	4	1	-	3

- Quantity is zero.

TABLE 3-5.

Contraceptive Use, Number of Previous Abortions, and Number of Living Children by Age of Patient, Oregon Occurrence, 1998

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+	UNK.
Total	14,344	104	3,048	4,380	3,180	1,933	1,220	401	31	47
Contraceptives Used and Previous Abortions										
<i>None used</i>	9,559	89	2,169	2,900	2,071	1,249	769	263	21	28
No Previous Abortion	5,593	83	1,811	1,818	962	503	333	110	14	15
One	2,321	4	313	743	587	377	215	87	4	8
Two	927	1	40	241	295	190	125	35	3	2
Three	376	-	8	79	112	101	53	22	1	-
Four or More	292	-	2	34	114	84	48	12	-	-
<i>Pills Used</i>	1,200	1	216	428	284	167	84	17	-	3
No Previous Abortion	634	-	147	232	137	76	33	7	-	2
One	349	1	60	125	82	49	24	8	-	-
Two	130	-	7	44	35	26	18	-	-	-
Three	56	-	1	19	17	11	7	1	-	-
Four or More	23	-	1	4	11	5	1	1	-	-
<i>Condoms Used</i>	2,409	14	545	784	517	305	175	55	6	8
No Previous Abortion	1,374	14	454	457	242	111	61	27	4	4
One	618	-	72	223	148	100	59	12	2	2
Two	259	-	9	70	85	49	35	10	-	1
Three	87	-	2	23	24	26	9	2	-	1
Four or More	59	-	2	7	17	18	11	4	-	-
<i>Other Contraceptive</i>	1,042	-	95	234	286	195	171	56	2	3
No Previous Abortion	534	-	78	146	139	82	61	24	2	2
One	317	-	13	62	92	62	68	20	-	-
Two	113	-	4	17	30	33	23	5	-	1
Three	42	-	-	6	16	9	9	2	-	-
Four or More	29	-	-	2	7	8	8	4	-	-
<i>Contraceptive Use Unknown</i>	134	-	23	34	22	17	21	10	2	5
No Previous Abortion	56	-	12	19	4	8	9	3	1	-
One	17	-	3	6	3	1	2	2	-	-
Two	5	-	-	1	2	2	-	-	-	-
Three	-	-	-	-	-	-	-	-	-	-
Four or More	2	-	-	-	1	1	-	-	-	-
Previous Abortions Unknown	131	1	24	28	28	13	19	8	1	9
Number of Living Children										
	Total	Age Groups								
		< 15	15-19	20-24	25-29	30-34	35-39	40-44	45+	UNK.
Total with children										
No Children	6,525	99	2,456	2,127	1,064	466	226	59	9	19
One	7,737	4	580	2,232	2,100	1,462	982	338	20	19
Two	3,784	3	507	1,454	921	509	287	91	3	9
Three	2,586	1	66	621	774	570	408	130	10	6
Four	946	-	6	124	306	252	187	64	3	4
Five or More	276	-	1	28	68	83	57	37	2	-
Unknown	145	-	-	5	31	48	43	16	2	-
Unknown	82	1	12	21	16	5	12	4	2	9

- Quantity is zero.

Note: Contraceptive totals include abortions where number of previous abortions is unknown.

TABLE 3-6.
Induced Terminations of Pregnancy Occuring in Oregon
by Residence and Age Group of Patient, 1998

Place of Residence	Total	Age Groups								
		< 15	15-19	20-24	25-29	30-34	35-39	40-44	45+	Unk.
Total	14,344	104	3,048	4,380	3,180	1,933	1,220	401	31	47
Baker	13	-	6	2	1	2	1	1	-	-
Benton	207	-	47	73	42	21	15	9	-	-
Clackamas	1,114	9	278	298	225	152	114	32	2	4
Clatsop	112	-	21	34	28	18	6	5	-	-
Columbia	120	1	25	35	23	19	12	5	-	-
Coos	123	1	40	28	19	19	10	5	-	1
Crook	41	2	13	11	6	7	2	-	-	-
Curry	41	-	10	11	10	5	2	2	-	1
Deschutes	349	2	77	110	70	42	32	14	1	1
Douglas	187	4	57	55	27	18	21	3	-	2
Gilliam	2	*	*	*	*	*	*	*	*	*
Grant	9	-	1	1	4	3	-	-	-	-
Harney	8	-	2	2	3	-	-	1	-	-
Hood River	53	1	9	10	13	10	6	3	-	1
Jackson	492	4	111	146	110	56	46	15	2	2
Jefferson	40	-	10	16	8	2	4	-	-	-
Josephine	136	2	30	40	32	8	18	5	1	-
Klamath	153	1	33	41	37	21	18	2	-	-
Lake	9	1	4	-	1	1	-	1	1	-
Lane	1,212	10	260	431	236	132	91	34	3	15
Lincoln	150	2	36	40	41	11	11	9	-	-
Linn	241	3	57	63	45	45	16	12	-	-
Malheur	12	-	4	6	-	1	1	-	-	-
Marion	956	7	198	292	213	136	79	30	-	1
Morrow	10	-	2	2	3	3	-	-	-	-
Multnomah	4,295	27	743	1,408	1,052	581	354	111	9	10
Polk	116	-	27	42	18	19	4	5	-	-
Sherman	3	*	*	*	*	*	*	*	*	*
Tillamook	62	-	16	15	13	14	2	2	-	-
Umatilla	78	1	30	17	18	6	4	1	-	1
Union	37	-	11	12	6	2	3	3	-	-
Wallowa	8	-	3	2	2	1	-	-	-	-
Wasco	56	-	6	14	15	13	7	1	-	-
Washington	1,870	10	403	536	434	259	168	46	10	4
Wheeler	3	*	*	*	*	*	*	*	*	*
Yamhill	234	5	68	72	30	29	25	5	-	-
N.S.	1	-	1	-	-	-	-	-	-	-
Out of State	1,791	11	405	515	394	276	146	39	1	4

- Quantity is zero.

* Detailed reporting of small numbers may breach confidentiality.

TABLE 3-7.
Number of Induced Abortions by County of Residence
and County of Occurrence, Oregon, 1998

County of Residence	Total	County of Occurrence									
		Benton	Clackamas	Crook	Deschutes	Jackson	Klamath	Lane	Marion	Multnomah	Washington
Total	14,344	135	8	94	4	658	25	1,611	559	10,682	568
Baker	13	-	-	-	-	-	-	-	-	13	-
Benton	207	66	-	-	-	1	-	51	19	65	5
Clackamas	1,114	-	2	-	-	-	-	1	5	1,098	8
Clatsop	112	-	-	-	-	-	-	-	-	74	38
Columbia	120	-	1	-	-	-	-	-	-	113	6
Coos	123	-	-	-	-	1	-	89	-	31	2
Crook	41	-	-	15	-	1	-	6	-	18	1
Curry	41	-	-	-	-	12	-	21	-	8	-
Deschutes	349	-	-	61	4	3	-	63	16	196	6
Douglas	187	-	-	-	-	3	-	147	-	37	-
Gilliam	2	-	-	-	-	-	-	1	-	1	-
Grant	9	-	-	4	-	-	-	1	-	4	-
Harney	8	-	-	1	-	-	-	-	-	7	-
Hood River	53	-	-	-	-	-	-	-	-	53	-
Jackson	492	-	-	-	-	426	-	31	1	31	3
Jefferson	40	1	-	12	-	-	-	1	1	25	-
Josephine	136	-	-	-	-	113	-	7	-	15	1
Klamath	153	-	-	-	-	62	22	41	1	26	1
Lake	9	-	-	1	-	3	2	-	-	3	-
Lane	1,212	-	-	-	-	1	-	1,010	10	188	3
Lincoln	150	10	-	-	-	-	-	19	13	79	29
Linn	241	52	-	-	-	-	-	68	40	72	9
Malheur	12	-	-	-	-	-	-	-	-	10	2
Marion	956	2	-	-	-	1	-	21	389	526	17
Morrow	10	-	-	-	-	-	-	-	1	9	-
Multnomah	4,295	1	2	-	-	-	-	2	1	4,263	26
Polk	116	2	-	-	-	-	-	1	45	60	8
Sherman	3	-	-	-	-	-	-	-	-	3	-
Tillamook	62	-	-	-	-	-	-	-	-	40	22
Umatilla	78	-	-	-	-	1	-	-	-	77	-
Union	37	-	-	-	-	-	-	-	-	37	-
Wallowa	8	-	-	-	-	1	-	-	-	7	-
Wasco	56	-	-	-	-	-	-	-	-	56	-
Washington	1,870	1	1	-	-	-	-	4	2	1,558	304
Wheeler	3	-	-	-	-	-	-	1	-	2	-
Yamhill	234	-	-	-	-	-	-	1	15	155	63
NS	1	-	-	-	-	1	-	-	-	-	-
Out of State	1,791	-	2	-	-	28	1	24	-	1,722	14

- Quantity is zero.

* Detailed reporting of small numbers may breach confidentiality.

Teen Pregnancy

CURRENT TRENDS

In 1998, there were 8,439 pregnancies to Oregon females under age 20. Of these, 56.6 percent had neither completed high school nor obtained a general equivalency diploma (GED). Of those who took their pregnancies to term, 75.9 percent were unmarried at the time of birth. 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 18 and females 18-19. 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.

Oregon Females Under 18

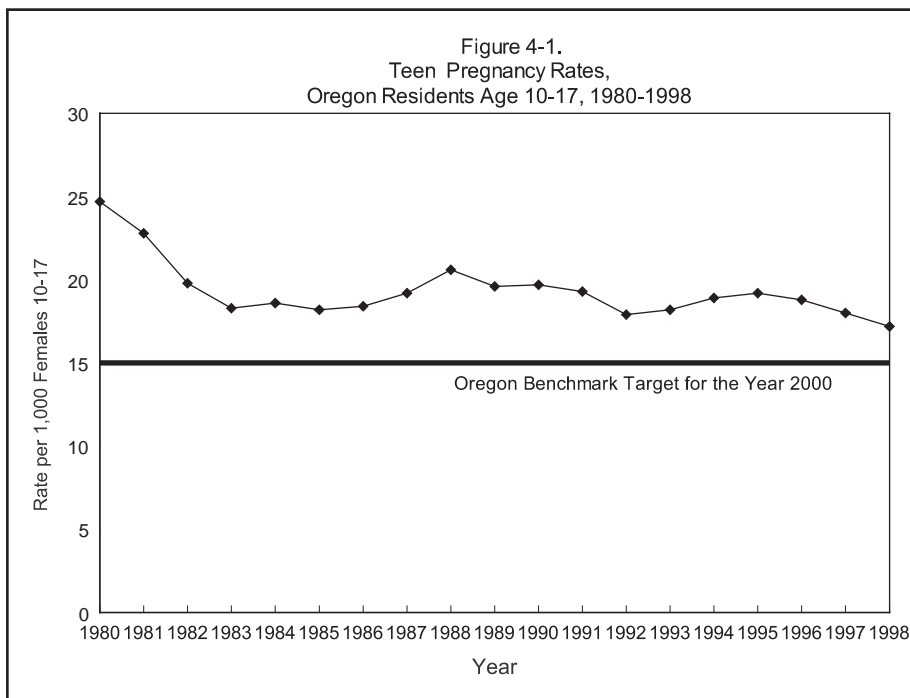
Efforts at preventing teen pregnancies are focused primarily on females under age 18. In 1998, the pregnancy rate among 10- to 17-year-olds decreased 4.4 percent, from 18.0 per 1,000 in 1997 to 17.2 in 1998 (see sidebar). The 1998 rate is 15 percent above the Oregon Benchmark goal for the year 2000: 15 pregnancies per 1,000 females¹. [Figure 4-1].

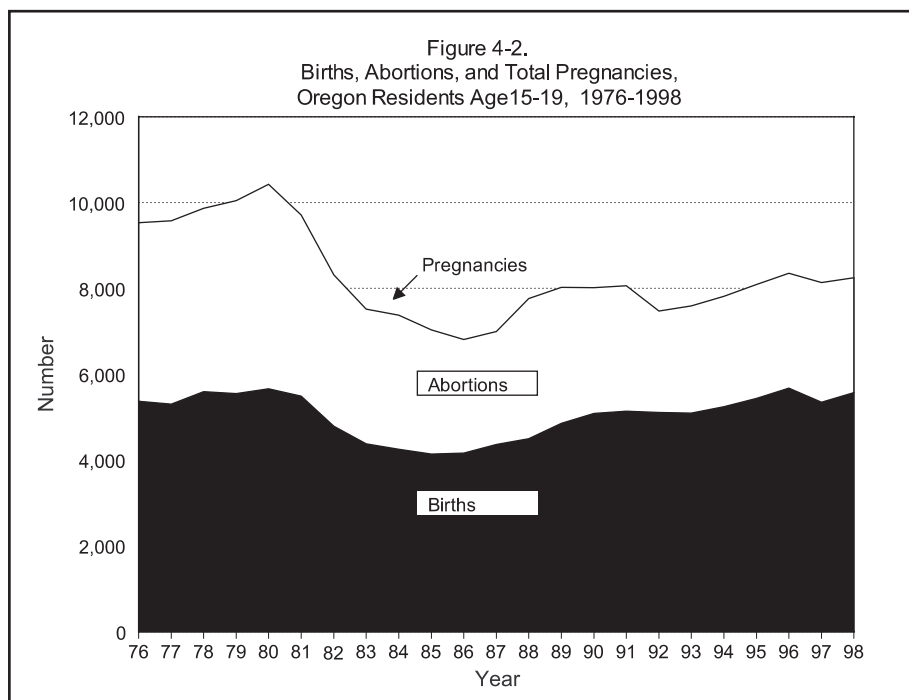
During 1998, at least 3,176 pregnancies occurred among Oregon females under 18 years old, 21 fewer than in 1997. [Table 4-2]. The birth rate decreased by 4.5 percent and the abortion rate decreased by 2.9 percent. This indicates that teens are showing improvement in protecting themselves against becoming pregnant compared to 1997.

Pregnancy rates for Oregonians age 10-17 declined 4 percent.

OREGON BENCHMARK: Teen Pregnancy Rates 10-17	
YEAR 2000 GOAL: 15.0	
YEAR	RATE
1980	24.7
1981	22.8
1982	19.8
1983	18.3
1984	18.6
1985	18.2
1986	18.4
1987	19.2
1988	20.6
1989	19.6
1990	19.7
1991	19.3
1992	17.9
1993	18.2
1994	18.9
1995	19.2
1996	18.8
1997	18.0
1998	17.2

Pregnancy rate per 1,000 Oregon resident females ages 10-17.





In 1998, the youngest teens to become pregnant were age 11. There were 191 teen pregnancies to teens under 15.

Oregon Females 18-19

In 1998, the pregnancy rate for Oregonians age 18-19 was 118.5 per 1,000 females, a 0.9 percent increase from 1997. Comparisons with the 1997 figures show an increase of 4.6 percent in the birth rate and a decrease of 7.3 percent in the abortion rate among 18- to 19-year-olds. [Table 4-1].

**Abortion rates for
teens 10-17 decreased
3 percent.**

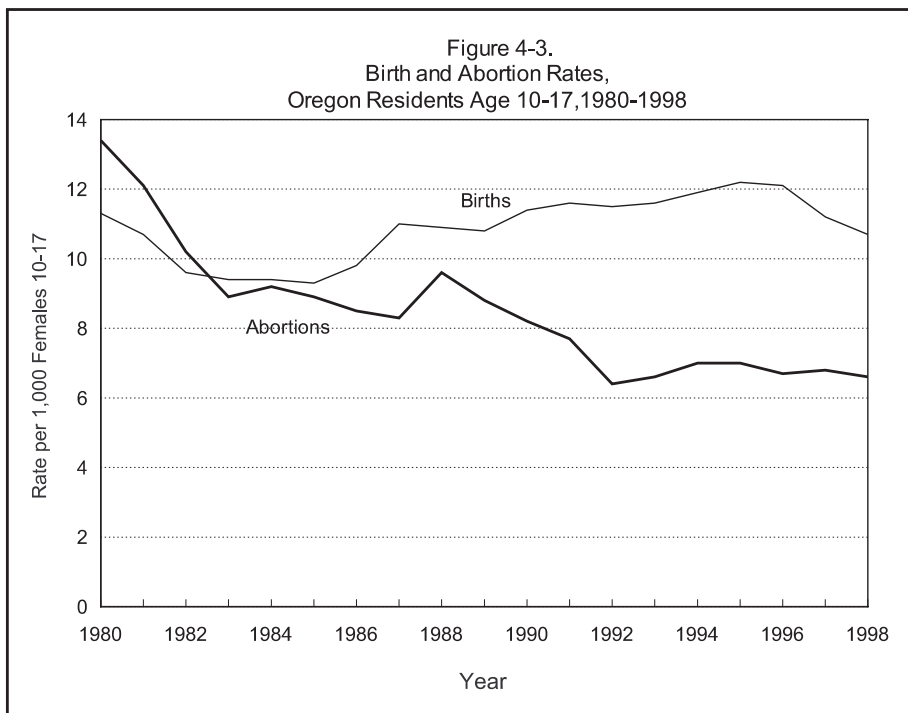
TEEN ABORTIONS

Compared to 1997, abortion rates decreased for teenage groups: age 15-17 decreased 4.9 percent, and age 18-19 decreased 7.4 percent. Overall, the rate for 10- to 17-year-olds decreased 2.9 percent. [Table 4-1 and Table 4-2; Figure 4-3].

Figures 4-2 and 4-4 present the historical pattern of pregnancy resulting in birth instead of abortion. As Figure 4-4 indicates, teens are more likely to carry a pregnancy to term than they were in 1980.

Since 1980, the younger the teen, the more likely the pregnancy would be terminated. However, in 1998, even among teens under 15, almost 50 percent of pregnancies resulted in a live birth. [Figure 4-4, Table 4-2].

There were 1,209 abortions to Oregonians age 10-17 reported during 1998, two more abortions than in 1997. [Table 4-2]. Since the record high abortion rate recorded in 1980, the rate for 10- to 17-year-olds has fallen more than half (from 13.4 to 6.6), while the rate for 18- to 19-year-olds has dropped by nearly one-third (from 58.1 to 35.4). [Tables 4-1 and 4-2].

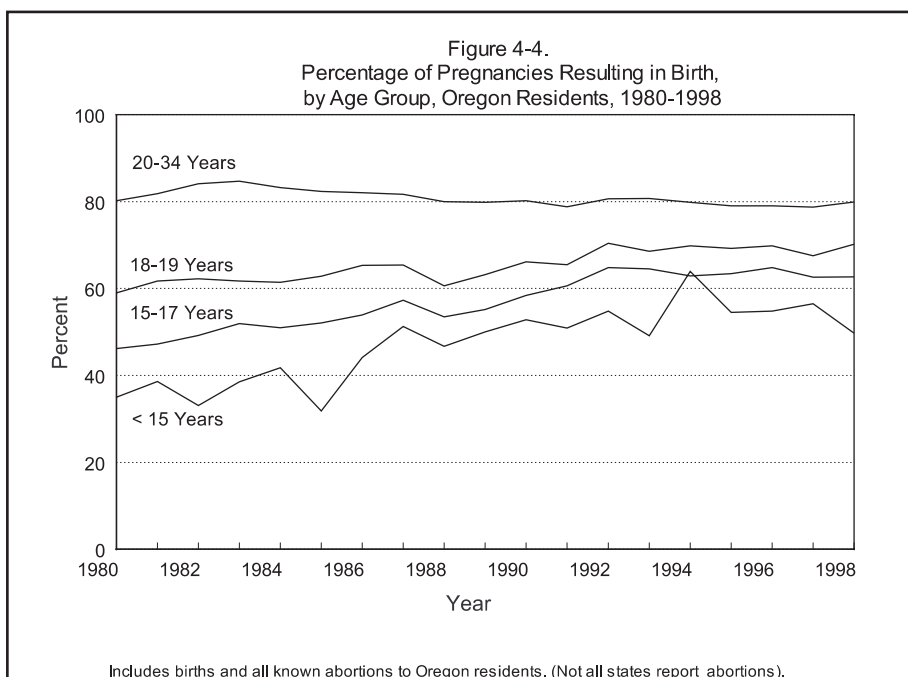


TEEN BIRTHS

In 1998, there were 1,967 births to Oregon teens under 18 years of age. In 8.7 percent of these births, the child was the mother’s second, third, or fourth. [Table 4-9]. Sixty-two percent of pregnancies among teens 10-17 resulted in a live birth during 1998, compared to 46 percent in 1980. [Table 4-2].

Between 1997 and 1998, the birth rate for 10- to 17-year-olds fell 4.5 percent. Ninety-five girls age 10-14 gave birth during 1998, a one-year decrease of 9 percent. [Table 4-2].

Birth rates for teens 10-17 fell 5 percent.



The number of births to teens age 18-19 totaled 3,693, an increase of 235 births from the previous year. The birth rate to teens 18-19 was 83.2 per 1,000 females, a 4.8 percent increase from 1997. [Table 4-1]. Seventy percent of pregnancies reported among this group resulted in a live birth, a 4.0 percent increase from 1997. [Figure 4-4].

Oregon Rates vs. U.S. Rates

In Oregon, the birth rate among 15- to 19-year-olds (commonly used in historical and national comparisons) increased by 1.0 percent in 1998 (48.3 vs. 47.8 per 1,000 females in 1997). [Table 4-1]. The 1998 rate was 13 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 1998 birth rate for 15- to 19-year-old teens was 5.5 percent below the national rate (48.3 vs. 51.1 per 1,000 females) (see sidebar).²

Oregon’s lower teen birth rate may be attributed in large part to its demographic characteristics. African American and Hispanic populations have higher teen birth rates and are underrepresented in the state. (For further discussion of Oregon’s demographic characteristics and teen pregnancy rates, see the Methodology section of Appendix B).

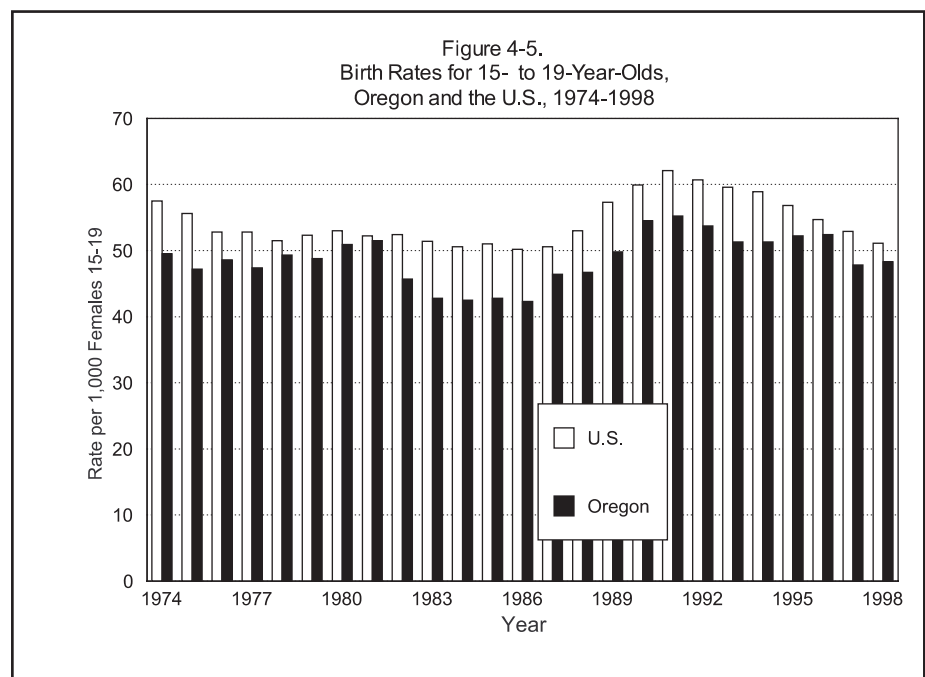
Teen Birth Rates ¹			
Age	Oregon		U.S.
	1998	1997	*1998
10-17	10.7	11.2	NA
10-14	0.8	0.9	1.0
15-17	26.4	27.6	30.4
18-19	83.2	79.4	82.0
15-19	48.3	47.8	51.1

¹ All rates per 1,000 females.
^{*} 1998 U.S. data not final.

PRENATAL CARE

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 mother and infant. An Oregon Benchmark goal is that by the year 2000, ninety percent of pregnant women, regardless of age, will begin medical care during the first trimester of pregnancy. Only 82 percent of Oregon women age 20 or older



who gave birth in 1998 met this standard. In 1998, among teens who gave birth, only 65.3 percent started prenatal care during the first trimester, a 4.1 percent decrease from 1997 (see sidebar). Only 60 percent of those under 18 received early prenatal care, a negligible 1.6 decrease from 1997. [Table 4-10].

Other 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 1998, for example, 54 percent of unmarried Hispanics age 15-17 started prenatal care during their first trimester, compared to 72 percent of married non-Hispanic whites age 18-19. [Table 4-4].

Inadequate Prenatal Care

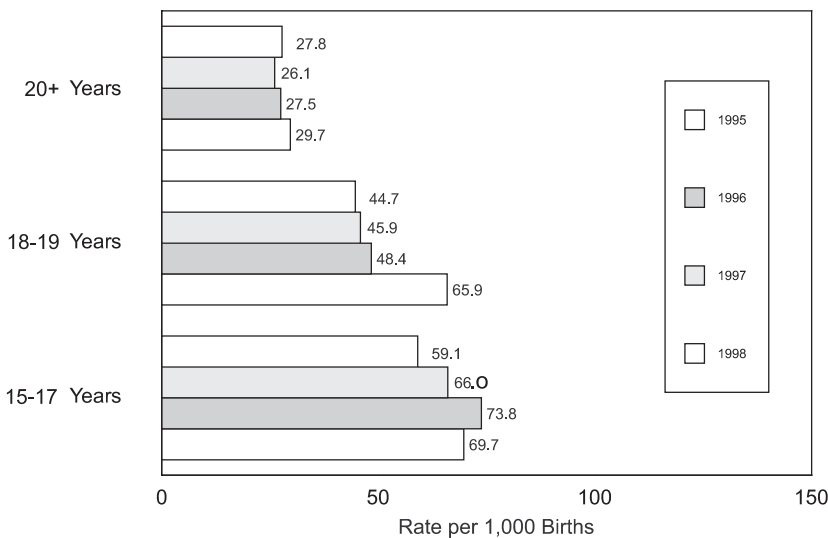
Inadequate prenatal care has been defined as care that begins after the second trimester of pregnancy, or that involves fewer than five prenatal visits. By this measure, 9.8 percent of 15- to 17-year-old teens and 8.0 percent of 18- to 19-year-old teens received inadequate prenatal care in 1998. This compares with 4.7 percent of women 20 years or older who received inadequate care. [Table 4-10]. The proportion of women under 20 who received inadequate prenatal care increased 4.8 percent from 1997.

Late Care and No Prenatal Care

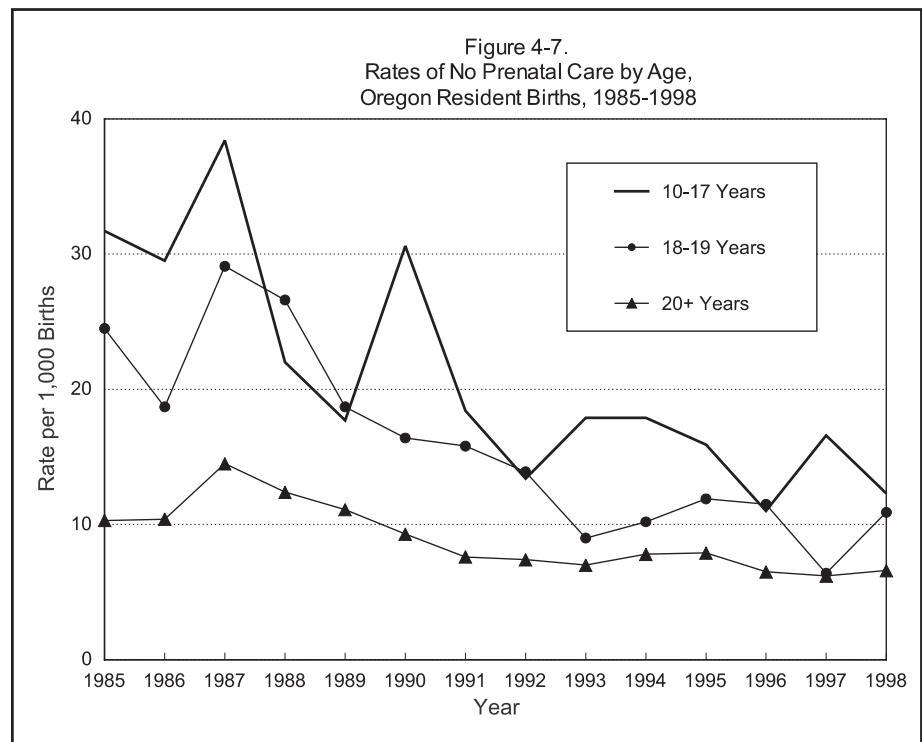
The proportion of teens age 15-17 who began prenatal care during the third trimester decreased 11 percent to 59.1 per 1,000 live births in 1998. [Figure 4-6]. In 1998, the rate of no prenatal care among teens under age 18 was nearly twice that of women 20 and over (12.3 vs. 6.6). [Figure 4-7].

Oregon Benchmark: First Trimester Prenatal Care, 1998	
Year 2000 Goal: 90%	
All Women	80.2%
All Teens	65.3%
10-17 Years	59.5%
18-19 Years	68.4%
20 + Years	82.4%

Figure 4-6.
Rates of Late Prenatal Care,
by Age Group, Oregon Residents, 1995-1998



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



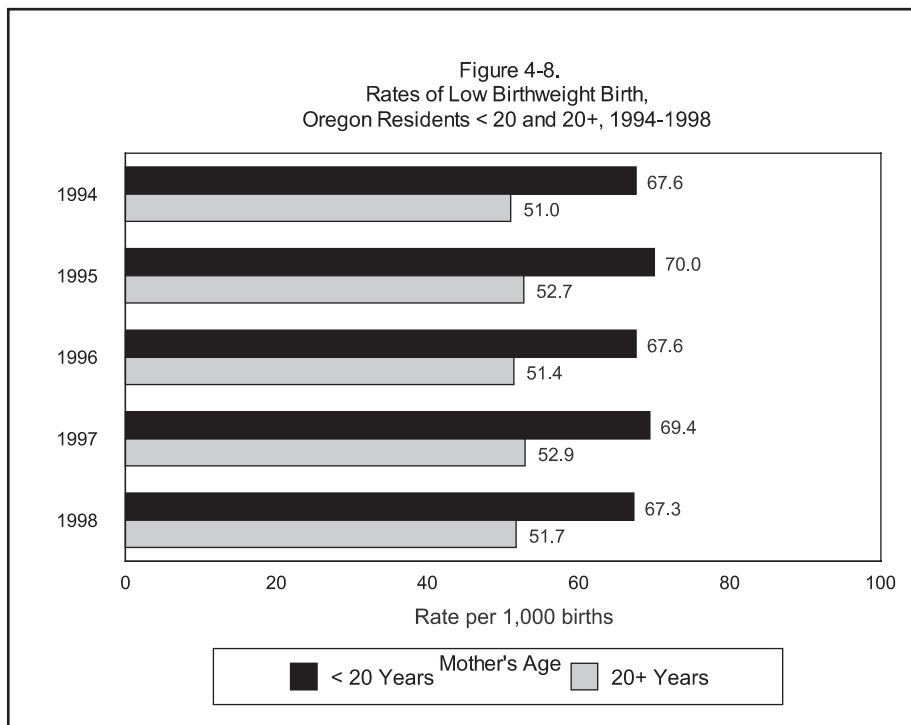
LEVEL OF INFANT HEALTH

Whether reflecting premature delivery or small size for gestational age, the low birthweight (LBW) rate (<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 may 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 1998, the low birthweight rate for teen mothers age 15-19 was 66.8 per 1,000 births [Table 4-4], a 3.2 percent decrease from 1997. For 15- to 17-year-olds, the rate (73.7) decreased 5.4 percent. The teen rates for low birthweight remained higher than those for mothers age 20 or older (63.4). The difference in the low birthweight rates between the two groups is persistent. [Figure 4-8].

Table 4-3 shows the relationship between inadequate prenatal care and frequency of low birthweight infants among teens who gave birth in 1998. Among mothers age 15-19, those who received inadequate prenatal care were nearly twice as likely to have low birthweight babies as those who had received adequate care (126.4 vs. 67.5 per 1,000 live births). Figure 4-9 shows low birthweight rates by adequate and inadequate prenatal care. For mothers 15-17, the rates were 126 vs 67.5; for mothers 18-19, they were 119.4 vs. 58.2. This parallels findings based on analysis of births to mothers of all ages.

Low birthweight rates to teen mothers by racial/ethnic grouping are displayed in the sidebar and in Table 4-4. Between 1997 and 1998, the rate of low birthweight for Hispanic teens 15-17 increased by 13.2 percent, and decreased by 24.2 percent for



those 18-19. Among non-Hispanic, non-white groups, the low birthweight rate for teens 15-17 decreased by 43.1 percent and decreased by 17.6 percent for those 18-19 (see sidebar).

Low Apgar Score

The Apgar score recorded by the birth attendant five minutes after birth provides a measure of infant health at 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 1998 low Apgar rate for newborns of mothers age 10-19 was 22.5 per 1,000 births [Table 4-9], a 13.1 percent increase from 1997 (19.9). The low Apgar rate for infants born to women under age 20 was 47.1 percent higher than the rate for infants born to women 20 years or older (15.3).

Low Birthweight Rates ¹ By Race/Ethnicity and Age, 1998		
Race/Ethnicity	Age	
	15-17	18-19
Rates		
Non-Hispanic White	75.3	66.4
Hispanic (All Races)	68.7	53.8
Non-hispanic, Non white	76.5	55.7
Percent Change, 1998 vs. 1997		
Non-Hispanic White	-0.7%	6.8%
Hispanic (All Races)	13.2%	-24.2%
Non-hispanic, Non white	-43.1%	-17.6%

¹ All rates per 1,000 births.

REPORTED 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.

Alcohol

Table 4-9 shows that teen females age 15-19 were 16.1 percent less likely to report use of alcohol during pregnancy than were women over 20 (14.1 vs. 16.8 per 1,000 births).

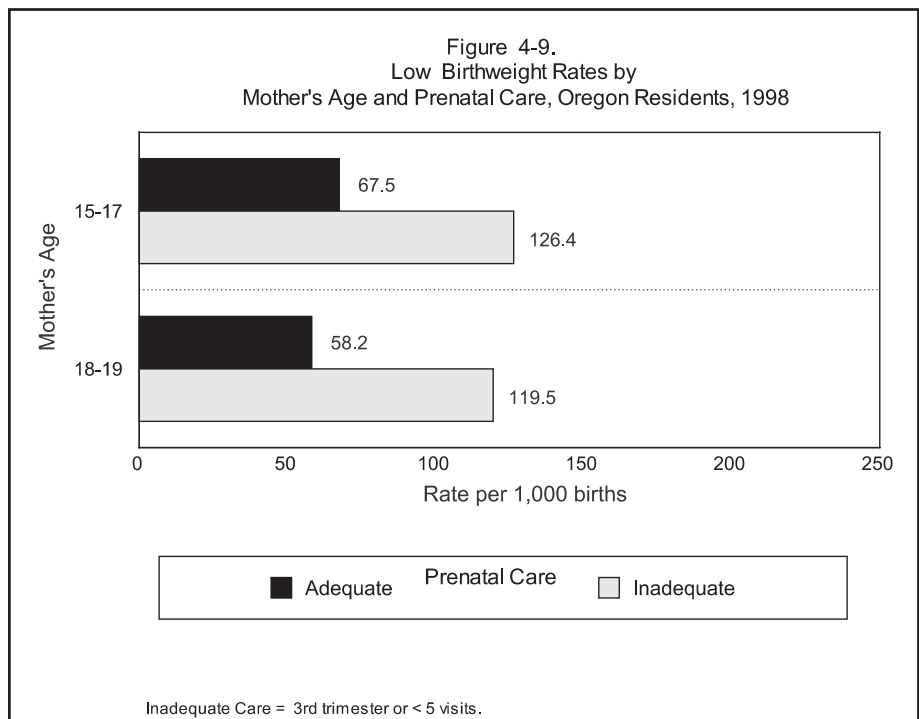
Tobacco

Teens 15-19 were 86 percent more likely than women over 20 to report smoking during pregnancy (26% vs.14%). [Table 4-9].

Women of all ages who smoked during pregnancy were more likely to have low birthweight babies than nonsmokers (see

	< 20	20+
Nonsmokers	59.8	46.9
Smokers	85.5	79.8

¹ All rates per 1,000 births.



sidebar). Although this difference is most pronounced in mothers 20 or older (79.8 vs. 46.9 per 1,000), it remains one of the most important preventable causes of low birthweight infants for teen mothers as well.

METHOD OF PAYMENT

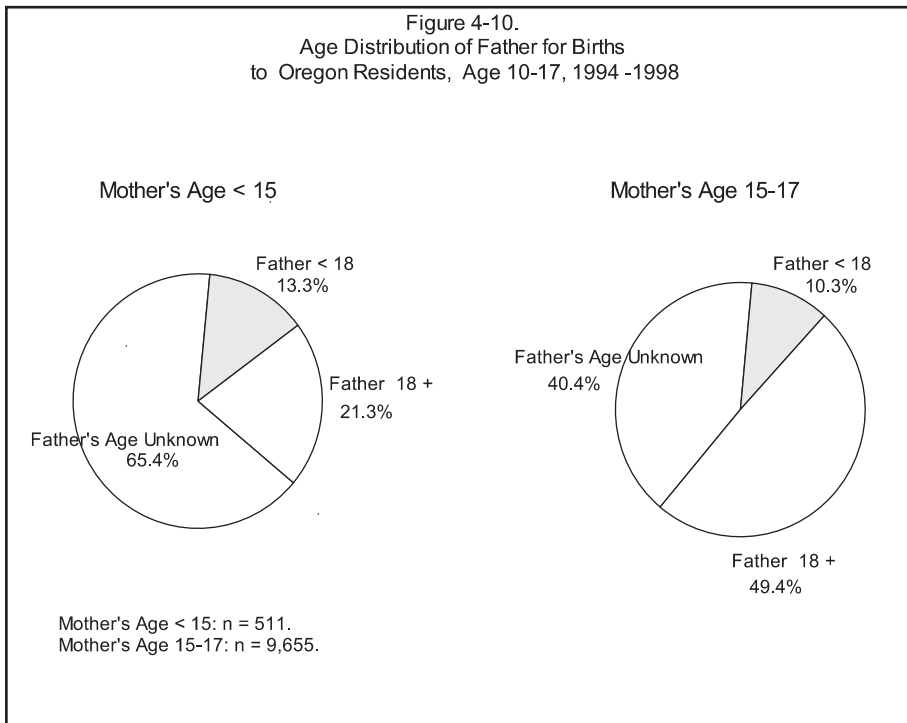
Births to teen mothers are more than twice as likely as births to older women to be paid for with public funds. In 1998, Medicaid paid for 60.0 percent of births to teens under 20, and 26.8 percent of births to women age 20 and older (where payor source was known). [Table 4-10]. In 1998, there were 121 more births to women under age 20 than in 1997, and the number of publicly-funded births to women under age 20 increased by 27.

AGE OF FATHER

During 1994-1998, a large percentage of birth certificates for babies born to teens did not indicate father's age, because no father was on the certificate. Two-thirds (65.4%) of birth certificates where the mother was under age 15 did not list father's age. Where father's age was reported for teen mothers under 15, 38.4 percent were younger than 18, and 61.6 percent were 18 or older. Forty percent of birth certificates where the mother was 15-17 did not list father's age. [Figure 4-10]. Where father's age was reported on births to teens 15-17, 17.2 percent of fathers were under age 18, and 82.8 percent were 18 or older. [Table 4-13]. Figure 4-11 shows the age of father for teen mothers by each year of mother's age.

Medicaid paid for 60 percent of births to teens.

Figure 4-10.
Age Distribution of Father for Births
to Oregon Residents, Age 10-17, 1994 -1998



ENDNOTES

1. Oregon Progress Board. Achieving the Oregon Shines Vision: The 1999 Benchmark Performance Report. Report to the Legislative Assembly. March 1999.
2. National Center for Health Statistics, National Vital Statistics Reports, Births: Final Data for 1998. Vol. 48, No. 3.

Figure 4-11.
Father's Age Compared to Teen Mother's Age,
Oregon Residents, 1994-1998

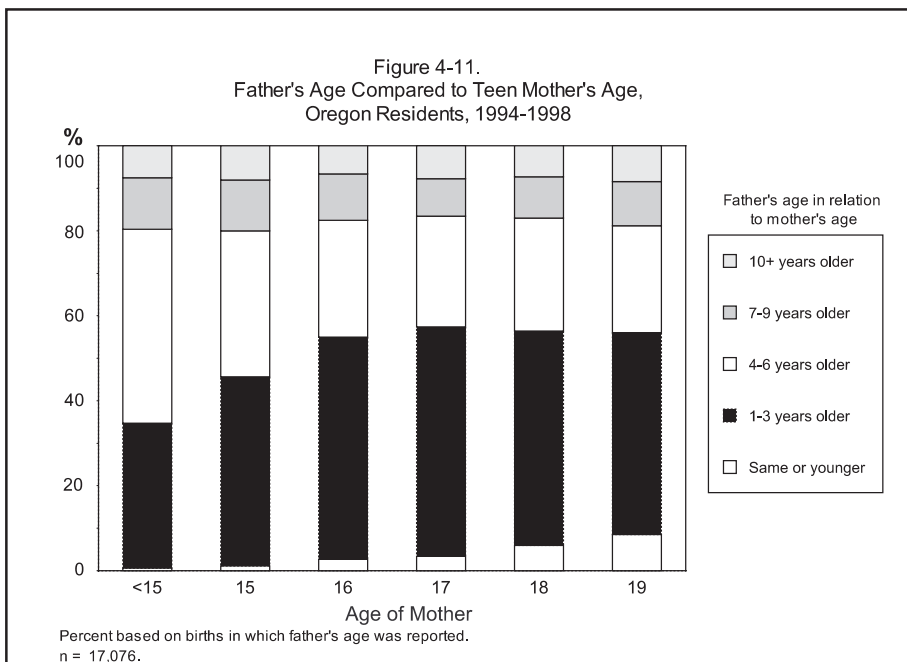


TABLE 4-1.
Oregon Pregnancies to Teens 15-19, 1974-1998

Year	Pregnancies ¹						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
Change Between 1988 and 1998	92	-9.1	394	-3.7	486	-9.1	325	-1.0	744	9.2
% Change Between 1988 and 1998	3%	-18%	8%	-3%	6%	-11%	21%	-4%	25%	12%
Change Between 1993 and 1998	127	-5.8	529	-1.5	656	-5.1	29	-4.5	445	0.9
% Change Between 1993 and 1998	4%	-12%	11%	-1%	9%	-7%	2%	-15%	14%	1%
1997 and 1998	-28	-2.1	142	1.0	114	-1.3	-14	-1.2	235	3.8
% Change Between 1997 and 1998	-1%	-5%	3%	1%	1%	-2%	-1%	-4%	7%	5%

¹ Pregnancy estimates are based on the total number of births and abortions. See also footnote (2) on the opposite page regarding changes in estimating abortions. Percentage change calculations may vary due to computer rounding.

--- Data are not available.

All rates are per 1,000 females.

**TABLE 4-1.
Oregon Pregnancies to Teens 15-19, 1974-1998 (Continued)**

Births		Abortions ²							Year
15 to 19		15 to 17		18 to 19		15 to 19		Age Not Stated	
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
1,069	1.6	-233	-8.1	-350	-12.8	-583	-10.6		Change Between 1988 and 1998
24%	3%	-17%	-34%	-18%	-27%	-18%	-31%		% Change Between 1988 and 1998
474	-3.0	98	-1.3	84	-2.3	182	-1.9		Change Between 1993 and 1998
9%	-6%	10%	-8%	6%	-6%	7%	-8%		% Change Between 1993 and 1998
221	0.5	-14	-0.8	-93	-2.8	-107	-1.7		1997 and 1998
4%	1%	-1%	-5%	-6%	-7%	-4%	-7%		% Change Between 1997 and 1998

² For 1985 and 1988-1998, abortion estimates are based on reported in-state and out-of-state occurrences among Oregon residents. 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), 1974-1998

	Pregnancies ¹			Births			Abortions ²			Live Births ³	
	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	3,934	---	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	49.1%	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%
Change Between 1988 and 1998	69	161	-3.4	38	363	-0.2	32	-201	-3.0		
% Change Between 1988 and 1998	57%	5%	-17%	67%	23%	-2%	50%	-14%	-31%		
Change Between 1993 and 1998	22	149	-1.0	12	41	-0.9	10	108	-		
% Change Between 1993 and 1998	13%	5%	-5%	14%	2%	-8%	12%	10%	-		
Change Between 1997 and 1998	7	-21	-0.8	-9	-23	-0.5	16	2	-0.2		
% Change Between 1997 and 1998	4%	-1%	-4%	-9%	-1%	-5%	20%	0%	-3%		

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

² For 1985 and 1988-1998, abortion estimates are based on reported in-state and out-of-state occurrences among Oregon residents. 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. 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. 1998: 184,522.

TABLE 4-3.
Births to 15- to 19-year-old Teens by Race/Ethnicity, Adequacy of Prenatal Care, and Birthweight, Oregon Residents, 1998

Race/Ethnicity and Age of Mother	Total Births	Adequacy of Prenatal Care ¹					
		Inadequate		Adequate		Not Stated	
		< 2500 Grams	2500+ Grams	< 2500 Grams	2500+ Grams	< 2500 Grams	2500+ Grams
Total Births*							
15-19	5,565	58	417	309	4,735	5	41
15-17	1,872	23	159	113	1,562	2	13
18-19	3,693	35	258	196	3,173	3	28
Non-Hispanic	4,462	50	291	253	3,831	3	34
15-17	1,447	22	116	86	1,212	1	10
18-19	3,015	28	175	167	2,619	2	24
White	3,970	46	244	226	3,422	3	29
15-17	1,262	21	104	73	1,054	1	9
18-19	2,708	25	140	153	2,368	2	20
African American	201	-	14	13	174	-	-
15-17	82	-	2	7	73	-	-
18-19	119	-	12	6	101	-	-
Indian	159	2	16	6	132	-	3
15-17	53	1	5	3	44	-	-
18-19	106	1	11	3	88	-	3
Other Nonwhite	128	2	17	8	99	-	2
15-17	48	-	5	3	39	-	1
18-19	80	2	12	5	60	-	1
Unknown Race	4	-	-	-	4	-	-
15-17	2	-	-	-	2	-	-
18-19	2	-	-	-	2	-	-
Hispanic	1,091	8	123	56	896	1	7
15-17	422	1	43	27	347	1	3
18-19	669	7	80	29	549	-	4
White	1,068	8	120	54	878	1	7
15-17	417	1	42	27	343	1	3
18-19	651	7	78	27	535	-	4
African American	3	-	1	-	2	-	-
15-17	-	-	-	-	-	-	-
18-19	3	-	1	-	2	-	-
Indian	13	-	2	-	11	-	-
15-17	4	-	1	-	3	-	-
18-19	9	-	1	-	8	-	-
Other Nonwhite	7	-	-	2	5	-	-
15-17	1	-	-	-	1	-	-
18-19	6	-	-	2	4	-	-
Unknown Race	-	-	-	-	-	-	-
15-17	-	-	-	-	-	-	-
18-19	-	-	-	-	-	-	-

- Quantity is zero.

* Includes 12 cases with unknown ethnicity.

¹ Care began in the third trimester or number of visits is less than 5.

TABLE 4-4.
Births to Teens 15-19 by Marital Status, Race/Ethnicity, and Age by
Adequacy of Prenatal Care and Birthweight, Oregon Residents, 1998

Marital Status, Race/Ethnicity and Age of Mother	Total Births	Low Weight Births		First Trimester Care		Inadequate Care ¹	
		Number	Rate	Number	Rate	Number	Rate
Total Births*							
15-19	5,565	372	66.8	3,633	656.5	475	86.1
15-17	1,872	138	73.7	1,121	602.0	182	98.0
18-19	3,693	234	63.4	2,512	684.1	293	80.0
White	3,974	275	69.2	2,670	674.9	292	74.1
15-17	1,262	95	75.3	776	617.8	125	99.8
Married	120	10	83.3	80	666.7	10	83.3
Not married	1,142	85	74.4	696	612.7	115	101.6
18-19	2,712	180	66.4	1,894	701.5	167	62.1
Married	830	59	71.1	597	722.8	52	63.5
Not married	1,881	121	64.3	1,297	692.5	115	61.5
Hispanic (All Races)	1,091	65	59.6	645	596.1	131	121.0
15-17	422	29	68.7	239	570.4	44	105.3
Married	76	6	78.9	54	720.0	7	93.3
Not married	346	23	66.5	185	537.8	37	107.9
18-19	669	36	53.8	406	612.4	87	130.8
Married	261	16	61.3	164	635.7	29	112.0
Not married	408	20	49.0	242	597.5	58	142.9
African American	201	13	64.7	140	696.5	14	69.7
15-17	82	7	85.4	54	658.5	2	24.4
Married	0	-	-	-	-	-	-
Not married	82	7	85.4	54	658.5	2	24.4
18-19	119	6	50.4	86	722.7	12	100.8
Married	10	-	-	7	700.0	-	-
Not married	109	6	55.0	79	724.8	12	110.1
American Indian	159	8	50.3	100	632.9	18	115.4
15-17	53	4	75.5	28	528.3	6	113.2
Married	6	1	166.7	3	500.0	-	-
Not married	47	3	63.8	25	531.9	6	127.7
18-19	106	4	37.7	72	685.7	12	116.5
Married	21	2	95.2	14	700.0	2	105.3
Not married	85	2	23.5	58	682.4	10	119.0
Other Nonwhite	128	10	78.1	69	547.6	19	150.8
15-17	48	3	62.5	20	425.5	5	106.4
Married	7	-	-	1	142.9	1	142.9
Not married	41	3	73.2	19	475.0	4	100.0
18-19	80	7	87.5	49	620.3	14	177.2
Married	27	4	148.1	19	703.7	2	74.1
Not married	53	3	56.6	30	576.9	12	230.8
Unknown race	12	1	83.3	9	818.2	1	90.9
15-17	5	-	-	4	800.0	-	-
Married	-	-	-	-	-	-	-
Not married	5	-	-	4	800.0	-	-
18-19	7	1	142.9	5	833.3	1	166.7
Married	-	-	-	-	-	-	-
Not married	7	1	142.9	5	833.3	1	166.7

WARNING: Rates based on less than 5 events may be unreliable.

NOTE: All racial categories are non-Hispanic unless noted. Rates and percentages are calculated excluding missing and unknown values.

- Quantity is zero.

¹ Care began in the third trimester or number of visits is less than five.

* Includes 1 case where marital status was unknown.

TABLE 4-5.
Pregnancy Rates of Teens by County of Residence, Oregon, 1998

County of Residence	Total (All Ages)	Age				Pregnancy Rate ¹			
		< 15	15-17	18-19	15-19	10-17	15-17	18-19	15-19
Total	57,955	191	2,985	5,263	8,248	17.2	42.1	118.5	71.5
Baker	202	-	12	26	38	13.0	34.1	154.8	73.1
Benton	1,015	2	26	79	105	§7.4	§17.6	§36.7	§28.9
Clackamas	5,281	18	240	410	650	§13.3	§31.8	§106.0	§56.9
Clatsop	507	1	26	62	88	13.6	32.2	134.5	69.3
Columbia	658	2	37	58	95	12.4	31.0	115.3	§56.0
Coos	749	2	53	81	134	16.3	40.6	131.3	69.6
Crook	275	2	14	40	54	17.1	38.1	§207.3	96.4
Curry	211	-	10	33	43	§8.3	22.7	§205.0	71.4
Deschutes	1,722	2	84	160	244	14.5	38.2	§142.0	73.3
Douglas	1,329	5	93	179	272	16.8	41.1	§148.9	78.5
Gilliam	21	*	*	*	*	*	*	*	*
Grant	97	-	5	9	14	9.7	23.7	89.1	44.9
Harney	104	1	7	9	16	14.9	33.2	123.3	56.3
Hood River	340	2	21	24	45	18.4	46.3	125.0	69.7
Jackson	2,617	7	136	290	426	§13.7	§33.2	128.7	67.1
Jefferson	342	2	36	40	76	§32.9	§82.4	§201.0	§119.5
Josephine	951	4	56	85	141	15.3	36.5	117.7	62.5
Klamath	1,011	3	75	121	196	21.8	53.0	138.9	§85.8
Lake	78	1	7	4	11	15.0	35.2	67.8	42.6
Lane	4,977	22	283	474	757	18.2	44.3	§85.7	§63.5
Lincoln	574	3	38	59	97	16.9	42.4	§161.6	76.9
Linn	1,728	4	77	184	261	13.5	§32.1	135.3	69.4
Malheur	554	1	34	61	95	17.5	42.6	147.3	78.3
Marion	5,498	23	310	512	822	§21.0	§51.5	§136.0	§84.0
Morrow	164	-	8	19	27	11.6	27.6	171.2	67.3
Multnomah	13,604	49	633	1,137	1,770	§21.5	§52.0	§126.8	§83.7
Polk	832	1	50	93	143	14.6	39.4	§86.5	§61.0
Sherman	26	*	*	*	*	*	*	*	*
Tillamook	297	-	20	35	55	15.6	42.6	§175.9	82.3
Umatilla	1,207	7	80	160	240	20.9	48.6	§176.2	§93.9
Union	336	1	15	38	53	§10.2	§24.1	91.6	§51.1
Wallowa	66	1	6	6	12	15.0	32.8	107.1	50.2
Wasco	371	1	18	40	58	13.9	33.4	166.7	74.5
Washington	8,802	18	372	595	967	17.2	43.1	125.4	72.3
Wheeler	12	*	*	*	*	*	*	*	*
Yamhill	1,394	6	100	132	232	20.3	52.0	103.0	72.4

¹ All rates per 1,000 females.

- Quantity is zero.

* Detailed reporting of small numbers may breach confidentiality.

WARNING: Rates based on less than 5 events may be unreliable.

NOTE: Includes reported abortions obtained out-of-state by Oregon residents. Because some states (e.g., California) do not record data on residence, all out-of-state abortions are not included. Total includes 3 events where county of residence is unknown.

§ Indicates statistically significant difference from the total.

TABLE 4-6.
Birth Rates to Teens by County of Residence, Oregon, 1998

County of Residence	Total Births	Mother's Age				Birth Rate ¹			
		< 15	15-17	18-19	15-19	10 -17	15 -17	18 -19	15 -19
Total	45,228	95	1,872	3,693	5,565	10.7	26.4	83.2	48.3
Baker	184	-	10	21	31	10.8	28.4	125.0	59.6
Benton	807	2	13	45	58	§3.9	§8.8	§20.9	§16.0
Clackamas	4,164	9	125	245	370	§6.9	§16.5	§63.4	§32.4
Clatsop	395	1	14	53	67	7.5	17.3	§115.0	52.8
Columbia	536	1	23	47	70	7.6	19.3	93.4	41.3
Coos	626	1	34	60	94	10.4	26.0	97.2	48.9
Crook	234	-	10	31	41	10.7	27.2	§160.6	§73.2
Curry	170	-	7	26	33	5.8	15.9	§161.5	54.8
Deschutes	1,371	-	49	117	166	8.2	22.3	§103.8	49.9
Douglas	1,141	1	64	151	215	11.1	28.3	§125.6	§62.0
Gilliam	19	-	-	1	1	-	-	41.7	17.9
Grant	88	-	4	9	13	7.8	19.0	89.1	41.7
Harney	95	1	6	8	14	13.1	28.4	109.6	49.3
Hood River	287	1	14	22	36	12.0	30.8	114.6	55.7
Jackson	2,124	3	95	220	315	9.4	23.2	§97.6	49.6
Jefferson	302	2	31	35	66	§28.6	§70.9	§175.9	§103.8
Josephine	815	2	42	69	111	11.2	27.4	95.6	49.2
Klamath	856	2	58	105	163	§16.8	§41.0	§120.6	§71.3
Lake	69	-	5	2	7	9.4	25.1	33.9	27.1
Lane	3,762	12	179	316	495	11.4	28.0	§57.1	§41.5
Lincoln	424	1	20	41	61	8.6	22.3	112.3	48.4
Linn	1,484	1	52	152	204	8.8	21.7	§111.8	54.3
Malheur	535	1	33	57	90	§17.0	§41.3	§137.7	§74.2
Marion	4,540	16	228	395	623	§15.4	§37.8	§104.9	§63.6
Morrow	151	-	6	19	25	8.7	20.7	§171.2	62.3
Multnomah	9,303	22	360	667	1,027	§12.1	29.6	§74.4	48.6
Polk	716	1	41	75	116	12.0	32.3	69.8	49.5
Sherman	23	-	1	2	3	7.0	17.9	200.0	45.5
Tillamook	234	-	14	24	38	11.0	29.9	120.6	56.9
Umatilla	1,024	3	52	134	186	13.2	31.6	§147.6	§72.8
Union	278	1	9	28	37	6.4	14.5	67.5	35.7
Wallowa	57	1	2	6	8	6.4	10.9	107.1	33.5
Wasco	314	1	14	37	51	11.0	26.0	§154.2	65.5
Washington	6,931	8	194	370	564	§8.9	§22.5	78.0	§42.2
Wheeler	9	-	1	1	2	10.2	30.3	90.9	45.5
Yamhill	1,160	1	62	102	164	12.1	32.2	79.6	51.2

¹ All rates per 1,000 females.

- Quantity is zero.

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

§ Rate is significantly different than state rate.

TABLE 4-7.
Abortion Rates of Teens By County of Residence, Oregon, 1998

County of Residence	Total	Age				Abortion Rate ¹			
		< 15	15-17	18-19	15-19	10 -17	15 -17	18 -19	15 -19
Total	12,727	96	1,113	1,570	2,683	6.6	15.7	35.4	23.3
Baker	18	-	2	5	7	2.2	5.7	29.8	13.5
Benton	208	-	13	34	47	§3.4	8.8	§15.8	§13.0
Clackamas	1,117	9	115	165	280	6.4	15.2	§42.7	24.5
Clatsop	112	-	12	9	21	6.0	14.9	19.5	16.5
Columbia	122	1	14	11	25	4.8	11.7	21.9	§14.7
Coos	123	1	19	21	40	5.9	14.5	34.0	20.8
Crook	41	2	4	9	13	6.4	10.9	46.6	23.2
Curry	41	-	3	7	10	2.5	6.8	43.5	16.6
Deschutes	351	2	35	43	78	6.2	15.9	38.2	23.4
Douglas	188	4	29	28	57	5.6	12.8	23.3	§16.5
Gilliam	2	*	*	*	*	*	*	*	*
Grant	9	-	1	-	1	1.9	4.7	-	§3.2
Harney	9	-	1	1	2	1.9	4.7	13.7	7.0
Hood River	53	1	7	2	9	6.4	15.4	10.4	13.9
Jackson	493	4	41	70	111	§4.3	§10.0	31.1	§17.5
Jefferson	40	-	5	5	10	4.3	11.4	25.1	15.7
Josephine	136	2	14	16	30	4.1	9.1	22.2	§13.3
Klamath	155	1	17	16	33	5.0	12	§18.4	§14.4
Lake	9	1	2	2	4	5.6	10.1	33.9	15.5
Lane	1,215	10	104	158	262	6.8	16.3	§28.6	22.0
Lincoln	150	2	18	18	36	8.2	20.1	49.3	28.5
Linn	244	3	25	32	57	4.7	10.4	§23.5	§15.2
Malheur	19	-	1	4	5	§0.5	§1.3	§9.7	§4.1
Marion	958	7	82	117	199	5.6	13.6	31.1	20.3
Morrow	13	-	2	-	2	2.9	6.9	-	§5.0
Multnomah	4,301	27	273	470	743	§9.5	§22.4	§52.4	§35.2
Polk	116	-	9	18	27	§2.6	§7.1	§16.7	§11.5
Sherman	3	*	*	*	*	*	*	*	*
Tillamook	63	-	6	11	17	4.7	12.8	55.3	25.4
Umatilla	183	4	28	26	54	7.7	17	28.6	21.1
Union	58	-	6	10	16	3.8	9.6	24.1	15.4
Wallowa	9	-	4	-	4	8.5	21.9	-	16.7
Wasco	57	-	4	3	7	2.9	7.4	12.5	§9.0
Washington	1,871	10	178	225	403	§8.3	§20.6	§47.4	§30.1
Wheeler	3	*	*	*	*	*	*	*	*
Yamhill	234	5	38	30	68	8.2	19.8	§23.4	21.2

¹ All rates per 1,000 females.

- Quantity is zero.

* Detail reporting on small numbers may breach confidentiality.

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

§ Rate is significantly different than state rate.

NOTE: Table 4-7 includes reported abortions obtained out-of-state by Oregon residents. Because some states (e.g., California) do not record data on residence, all out-of-state abortions are not included.

TABLE 4-8.
Teens 15-19: Births, Level of Prenatal Care and Low Birthweight Rates by
County of Residence, Oregon, 1998

County of Residence	Total Births Ages 15-19		Low Weight Births		First Trimester Care		Inadequate Care ¹	
	Number	Rate ²	Number	Rate ³	Number	Rate ³	Number	Rate ³
Total	5,565	48.3	372	66.8	3,633	656.5	475	86.1
Baker	31	59.6	-	-	26	838.7	1	32.3
Benton	58	§16.0	2	34.5	36	620.7	5	86.2
Clackamas	370	§32.4	28	75.7	252	688.5	36	98.9
Clatsop	67	52.8	3	44.8	55	820.9	2	29.9
Columbia	70	41.3	8	114.3	39	557.1	8	114.3
Coos	94	48.9	5	53.2	46	489.4	11	118.3
Crook	41	§73.2	4	97.6	25	609.8	3	73.2
Curry	33	54.8	-	-	1	437.5	5	161.3
Deschutes	166	49.9	12	72.3	112	678.8	14	84.3
Douglas	215	§62.0	17	79.1	163	758.1	10	46.5
Gilliam	1	1709.0	-	-	1	1000.0	-	-
Grant	13	41.7	3	230.8	6	461.5	2	153.8
Harney	14	49.3	1	71.4	11	785.7	1	71.4
Hood River	36	55.7	1	27.8	27	771.4	1	28.6
Jackson	315	49.6	27	85.7	199	641.9	29	94.5
Jefferson	66	§103.8	3	45.5	31	469.7	8	121.2
Josephine	111	49.2	3	27.0	69	627.3	2	§18.2
Klamath	163	§71.3	8	49.1	96	589.0	12	74.1
Lake	7	27.1	1	142.9	6	857.1	1	142.9
Lane	495	§41.5	24	48.5	300	611.0	43	87.8
Lincoln	61	48.4	3	49.2	38	623.0	6	100.0
Linn	204	54.3	15	73.5	131	642.2	15	73.5
Malheur	90	§74.2	5	55.6	55	611.1	7	78.7
Marion	623	§63.6	46	73.8	373	602.6	71	115.1
Morrow	25	62.3	1	40.0	11	458.3	5	208.3
Multnomah	1,027	48.6	67	65.2	678	663.4	99	96.9
Polk	116	§49.5	6	51.7	89	767.2	2	§17.4
Sherman	3	45.5	-	-	2	666.7	1	333.3
Tillamook	38	56.9	1	26.3	29	763.2	4	105.3
Umatilla	186	§72.8	9	48.4	113	607.5	20	107.5
Union	37	§35.7	3	81.1	25	675.7	3	81.1
Wallowa	8	33.5	-	-	4	500.0	-	-
Wasco	51	§65.5	6	117.6	39	764.7	2	40.0
Washington	564	§42.2	49	86.9	426	759.4	35	62.5
Wheeler	2	45.5	1	500.0	2	1000.0	1	500.0
Yamhill	164	51.2	10	61.0	104	638.0	10	61.3

- Quantity is zero.

¹ Care began in the third trimester or number of visits is less than five.

² Rates per 1,000 females 15-19 years of age.

³ Rates per 1,000 births.

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

§ Rate is significantly different than state rate.

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

TABLE 4-9.
Birth Outcomes of Infants by Age of Mother,
Oregon Residents, 1998

Birth Outcomes	Total Births	Mother's Age								
		< 15	15	16	17	18	19	15-19	20+	N.S.
Total births	45,228	95	267	620	985	1,599	2,094	5,565	39,556	12
Birthweight¹										
1499 Grams or less	407	4	5	5	10	22	22	64	338	1
<28 weeks	122	2	1	1	-	5	9	16	104	-
28-36 weeks	241	2	2	3	7	11	11	34	205	-
37-41 weeks	18	-	-	1	1	3	-	5	13	-
42+weeks	2	-	-	-	-	-	1	1	1	-
Unknown	24	-	2	-	2	3	1	8	15	1
1500-2499 Grams	2,021	5	17	40	61	87	103	308	1,707	1
<28 weeks	9	-	-	-	-	-	1	1	8	-
28-36 weeks	1,055	1	13	20	33	44	48	158	896	-
37-41 weeks	814	2	3	16	21	36	39	115	697	-
42+weeks	54	1	-	1	3	4	6	14	39	-
Unknown	89	1	1	3	4	3	9	20	67	1
2500+ Grams	42,798	86	245	575	914	1,490	1,969	5,193	37,510	9
<28 weeks	21	-	-	-	2	1	1	4	17	-
28-36 weeks	1,789	9	19	31	46	67	99	262	1,517	1
37-41 weeks	33,783	49	170	407	672	1,069	1,434	3,752	29,977	5
42+weeks	5,135	16	40	100	146	235	310	831	4,286	2
Unknown	2,070	12	16	37	48	118	125	344	1,713	1
5 Minute Apgar										
0-3	166	2	1	2	8	8	10	29	135	-
4-6	564	4	7	14	17	30	24	92	468	-
7-10	44,353	89	258	604	959	1,555	2,053	5,429	38,826	9
Not stated	145	-	1	-	1	6	7	15	127	3
Tobacco Used										
Yes	6,853	19	59	143	264	444	510	1,420	5,414	-
No	38,116	74	205	472	716	1,141	1,574	4,108	33,925	9
Unknown	259	2	3	5	5	14	10	37	217	3
Alcohol Used										
Yes	731	2	7	8	16	24	22	77	652	-
No	43,710	90	251	595	955	1,546	2,036	5,383	38,228	9
Unknown	787	3	9	17	14	29	36	105	676	3
Birth order										
1st	18,278	93	250	581	872	1,274	1,510	4,487	13,694	4
2nd	14,777	2	17	37	101	282	487	924	13,849	2
3rd	7,339	-	-	2	11	39	86	138	7,199	2
4	2,869	-	-	-	1	4	7	12	2,857	-
5+	1,925	-	-	-	-	-	3	3	1,921	1
Unknown	40	-	-	-	-	-	1	1	36	3
Prenatal care										
No care	326	4	5	7	8	16	24	60	262	-
Little or late ²	2,078	15	38	61	63	110	143	415	1,647	1
Adequate ³	42,568	75	220	546	907	1,459	1,910	5,042	37,444	7
Unknown	256	1	4	6	7	14	17	48	203	4

- Quantity is zero.

¹ The birthweight was unknown for 2 infants.

² Care began in the third trimester or number of visits is less than five.

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

TABLE 4-10.
Demographic Characteristics of Mother by Age,
Oregon Residents, 1998

Demographics of Mother	Births	Mother's Age								
		< 15	15	16	17	18	19	15-19	20+	N.S.
Total	45,228	95	267	620	985	1,599	2,094	5,565	39,556	12
Ethnicity/Race										
White (Non-Hispanic)	35,103	54	166	394	702	1,171	1,541	3,974	31,073	2
Hispanic (all races)	6,499	30	77	154	191	291	378	1,091	5,371	7
African American	949	3	6	33	43	49	70	201	745	-
American Indian	698	5	8	20	25	53	53	159	534	-
Other nonwhite	1,925	2	10	17	21	32	48	128	1,794	1
Unknown ¹	54	1	-	2	3	3	4	12	39	2
Marital status										
Unmarried	13,451	92	259	562	842	1,183	1,360	4,206	9,149	4
Married	31,752	3	8	58	143	416	733	1,358	30,384	7
Unknown	25	-	-	-	-	-	1	1	23	1
Education										
8th grade or less	2,691	71	92	93	97	141	155	578	2,040	2
9th grade	1,712	19	122	143	121	111	119	616	1,077	-
10th grade	2,099	2	37	251	228	204	214	934	1,163	-
11th grade	2,605	-	4	69	290	346	297	1,006	1,598	1
12th grade	15,471	-	-	45	221	698	1,069	2,033	13,435	3
Some college	10,024	-	-	-	7	52	185	244	9,779	1
College	6,238	-	-	-	-	-	-	-	6,237	1
Postbaccalaureate	3,353	-	-	-	-	-	-	-	3,352	1
Unknown	1,035	3	12	19	21	47	55	154	875	3
Other Children Now Alive										
One	14,912	2	17	36	95	281	482	911	13,997	2
Two	7,314	-	-	2	11	33	81	127	7,185	2
Three	2,785	-	-	-	1	4	7	12	2,773	-
Four +	1,780	-	-	-	-	-	3	3	1,776	1
Unknown	14	-	-	-	-	-	1	1	11	2
Start of Prenatal Care										
1st trimester	36,149	41	137	337	647	1,076	1,436	3,633	32,469	6
2nd trimester	7,206	37	92	230	289	428	528	1,567	5,601	1
3rd trimester	1,382	10	29	44	37	69	95	274	1,097	1
No care	326	4	5	7	8	16	24	60	262	-
Unknown	165	3	4	2	4	10	11	31	127	4
Prenatal Care										
Inadequate care ²	2,404	19	43	68	71	126	167	475	1,909	1
Adequate care	42,573	75	220	548	907	1,459	1,910	5,044	37,447	7
Unknown	251	1	4	4	7	14	17	46	200	4
Source of Payment										
Private insurance	27,685	29	85	183	327	501	630	1,726	25,930	-
Self-pay	2,824	9	35	50	73	107	148	413	2,402	-
Public insurance	13,668	54	136	361	559	944	1,255	3,255	10,357	2
Other coverage	221	3	2	6	9	19	13	49	169	-
Multiple mention	147	-	3	8	5	9	11	36	111	-
Unknown mention	683	-	6	12	12	19	37	86	587	10

- Quantity is zero.

¹ Both ethnicity and race are unknown or, if non-Hispanic, race is unknown.

² Care began in the third trimester or number of visits is less than five.

TABLE 4-11.
Demographic Characteristics of Abortion Patients by Age,
Oregon Residents, 1998

Demographics of Patient	Abortion Patient's Age									
	Total ¹	< 15	15	16	17	18	19	15-19	20+	N.S.
Total Abortions	12,727	96	195	368	550	758	812	2,683	9,905	43
Ethnicity/Race										
White (Non-Hispanic)	10,092	76	149	296	437	611	635	2,128	7,859	29
Hispanic (All Races)	1,028	11	22	34	38	65	60	219	792	6
African American	723	5	15	17	41	55	59	187	529	2
American Indian	129	1	-	5	9	5	9	28	100	-
Other Nonwhite	615	-	5	16	21	16	40	98	513	4
Unknown ²	140	3	4	-	4	6	9	23	112	2
Marital Status										
Married	2,882	3	-	4	8	25	44	81	2,787	11
Unmarried	9,392	91	187	356	529	712	746	2,530	6,747	24
Unknown	453	2	8	8	13	21	22	72	371	8
Education										
Grade School	355	68	40	10	20	11	10	91	194	2
9th Grade	400	17	93	91	23	18	19	244	137	2
10th Grade	799	3	49	208	94	53	28	432	362	2
11th Grade	1,026	1	2	34	280	156	100	572	450	3
12th Grade	5,084	2	2	14	111	432	414	973	4,095	14
Some College	2,923	1	1	3	10	75	213	302	2,611	9
College	1,367	-	-	-	-	1	6	7	1,357	3
Postbaccalaureate	404	-	-	-	-	1	2	3	399	2
Unknown	369	4	8	8	12	11	20	59	300	6
Children Now Alive										
None	5,815	92	183	334	465	586	581	2,149	3,557	17
One	3,318	2	11	30	76	146	192	455	2,853	8
Two	2,285	1	1	3	7	20	30	61	2,217	6
Three +	1,235	-	-	-	1	1	5	7	1,225	3
Unknown	74	1	-	1	1	5	4	11	53	9
Previous Abortions										
None	7,254	90	188	327	468	607	598	2,188	4,956	20
One	3,198	4	5	34	69	124	173	405	2,780	9
Two	1,286	1	-	5	6	16	26	53	1,228	4
Three+	868	-	-	1	1	5	8	15	852	1
Unknown	121	1	2	1	6	6	7	22	89	9
Gestation										
Eight Weeks or Less	7,387	37	92	172	272	383	439	1,358	5,975	17
9-12	3,602	41	68	129	194	242	229	862	2,682	17
13-16	885	9	20	38	45	68	64	235	640	1
17+	761	9	13	26	36	61	74	210	537	5
Unknown	92	-	2	3	3	4	6	18	71	3
Contraceptive Used										
None Used	8,302	79	148	244	394	525	566	1,877	6,322	24
Pills Used	1,039	1	2	23	38	54	66	183	852	3
Condom Used	2,170	13	32	82	93	135	137	479	1,670	8
Other/Unknown Contraceptive Used	928	-	4	11	12	32	26	85	840	3
Unknown	288	3	9	8	13	12	17	59	221	5
Medical Procedure										
Suction Curettage	10,997	66	151	308	479	623	676	2,237	8,667	27
Dilation Evacuation	1,442	27	39	56	65	115	112	387	1,023	5
Other Specified	286	3	4	4	6	20	24	58	215	10
Unknown	2	-	1	-	-	-	-	1	-	1

- Quantity is zero.

¹ Includes all abortions known to have been obtained in-state and out-of-state by Oregon residents.

² Both ethnicity and race are unknown, or if non-Hispanic, race is unknown.

TABLE 4-12.
Age of Father by Age of Mother, Oregon Residents, 1998

Father's Age	Total Births	Mother's Age								
		< 15	15	16	17	18	19	20-24	25+	N.S.
Total	45,228	95	267	620	985	1,599	2,094	11,855	27,701	12
<15	6	2	3	1	-	-	-	-	-	-
15	16	1	6	4	2	1	2	-	-	-
16	81	4	14	28	24	5	4	2	-	-
17	253	6	23	63	62	49	26	22	2	-
18	500	5	28	87	102	124	80	69	5	-
19	851	5	21	55	127	198	176	248	21	-
20	1,081	3	11	38	113	196	243	433	44	-
21	1,298	2	11	35	59	156	247	700	88	-
22	1,622	2	5	20	57	136	225	1,012	165	-
23	1,710	1	3	13	36	100	155	1,156	246	-
24	1,876	-	4	10	18	63	100	1,213	468	-
25+	30,745	1	11	29	69	178	374	5,281	24,800	2
N.S.	5,189	63	127	237	316	393	462	1,719	1,862	10

- Quantity is zero.

TABLE 4-13.
Age of Father by Age of Mother, Oregon Residents, 1994-1998

Father's Age	Total Births	Mother's Age								
		< 15	15	16	17	18	19	20-24	25+	N.S.
Total	217,185	511	1,414	3,019	5,222	7,620	9,985	56,543	132,833	38
<15	18	6	7	4	1	-	-	-	-	-
15	106	8	34	36	11	5	10	-	2	-
16	401	25	68	112	93	60	28	15	-	-
17	1,123	29	101	234	291	220	130	103	15	-
18	2,390	24	113	318	531	583	398	390	33	-
19	3,810	29	97	270	607	907	839	974	87	-
20	4,952	22	66	203	544	855	1,119	1,955	188	-
21	5,948	8	55	129	339	698	1,085	3,270	364	-
22	7,171	8	33	100	256	555	978	4,552	688	1
23	8,239	6	23	70	220	433	745	5,470	1,272	-
24	9,170	7	20	55	110	310	526	5,830	2,312	-
25+	145,995	5	51	150	405	830	1,682	24,726	118,142	4
N.S.	27,862	334	746	1,338	1,814	2,164	2,445	9,258	9,730	33

- Quantity is zero.

TABLE A-1.
Population Distribution by Age and Sex, Oregon, 1950, 1960, 1970, 1975, 1980-1998

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	75-79	80-84	85+
1950	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	34,979	*	6,492
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	17,143	*	3,001
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	17,836	*	3,491
1960	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	34,274	17,713	9,449
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	16,407	7,935	3,838
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	17,867	9,778	5,611
1970	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	44,263	27,900	18,714
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	18,946	11,249	7,166
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	25,317	16,651	11,548
1975	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	48,381	31,022	18,194
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	19,879	11,966	6,562
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	28,502	19,056	11,632
1980	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	55,327	34,994	28,431
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	22,747	12,802	8,857
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	32,580	22,192	19,574
1981	2,660,435	203,594	184,616	203,543	217,750	234,053	252,725	241,926	179,636	140,523	118,937	122,571	128,335	119,708	107,390	83,548	56,478	36,576	28,526
M	1,310,480	104,334	94,477	104,341	111,275	115,874	126,043	122,079	90,690	70,811	59,188	59,493	61,398	56,675	50,396	37,441	23,405	13,444	9,116
F	1,349,955	99,260	90,139	99,202	106,475	118,179	126,682	119,847	88,946	69,712	59,749	63,078	66,937	63,033	56,994	46,107	33,073	23,132	19,410
1982	2,656,185	205,442	184,989	200,663	214,621	225,266	245,516	240,579	191,815	145,302	119,328	118,393	124,286	121,205	108,828	87,242	122,710	*	*
M	1,308,018	104,536	94,896	102,787	110,004	112,537	121,444	121,229	96,778	73,205	59,541	57,526	59,397	57,238	50,920	39,287	46,693	*	*
F	1,348,167	100,906	90,093	97,876	104,617	112,729	124,072	119,350	95,037	72,097	59,787	60,867	64,889	63,967	57,908	47,955	76,017	*	*
1983	2,634,993	200,502	185,101	195,306	208,383	221,102	233,950	236,452	197,788	150,869	119,798	113,707	119,496	121,107	110,442	90,061	130,929	*	*
M	1,292,711	102,231	95,121	99,869	106,267	110,629	115,627	118,621	99,538	75,798	59,704	55,279	57,032	56,925	51,386	40,321	48,363	*	*
F	1,342,282	98,271	89,980	95,437	102,116	110,473	118,323	117,831	98,250	75,071	60,094	58,428	62,464	64,182	59,056	49,740	82,566	*	*
1984	2,660,000	201,561	189,002	189,940	203,518	224,882	227,497	240,883	208,395	159,323	124,516	113,420	118,076	118,774	111,029	93,393	135,791	*	*
M	1,307,023	102,591	97,255	97,250	103,737	113,484	112,302	120,975	105,194	80,218	62,374	55,513	56,574	55,671	51,445	41,826	50,614	*	*
F	1,352,977	98,970	91,747	92,690	99,781	111,398	115,195	119,908	103,201	79,105	62,142	57,907	61,502	63,103	59,584	51,567	85,177	*	*
1985	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	*	*
1986	2,659,500	192,981	198,234	178,510	201,362	218,875	215,376	230,757	226,179	170,171	132,244	110,782	112,555	115,440	113,886	94,884	147,262	*	*
M	1,306,352	99,387	101,905	91,311	103,035	111,407	106,184	114,740	113,865	85,721	66,366	54,767	53,979	54,110	52,262	42,354	54,957	*	*
F	1,353,148	93,594	96,329	87,199	98,327	107,468	109,192	116,017	112,314	84,450	65,878	56,015	58,576	61,330	61,624	52,530	92,305	*	*
1987	2,690,000	192,835	200,887	177,142	192,540	202,447	221,131	240,492	233,108	185,303	139,735	113,692	111,266	114,319	116,900	94,415	153,788	*	*
M	1,319,182	98,346	102,721	90,813	99,308	103,541	109,192	119,268	117,116	93,245	70,128	56,357	53,421	53,559	53,493	42,000	57,446	*	*
F	1,370,818	94,489	98,166	86,329	94,004	98,906	111,939	121,224	115,992	92,058	69,607	57,335	57,845	60,760	63,407	52,415	96,342	*	*

* Included with ages 75-79.

TABLE A-1.

Population Distribution by Age and Sex, Oregon, 1950, 1960, 1970, 1975, 1980-1998 (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+
1988	2,741,000	192,567	203,622	185,233	196,610	199,752	222,959	240,352	238,871	196,152	148,261	117,137	110,863	114,273	118,350	97,002	158,996
M	1,343,473	98,209	103,999	95,157	100,306	102,116	111,083	118,915	119,769	98,570	74,365	58,090	53,296	53,527	53,905	42,965	59,201
F	1,397,527	94,358	99,623	90,076	96,304	97,636	111,876	121,437	119,102	97,582	73,896	59,047	57,567	60,746	64,445	54,037	99,795
1989	2,791,000	194,864	206,097	192,051	199,548	212,810	221,058	224,961	240,001	207,799	159,320	123,433	111,762	114,482	118,882	97,182	166,640
M	1,368,413	99,771	105,433	98,800	102,148	108,752	110,752	110,804	119,729	104,551	79,911	61,375	54,128	53,711	53,943	42,776	61,829
F	1,422,587	95,093	100,664	93,251	97,400	104,058	110,306	114,157	120,272	103,248	79,409	62,058	57,744	60,771	64,939	54,406	104,811
1990	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
1991	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
1992	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
1993	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
1994	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
1995	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
1996	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
1997	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
1998	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

Source: 1950, 1960, 1970, 1980, and 1990 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, 1998

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+
Total	3,267,550	216,270	225,755	233,772	146,808	91,690	205,409	208,599	227,758	264,229	278,458	254,656	201,902	149,998	123,399	117,429	110,808	93,902	116,708
Baker	16,700	961	1,193	1,270	746	342	632	836	967	1,196	1,138	1,298	1,234	1,012	808	710	771	661	925
Benton	76,600	4,356	4,626	4,770	2,974	4,506	10,360	5,318	5,397	6,120	5,909	5,261	4,009	2,927	2,168	2,212	1,986	1,560	2,141
Clackamas	323,600	20,911	22,316	24,444	15,653	8,223	16,834	18,130	21,865	26,969	31,407	30,101	22,460	15,165	11,318	10,614	9,302	7,795	10,093
Clatsop	34,700	2,186	2,365	2,512	1,620	918	1,853	1,965	2,231	2,721	2,780	2,581	2,266	1,713	1,492	1,414	1,409	1,215	1,459
Columbia	42,300	2,890	3,420	4,076	2,478	1,023	1,886	2,118	2,587	3,112	3,641	3,520	2,791	1,940	1,483	1,430	1,433	1,175	1,297
Coos	61,400	3,573	3,973	4,264	2,717	1,312	2,757	3,174	3,623	4,242	4,577	4,661	4,331	3,435	2,971	3,293	3,012	2,540	2,945
Crook	16,650	1,165	1,174	1,244	842	402	860	862	1,001	1,171	1,304	1,214	1,107	871	763	729	734	603	604
Curry	22,000	1,050	1,343	1,481	873	331	671	874	1,004	1,327	1,482	1,495	1,418	1,262	1,480	1,852	1,610	1,244	1,203
Deschutes	104,900	6,410	7,260	7,753	4,773	2,582	5,126	5,852	7,276	9,183	9,591	8,581	6,971	5,200	4,602	4,158	3,761	2,904	2,917
Douglas	100,300	6,391	6,654	7,405	4,814	2,564	4,659	5,120	5,862	6,941	7,625	7,466	6,643	5,491	4,515	5,072	4,745	3,947	4,386
Gilliam	2,100	101	175	180	77	49	54	102	152	147	157	128	156	140	119	102	81	88	92
Grant	8,000	486	617	657	424	178	289	395	478	595	611	612	589	434	363	317	326	267	362
Harney	7,600	475	575	636	415	153	294	392	486	547	559	618	577	420	324	302	271	232	324
Hood River	19,500	1,533	1,526	1,577	1,005	490	1,007	1,270	1,509	1,543	1,449	1,371	1,147	842	708	652	659	554	658
Jackson	172,800	10,659	12,161	12,995	8,342	4,497	9,117	9,066	10,146	12,793	14,293	13,594	10,897	8,447	7,340	7,747	7,278	6,216	7,212
Jefferson	17,400	1,562	1,593	1,473	921	394	994	1,150	1,052	1,110	1,162	1,041	997	759	656	773	678	588	497
Josephine	73,000	4,143	4,592	5,022	3,256	1,550	3,020	3,303	3,945	4,853	5,852	6,025	4,926	4,115	3,712	4,068	3,858	3,176	3,584
Klamath	62,000	4,154	4,249	4,613	3,046	1,884	3,758	3,462	3,713	4,446	4,935	4,583	3,985	3,325	2,670	2,628	2,358	1,951	2,240
Lake	7,400	488	583	675	415	119	275	345	451	501	527	518	543	383	348	327	342	241	319
Lane	313,000	18,944	20,334	21,328	13,284	10,723	24,563	19,658	20,575	25,477	26,718	24,021	18,971	13,746	11,234	11,754	11,052	9,112	11,506
Lincoln	43,200	2,463	3,017	3,072	1,818	731	1,640	1,928	2,443	3,242	3,331	3,075	2,690	2,440	2,335	2,736	2,461	1,887	1,891
Linn	102,200	7,040	7,204	7,515	4,905	2,848	5,838	6,036	6,385	7,360	8,028	8,099	6,751	4,937	4,117	4,059	3,938	3,297	3,843
Malheur	29,200	2,319	2,397	2,472	1,665	927	1,489	1,646	1,793	1,806	2,030	1,956	1,753	1,444	1,275	1,095	1,109	894	1,130
Marion	271,900	19,633	20,017	20,122	12,772	7,951	17,703	18,297	19,057	21,031	21,793	20,211	16,151	12,207	9,687	8,694	8,583	7,536	10,455
Morrow	9,400	720	894	931	601	230	414	470	604	653	641	602	591	464	369	307	325	305	279
Multnomah	641,900	42,494	40,715	39,835	24,458	17,970	46,526	50,270	52,295	58,348	57,342	48,342	36,654	27,292	23,288	18,947	18,427	16,439	22,258
Polk	59,500	3,852	4,250	4,606	2,719	2,091	4,293	3,120	3,491	4,377	4,741	4,293	3,511	2,790	2,215	2,386	2,296	1,974	2,495
Sherman	1,900	122	162	184	120	28	39	79	120	116	136	96	110	108	110	107	106	78	79
Tillamook	24,000	1,307	1,472	1,664	952	469	896	1,093	1,333	1,645	1,730	1,712	1,570	1,481	1,526	1,529	1,412	1,108	1,101
Umatilla	67,100	4,745	5,147	5,251	3,424	2,075	4,273	4,344	4,573	4,940	5,080	4,743	4,198	3,055	2,583	2,309	2,216	1,832	2,312
Union	24,400	1,528	1,722	1,995	1,244	814	1,627	1,220	1,446	1,838	1,947	1,824	1,522	1,182	876	829	906	814	1,066
Wallowa	7,200	400	552	606	355	123	244	321	408	568	494	541	474	411	343	358	333	289	380
Wasco	22,600	1,507	1,586	1,765	1,089	504	938	1,131	1,347	1,627	1,803	1,710	1,469	1,095	965	1,043	972	928	1,121
Washington	397,600	29,961	29,237	28,567	17,899	9,883	25,098	30,242	32,420	35,327	37,013	32,481	23,549	15,785	11,707	10,211	9,329	8,129	10,762
Wheeler	1,600	81	99	118	84	29	45	63	60	97	114	131	134	110	96	96	90	67	86
Yamhill	81,900	5,660	6,555	6,694	4,028	2,777	5,337	4,947	5,663	6,260	6,518	6,151	4,757	3,570	2,833	2,569	2,639	2,256	2,686

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, 1998 (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+
Total	1,616,250	110,610	115,817	120,141	75,917	47,294	105,811	105,501	113,540	132,531	140,697	128,089	100,799	72,906	59,060	54,968	49,739	40,708	42,122
Baker	8,378	497	610	698	394	174	337	447	468	630	563	662	640	478	412	332	378	301	357
Benton	38,780	2,242	2,408	2,446	1,498	2,355	5,808	2,873	2,691	3,036	3,038	2,620	1,988	1,431	1,034	1,037	911	654	710
Clackamas	160,135	10,751	11,472	12,603	8,095	4,356	8,730	8,998	10,623	13,235	15,545	15,360	11,381	7,563	5,511	4,979	4,140	3,337	3,456
Clatsop	17,264	1,081	1,262	1,329	812	457	991	1,036	1,108	1,360	1,449	1,327	1,132	834	700	669	626	551	540
Columbia	21,323	1,456	1,774	2,114	1,285	520	979	1,064	1,257	1,547	1,847	1,856	1,468	996	732	687	663	538	540
Coos	30,566	1,802	2,054	2,190	1,410	695	1,447	1,604	1,808	2,106	2,318	2,361	2,121	1,714	1,463	1,654	1,483	1,150	1,186
Crook	8,450	588	626	674	475	209	436	425	504	588	682	630	585	394	397	348	335	291	263
Curry	10,931	557	696	724	432	170	330	442	479	691	723	720	695	597	744	959	813	632	527
Deschutes	52,529	3,253	3,757	4,003	2,573	1,455	2,669	2,848	3,483	4,591	4,931	4,190	3,498	2,553	2,286	2,015	1,857	1,390	1,177
Douglas	49,973	3,251	3,378	3,827	2,551	1,362	2,366	2,518	2,905	3,488	3,857	3,779	3,330	2,676	2,249	2,516	2,267	1,850	1,803
Gilliam	1,051	57	97	94	45	25	29	50	70	77	79	54	74	74	54	58	36	40	38
Grant	4,055	244	315	353	213	77	162	199	229	312	315	323	298	229	182	164	155	134	151
Harney	3,823	254	306	311	204	80	144	203	231	288	280	315	300	213	162	143	140	124	125
Hood River	10,118	753	745	779	551	298	562	721	834	873	788	741	589	420	350	310	310	253	241
Jackson	84,975	5,445	6,217	6,675	4,245	2,243	4,671	4,520	4,915	6,234	7,241	6,764	5,412	4,174	3,539	3,757	3,424	2,811	2,688
Jefferson	8,803	809	798	755	484	195	520	604	547	580	602	538	476	350	308	413	334	280	210
Josephine	35,711	2,112	2,390	2,627	1,722	828	1,513	1,605	1,908	2,316	2,871	2,979	2,370	1,990	1,793	1,936	1,835	1,461	1,455
Klamath	31,473	2,109	2,207	2,450	1,632	1,013	2,077	1,763	1,856	2,192	2,543	2,357	2,065	1,599	1,333	1,314	1,147	916	900
Lake	3,735	258	304	340	216	60	138	184	220	256	268	263	289	175	173	182	160	120	129
Lane	153,337	9,790	10,329	10,943	6,894	5,191	12,499	9,898	10,004	12,421	13,464	11,932	9,587	6,609	5,324	5,396	4,922	3,964	4,170
Lincoln	20,950	1,276	1,529	1,538	922	366	825	935	1,183	1,609	1,670	1,476	1,273	1,114	1,101	1,317	1,175	843	798
Linn	50,649	3,560	3,749	3,906	2,505	1,488	3,034	3,012	3,175	3,723	3,992	4,088	3,351	2,425	1,989	1,899	1,786	1,486	1,481
Malheur	14,596	1,175	1,216	1,268	866	513	763	868	1,009	855	1,050	978	866	684	612	525	531	414	403
Marion	135,504	9,977	10,227	10,292	6,747	4,187	9,447	9,772	9,949	10,954	11,193	10,044	7,902	5,842	4,440	3,953	3,698	3,192	3,688
Morrow	4,835	368	452	529	311	119	220	236	318	335	348	304	299	222	200	146	166	146	116
Multnomah	313,790	21,776	20,755	20,315	12,287	9,005	23,217	25,341	26,348	29,866	29,257	24,312	18,078	13,064	10,928	8,294	7,546	6,433	6,968
Polk	28,996	1,954	2,225	2,370	1,450	1,016	2,134	1,553	1,689	2,149	2,393	2,121	1,732	1,331	1,047	1,051	1,029	830	922
Sherman	969	56	89	98	64	18	20	42	62	57	68	53	51	51	59	56	54	37	34
Tillamook	11,892	707	762	855	483	270	480	550	668	832	862	888	709	677	750	774	658	482	485
Umatilla	34,244	2,424	2,669	2,729	1,777	1,167	2,410	2,398	2,466	2,552	2,605	2,400	2,111	1,485	1,234	1,084	1,023	812	898
Union	12,125	783	910	1,046	622	399	856	590	674	948	997	915	773	588	435	415	397	381	396
Wallowa	3,607	194	272	321	172	67	126	160	198	306	259	274	250	203	161	194	161	132	157
Wasco	11,064	775	798	935	550	264	471	539	648	823	882	859	796	503	433	516	436	415	421
Washington	195,690	15,337	14,989	14,554	9,275	5,139	12,573	14,988	16,106	17,539	18,274	16,366	11,757	7,833	5,522	4,615	3,908	3,258	3,657
Wheeler	805	43	50	53	51	18	21	31	24	46	54	68	62	58	51	45	58	30	42
Yamhill	41,124	2,896	3,380	3,397	2,104	1,495	2,806	2,484	2,883	3,116	3,389	3,172	2,491	1,757	1,352	1,215	1,177	1,020	990

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, 1998 (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+
Total	1,651,300	105,660	109,938	113,631	70,891	44,396	99,598	103,098	114,218	131,698	137,761	126,567	101,103	77,092	64,339	62,461	61,069	53,194	74,586
Baker	8,322	464	583	572	352	168	295	389	499	566	575	636	594	534	396	378	393	360	568
Benton	37,820	2,114	2,218	2,324	1,476	2,151	4,552	2,445	2,706	3,084	2,871	2,641	2,021	1,496	1,134	1,175	1,075	906	1,431
Clackamas	163,465	10,160	10,844	11,841	7,558	3,867	8,104	9,132	11,242	13,734	15,862	14,741	11,079	7,602	5,807	5,635	5,162	4,458	6,637
Clatsop	17,436	1,105	1,103	1,183	808	461	862	929	1,123	1,361	1,331	1,254	1,134	879	792	745	783	664	919
Columbia	20,977	1,434	1,646	1,962	1,193	503	907	1,054	1,330	1,565	1,794	1,664	1,323	944	751	743	770	637	757
Coos	30,834	1,771	1,919	2,074	1,307	617	1,310	1,570	1,815	2,136	2,259	2,300	2,210	1,721	1,508	1,639	1,529	1,390	1,759
Crook	8,200	577	548	570	367	193	424	437	497	583	622	584	522	477	366	381	399	312	341
Curry	11,069	493	647	757	441	161	341	432	525	636	759	775	723	665	736	893	797	612	676
Deschutes	52,371	3,157	3,503	3,750	2,200	1,127	2,457	3,004	3,793	4,592	4,660	4,391	3,473	2,647	2,316	2,143	1,904	1,514	1,740
Douglas	50,327	3,140	3,276	3,578	2,263	1,202	2,293	2,602	2,957	3,453	3,768	3,687	3,313	2,815	2,266	2,556	2,478	2,097	2,583
Gilliam	1,049	44	78	86	32	24	25	52	82	70	78	74	82	66	65	44	45	48	54
Grant	3,945	242	302	304	211	101	127	196	249	283	296	289	291	205	181	153	171	133	211
Harney	3,777	221	269	325	211	73	150	189	255	259	279	303	277	207	162	159	131	108	199
Hood River	9,382	780	781	798	454	192	445	549	675	670	661	630	558	422	358	342	349	301	417
Jackson	87,825	5,214	5,944	6,320	4,097	2,254	4,446	4,546	5,231	6,559	7,052	6,830	5,485	4,273	3,801	3,990	3,854	3,405	4,524
Jefferson	8,597	753	795	718	437	199	474	546	505	530	560	503	521	409	348	360	344	308	287
Josephine	37,289	2,031	2,202	2,395	1,534	722	1,507	1,698	2,037	2,537	2,981	3,046	2,556	2,125	1,919	2,132	2,023	1,715	2,129
Klamath	30,527	2,045	2,042	2,163	1,414	871	1,681	1,699	1,857	2,254	2,392	2,226	1,920	1,726	1,337	1,314	1,211	1,035	1,340
Lake	3,665	230	279	335	199	59	137	161	231	245	259	255	254	208	175	145	182	121	190
Lane	159,663	9,154	10,005	10,385	6,390	5,532	12,064	9,760	10,571	13,056	13,254	12,089	9,384	7,137	5,910	6,358	6,130	5,148	7,336
Lincoln	22,250	1,187	1,488	1,534	896	365	815	993	1,260	1,633	1,661	1,599	1,417	1,326	1,234	1,419	1,286	1,044	1,093
Linn	51,551	3,480	3,455	3,609	2,400	1,360	2,804	3,024	3,210	3,637	4,036	4,011	3,400	2,512	2,128	2,160	2,152	1,811	2,362
Malheur	14,604	1,144	1,181	1,204	799	414	726	778	784	951	980	978	887	760	663	570	578	480	727
Marion	136,396	9,656	9,790	9,830	6,025	3,764	8,256	8,525	9,108	10,077	10,600	10,167	8,249	6,365	5,247	4,741	4,885	4,344	6,767
Morrow	4,565	352	442	402	290	111	194	234	286	318	293	298	292	242	169	161	159	159	163
Multnomah	328,110	20,718	19,960	19,520	12,171	8,965	23,309	24,929	25,947	28,482	28,085	24,030	18,576	14,228	12,360	10,653	10,881	10,006	15,290
Polk	30,504	1,898	2,025	2,236	1,269	1,075	2,159	1,567	1,802	2,228	2,348	2,172	1,779	1,459	1,168	1,335	1,267	1,144	1,573
Sherman	931	66	73	86	56	10	19	37	58	59	68	43	59	57	51	51	52	41	45
Tillamook	12,108	600	710	809	469	199	416	543	665	813	868	824	861	804	776	755	754	626	616
Umatilla	32,856	2,321	2,478	2,522	1,647	908	1,863	1,946	2,107	2,388	2,475	2,343	2,087	1,570	1,349	1,225	1,193	1,020	1,414
Union	12,275	745	812	949	622	415	771	630	772	890	950	909	749	594	441	414	509	433	670
Wallowa	3,593	206	280	285	183	56	118	161	210	262	235	267	224	208	182	164	172	157	223
Wasco	11,536	732	788	830	539	240	467	592	699	804	921	851	673	592	532	527	536	513	700
Washington	201,910	14,624	14,248	14,013	8,624	4,744	12,525	15,254	16,314	17,788	18,739	16,115	11,792	7,952	6,185	5,596	5,421	4,871	7,105
Wheeler	795	38	49	65	33	11	24	32	36	51	60	63	72	52	45	51	32	37	44
Yamhill	40,776	2,764	3,175	3,297	1,924	1,282	2,531	2,463	2,780	3,144	3,129	2,979	2,266	1,813	1,481	1,354	1,462	1,236	1,696

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

TABLE A-3.
Population Projections for Oregon, 2000-2025

Numbers in Thousands

Year	Sex	Total	Age 0-4	Age 5-17	Age 18-24	Age 25-64	Age 65+
2000	Total	3,397	211	599	318	1,798	471
	Female	1,723	103	292	156	903	269
	Male	1,674	108	307	162	895	202
2005	Total	3,613	219	602	331	1,939	522
	Female	1,833	107	293	163	975	295
	Male	1,780	112	309	168	964	227
2015	Total	3,992	238	613	334	2,066	741
	Female	2,024	116	298	166	1,042	402
	Male	1,968	122	315	218	1,024	339
2025	Total	4,349	246	661	334	2,054	1,054
	Female	2,202	120	322	165	1,039	556
	Male	2,147	126	339	169	1,015	498

SOURCE: Summary file, "Population Projections for States by Age, Sex, Race, Hispanic

Origin: 1995 to 2025", Listing #47

<http://www.census.gov/population/www/projections/stproj.html>

Appendix B: Technical Notes — Definitions

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.

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.²

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

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, 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. Effective November 10, 1997, ORS 423.333 requires the reporting of "each fetal death of 350 grams or more, or if weight is unknown, of 20 completed weeks gestation or more, calculated from the date last normal menstrual period began to the date of delivery."

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.

MEDICAL PERSONNEL — ABBREVIATIONS USED IN TABLES

C.N.M.—certified nurse midwife.

D.C.—doctor of chiropractic medicine.

D.O.—doctor of osteopathic medicine.

M.D.—medical doctor.

N.D.—naturopathic doctor.

R.N.—registered nurse.

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

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.
2. Ventura SJ, Martin JA, Curtin SC, Mathews TJ. Births: Final Data for 1997. National vital statistics reports; Vol 47 No 18. Hyattsville, Maryland: National Center for Health Statistics. 1999.

Technical Notes — Methodology

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 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.

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

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 10-1 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 ¹	
	U.S.	OREGON
TOTAL ²	59.9	54.8
NON-HISPANIC WHITES	42.5	50.6

¹ ALL RATES PER 1,000 FEMALES.
² ALL RACES AND ETHNICITIES COMBINED.

Technical Notes — Step-by-Step Instructions

"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

Computations of Percents and Rates

Effective as of the 1997 data year, rate and percentage calculations in the annual report publications from the Center for Health Statistics will be calculated excluding missing and unknown values. This means in this report that births for which a particular characteristic is unknown were subtracted from the figures for total births that were used as denominators before percents and rates were calculated. This change has been made to more closely match the methodology used by the National Center for Health Statistics.¹

Example: First trimester care (%)

1997 Oregon resident births = 43,765
Received first trimester care = 35,377
Did not receive first trimester care = 8,234
Month prenatal care began is unknown = 154

Including missing values
 $(35,377 / 43,765 \times 100) = 80.8\%$

Excluding missing values
 $(35,377 / 43,611 \times 100) = 81.1\%$

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 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?

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

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.¹

Deciding which events to use is important since sometimes the choice of one event over another can lead to easily 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.

The event (the death, birth, marriage, etc.) actually took place in the geographic region indicated (either Oregon or a particular county).

Occurrence Data: 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.

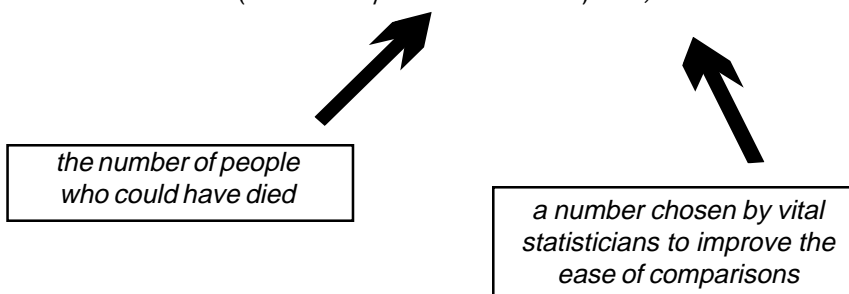
STEP 2: MAKING THE NUMBER MEANINGFUL WITH RATES AND RATIOS

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.

STEP 3: COMPARING TWO OR MORE NUMBERS

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

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 ± 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.

TILLAMOOK COUNTY			
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:

	1950	1960
Crude Death Rate	9.1	9.5
Age-Specific Death Rates		
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

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 death rates for each age group indicates that all these rates decreased. This apparent contradiction is explained by the fact that in 1960 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 obstructive pulmonary 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 COPD 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 the book to illustrate changes. And finally, the staff of the Center for Health Statistics are available for data users who need assistance.

- 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 (perhaps 10 percent of all pregnancies). Thus, a measure which excludes these outcomes provides an adequate indicator of the number of pregnancies.

Technical Notes — Formulas

GENERAL:

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

Birth rate, Oregon, 1993 = 13.7

Birth rate, Oregon, 1994 = 13.6

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

1. *(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. *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. *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. *TOTAL FERTILITY RATE* = *The Sum of Age-Specific Birth Rates in 5- Year Categories between 15 and 44* $\times 5$

$$\text{Oregon, 1994} = 5 (51.3 + 105.0 + 115.4 + 78.5 + 30.2 + 6.0) = 1,932.0$$

$$5. \text{ FETAL DEATH RATIO} = \frac{\text{Resident Fetal Deaths (20+ Weeks Gestation)}}{\text{Resident Live Births}} \times 1,000$$

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

$$\text{FETAL DEATH RATE} = \frac{\text{Resident Fetal Deaths (20+ Weeks Gestation)}}{\text{Resident Live Births} + \text{Resident Fetal Deaths}} \times 1,000$$

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

$$\text{PERINATAL DEATH RATE} = \frac{\text{Resident Neonatal Deaths} + \text{Resident Fetal Deaths (20+ Weeks Gestation)}}{\text{Resident Live Births} + \text{Resident Fetal Deaths}} \times 1,000$$

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

Note: Publications vary in the gestation cutoff for fetal deaths. In addition, some measures employ birthweight in place of gestational age. Fetal and perinatal death rates are based on 1993 year of birth.

$$6. \text{ ABORTION RATIO} = \frac{\text{Resident Abortions}}{\text{Resident Births}} \times 1,000 \text{ or } \frac{\text{Occurrence Abortions}}{\text{Occurrence Births}} \times 1,000$$

$$\text{Oregon, 1994, Occurrence} = \frac{13,391}{43,591} \times 1,000 = 307.2$$

$$7. \text{ ABORTION RATE} = \frac{\text{Resident Abortions or Occurrence Abortions}}{\text{Female Resident Population Aged 15- 44}} \times 1,000$$

$$\begin{array}{l} \text{Oregon 1994, Occurrence} \\ \text{with total adjusted} \\ \text{for not stated ages} \end{array} = \frac{13,300}{682,428} \times 1,000 = 19.5$$

DEATHS:

$$8. \text{ (CRUDE) DEATH RATE} = \frac{\text{Resident Deaths}}{\text{Population}} \times 1,000$$

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

$$9. \text{ INFANT DEATH RATE} = \frac{\text{Resident Infant Deaths}}{\text{Resident Births}} \times 1,000$$

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

$$10. \text{ NEONATAL DEATH RATE} = \frac{\text{Resident Neonatal Deaths}}{\text{Resident Births}} \times 1,000$$

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

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

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

$$12. \text{ CAUSE- SPECIFIC DEATH RATE} = \frac{\text{Resident Deaths Due to Specific Cause}}{\text{Population}} \times 100,000$$

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

$$13. \text{ AGE AND SEX- SPECIFIC DEATH RATE} = \frac{\text{Resident Deaths in Age- Sex Category}}{\text{Population in Age- Sex Population}} \times 1,000$$

$$\text{Oregon, 1994, Males Aged 5- 14} = \frac{63}{225,880} \times 1,000 = 27.9$$

[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 (Footnote: 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>).]

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 = $R \times L$

Upper Limit = $R \times U$

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:

Lower limit = $13.0 \times 0.51671 = 6.7$

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.

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:

$$\text{Lower Limit} = R - [1.96 \times R / \sqrt{N}]$$

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

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:

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

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

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.

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

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 an HSA) 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 an HSA) 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.

Each of these techniques has its 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.

REFERENCES:

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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