

Table 4.1  
Cancer of the Female Breast (Invasive)

Trends in SEER Incidence<sup>ab</sup> and U.S. Mortality<sup>c</sup> Using the Joinpoint Regression Program,  
1975-2007 With up to Four Joinpoints, 1992-2007 With up to Two Joinpoints,  
All Ages by Race/Ethnicity

	Joinpoint Trend 1		Joinpoint Trend 2		Joinpoint Trend 3		Joinpoint Trend 4		Joinpoint Trend 5		AAPC <sup>d</sup>	
	Years	APC	1998-2007	2003-2007								
<u>SEER 9 Delay-Adjusted Incidence<sup>a</sup>, 1975-2007</u>												
All Races	1975-1980	-0.5	1980-1987	3.9*	1987-1995	-0.1	1995-1998	2.7	1998-2007	-1.6*	-1.6*	-1.6*
White	1975-1980	-0.5	1980-1987	4.1*	1987-1994	-0.2	1994-1999	1.8*	1999-2007	-1.9*	-1.5*	-1.9*
Black	1975-1992	2.3*	1992-2007	-0.1							-0.1	-0.1
<u>SEER 13 Delay-Adjusted Incidence<sup>b</sup>, 1992-2007</u>												
All Races	1992-1999	1.1*	1999-2007	-1.8*							-1.4*	-1.8*
White	1992-1999	1.4*	1999-2007	-2.0*							-1.6*	-2.0*
Black	1992-2007	0.0									0.0	0.0
<u>SEER 9 Observed Incidence<sup>a</sup>, 1975-2007</u>												
All Races	1975-1980	-0.5	1980-1987	3.9*	1987-1995	-0.1	1995-1998	2.7	1998-2007	-1.7*	-1.7*	-1.7*
White	1975-1980	-0.5	1980-1987	4.1*	1987-1994	-0.2	1994-1999	1.8*	1999-2007	-2.1*	-1.6*	-2.1*
Black	1975-1992	2.3*	1992-2007	-0.3							-0.3	-0.3
<u>SEER 13 Observed Incidence<sup>b</sup>, 1992-2007</u>												
All Races	1992-1999	1.1*	1999-2007	-1.8*							-1.5*	-1.8*
White	1992-1999	1.4*	1999-2007	-2.1*							-1.7*	-2.1*
White NH <sup>ef</sup>	1992-1999	1.5*	1999-2007	-2.0*							-1.6*	-2.0*
Black	1992-2007	-0.2									-0.2	-0.2
Black NH <sup>ef</sup>	1992-2007	-0.1									-0.1	-0.1
API <sup>e</sup>	1992-1994	-4.8	1994-1997	6.6	1997-2007	-0.4					-0.4	-0.4
AI/AN <sup>eg</sup>	1992-2007	-0.5									-0.5	-0.5
Hispanic <sup>f</sup>	1992-1999	1.3	1999-2007	-1.3*							-1.0*	-1.3*
<u>U.S. Cancer Mortality<sup>c</sup>, 1975-2007</u>												
All Races	1975-1990	0.4*	1990-2007	-2.2*							-2.2*	-2.2*
White	1975-1990	0.3*	1990-1995	-2.0*	1995-1998	-3.4*	1998-2007	-2.0*			-2.0*	-2.0*
Black	1975-1992	1.5*	1992-2007	-1.4*							-1.4*	-1.4*
<u>U.S. Cancer Mortality<sup>c</sup>, 1992-2007</u>												
All Races	1992-1995	-1.3*	1995-1998	-3.4*	1998-2007	-1.9*					-1.9*	-1.9*
White	1992-1995	-1.5*	1995-1998	-3.6*	1998-2007	-2.0*					-2.0*	-2.0*
White NH <sup>ef</sup>	1992-1995	-1.6*	1995-1998	-3.5*	1998-2007	-1.8*					-1.8*	-1.8*
Black	1992-1995	0.4	1995-2007	-1.6*							-1.6*	-1.6*
Black NH <sup>ef</sup>	1992-2007	-1.1*									-1.1*	-1.1*
API <sup>e</sup>	1992-2007	-0.8*									-0.8*	-0.8*
AI/AN <sup>eg</sup>	1992-2007	0.1									0.1	0.1
Hispanic <sup>f</sup>	1992-2007	-1.9*									-1.9*	-1.9*

Joinpoint Regression Program Version 3.4.3, April 2010, National Cancer Institute. (<http://srab.cancer.gov/joinpoint/>). The APC is the Annual Percent Change based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). Trends are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta). Trends are from the SEER 13 areas (SEER 9 Areas, Los Angeles, San Jose-Monterey, Rural Georgia, and the Alaska Native Registry). Trends are from US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention. The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint.

API - Asian/Pacific Islander, AI/AN - American Indian/Alaska Native, NH - Non-Hispanic

Hispanic and Non-Hispanic are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics and Non-Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

The Hispanic and Non-Hispanic mortality trends exclude deaths from CT, DC, ME, MD, MN, NH, NY, ND, OK and VT.

Data for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.

\* The APC/AAPC is significantly different from zero (p<.05).

- Joinpoint regression line analysis could not be performed on data series.

Table 4.2  
Cancer of the Female Breast (Invasive)

Trends in SEER Incidence<sup>ab</sup> and U.S. Mortality<sup>c</sup> Using the Joinpoint Regression Program,  
1975-2007 With up to Four Joinpoints, 1992-2007 With up to Two Joinpoints,  
Ages <50 by Race/Ethnicity

	<u>Joinpoint Trend 1</u> Years	<u>Joinpoint Trend 1</u> APC	<u>Joinpoint Trend 2</u> Years	<u>Joinpoint Trend 2</u> APC	<u>Joinpoint Trend 3</u> Years	<u>Joinpoint Trend 3</u> APC	<u>Joinpoint Trend 4</u> Years	<u>Joinpoint Trend 4</u> APC	<u>Joinpoint Trend 5</u> Years	<u>Joinpoint Trend 5</u> APC	<u>AAPC<sup>d</sup></u> 1998-2007	<u>AAPC<sup>d</sup></u> 2003-2007
<u>SEER 9 Delay-Adjusted Incidence<sup>a</sup>, 1975-2007</u>												
All Races	1975-1980	-1.3	1980-1986	2.8*	1986-2007	-0.1					-0.1	-0.1
White	1975-1980	-1.1	1980-1986	2.7*	1986-2007	-0.1					-0.1	-0.1
Black	1975-1991	1.4*	1991-2007	-0.6*							-0.6*	-0.6*
<u>SEER 13 Delay-Adjusted Incidence<sup>b</sup>, 1992-2007</u>												
All Races	1992-2007	0.0									0.0	0.0
White	1992-2007	-0.1									-0.1	-0.1
Black	1992-2002	-1.3*	2002-2007	2.0							0.5	2.0
<u>SEER 9 Observed Incidence<sup>a</sup>, 1975-2007</u>												
All Races	1975-1980	-1.3	1980-1986	2.8*	1986-2007	-0.2*					-0.2*	-0.2*
White	1975-1980	-1.1	1980-1986	2.7*	1986-2007	-0.2*					-0.2*	-0.2*
Black	1975-1991	1.4*	1991-2007	-0.7*							-0.7*	-0.7*
<u>SEER 13 Observed Incidence<sup>b</sup>, 1992-2007</u>												
All Races	1992-2007	-0.1									-0.1	-0.1
White	1992-1998	0.5	1998-2007	-0.5*							-0.5*	-0.5*
White NH <sup>ef</sup>	1992-2007	0.1									0.1	0.1
Black	1992-2002	-1.3*	2002-2007	1.7							0.3	1.7
Black NH <sup>ef</sup>	1992-2002	-1.4*	2002-2007	2.0							0.5	2.0
API <sup>e</sup>	1992-2007	1.0*									1.0*	1.0*
AI/AN <sup>eg</sup>	1992-2007	1.1									1.1	1.1
Hispanic <sup>f</sup>	1992-2007	-0.2									-0.2	-0.2
<u>U.S. Cancer Mortality<sup>c</sup>, 1975-2007</u>												
All Races	1975-1990	-0.4*	1990-2007	-3.2*							-3.2*	-3.2*
White	1975-1990	-0.6*	1990-2007	-3.6*							-3.6*	-3.6*
Black	1975-1988	1.8*	1988-2007	-2.0*							-2.0*	-2.0*
<u>U.S. Cancer Mortality<sup>c</sup>, 1992-2007</u>												
All Races	1992-2007	-3.2*									-3.2*	-3.2*
White	1992-2007	-3.6*									-3.6*	-3.6*
White NH <sup>ef</sup>	1992-2007	-3.4*									-3.4*	-3.4*
Black	1992-2007	-2.2*									-2.2*	-2.2*
Black NH <sup>ef</sup>	1992-2007	-2.1*									-2.1*	-2.1*
API <sup>e</sup>	1992-2007	-2.2*									-2.2*	-2.2*
AI/AN <sup>eg</sup>	1992-2007	-1.2									-1.2	-1.2
Hispanic <sup>f</sup>	1992-2007	-2.9*									-2.9*	-2.9*

Joinpoint Regression Program Version 3.4.3, April 2010, National Cancer Institute. (<http://srab.cancer.gov/joinpoint/>). The APC is the Annual Percent Change based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). Trends are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta). Trends are from the SEER 13 areas (SEER 9 Areas, Los Angeles, San Jose-Monterey, Rural Georgia, and the Alaska Native Registry). Trends are from US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention. The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint. API - Asian/Pacific Islander, AI/AN - American Indian/Alaska Native, NH - Non-Hispanic Hispanic and Non-Hispanic are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics and Non-Hispanics are based on NHIA and exclude cases from the Alaska Native Registry. The Hispanic and Non-Hispanic mortality trends exclude deaths from CT, DC, ME, MD, MN, NH, NY, ND, OK and VT. Data for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties. \* The APC/AAPC is significantly different from zero (p<.05). - Joinpoint regression line analysis could not be performed on data series.

Table 4.3  
Cancer of the Female Breast (Invasive)

Trends in SEER Incidence<sup>ab</sup> and U.S. Mortality<sup>c</sup> Using the Joinpoint Regression Program,  
1975-2007 With up to Four Joinpoints, 1992-2007 With up to Two Joinpoints,  
Ages 50+ by Race/Ethnicity

	Joinpoint Trend 1		Joinpoint Trend 2		Joinpoint Trend 3		Joinpoint Trend 4		Joinpoint Trend 5		AAPC <sup>d</sup>	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	1998-2007	2003-2007
<b>SEER 9 Delay-Adjusted Incidence<sup>a</sup>, 1975-2007</b>												
All Races	1975-1982	0.9	1982-1987	5.3*	1987-1993	-0.3	1993-1999	1.7*	1999-2007	-2.3*	-1.8*	-2.3*
White	1975-1982	0.9	1982-1987	5.5*	1987-1993	-0.3	1993-1999	1.9*	1999-2007	-2.4*	-1.9*	-2.4*
Black	1975-1994	2.5*	1994-2007	-0.2							-0.2	-0.2
<b>SEER 13 Delay-Adjusted Incidence<sup>b</sup>, 1992-2007</b>												
All Races	1992-1999	1.4*	1999-2007	-2.2*							-1.8*	-2.2*
White	1992-1999	1.7*	1999-2007	-2.4*							-2.0*	-2.4*
Black	1992-2007	0.1									0.1	0.1
<b>SEER 9 Observed Incidence<sup>a</sup>, 1975-2007</b>												
All Races	1975-1982	0.9	1982-1987	5.3*	1987-1993	-0.3	1993-1999	1.7*	1999-2007	-2.4*	-1.9*	-2.4*
White	1975-1982	0.9	1982-1987	5.5*	1987-1993	-0.4	1993-1999	1.9*	1999-2007	-2.5*	-2.1*	-2.5*
Black	1975-1994	2.4*	1994-2007	-0.4							-0.4	-0.4
<b>SEER 13 Observed Incidence<sup>b</sup>, 1992-2007</b>												
All Races	1992-1999	1.4*	1999-2007	-2.3*							-1.9*	-2.3*
White	1992-1999	1.7*	1999-2007	-2.6*							-2.1*	-2.6*
White NH <sup>ef</sup>	1992-1999	1.8*	1999-2007	-2.5*							-2.0*	-2.5*
Black	1992-2007	0.0									0.0	0.0
Black NH <sup>ef</sup>	1992-2007	0.0									0.0	0.0
API <sup>e</sup>	1992-1994	-5.4	1994-1997	7.3	1997-2007	-0.8					-0.8	-0.8
AI/AN <sup>eg</sup>	1992-2007	-1.1									-1.1	-1.1
Hispanic <sup>f</sup>	1992-1998	1.9	1998-2007	-1.3*							-1.3*	-1.3*
<b>U.S. Cancer Mortality<sup>c</sup>, 1975-2007</b>												
All Races	1975-1990	0.6*	1990-2007	-2.0*							-2.0*	-2.0*
White	1975-1990	0.5*	1990-2007	-2.1*							-2.1*	-2.1*
Black	1975-1993	1.6*	1993-2007	-1.2*							-1.2*	-1.2*
<b>U.S. Cancer Mortality<sup>c</sup>, 1992-2007</b>												
All Races	1992-1994	-0.4	1994-1997	-3.1*	1997-2007	-1.9*					-1.9*	-1.9*
White	1992-1994	-0.6	1994-1997	-3.3*	1997-2007	-1.9*					-1.9*	-1.9*
White NH <sup>ef</sup>	1992-1994	-0.5	1994-1997	-3.4*	1997-2007	-1.7*					-1.7*	-1.7*
Black	1992-2007	-1.1*									-1.1*	-1.1*
Black NH <sup>ef</sup>	1992-2007	-0.9*									-0.9*	-0.9*
API <sup>e</sup>	1992-2007	-0.4									-0.4	-0.4
AI/AN <sup>eg</sup>	1992-2007	0.3									0.3	0.3
Hispanic <sup>f</sup>	1992-2007	-1.7*									-1.7*	-1.7*

Joinpoint Regression Program Version 3.4.3, April 2010, National Cancer Institute. (<http://srab.cancer.gov/joinpoint/>). The APC is the Annual Percent Change based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). Trends are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).

Trends are from the SEER 13 areas (SEER 9 Areas, Los Angeles, San Jose-Monterey, Rural Georgia, and the Alaska Native Registry). Trends are from US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint.

API - Asian/Pacific Islander, AI/AN - American Indian/Alaska Native, NH - Non-Hispanic

Hispanic and Non-Hispanic are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics and Non-Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

The Hispanic and Non-Hispanic mortality trends exclude deaths from CT, DC, ME, MD, MN, NH, NY, ND, OK and VT.

Data for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.

\* The APC/AAPC is significantly different from zero (p<.05).

- Joinpoint regression line analysis could not be performed on data series.

Table 4.4  
Cancer of the Female Breast (*In Situ*)

Trends in SEER Incidence<sup>a,b</sup> Using the Joinpoint Regression Program,  
1975-2007 With up to Four Joinpoints, 1992-2007 With up to Two Joinpoints,  
All Ages by Race/Ethnicity

	Joinpoint Trend 1		Joinpoint Trend 2		Joinpoint Trend 3		Joinpoint Trend 4		Joinpoint Trend 5		AAPC <sup>d</sup>	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	1998-2007	2003-2007
<b>SEER 9 Delay-Adjusted Incidence<sup>a</sup>, 1975-2007</b>												
All Races	1975-1981	-3.1	1981-1987	25.2*	1987-1994	3.8*	1994-1998	10.2*	1998-2007	0.4	0.4	0.4
White	1975-1981	-2.9	1981-1987	25.5*	1987-1995	3.9*	1995-1998	11.9*	1998-2007	0.2	0.2	0.2
Black	1975-1981	3.1	1981-1988	18.4*	1988-1998	7.8*	1998-2007	1.7*			1.7*	1.7*
<b>SEER 13 Delay-Adjusted Incidence<sup>b</sup>, 1992-2007</b>												
All Races	1992-1999	7.3*	1999-2007	0.1							0.9	0.1
White	1992-1994	-0.5	1994-1998	10.8*	1998-2007	0.0					0.0	0.0
Black	1992-1998	9.0*	1998-2007	1.6*							1.6*	1.6*
<b>SEER 9 Observed Incidence<sup>a</sup>, 1975-2007</b>												
All Races	1975-1981	-3.1	1981-1987	25.2*	1987-1994	3.8*	1994-1998	10.2*	1998-2007	0.4	0.4	0.4
White	1975-1981	-2.9	1981-1987	25.5*	1987-1995	3.9*	1995-1998	11.9*	1998-2007	0.1	0.1	0.1
Black	1975-1981	3.1	1981-1988	18.4*	1988-1998	7.8*	1998-2007	1.6*			1.6*	1.6*
<b>SEER 13 Observed Incidence<sup>b</sup>, 1992-2007</b>												
All Races	1992-1999	7.3*	1999-2007	0.0							0.8	0.0
White	1992-1994	-0.6	1994-1998	10.8*	1998-2007	0.0					0.0	0.0
White NH <sup>e,f</sup>	1992-1994	0.9	1994-1999	8.9*	1999-2007	-0.5					0.5	-0.5
Black	1992-1998	9.0*	1998-2007	1.5*							1.5*	1.5*
Black NH <sup>e,f</sup>	1992-1998	8.8*	1998-2007	1.6*							1.6*	1.6*
API <sup>e</sup>	1992-2002	7.8*	2002-2005	-5.1	2005-2007	9.0					3.6	1.7
AI/AN <sup>g</sup>	1992-2007	2.2									2.2	2.2
Hispanic <sup>f</sup>	1992-1998	8.3*	1998-2007	1.5*							1.5*	1.5*

Joinpoint Regression Program Version 3.4.3, April 2010, National Cancer Institute. (<http://srab.cancer.gov/joinpoint/>). The APC is the Annual Percent Change based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). Trends are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta). Trends are from the SEER 13 areas (SEER 9 Areas, Los Angeles, San Jose-Monterey, Rural Georgia, and the Alaska Native Registry). Trends are from US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint.

API - Asian/Pacific Islander, AI/AN - American Indian/Alaska Native, NH - Non-Hispanic

Hispanic and Non-Hispanic are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics and Non-Hispanics are based on NHIA and exclude cases from the Alaska Native Registry. The Hispanic and Non-Hispanic mortality trends exclude deaths from CT, DC, ME, MD, MN, NH, NY, ND, OK and VT.

Data for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.

The APC/AAPC is significantly different from zero ( $p < .05$ ).

Joinpoint regression line analysis could not be performed on data series.

a  
b  
c  
d  
e  
f  
g  
\*

Table 4.5  
Cancer of the Breast (Invasive)

Age-adjusted SEER Incidence<sup>a</sup> Rates by Year, Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<b>Year of Diagnosis:</b>									
1975	58.06	0.85	105.07	59.45	0.88	107.33	52.11	-	93.59
1976	56.43	1.10	101.90	58.12	1.12	104.80	48.03	-	85.34
1977	55.98	0.96	100.82	57.48	0.88	103.44	49.67	-	87.03
1978	55.85	0.90	100.63	57.55	0.89	103.62	48.27	-	86.09
1979	56.84	0.99	102.11	58.31	0.94	104.75	49.86	-	86.85
1980	56.89	0.90	102.22	58.53	0.95	105.09	50.55	-	89.40
1981	59.31	1.00	106.33	61.23	0.93	109.90	54.41	-	94.35
1982	59.22	0.98	106.46	61.08	0.94	109.97	53.98	-	93.66
1983	61.91	1.03	111.15	63.72	1.12	114.49	59.03	-	103.72
1984	64.46	0.93	115.95	66.58	0.94	119.90	58.42	-	102.47
1985	69.08	0.95	124.18	71.00	0.97	127.83	64.00	-	111.49
1986	70.44	0.94	126.80	72.28	0.95	130.37	66.27	-	115.06
1987	74.78	0.96	134.48	77.83	0.98	140.31	63.03	-	109.37
1988	73.07	1.23	131.28	75.64	1.17	136.36	69.00	2.76	118.66
1989	70.71	1.13	127.14	73.35	1.08	132.33	60.47	-	104.83
1990	73.12	1.13	131.75	75.33	1.15	136.23	68.30	-	118.18
1991	74.04	1.12	133.75	76.56	1.17	138.76	67.39	-	117.38
1992	73.00	1.04	131.99	74.76	1.02	135.78	71.32	-	123.52
1993	71.31	1.10	129.15	73.19	1.06	133.19	68.82	-	119.44
1994	72.06	1.13	130.92	74.29	1.08	135.71	70.57	-	122.40
1995	72.80	0.97	132.53	75.12	0.93	137.59	71.63	-	123.76
1996	73.26	1.31	133.53	75.29	1.32	138.05	71.27	-	123.60
1997	75.52	1.13	137.84	77.61	1.10	142.66	72.22	-	124.84
1998	77.21	1.07	141.18	79.63	1.12	146.60	70.69	-	123.17
1999	77.04	0.99	141.20	79.48	0.99	146.86	72.36	-	125.21
2000	74.25	1.17	136.28	77.20	1.15	142.90	67.66	2.85	116.55
2001	75.19	1.22	138.08	77.86	1.23	144.26	65.89	1.55	114.14
2002	73.07	1.16	134.68	75.35	1.13	140.21	70.02	2.06	121.25
2003	68.11	1.31	125.57	70.01	1.33	130.32	70.06	1.73	121.48
2004	68.34	1.20	126.30	69.80	1.23	130.24	69.45	1.57	120.61
2005	67.20	1.15	124.44	68.97	1.26	129.03	66.29	-	115.26
2006	66.69	1.22	123.62	67.98	1.27	127.33	69.00	1.34	120.18
2007	67.09	1.11	124.68	67.78	1.16	127.40	68.42	1.64	118.62
1975-2007	68.56	1.08	124.68	70.43	1.09	128.62	65.02	1.59	113.09

<sup>a</sup> SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta). Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). - Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 4.6  
Cancer of the Breast (Invasive)

Age-adjusted U.S. Death<sup>a</sup> Rates by Year, Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<b>Year of Death:</b>									
1975	17.83	0.37	31.45	18.03	0.38	31.79	16.82	0.41	29.49
1976	18.06	0.38	31.80	18.25	0.36	32.17	17.61	0.60	30.47
1977	18.47	0.36	32.48	18.56	0.35	32.67	18.90	0.51	32.80
1978	18.05	0.36	31.73	18.12	0.35	31.90	18.63	0.60	32.14
1979	17.74	0.28	31.21	17.87	0.26	31.48	17.87	0.54	30.82
1980	18.04	0.30	31.68	18.15	0.30	31.93	18.37	0.42	31.68
1981	18.20	0.32	31.92	18.28	0.31	32.12	18.95	0.46	32.55
1982	18.39	0.33	32.19	18.42	0.32	32.31	19.68	0.56	33.75
1983	18.33	0.31	32.07	18.36	0.29	32.20	19.57	0.50	33.53
1984	18.79	0.29	32.90	18.76	0.28	32.90	20.97	0.47	35.94
1985	18.84	0.34	32.98	18.88	0.34	33.11	20.35	0.43	34.85
1986	18.76	0.28	32.87	18.76	0.27	32.93	20.69	0.42	35.44
1987	18.66	0.34	32.66	18.57	0.34	32.57	21.53	0.47	36.73
1988	18.98	0.33	33.20	18.85	0.28	33.09	22.35	0.88	37.78
1989	19.00	0.33	33.23	18.95	0.33	33.23	21.56	0.45	36.61
1990	18.93	0.28	33.14	18.79	0.26	33.02	22.49	0.52	38.00
1991	18.66	0.28	32.69	18.46	0.27	32.45	22.62	0.44	38.28
1992	18.07	0.31	31.64	17.89	0.30	31.43	21.88	0.45	37.09
1993	17.98	0.36	31.39	17.74	0.34	31.09	22.62	0.66	38.04
1994	17.67	0.35	30.92	17.40	0.34	30.56	22.44	0.60	37.74
1995	17.44	0.35	30.55	17.11	0.32	30.09	22.70	0.77	38.18
1996	16.83	0.34	29.49	16.52	0.31	29.05	22.09	0.72	37.13
1997	16.07	0.32	28.21	15.67	0.30	27.62	22.25	0.63	37.43
1998	15.67	0.32	27.54	15.32	0.31	27.01	21.08	0.56	35.53
1999	15.18	0.34	26.61	14.77	0.32	25.98	20.93	0.69	35.21
2000	15.18	0.37	26.63	14.85	0.35	26.17	20.47	0.63	34.36
2001	14.74	0.35	25.98	14.34	0.33	25.39	20.50	0.65	34.52
2002	14.48	0.31	25.56	14.07	0.28	24.95	20.28	0.60	34.12
2003	14.23	0.31	25.19	13.81	0.30	24.56	20.19	0.46	34.06
2004	13.74	0.29	24.40	13.36	0.27	23.82	19.09	0.54	32.29
2005	13.52	0.29	24.03	13.08	0.28	23.36	19.37	0.50	32.83
2006	13.17	0.29	23.45	12.78	0.28	22.88	18.73	0.47	31.65
2007	12.80	0.28	22.84	12.40	0.27	22.23	18.56	0.44	31.43
1975-2007	16.73	0.32	29.43	16.58	0.31	29.26	20.42	0.55	34.66

<sup>a</sup> US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.  
Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).  
- Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 4.7  
Cancer of the Female Breast (Invasive)

Delay-adjusted SEER Incidence<sup>a</sup> Rates by Year, Race and Age

	All Races, Females			White Females			Black Females		
	All	<50	50+	All	<50	50+	All	<50	50+
<b>Year of Diagnosis:</b>									
1975	105.07	40.62	273.82	107.33	40.68	281.86	93.59	42.99	226.09
1976	101.90	40.04	263.89	104.80	40.84	272.26	85.34	37.82	209.77
1977	100.82	39.12	262.40	103.44	39.43	271.07	87.03	37.62	216.41
1978	100.63	38.85	262.38	103.62	39.29	272.07	86.09	40.24	206.14
1979	102.11	38.02	269.95	104.75	38.61	277.96	86.85	37.78	215.34
1980	102.22	37.79	270.93	105.09	38.27	280.05	89.40	37.69	224.82
1981	106.33	39.22	282.06	109.90	40.14	292.57	94.35	38.86	239.64
1982	106.47	40.56	279.06	109.98	41.31	289.81	93.68	38.12	239.19
1983	111.17	40.27	296.83	114.51	40.89	307.31	103.76	41.58	266.59
1984	115.98	42.34	308.79	119.94	43.11	321.14	102.54	44.69	254.01
1985	124.22	44.36	333.33	127.88	44.50	346.22	111.59	45.49	284.67
1986	126.85	44.44	342.63	130.44	45.21	353.63	115.20	45.70	297.19
1987	134.54	45.52	367.64	140.40	46.56	386.14	109.52	43.20	283.20
1988	131.34	44.05	359.92	136.46	45.13	375.59	118.84	43.02	317.39
1989	127.22	43.38	346.78	132.47	44.52	362.77	105.05	42.10	269.91
1990	131.86	45.60	357.74	136.40	45.42	374.64	118.48	48.83	300.87
1991	133.87	47.22	360.78	138.96	47.20	379.23	117.71	51.07	292.22
1992	132.12	43.47	364.26	136.00	43.72	377.64	123.92	46.95	325.48
1993	129.31	42.87	355.65	133.43	43.40	369.19	119.88	45.48	314.70
1994	131.10	42.44	363.25	135.99	42.87	379.84	122.91	47.56	320.23
1995	132.74	43.22	367.14	137.92	43.88	384.18	124.34	45.58	330.57
1996	133.77	43.56	369.99	138.42	44.07	385.50	124.26	44.34	333.52
1997	138.11	43.58	385.66	143.10	44.25	401.96	125.58	44.38	338.21
1998	141.49	45.47	392.92	147.09	45.81	412.29	123.95	46.53	326.69
1999	141.59	43.86	397.51	147.48	45.24	415.22	126.20	43.85	341.82
2000	136.72	43.54	380.72	143.60	44.13	404.06	117.60	44.72	308.42
2001	138.59	43.79	386.81	145.07	44.77	407.70	115.30	39.54	313.69
2002	135.25	42.57	377.95	141.11	43.34	397.14	122.64	40.77	337.01
2003	126.19	42.95	344.17	131.30	43.90	360.14	123.06	42.81	333.21
2004	127.03	44.42	343.35	131.37	44.46	358.96	122.41	46.16	322.08
2005	125.28	43.43	339.63	130.33	43.89	356.70	117.23	44.60	307.42
2006	124.60	43.43	337.14	128.83	44.27	350.26	122.54	43.83	328.64
2007	126.32	44.38	340.88	129.78	44.65	352.72	122.13	43.25	328.68

<sup>a</sup> Additional information on the model used to delay-adjust SEER Incidence rates can be found at (<http://srab.cancer.gov/delay/>). SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta). Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). - Delay-adjusted rate is not shown for observed rates based on less than 16 cases for the time interval.

Table 4.8  
Cancer of the Female Breast (*In Situ*)

Delay-adjusted SEER Incidence<sup>a</sup> Rates by Year, Race and Age

	All Races, Females			White Females			Black Females		
	All	<50	50+	All	<50	50+	All	<50	50+
<b>Year of Diagnosis:</b>									
1975	5.83	3.78	11.19	5.89	3.81	11.32	3.94	-	8.31
1976	5.28	2.72	11.98	5.36	2.89	11.83	3.28	-	9.40
1977	4.25	2.56	8.68	4.32	2.59	8.85	3.03	-	-
1978	4.40	2.36	9.74	4.55	2.50	9.91	3.29	-	-
1979	4.58	2.81	9.22	4.65	2.85	9.38	4.78	-	9.55
1980	4.83	2.98	9.67	5.03	3.07	10.17	3.56	-	-
1981	4.96	2.64	11.05	4.93	2.52	11.26	4.08	-	8.72
1982	5.30	2.73	12.03	5.34	2.71	12.24	5.55	2.73	12.95
1983	6.09	3.03	14.09	6.22	3.03	14.58	5.41	-	13.20
1984	8.62	4.79	18.66	9.18	5.19	19.61	6.35	2.37	16.78
1985	11.53	5.93	26.20	12.11	6.27	27.39	8.21	3.49	20.58
1986	13.63	6.78	31.55	14.28	7.23	32.74	9.32	5.12	20.34
1987	17.38	7.83	42.40	18.23	8.24	44.37	12.31	5.64	29.76
1988	17.57	8.20	42.13	18.14	8.54	43.27	16.00	7.39	38.57
1989	16.54	7.02	41.46	17.12	7.28	42.89	14.55	5.53	38.19
1990	19.15	8.40	47.29	19.97	8.78	49.27	15.08	5.55	40.06
1991	19.79	8.77	48.62	20.47	8.88	50.84	15.43	7.30	36.72
1992	21.43	9.00	53.97	22.20	9.26	56.08	19.13	6.84	51.31
1993	20.71	8.36	53.06	21.38	8.79	54.33	16.65	6.07	44.35
1994	22.32	8.76	57.83	22.93	9.07	59.24	20.18	7.49	53.42
1995	24.72	9.65	64.21	25.12	10.01	64.67	22.69	6.41	65.32
1996	25.36	9.82	66.06	25.94	9.79	68.23	22.54	7.79	61.14
1997	28.34	11.06	73.58	29.04	11.26	75.59	28.15	11.43	71.95
1998	32.79	11.99	87.27	33.83	12.35	90.06	30.49	10.80	82.05
1999	32.76	11.98	87.17	33.24	12.25	88.21	29.84	10.42	80.67
2000	32.81	11.76	87.92	33.95	12.55	89.97	29.68	8.06	86.29
2001	33.62	11.54	91.43	34.26	12.04	92.45	31.69	8.98	91.16
2002	33.88	11.81	91.68	34.49	12.25	92.72	28.47	8.59	80.51
2003	32.20	11.87	85.42	33.23	12.40	87.78	29.71	9.28	83.21
2004	32.83	12.58	85.85	33.71	12.86	88.30	30.20	9.83	83.57
2005	32.26	12.23	84.71	33.28	12.76	87.01	31.29	9.84	87.46
2006	32.77	13.53	83.15	33.16	14.02	83.25	35.07	11.29	97.33
2007	34.82	14.07	89.13	34.94	14.30	88.97	33.05	10.72	91.52

<sup>a</sup> Additional information on the model used to delay-adjust SEER Incidence rates can be found at (<http://srab.cancer.gov/delay/>). SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta). Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). - Delay-adjusted rate is not shown for observed rates based on less than 16 cases for the time interval.

Table 4.9  
Cancer of the Female Breast (Invasive)

Age-adjusted SEER Incidence<sup>a</sup> Rates by Year, Race and Age

	All Races, Females			White Females			Black Females		
	All	<50	50+	All	<50	50+	All	<50	50+
<b>Year of Diagnosis:</b>									
1975	105.07	40.62	273.82	107.33	40.68	281.86	93.59	42.99	226.09
1976	101.90	40.04	263.89	104.80	40.84	272.26	85.34	37.82	209.77
1977	100.82	39.12	262.40	103.44	39.43	271.07	87.03	37.62	216.41
1978	100.63	38.85	262.38	103.62	39.29	272.07	86.09	40.24	206.14
1979	102.11	38.02	269.95	104.75	38.61	277.96	86.85	37.78	215.34
1980	102.22	37.79	270.93	105.09	38.27	280.05	89.40	37.69	224.82
1981	106.33	39.22	282.06	109.90	40.14	292.57	94.35	38.86	239.64
1982	106.46	40.55	279.04	109.97	41.30	289.78	93.66	38.11	239.13
1983	111.15	40.26	296.79	114.49	40.88	307.25	103.72	41.56	266.47
1984	115.95	42.33	308.73	119.90	43.09	321.04	102.47	44.66	253.83
1985	124.18	44.35	333.24	127.83	44.48	346.06	111.49	45.45	284.41
1986	126.80	44.43	342.50	130.37	45.18	353.43	115.06	45.64	296.84
1987	134.48	45.50	367.48	140.31	46.53	385.88	109.37	43.13	282.80
1988	131.28	44.03	359.75	136.36	45.10	375.32	118.66	42.95	316.90
1989	127.14	43.35	346.55	132.33	44.47	362.38	104.83	42.01	269.32
1990	131.75	45.56	357.46	136.23	45.36	374.17	118.18	48.71	300.10
1991	133.75	47.17	360.45	138.76	47.13	378.70	117.38	50.93	291.39
1992	131.99	43.43	363.88	135.78	43.65	377.04	123.52	46.80	324.43
1993	129.15	42.82	355.23	133.19	43.32	368.51	119.44	45.31	313.55
1994	130.92	42.38	362.75	135.71	42.78	379.05	122.40	47.36	318.91
1995	132.53	43.16	366.58	137.59	43.77	383.26	123.76	45.36	329.03
1996	133.53	43.48	369.34	138.05	43.95	384.46	123.60	44.11	331.77
1997	137.84	43.49	384.89	142.66	44.11	400.72	124.84	44.12	336.21
1998	141.18	45.37	392.08	146.60	45.66	410.91	123.17	46.24	324.61
1999	141.20	43.74	396.40	146.86	45.04	413.46	125.21	43.51	339.14
2000	136.28	43.40	379.50	142.90	43.91	402.10	116.55	44.33	305.69
2001	138.08	43.63	385.39	144.26	44.52	405.43	114.14	39.14	310.55
2002	134.68	42.39	376.34	140.21	43.06	394.59	121.25	40.31	333.18
2003	125.57	42.74	342.47	130.32	43.58	357.47	121.48	42.26	328.90
2004	126.30	44.16	341.38	130.24	44.08	355.87	120.61	45.48	317.34
2005	124.44	43.14	337.35	129.03	43.45	353.13	115.26	43.85	302.25
2006	123.62	43.09	334.48	127.33	43.75	346.17	120.18	42.99	322.30
2007	124.68	43.81	336.45	127.40	43.83	346.24	118.62	42.01	319.24
1975-2007	124.68	42.94	338.74	128.62	43.44	351.68	113.09	43.44	295.45

<sup>a</sup> SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta). Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). - Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 4.10  
Cancer of the Female Breast (Invasive)

Age-adjusted U.S. Death<sup>a</sup> Rates by Year, Race and Age

Year of Death:	All Races, Females			White Females			Black Females		
	All	<50	50+	All	<50	50+	All	<50	50+
1975	31.45	9.11	89.94	31.79	9.01	91.42	29.49	10.68	78.75
1976	31.80	8.74	92.21	32.17	8.64	93.80	30.47	10.22	83.50
1977	32.48	8.86	94.34	32.67	8.75	95.32	32.80	10.52	91.13
1978	31.73	8.69	92.08	31.90	8.46	93.29	32.14	11.37	86.53
1979	31.21	8.58	90.47	31.48	8.34	92.07	30.82	11.36	81.78
1980	31.68	8.57	92.22	31.93	8.39	93.56	31.68	10.82	86.31
1981	31.92	8.46	93.33	32.12	8.20	94.77	32.55	11.48	87.74
1982	32.19	8.42	94.43	32.31	8.19	95.46	33.75	11.19	92.83
1983	32.07	8.16	94.70	32.20	7.89	95.85	33.53	11.17	92.10
1984	32.90	8.58	96.57	32.90	8.22	97.55	35.94	12.55	97.21
1985	32.98	8.56	96.90	33.11	8.30	98.09	34.85	12.04	94.58
1986	32.87	8.64	96.32	32.93	8.26	97.53	35.44	12.86	94.58
1987	32.66	8.44	96.08	32.57	7.99	96.93	36.73	12.94	99.04
1988	33.20	8.39	98.18	33.09	8.01	98.78	37.78	12.71	103.42
1989	33.23	8.42	98.22	33.23	8.06	99.16	36.61	12.41	99.96
1990	33.14	8.32	98.14	33.02	7.99	98.55	38.00	11.99	106.13
1991	32.69	8.16	96.91	32.45	7.73	97.15	38.28	12.31	106.29
1992	31.64	7.77	94.15	31.43	7.37	94.45	37.09	12.03	102.73
1993	31.39	7.41	94.18	31.09	6.99	94.20	38.04	11.65	107.14
1994	30.92	7.37	92.58	30.56	6.92	92.47	37.74	11.70	105.91
1995	30.55	7.29	91.46	30.09	6.80	91.07	38.18	11.71	107.49
1996	29.49	6.95	88.53	29.05	6.40	88.35	37.13	11.74	103.61
1997	28.21	6.71	84.53	27.62	6.22	83.64	37.43	11.03	106.56
1998	27.54	6.34	83.05	27.01	5.82	82.50	35.53	10.65	100.68
1999	26.61	5.75	81.22	25.98	5.20	80.40	35.21	10.27	100.52
2000	26.63	5.89	80.96	26.17	5.37	80.61	34.36	9.94	98.30
2001	25.98	5.86	78.65	25.39	5.35	77.85	34.52	9.86	99.07
2002	25.56	5.63	77.75	24.95	5.05	77.04	34.12	10.04	97.16
2003	25.19	5.57	76.55	24.56	5.07	75.59	34.06	9.66	97.95
2004	24.40	5.21	74.66	23.82	4.65	74.02	32.29	9.31	92.48
2005	24.03	5.20	73.36	23.36	4.63	72.40	32.83	9.53	93.85
2006	23.45	5.05	71.63	22.88	4.55	70.88	31.65	8.96	91.07
2007	22.84	4.77	70.15	22.23	4.25	69.32	31.43	8.64	91.12
1975-2007	29.43	7.11	87.87	29.26	6.73	88.25	34.66	10.88	96.94

<sup>a</sup> US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.  
Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).  
- Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 4.11  
Cancer of the Female Breast (*In Situ*)

Age-adjusted SEER Incidence<sup>a</sup> Rates by Year, Race and Age

	All Races, Females			White Females			Black Females		
	All	<50	50+	All	<50	50+	All	<50	50+
<b>Year of Diagnosis:</b>									
1975	5.83	3.78	11.19	5.89	3.81	11.32	3.94	-	8.31
1976	5.28	2.72	11.98	5.36	2.89	11.83	3.28	-	9.40
1977	4.25	2.56	8.68	4.32	2.59	8.85	3.03	-	-
1978	4.40	2.36	9.74	4.55	2.50	9.91	3.29	-	-
1979	4.58	2.81	9.22	4.65	2.85	9.38	4.78	-	9.55
1980	4.83	2.98	9.67	5.03	3.07	10.17	3.56	-	-
1981	4.96	2.64	11.05	4.93	2.52	11.26	4.08	-	8.72
1982	5.30	2.73	12.03	5.34	2.71	12.24	5.55	2.73	12.94
1983	6.09	3.03	14.09	6.22	3.03	14.57	5.41	-	13.20
1984	8.62	4.79	18.66	9.18	5.19	19.61	6.35	2.37	16.77
1985	11.53	5.93	26.19	12.10	6.27	27.38	8.21	3.49	20.57
1986	13.63	6.78	31.55	14.27	7.23	32.72	9.32	5.12	20.32
1987	17.38	7.83	42.39	18.21	8.24	44.33	12.30	5.64	29.73
1988	17.57	8.19	42.12	18.12	8.53	43.23	15.99	7.38	38.53
1989	16.53	7.02	41.45	17.10	7.27	42.84	14.53	5.52	38.14
1990	19.14	8.40	47.27	19.95	8.77	49.22	15.06	5.54	40.01
1991	19.78	8.77	48.61	20.45	8.87	50.77	15.41	7.29	36.66
1992	21.42	8.99	53.95	22.16	9.25	55.99	19.09	6.83	51.21
1993	20.70	8.36	53.04	21.35	8.78	54.25	16.62	6.06	44.27
1994	22.31	8.75	57.80	22.90	9.05	59.14	20.14	7.47	53.32
1995	24.71	9.64	64.18	25.07	9.99	64.56	22.64	6.39	65.19
1996	25.35	9.82	66.02	25.89	9.78	68.10	22.48	7.78	61.00
1997	28.32	11.05	73.54	28.97	11.24	75.42	28.08	11.40	71.77
1998	32.77	11.98	87.22	33.76	12.33	89.88	30.42	10.77	81.85
1999	32.74	11.97	87.11	33.14	12.21	87.96	29.73	10.39	80.39
2000	32.79	11.76	87.86	33.84	12.51	89.68	29.57	8.03	85.97
2001	33.59	11.53	91.36	34.14	12.00	92.12	31.56	8.94	90.78
2002	33.85	11.80	91.58	34.35	12.20	92.35	28.34	8.55	80.14
2003	32.16	11.86	85.32	33.08	12.35	87.38	29.56	9.23	82.78
2004	32.78	12.56	85.74	33.54	12.80	87.85	30.03	9.77	83.07
2005	32.21	12.21	84.58	33.09	12.69	86.52	31.09	9.78	86.89
2006	32.71	13.50	83.00	32.94	13.93	82.72	34.81	11.21	96.61
2007	34.59	13.98	88.55	34.49	14.12	87.83	32.57	10.57	90.19
1975-2007	21.19	8.89	53.42	21.28	9.03	53.35	20.03	7.29	53.41

<sup>a</sup> SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta). Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). - Statistic not shown. Rate based on less than 16 cases for the time interval.

**Table 4.12**  
Cancer of the Breast (Invasive)

SEER Incidence<sup>a</sup> and U.S. Death<sup>b</sup> Rates, Age-Adjusted and Age-Specific Rates, by Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<b>SEER Incidence</b>									
<b>Age at Diagnosis</b>									
Age-Adjusted Rates, 2003-2007									
All ages	66.5	1.2	122.9	67.9	1.2	126.5	67.8	1.6	118.3
Under 65	42.1	0.5	82.2	42.3	0.4	83.7	44.2	0.8	81.5
65 and over	235.4	6.4	403.8	244.8	6.6	422.5	230.8	7.7	373.2
All ages (IARC world std) <sup>c</sup>	47.1	0.8	88.9	48.0	0.8	91.4	48.4	1.1	86.1
Age-Specific Rates, 2003-2007									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	0.1	-	0.2	0.1	-	0.2	-	-	-
20-24	0.8	-	1.6	0.7	-	1.5	1.1	-	2.2
25-29	4.1	-	8.3	3.8	-	7.9	6.0	-	11.6
30-34	12.8	-	25.9	12.4	-	25.5	16.5	-	31.4
35-39	29.2	0.1	58.9	28.7	-	58.8	33.6	-	64.0
40-44	60.5	0.3	120.9	59.9	0.3	121.1	65.5	-	124.4
45-49	94.3	0.7	186.1	94.3	0.6	188.5	95.1	1.2	178.2
50-54	115.6	1.2	225.8	117.0	1.1	231.5	118.4	2.0	217.7
55-59	145.1	2.0	280.2	146.8	2.0	286.8	153.5	3.0	278.1
60-64	183.6	3.3	348.9	188.4	3.2	361.7	185.0	6.6	326.7
65-69	212.9	4.6	394.2	221.3	4.9	413.6	209.3	5.6	363.7
70-74	229.3	5.3	410.0	238.2	5.3	430.2	224.8	8.2	377.3
75-79	254.8	7.1	433.7	266.4	7.4	456.2	247.5	7.2	396.6
80-84	262.2	7.7	422.3	273.0	7.9	439.9	247.1	-	377.7
85+	232.9	9.4	339.2	240.0	10.0	348.0	242.4	-	340.4
<b>U.S. Mortality</b>									
<b>Age at Death</b>									
Age-Adjusted Rates, 2003-2007									
All ages	13.5	0.3	24.0	13.1	0.3	23.4	19.2	0.5	32.4
Under 65	6.3	0.1	12.2	5.8	0.1	11.4	10.6	0.2	19.4
65 and over	63.2	1.7	105.3	63.2	1.7	105.9	78.1	2.6	122.2
All ages (IARC world std) <sup>c</sup>	8.5	0.2	15.7	8.2	0.2	15.1	12.7	0.3	22.1
Age-Specific Rates, 2003-2007									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	-	-	-	-	-	-	-	-	-
20-24	0.1	-	0.1	0.0	-	0.1	0.2	-	0.3
25-29	0.3	-	0.7	0.3	-	0.5	0.8	-	1.6
30-34	1.5	-	3.1	1.3	-	2.7	3.2	-	6.0
35-39	3.9	-	7.7	3.4	-	6.8	7.7	-	14.5
40-44	7.2	0.1	14.3	6.5	0.0	13.0	13.3	-	24.8
45-49	11.7	0.1	23.0	10.5	0.1	20.9	21.8	0.3	40.5
50-54	17.8	0.3	34.6	16.5	0.3	32.4	30.0	0.5	55.0
55-59	25.2	0.4	48.5	23.8	0.4	46.3	41.1	0.8	74.3
60-64	32.6	0.7	61.8	31.6	0.6	60.4	47.7	1.1	84.1
65-69	39.3	0.9	72.9	38.9	0.9	72.7	52.9	1.8	90.8
70-74	48.7	1.3	87.0	48.5	1.3	87.6	61.3	2.3	101.6
75-79	63.4	1.8	108.1	63.5	1.7	109.1	77.7	2.7	122.4
80-84	83.3	2.5	133.5	83.8	2.5	134.8	98.5	2.8	149.0
85+	122.5	3.2	177.1	123.0	3.2	178.0	145.6	4.5	202.3

<sup>a</sup> SEER 17 areas. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130), unless noted.

<sup>b</sup> US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130), unless noted.

<sup>c</sup> Rates are per 100,000 and are age-adjusted to the IARC world standard population.

- Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 4.13  
Cancer of the Female Breast (*In Situ*)

SEER Incidence<sup>a</sup> Rates, Age-Adjusted and Age-Specific Rates, by Race

	All Races, Females	White Females	Black Females
<u>Age-Adjusted Rates, 2003-2007</u>			
Age at Diagnosis:			
All ages	30.0	30.5	27.7
Under 65	22.5	22.9	19.1
65 and over	81.9	83.1	87.1
All ages (IARC world std) <sup>b</sup>	22.6	23.0	20.6
<u>Age-Specific Rates, 2003-2007</u>			
Age at Diagnosis:			
<1	-	-	-
1-4	-	-	-
5-9	-	-	-
10-14	-	-	-
15-19	-	-	-
20-24	0.2	-	-
25-29	0.7	0.7	-
30-34	2.6	2.4	2.4
35-39	10.0	10.0	9.9
40-44	36.2	36.8	26.8
45-49	58.5	60.7	42.3
50-54	68.6	70.2	57.1
55-59	77.1	78.3	74.2
60-64	86.5	87.8	83.6
65-69	97.0	98.2	99.3
70-74	91.1	92.9	98.2
75-79	87.8	88.9	95.7
80-84	68.9	70.0	69.4
85+	34.5	34.3	42.7

<sup>a</sup> SEER 17 areas. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130), unless noted.

<sup>b</sup> Rates are per 100,000 and are age-adjusted to the IARC world standard population.

- Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 4.14  
Cancer of the Female Breast (Invasive)

5-Year Relative and Period Survival (Percent) by Race, Diagnosis Year, Stage and Age

	All Races, Females			White Females			Black Females		
	All	<50	50+	All	<50	50+	All	<50	50+
<b>5-Year Relative Survival (Percent)</b>									
<b>Year of Diagnosis:</b>									
1960-1963 <sup>a</sup>	-	-	-	63	-	-	46	-	-
1970-1973 <sup>a</sup>	-	-	-	68	-	-	51	-	-
1975-1977 <sup>b</sup>	75.3	76.7	74.8	76.1	77.9	75.4	62.4	62.4	62.3
1978-1980 <sup>b</sup>	74.8	75.6	74.6	75.5	76.2	75.3	63.9	67.2	62.0
1981-1983 <sup>b</sup>	76.6	77.5	76.4	77.6	78.7	77.3	64.1	65.4	63.4
1984-1986 <sup>b</sup>	79.4	77.9	79.9	80.5	79.7	80.8	65.3	63.9	66.1
1987-1989 <sup>b</sup>	84.3	81.5	85.3	85.4	82.9	86.2	71.3	69.6	72.3
1990-1992 <sup>b</sup>	85.4	83.4	86.2	86.7	85.2	87.3	71.7	70.2	72.6
1993-1995 <sup>b</sup>	86.7	84.3	87.5	88.0	86.3	88.6	72.8	70.2	74.4
1996-1998 <sup>b</sup>	88.5	86.6	89.3	89.7	88.3	90.2	76.4	74.0	77.9
1999-2006 <sup>b</sup>	89.9 <sup>e</sup>	88.7 <sup>e</sup>	90.4 <sup>e</sup>	91.2 <sup>e</sup>	90.4 <sup>e</sup>	91.6 <sup>e</sup>	78.4 <sup>e</sup>	77.2 <sup>e</sup>	79.0 <sup>e</sup>
<b>5-Year Period Survival (Percent)<sup>cd</sup></b>									
<b>Year of Diagnosis:</b>									
1999-2006	89.2	88.2	89.5	90.5	89.9	90.7	77.2	76.2	77.8
<b>Stage Distribution (%) 1999-2006<sup>c</sup></b>									
<b>All Stages</b>									
Number of cases	314,500	79,068	235,432	261,313	61,267	200,046	28,425	9,372	19,053
Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%
Localized	60	53	63	61	54	64	51	46	53
Regional	33	41	30	32	41	29	39	45	35
Distant	5	4	5	5	4	5	8	7	9
Unstaged	2	2	2	2	2	2	3	2	3
<b>5-Year Relative Survival (Percent), 1999-2006<sup>c</sup></b>									
<b>Age at Diagnosis:</b>									
Ages <45	86.3	-	-	87.7	-	-	75.4	-	-
Ages 45-54	89.5	-	-	90.9	-	-	78.4	-	-
Ages 55-64	90.0	-	-	91.0	-	-	78.8	-	-
Ages 65-74	90.3	-	-	91.2	-	-	80.7	-	-
Ages 75+	88.2	-	-	89.5	-	-	72.5	-	-
Ages <65	89.0	-	-	90.3	-	-	77.7	-	-
Ages 65+	89.4	-	-	90.4	-	-	77.4	-	-
<b>Stage:</b>									
All Stages	89.0	87.9	89.4	90.2	89.4	90.5	77.5	76.7	78.0
Localized	98.0	96.1	98.7	98.6	96.6	99.3	93.0	91.6	93.7
Regional	83.6	83.4	83.7	84.9	85.2	84.9	72.2	72.3	72.0
Distant	23.4	29.3	21.6	24.8	33.5	22.6	15.2	14.5	15.4
Unstaged	57.9	73.8	52.9	58.5	77.6	53.1	47.6	52.3	45.2
In Situ <sup>h</sup>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.5	100.0

<sup>a</sup> Based on End Results data from a series of hospital registries and one population-based registry.

<sup>b</sup> Based on the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta).

<sup>c</sup> Based on follow-up of patients into 2007.

<sup>d</sup> Based on the SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey). California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey contribute cases for diagnosis years 2000-2006. The remaining 13 SEER Areas contribute cases for the entire period 1999-2006. Based on follow-up of patients into 2007.

<sup>e</sup> Period survival provides a more up-to-date estimate of survival by piecing together the most recent conditional survival estimates from several cohorts. It is computed here using three year calendar blocks (2004-2006: 0-1 year survival), (2003-2005: 1-2 year survival), (2002-2004: 2-3 year survival), (2001-2003: 3-4 year survival), (2000-2002: 4-5 years survival).

<sup>f</sup> The difference between 1975-1977 and 1999-2006 is statistically significant ( $p<.05$ ).

<sup>g</sup> The standard error is between 5 and 10 percentage points.

<sup>h</sup> The standard error is greater than 10 percentage points.

<sup>i</sup> In situ cases are not included in the All Stages group.

<sup>j</sup> Statistic could not be calculated due to fewer than 25 cases during the time period.

Table 4.15  
Cancer of the Female Breast (Invasive)

SEER<sup>a</sup> Relative Survival (Percent)

By Year of Diagnosis

All Races, Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
<b>Survival Time</b>																				
1-year	94.7	95.5	96.6	97.0	97.3	97.4	97.2	97.6	97.3	97.2	97.6	97.7	97.7	97.7	97.6	97.7	98.0	97.9	97.9	98.0
2-year	89.1	90.4	92.7	93.4	93.9	94.4	94.1	94.4	94.2	94.0	94.6	95.1	95.4	95.6	95.4	95.8	95.7	95.8	95.8	95.8
3-year	83.5	85.0	88.6	89.9	90.3	91.2	91.0	91.2	91.6	91.2	92.2	93.2	93.4	93.7	93.1	93.8	93.5	93.4		
4-year	78.9	80.6	85.4	87.0	87.8	88.3	88.3	88.8	89.1	89.2	90.2	91.3	91.5	91.9	91.2	92.1	91.7			
5-year	75.0	76.8	82.6	84.8	85.5	86.0	86.0	86.9	87.0	87.0	88.7	89.8	89.8	90.5	89.6	90.6				
6-year	71.9	73.9	80.2	82.7	83.6	84.3	84.1	85.3	85.7	85.4	87.3	88.6	88.3	89.3	88.5					
7-year	69.1	71.1	78.1	80.8	81.9	82.7	82.4	83.9	84.1	84.3	86.1	87.3	87.2	88.0						
8-year	66.9	68.9	76.6	79.5	80.3	81.8	80.9	83.1	82.9	82.8	85.2	86.0	86.0							
9-year	64.7	66.9	74.9	78.1	79.0	80.8	79.9	81.9	81.6	81.8	83.9	84.7								
10-year	63.0	65.0	73.6	77.1	77.9	79.9	78.9	80.7	80.7	80.7	82.6									
11-year	61.3	63.2	72.3	76.0	77.2	78.8	77.6	79.3	79.6	79.8										
12-year	59.8	62.0	71.1	75.1	76.1	77.8	77.0	78.2	78.5											
13-year	58.7	61.0	70.1	74.1	75.2	76.7	76.1	77.4												
14-year	57.7	59.7	69.2	73.0	74.3	76.0	75.1													
15-year	56.7	58.9	68.3	71.7	73.5	75.0														
16-year	55.8	57.9	67.5	70.6	72.7															
17-year	54.9	57.0	66.7	69.7																
18-year	54.2	56.3	66.0																	
19-year	53.5	55.8																		
20-year	52.9	55.1																		

<sup>a</sup> Based on the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).

Table 4.16  
Cancer of the Female Breast (Ages <50, Invasive)

SEER<sup>a</sup> Relative Survival (Percent)

By Year of Diagnosis

All Races, Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
<b>Survival Time</b>																				
1-year	96.8	97.6	98.0	97.6	98.5	98.4	98.0	98.5	98.0	97.8	98.1	98.4	98.7	98.5	98.4	98.6	98.9	98.5	98.9	
2-year	91.0	91.5	92.8	93.1	94.0	94.7	94.3	93.7	93.8	93.8	94.8	95.2	95.2	95.7	94.9	95.9	96.1	95.9	96.0	
3-year	84.7	85.7	87.5	88.5	90.2	90.8	90.3	89.4	90.0	90.7	91.8	92.2	92.3	93.1	91.6	93.4	93.6	93.2		
4-year	80.1	81.0	83.5	85.1	86.9	86.5	87.2	86.3	86.8	88.2	88.8	89.5	90.1	90.6	89.2	90.7	91.8			
5-year	76.2	77.2	80.3	82.4	84.0	83.9	84.8	84.1	84.2	85.5	86.9	87.4	88.1	89.0	87.2	88.6				
6-year	73.4	74.2	77.9	80.2	81.8	81.7	83.0	82.1	82.3	83.2	84.8	85.5	86.1	87.4	85.2					
7-year	70.9	71.6	75.8	78.6	79.6	80.3	81.3	80.3	80.3	81.6	83.2	83.7	84.8	85.7						
8-year	69.0	69.5	74.2	76.6	78.2	78.6	79.6	79.0	78.7	80.0	81.5	82.4	83.5							
9-year	67.1	67.7	72.6	75.5	77.3	77.6	78.5	77.6	77.6	78.9	80.5	80.7								
10-year	65.6	66.3	71.4	74.4	76.3	76.8	77.3	76.6	76.3	77.5	79.1									
11-year	64.2	64.9	70.4	73.4	75.3	75.7	76.6	75.6	75.4	76.5										
12-year	62.8	64.0	69.3	72.5	73.9	75.1	76.0	74.2	74.4											
13-year	61.7	62.9	68.3	71.3	73.2	73.9	75.3	73.4												
14-year	61.0	61.8	67.5	70.8	72.4	73.3	74.2													
15-year	60.2	61.0	66.8	70.0	71.7	72.5														
16-year	59.5	60.3	66.1	69.7	70.7															
17-year	58.9	59.6	65.5	69.0																
18-year	58.3	59.0	64.8																	
19-year	57.7	58.5																		
20-year	57.0	57.9																		

<sup>a</sup> Based on the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).

Table 4.17  
Cancer of the Female Breast (Ages 50+, Invasive)

SEER<sup>a</sup> Relative Survival (Percent)

By Year of Diagnosis

All Races, Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
<b>Survival Time</b>																				
1-year	94.1	94.8	96.1	96.8	97.0	97.1	96.9	97.3	97.1	97.0	97.4	97.5	97.3	97.5	97.3	97.5	97.6	97.7	97.6	
2-year	88.4	90.0	92.6	93.5	93.9	94.4	94.1	94.6	94.4	94.0	94.5	95.1	95.4	95.6	95.5	95.7	95.5	95.7	95.8	
3-year	83.1	84.8	89.0	90.4	90.3	91.3	91.3	91.9	92.2	91.4	92.4	93.5	93.7	94.0	93.6	94.0	93.4	93.4	93.4	
4-year	78.4	80.5	86.0	87.8	88.1	89.0	88.8	89.8	90.0	89.6	90.6	92.0	92.1	92.4	92.0	92.5	91.7			
5-year	74.6	76.7	83.4	85.7	86.1	86.8	86.5	87.9	88.1	87.6	89.3	90.7	90.5	91.1	90.5	91.3				
6-year	71.3	73.8	81.0	83.7	84.4	85.3	84.5	86.6	87.0	86.3	88.2	89.8	89.1	90.0	89.7					
7-year	68.4	71.0	79.0	81.8	82.9	83.6	82.9	85.3	85.7	85.4	87.3	88.8	88.2	88.9						
8-year	66.0	68.6	77.6	80.7	81.3	83.1	81.5	84.8	84.7	84.1	86.7	87.5	87.1							
9-year	63.8	66.6	75.9	79.4	79.8	82.2	80.6	83.8	83.5	83.1	85.3	86.4								
10-year	61.9	64.5	74.5	78.3	78.7	81.3	79.7	82.6	82.9	82.2	84.3									
11-year	60.1	62.5	73.2	77.3	78.2	80.4	78.1	81.1	81.6	81.5										
12-year	58.5	61.3	72.0	76.5	77.2	79.2	77.6	80.2	80.6											
13-year	57.3	60.2	71.0	75.6	76.3	78.3	76.7	79.4												
14-year	56.2	58.8	70.1	74.3	75.5	77.5	75.7													
15-year	54.9	58.0	69.2	72.9	74.8	76.5														
16-year	53.9	56.7	68.4	71.3	74.2															
17-year	52.8	55.7	67.6	70.3																
18-year	52.0	54.9	66.8																	
19-year	51.1	54.3																		
20-year	50.4	53.5																		

<sup>a</sup> Based on the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).

Table 4.18  
Cancer of the Female Breast (Invasive)

Risk of Being Diagnosed With Cancer in 10, 20 and 30 Years,  
Lifetime Risk of Being Diagnosed with Cancer Given Alive and Cancer-Free at Current Age, and  
Lifetime Risk of Dying from Cancer Given Alive at Current Age  
Females, 2005-2007 By Race/Ethnicity

Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer					Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer					Risk of Dying from Cancer
		+10 yrs	+20 yrs	+30 yrs	Ever	Risk of Dying from Cancer			+10 yrs	+20 yrs	+30 yrs	Ever		
All Races	0	0.00	0.00	0.06	12.15	2.81	Asian/ Pacific Islander	0	0.00	0.00	0.06	9.58	1.71	
	10	0.00	0.06	0.49	12.28	2.85		10	0.00	0.06	0.44	9.65	1.72	
	20	0.06	0.49	1.91	12.30	2.85		20	0.06	0.44	1.76	9.67	1.73	
	30	0.43	1.86	4.13	12.31	2.86		30	0.39	1.71	3.60	9.64	1.73	
	40	1.45	3.75	6.87	12.03	2.83		40	1.33	3.24	5.50	9.33	1.70	
	50	2.38	5.60	8.66	10.93	2.71		50	1.96	4.26	6.34	8.18	1.60	
	60	3.45	6.71	8.65	9.14	2.43		60	2.41	4.57	6.00	6.49	1.39	
	70	3.74	5.97	-	6.53	2.01		70	2.35	3.90	-	4.43	1.11	
	80	3.02	-	-	3.78	1.54		80	1.86	-	-	2.50	0.82	
White	0	0.00	0.00	0.06	12.57	2.79	American Indian/ Alaska Native <sup>a</sup>	0	0.00	0.00	0.03	6.94	1.98	
	10	0.00	0.06	0.48	12.69	2.82		10	0.00	0.03	0.34	7.03	2.00	
	20	0.06	0.48	1.92	12.72	2.83		20	0.03	0.35	1.37	7.06	2.02	
	30	0.43	1.87	4.20	12.73	2.84		30	0.32	1.35	2.68	7.10	2.03	
	40	1.46	3.82	7.08	12.45	2.82		40	1.05	2.41	4.28	6.91	2.03	
	50	2.43	5.81	9.02	11.34	2.70		50	1.41	3.36	4.79	6.10	1.98	
	60	3.59	7.02	9.02	9.50	2.44		60	2.09	3.61	4.67	5.02	1.82	
	70	3.93	6.22	-	6.77	2.02		70	1.76	2.98	-	3.39	1.58	
	80	3.12	-	-	3.87	1.54		80	1.65	-	-	2.19	1.35	
Black	0	0.00	0.00	0.08	10.21	3.23	Hispanic <sup>b</sup>	0	0.00	0.00	0.05	9.15	2.03	
	10	0.00	0.09	0.55	10.43	3.31		10	0.00	0.05	0.38	9.24	2.05	
	20	0.08	0.55	1.92	10.46	3.32		20	0.05	0.38	1.44	9.26	2.05	
	30	0.47	1.85	3.94	10.47	3.33		30	0.33	1.40	3.07	9.25	2.05	
	40	1.41	3.54	6.20	10.19	3.28		40	1.08	2.77	5.03	9.00	2.03	
	50	2.24	5.03	7.45	9.22	3.08		50	1.73	4.05	6.23	8.12	1.92	
	60	3.08	5.76	7.28	7.71	2.67		60	2.44	4.73	6.12	6.71	1.70	
	70	3.23	5.08	-	5.60	2.20		70	2.54	4.08	-	4.73	1.40	
	80	2.72	-	-	3.48	1.77		80	1.95	-	-	2.78	1.08	

Devcan Version 6.5.0, June 2010, National Cancer Institute (<http://srab.cancer.gov/devcan/>).

Source: Incidence data are from the SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey). Mortality data are from the NCHS public use data file for the total US.

<sup>a</sup> Underlying incidence and mortality data for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.

<sup>b</sup> Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Underlying incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

- Underlying mortality data for Hispanics exclude deaths from the District of Columbia, Minnesota, New Hampshire and North Dakota. Statistic could not be calculated.

A percent of 0.00 represents a value that is below 0.005.

Table 4.19  
Cancer of the Female Breast (Invasive)

SEER Incidence and U.S. Mortality  
Age-Adjusted Rates and Trends<sup>a</sup>  
By Race/Ethnicity

<u>SEER Incidence</u>	SEER 17 Areas <sup>b</sup>		SEER 13 Areas <sup>b</sup>		SEER 9 Areas <sup>b</sup>	
	Rate 2003-2007		Trend 1998-2007 <sup>c</sup>		Trend 1998-2007 <sup>d</sup>	
	Rate per 100,000 persons	Females	AAPC (%)	Females	AAPC (%)	Females
<b>RACE/ETHNICITY</b>						
All Races	122.9		-1.5*		-1.7*	
White	126.5		-1.7*		-1.6*	
White Hispanic <sup>e</sup>	87.7		-1.1*		-	
White Non-Hispanic <sup>e</sup>	133.2		-1.6*		-	
Black	118.3		-0.2		-0.3	
Asian/Pacific Islander	90.0		-0.4		-	
Amer Ind/Alaska Nat <sup>f</sup>	76.4		-0.5		-	
Hispanic <sup>e</sup>	86.0		-1.0*		-	
<b>U.S. Mortality<sup>g</sup></b>						
	Rate 2003-2007		Trend 1998-2007 <sup>h</sup>			
	Rate per 100,000 persons		AAPC (%)			
<b>RACE/ETHNICITY</b>						
All Races	24.0		-1.9*			
White	23.4		-2.0*			
White Hispanic <sup>e</sup>	15.8		-1.9*			
White Non-Hispanic <sup>e</sup>	23.9		-1.8*			
Black	32.4		-1.6*			
Asian/Pacific Islander	12.2		-0.8*			
Amer Ind/Alaska Nat						
Total U.S.	14.0		-0.9			
CHSDA Counties	17.6		0.1			
Non-CHSDA Counties	9.7		-2.4*			
Hispanic <sup>e</sup>	15.3		-1.9*			

The AAPC is the Average Annual Percent Change over the time interval. The AAPCs are calculated by the Joinpoint Regression Program Version 3.4.3, April 2010, National Cancer Institute.

\* Statistic not shown. Rate based on less than 16 cases for the time interval.

- Trend based on less than 10 cases for at least one year within the time interval.

<sup>a</sup> Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). Trends are based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

<sup>b</sup> The SEER 9 areas are San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah and Atlanta.

The SEER 13 areas comprise the SEER 9 areas plus San Jose-Monterey, Los Angeles, the Alaska Native Registry and Rural Georgia.

The SEER 17 areas comprise the SEER 13 areas plus California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey.

<sup>c</sup> The 1998-2007 AAPC estimates are based on a Joinpoint analysis with up to 2 Joinpoints over diagnosis years 1992-2007.

<sup>d</sup> The 1998-2007 AAPC estimates are based on a Joinpoint analysis with up to 4 Joinpoints over diagnosis years 1975-2007.

<sup>e</sup> Hispanic and Non-Hispanic are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics and Non-Hispanics are based on NHIA and exclude cases from the Alaska Native Registry. The 2003-2007 Hispanic and Non-Hispanic death rates exclude deaths from the District of Columbia, New Hampshire, and North Dakota. The 1998-2007 Hispanic and Non-Hispanic mortality trends exclude deaths from Connecticut, the District of Columbia, Maine, Maryland, Minnesota, New Hampshire, New York, North Dakota, Oklahoma and Vermont.

<sup>f</sup> Incidence data for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.

<sup>g</sup> US Mortality Files, National Center for Health Statistics, CDC.

<sup>h</sup> The 1998-2007 mortality AAPCs are based on a Joinpoint analysis using years of death 1992-2007.

\* The APC is significantly different from zero ( $p < .05$ ).

Table 4.20  
Cancer of the Female Breast (*In Situ*)

SEER Incidence  
Age-Adjusted Rates and Trends<sup>a</sup>  
By Race/Ethnicity

SEER Incidence RACE/ETHNICITY	SEER 17 Areas <sup>b</sup>		SEER 13 Areas <sup>b</sup>		SEER 9 Areas <sup>b</sup>	
	Rate 2003-2007		Trend 1998-2007 <sup>c</sup>		Trend 1998-2007 <sup>d</sup>	
	Rate per 100,000 persons	Females	AAPC (%)	Females	AAPC (%)	Females
All Races	30.0		0.8		0.4	
White	30.5		0.0		0.1	
White Hispanic <sup>e</sup>	19.1		1.6*		-	
White Non-Hispanic <sup>e</sup>	32.7		0.5		-	
Black	27.7		1.5*		1.6*	
Asian/Pacific Islander	26.3		3.6		-	
Amer Ind/Alaska Nat <sup>f</sup>	13.6		-		-	
Hispanic <sup>e</sup>	18.7		1.5*		-	

The AAPC is the Average Annual Percent Change over the time interval. The AAPCs are calculated by the Joinpoint Regression Program Version 3.4.3, April 2010, National Cancer Institute.

- Statistic not shown. Rate based on less than 16 cases for the time interval.

Trend based on less than 10 cases for at least one year within the time interval.

<sup>a</sup> Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). Trends are based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

<sup>b</sup> The SEER 9 areas are San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah and Atlanta.

The SEER 13 areas comprise the SEER 9 areas plus San Jose-Monterey, Los Angeles, the Alaska Native Registry and Rural Georgia.

The SEER 17 areas comprise the SEER 13 areas plus California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey.

<sup>c</sup> The 1998-2007 AAPC estimates are based on a Joinpoint analysis with up to 2 Joinpoints over diagnosis years 1992-2007.

<sup>d</sup> The 1998-2007 AAPC estimates are based on a Joinpoint analysis with up to 4 Joinpoints over diagnosis years 1975-2007.

<sup>e</sup> Hispanic and Non-Hispanic are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics and Non-Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

<sup>f</sup> Incidence data for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.

\* The APC is significantly different from zero (p<.05).

Table 4.21  
Cancer of the Female Breast (Invasive)

Age-Adjusted SEER Incidence Rates<sup>a</sup>  
By Registry, Race and Age

	All Races			Whites			Blacks		
	All Ages	Ages <50	Ages 50+	All Ages	Ages <50	Ages 50+	All Ages	Ages <50	Ages 50+
<u>SEER Incidence Rates<sup>a</sup>, 2003-2007</u>									
Atlanta & Rural Georgia	119.51	42.90	320.13	121.45	42.34	328.62	120.53	44.83	318.78
Atlanta	119.63	42.84	320.70	121.25	42.29	328.00	121.59	44.82	322.63
Rural Georgia	119.65	45.07	314.93	125.24	43.91	338.19	108.98	45.97	273.98
California	121.03	40.37	332.24	126.21	40.36	351.03	119.87	42.68	322.01
Greater Bay Area	123.63	42.83	335.21	134.30	43.05	373.22	116.65	44.96	304.37
San Francisco-Oakland	126.07	44.60	339.41	137.51	45.25	379.13	120.30	45.41	316.43
San Jose-Monterey	119.01	39.55	327.09	128.72	39.26	363.00	86.56	41.99	203.26
Los Angeles	114.39	39.42	310.68	117.75	38.44	325.43	121.67	43.85	325.45
Greater California	123.34	39.95	341.71	127.33	40.41	354.95	120.30	40.34	329.67
Connecticut	134.54	48.86	358.92	137.21	50.14	365.20	111.86	41.44	296.26
Detroit	125.46	44.40	337.73	126.78	45.45	339.73	122.62	42.38	332.74
Hawaii	120.55	45.92	315.99	135.01	45.49	369.43	72.61	-	213.55
Iowa	122.40	42.70	331.11	122.75	42.72	332.31	108.81	38.57	292.73
Kentucky	120.12	43.02	322.02	119.30	42.11	321.44	124.16	45.71	329.58
Louisiana	118.88	41.78	320.75	118.29	39.31	325.12	121.81	47.86	315.47
New Jersey	128.34	46.95	341.44	132.84	48.69	353.17	109.83	40.39	291.68
New Mexico	109.27	36.75	299.17	114.90	38.77	314.25	61.02	24.10	157.70
Seattle-Puget Sound	136.09	43.83	377.69	140.67	44.06	393.67	120.87	46.52	315.56
Utah	108.13	34.28	301.52	109.68	34.57	306.36	63.60	-	-
9 SEER Areas <sup>b</sup>	124.90	43.39	338.35	128.83	43.74	351.65	119.26	43.32	318.12
11 SEER Areas <sup>b</sup>	122.17	42.21	331.57	126.43	42.25	346.86	119.53	43.45	318.77
13 SEER Areas <sup>b</sup>	122.19	42.23	331.58	126.43	42.26	346.85	119.35	43.47	318.05
17 SEER Areas <sup>b</sup>	122.89	42.25	334.03	126.53	42.40	346.82	118.33	43.32	314.74

<sup>a</sup> Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).  
<sup>b</sup> The SEER 9 areas are San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah and Atlanta.

The SEER 11 areas comprise the SEER 9 areas plus San Jose-Monterey and Los Angeles.

The SEER 13 areas comprise the SEER 11 areas plus the Alaska Native Registry and Rural Georgia.

The SEER 17 areas comprise the SEER 13 areas plus California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey.

- Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 4.22  
Cancer of the Female Breast (Invasive)

Age-Adjusted SEER Death Rates<sup>a</sup>  
By Registry, Race and Age

	All Races			Whites			Blacks		
	All Ages	Ages <50	Ages 50+	All Ages	Ages <50	Ages 50+	All Ages	Ages <50	Ages 50+
<b>SEER Death Rates<sup>a</sup>, 2003-2007</b>									
Atlanta & Rural Georgia	25.41	5.64	77.18	22.37	3.82	70.94	32.98	8.47	97.17
Atlanta	25.49	5.57	77.66	22.65	3.83	71.94	32.82	8.33	96.95
Rural Georgia	24.68	7.79	68.91	17.72	-	54.59	35.50	-	94.68
California	22.83	4.86	69.89	23.53	4.69	72.86	33.37	9.29	96.41
Greater Bay Area	22.00	4.39	68.11	23.74	4.03	75.33	30.50	10.13	83.82
San Francisco-Oakland	22.83	4.58	70.60	24.41	3.79	78.40	31.53	10.84	85.70
San Jose-Monterey	20.34	4.02	63.08	22.49	4.43	69.76	22.65	-	67.10
Los Angeles	23.00	5.15	69.75	23.14	4.88	70.95	35.13	9.12	103.24
Greater California	23.04	4.88	70.59	23.61	4.79	72.91	33.09	9.10	95.92
Connecticut	23.68	4.64	73.54	23.58	4.57	73.35	27.39	5.77	83.99
Detroit	27.11	6.16	82.00	24.95	4.98	77.22	35.11	9.62	101.86
Hawaii	17.86	4.87	51.86	23.09	5.70	68.63	-	-	-
Iowa	21.96	4.38	68.00	21.98	4.44	67.90	30.85	-	99.50
Kentucky	24.21	5.17	74.06	23.79	5.00	73.01	32.97	7.68	99.20
Louisiana	27.74	6.94	82.21	23.90	4.76	74.00	37.72	11.61	106.11
New Jersey	26.96	5.06	84.30	26.84	4.65	84.96	32.38	8.59	94.69
New Mexico	22.09	4.53	68.06	23.07	4.76	71.00	-	-	-
Seattle-Puget Sound	22.49	4.06	70.75	23.19	3.91	73.68	26.41	6.76	77.87
Utah	22.81	4.28	71.32	23.07	4.27	72.32	-	-	-
9 SEER Areas <sup>b</sup>	23.39	4.84	71.97	23.39	4.33	73.30	31.92	8.47	93.35
11 SEER Areas <sup>b</sup>	23.14	4.86	71.01	23.31	4.47	72.64	32.59	8.57	95.50
13 SEER Areas <sup>b</sup>	23.14	4.86	71.02	23.29	4.44	72.64	32.58	8.60	95.38
17 SEER Areas <sup>b</sup>	23.94	5.02	73.47	23.90	4.60	74.43	33.47	9.08	97.34
Total U.S.	23.96	5.16	73.20	23.36	4.63	72.38	32.43	9.22	93.19

<sup>a</sup> US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

The SEER 9 areas are San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah and Atlanta.

The SEER 11 areas comprise the SEER 9 areas plus San Jose-Monterey and Los Angeles.

The SEER 13 areas comprise the SEER 11 areas plus the Alaska Native Registry and Rural Georgia.

The SEER 17 areas comprise the SEER 13 areas plus California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey.

<sup>b</sup> Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 4.23  
Cancer of the Female Breast (*In Situ*)

Age-Adjusted SEER Incidence Rates<sup>a</sup>  
By Registry, Race and Age

	All Races			Whites			Blacks		
	All Ages	Ages <50	Ages 50+	All Ages	Ages <50	Ages 50+	All Ages	Ages <50	Ages 50+
<u>SEER Incidence Rates<sup>a</sup>, 2003-2007</u>									
Atlanta & Rural Georgia	31.97	11.59	85.36	33.87	12.36	90.22	30.63	10.70	82.82
Atlanta	32.44	11.75	86.61	34.18	12.36	91.29	31.57	11.11	85.14
Rural Georgia	22.50	-	64.57	28.87	-	72.76	13.69	-	49.55
California	27.50	9.71	74.08	27.91	9.69	75.61	26.02	7.45	74.65
Greater Bay Area	30.99	12.13	80.38	31.49	11.92	82.73	26.06	6.66	76.88
San Francisco-Oakland	32.11	12.67	82.99	33.16	12.91	86.16	25.91	6.12	77.74
San Jose-Monterey	28.82	11.12	75.17	28.59	10.22	76.68	25.89	-	67.21
Los Angeles	24.89	8.75	67.18	25.10	8.73	67.96	25.64	7.47	73.21
Greater California	27.51	9.32	75.14	28.03	9.46	76.66	26.60	7.82	75.76
Connecticut	44.44	18.92	111.28	45.06	19.35	112.38	37.98	13.51	102.07
Detroit	35.40	13.79	92.00	35.85	14.86	90.82	34.05	10.29	96.26
Hawaii	34.52	13.63	89.22	31.02	11.85	81.22	-	-	-
Iowa	27.44	10.39	72.09	27.41	10.31	72.19	18.90	-	51.11
Kentucky	23.65	8.62	63.02	23.39	8.58	62.20	25.44	8.32	70.26
Louisiana	23.07	7.31	64.33	24.02	7.85	66.36	21.62	6.36	61.58
New Jersey	37.33	16.78	91.14	38.83	17.83	93.82	27.51	8.89	76.28
New Mexico	20.41	7.83	53.37	21.94	8.73	56.54	-	-	-
Seattle-Puget Sound	35.29	13.42	92.57	36.38	13.81	95.48	28.31	8.06	81.34
Utah	22.26	7.64	60.56	22.71	7.81	61.74	-	-	-
9 SEER Areas <sup>b</sup>	32.88	12.82	85.41	33.41	13.17	86.39	31.70	10.13	88.17
11 SEER Areas <sup>b</sup>	30.82	11.75	80.76	31.34	11.98	82.02	30.11	9.55	83.96
13 SEER Areas <sup>b</sup>	30.80	11.74	80.70	31.33	11.98	82.00	29.90	9.44	83.46
17 SEER Areas <sup>b</sup>	29.98	11.37	78.69	30.53	11.64	79.98	27.72	8.69	77.53

<sup>a</sup> Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).  
<sup>b</sup> The SEER 9 areas are San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah and Atlanta.

The SEER 11 areas comprise the SEER 9 areas plus San Jose-Monterey and Los Angeles.

The SEER 13 areas comprise the SEER 11 areas plus the Alaska Native Registry and Rural Georgia.

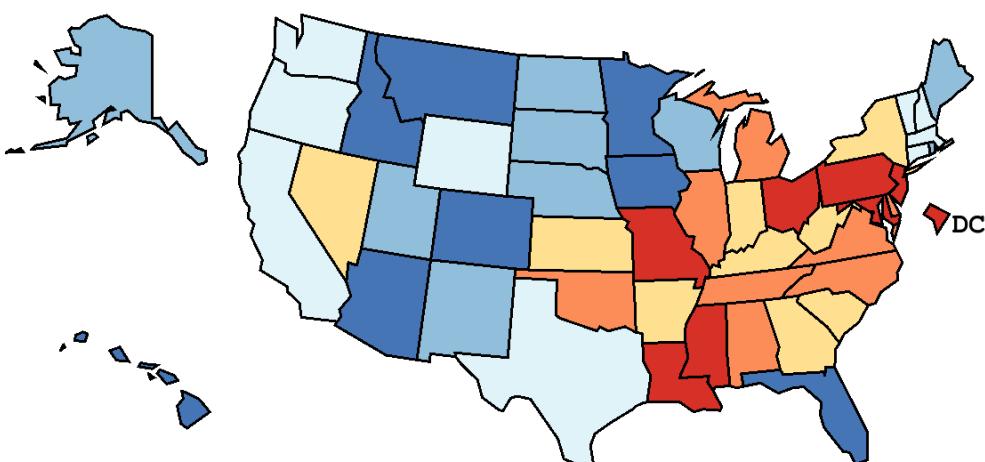
The SEER 17 areas comprise the SEER 13 areas plus California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey.

- Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 4.24  
Cancer of the Female Breast (Invasive)

Age-Adjusted Cancer Death<sup>a</sup> Rates By State, All Races, 2003-2007

Females				
State	Rate	SE	Rank	PD
TOTAL U.S.	23.96	0.05		
High Five States				
D.C.	28.25	1.30	(01)	17.89 <sup>c</sup>
Louisiana	27.74 <sup>b</sup>	0.48	(02)	15.78 <sup>c</sup>
New Jersey	26.96 <sup>b</sup>	0.32	(03)	12.48 <sup>c</sup>
Ohio	26.58 <sup>b</sup>	0.28	(04)	10.91 <sup>c</sup>
Missouri	25.84 <sup>b</sup>	0.39	(05)	7.85
Low Five States				
Idaho	21.64	0.77	(47)	-9.70
Montana	21.44	0.87	(48)	-10.55 <sup>c</sup>
Colorado	21.33 <sup>b</sup>	0.43	(49)	-10.98 <sup>c</sup>
Arizona	21.29 <sup>b</sup>	0.36	(50)	-11.16 <sup>c</sup>
Hawaii	17.86 <sup>b</sup>	0.70	(51)	-25.48 <sup>c</sup>
State	Rate	SE	Rank	PD
Alabama	24.81	0.43	(12)	3.54
Alaska	22.67	1.41	(37)	-5.42
Arizona	21.29 <sup>b</sup>	0.36	(50)	-11.16 <sup>c</sup>
Arkansas	24.43	0.54	(18)	1.95
California	22.83 <sup>b</sup>	0.16	(34)	-4.72
Colorado	21.33 <sup>b</sup>	0.43	(49)	-10.98 <sup>c</sup>
Connecticut	23.68	0.47	(26)	-1.19
Delaware	24.60	1.00	(15)	2.64
D.C.	28.25	1.30	(01)	17.89 <sup>c</sup>
Florida	22.07 <sup>b</sup>	0.20	(44)	-7.89
Georgia	23.92	0.33	(23)	0.17
Hawaii	17.86 <sup>b</sup>	0.70	(51)	-25.48 <sup>c</sup>
Idaho	21.64	0.77	(47)	-9.70
Illinois	25.22 <sup>b</sup>	0.27	(11)	5.25
Indiana	24.50	0.37	(17)	2.24
Iowa	21.96 <sup>b</sup>	0.49	(45)	-8.34
Kansas	24.03	0.55	(22)	0.27
Kentucky	24.21	0.45	(21)	1.03
Louisiana	27.74 <sup>b</sup>	0.48	(02)	15.78 <sup>c</sup>
Maine	22.60	0.73	(39)	-5.70
Maryland	25.83 <sup>b</sup>	0.41	(06)	7.80
Massachusetts	22.95	0.34	(33)	-4.25
Michigan	24.52	0.29	(16)	2.32
Minnesota	21.83 <sup>b</sup>	0.39	(46)	-8.91
Mississippi	25.78	0.56	(07)	7.58
Missouri	25.84 <sup>b</sup>	0.39	(05)	7.85



Age-Adjusted Death  
Rates per 100,000  
Quantile Interval

- 25.59 - 28.25
- 24.51 - 25.58
- 23.69 - 24.50
- 22.83 - 23.68
- 22.08 - 22.82
- 17.86 - 22.07

U. S. Rate: 23.96

<sup>a</sup> US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

<sup>b</sup> Difference between state rate and total U.S. rate is statistically significant ( $p \leq .0002$ ).

<sup>c</sup> Absolute percent difference between state rate and total U.S. rate is 10% or more.

SE Standard error of the rate.

PD Percent difference between state rate and total U.S. rate.

Table 4.25  
Cancer of the Breast (Invasive)

Estimated United States Cancer Prevalence Counts<sup>a</sup> on January 1, 2007  
By Race/Ethnicity, Sex and Years Since Diagnosis

Years Since Diagnosis		0 to <5	5 to <10	10 to <15	15 to <20	20 to <25	25 to <30	0 to <17 <sup>e</sup>	0 to <32 <sup>e</sup>	>=32 <sup>g</sup>	Complete <sup>h</sup>
<u>Race</u>											
All Races <sup>b</sup>	Both Sexes	802,387	665,429	448,662	305,856	170,696	97,699	2,053,712	2,522,416	82,765	2,605,181
	Males	5,452	3,400	1,911	1,058	740	395	11,283	13,101	225	13,326
	Females	796,935	662,029	446,751	304,798	169,956	97,304	2,042,429	2,509,315	82,540	2,591,855
White <sup>b</sup>	Both Sexes	692,879	589,290	401,110	278,139	155,068	89,158	1,807,186	2,234,644	73,464	2,308,108
	Males	4,658	2,914	1,706	946	675	370	9,735	11,414	+ <sup>i</sup>	11,410
	Females	688,221	586,376	399,404	277,193	154,393	88,788	1,797,451	2,223,230	73,468	2,296,698
Black <sup>b</sup>	Both Sexes	75,195	50,129	32,942	19,351	11,205	6,099	167,447	196,730	+	+
	Males	630	353	133	108	50	25	1,176	1,299	+	+
	Females	74,565	49,776	32,809	19,243	11,155	6,074	166,271	195,431	5,845	201,276
Asian/ Pacific	Both Sexes	26,068	18,875	10,771	+	+	+	58,789	+	+	+
	Males	126	45	52	+	+	+	227	+	+	+
Islander <sup>c</sup>	Females	25,942	18,830	10,719	+	+	+	58,562	+	+	+
Hispanic <sup>d</sup>	Both Sexes	46,542	31,567	19,047	+	+	+	102,828	+	+	+
	Males	242	102	33	+	+	+	392	+	+	+
	Females	46,300	31,465	19,014	+	+	+	102,436	+	+	+

Estimated prevalence percent<sup>a</sup> on January 1, 2007, of the SEER 11 population diagnosed in the previous 17 years  
By Age at Prevalence, Race/Ethnicity and Sex

Age at Prevalence	All Ages	Age Specific (Crude)								Age-Adjusted <sup>f</sup>		
		0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79			
<u>Race</u>												
All Races <sup>c</sup>	Both Sexes	0.5838%	-	0.0001%	0.0060%	0.0835%	0.4303%	1.1069%	1.9143%	2.4772%	2.8655%	0.5825%
	Males	0.0065%	-	-	-	0.0004%	0.0023%	0.0089%	0.0238%	0.0425%	0.0554%	0.0075%
	Females	1.1513%	-	0.0003%	0.0122%	0.1690%	0.8587%	2.1556%	3.6255%	4.3709%	4.4327%	1.0660%
White <sup>c</sup>	Both Sexes	0.6383%	-	0.0001%	0.0054%	0.0828%	0.4342%	1.1393%	2.0226%	2.6593%	3.0648%	0.6116%
	Males	0.0069%	-	-	-	0.0003%	0.0021%	0.0084%	0.0239%	0.0447%	0.0609%	0.0077%
	Females	1.2709%	-	0.0003%	0.0113%	0.1714%	0.8814%	2.2552%	3.8818%	4.7423%	4.7247%	1.1306%
Black <sup>c</sup>	Both Sexes	0.4046%	-	-	0.0084%	0.0968%	0.4224%	1.0009%	1.6173%	2.0665%	2.3180%	0.5089%
	Males	0.0060%	-	-	-	-	0.0027%	0.0154%	0.0387%	0.0430%	0.0364%	0.0088%
	Females	0.7663%	-	-	0.0162%	0.1809%	0.7912%	1.8199%	2.8407%	3.4228%	3.4268%	0.8759%
Asian/ Pacific	Both Sexes	0.4362%	-	-	0.0067%	0.0766%	0.4117%	0.9833%	1.4185%	1.6038%	1.6166%	0.4363%
	Males	0.0037%	-	-	-	-	0.0015%	0.0065%	0.0119%	0.0275%	0.0226%	0.0043%
Islander <sup>c</sup>	Females	0.8427%	-	-	0.0133%	0.1489%	0.7899%	1.8395%	2.6156%	2.7636%	2.6488%	0.7904%
Hispanic <sup>d</sup>	Both Sexes	0.2226%	-	-	0.0046%	0.0568%	0.2942%	0.7558%	1.2669%	1.5878%	1.6452%	0.3811%
	Males	0.0016%	-	-	-	-	0.0015%	0.0048%	0.0116%	0.0193%	0.0164%	0.0034%
	Females	0.4562%	-	-	0.0099%	0.1224%	0.6079%	1.4730%	2.3412%	2.7371%	2.5938%	0.6979%

<sup>a</sup> US 2007 cancer prevalence counts are based on 2007 cancer prevalence proportions from the SEER registries and 1/1/2007 US population estimates based on the average of 2006 and 2007 population estimates from the US Bureau of the Census.

<sup>b c d</sup> Prevalence was calculated using the First Malignant Primary Only for a person.

Statistics based on (b) SEER 9 Areas (c) SEER 11 Areas and Rural Georgia (d) NHIA for Hispanic for SEER 11 Areas and Rural Georgia.

<sup>e</sup> Maximum limited-duration prevalence: 32 years for 1975-2007 SEER 9 data; 17 years for 1990-2007 SEER 11 data (used to calculate prevalence for Hispanics and Asian Pacific Islanders).

<sup>f</sup> Percentages are age-adjusted to the 2000 US Standard Population (19 age groups - Census P25-1130) by 5-year age groups.

<sup>g h i</sup> (g) Cases diagnosed more than 32 years ago were estimated using the completeness index method (Capocaccia et al. 1997, Merrill et al. 2000). (h) Complete prevalence is obtained by summing 0 to <32 and >=32. (i) Age-specific completeness index was approximated using empirical data from historical Connecticut tumor registry.

- Statistic not shown. Statistic based on fewer than 5 cases estimated alive in SEER for the time interval.

+ Not available.

Table 4.26

## Cancer of the Female Breast (Invasive)

Percent Distribution and Counts by Histology among Histologically Confirmed Cases, 2003-2007  
Females by Race

Histology <sup>a</sup>	All Races		White		Black		Asian/Pacific Islander		American Indian/Alaska Native <sup>b</sup>		Hispanic <sup>c</sup>	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Carcinoma	245,053	99.4%	202,614	99.4%	22,502	99.3%	16,944	99.3%	904	99.2%	22,162	99.1%
Epidermoid carcinoma <sup>d</sup> (8051-8131)	166	0.1%	127	0.1%	28	0.1%	-	-	-	-	-	-
Adenocarcinoma <sup>e</sup>	239,474	97.1%	198,334	97.3%	21,632	95.5%	16,610	97.4%	881	96.7%	21,506	96.1%
Adenocarcinoma, NOS (8140)	2,349	1.0%	1,893	0.9%	285	1.3%	133	0.8%	-	-	240	1.1%
Infiltrating duct carcinoma (8500)	171,398	69.5%	140,045	68.7%	16,465	72.7%	12,767	74.8%	673	73.9%	15,788	70.6%
Lobular carcinoma, NOS (8520)	19,969	8.1%	17,684	8.7%	1,307	5.8%	765	4.5%	59	6.5%	1,470	6.6%
Inflammatory adenocarcinoma (8530)	1,734	0.7%	1,401	0.7%	249	1.1%	70	0.4%	-	-	232	1.0%
Infiltrating duct mixed and infiltrating lobular mixed (8522-8524)	28,381	11.5%	24,503	12.0%	1,953	8.6%	1,613	9.5%	90	9.9%	2,429	10.9%
Mucinous adenocarcinoma (8480,8482)	5,979	2.4%	4,824	2.4%	498	2.2%	572	3.4%	22	2.4%	463	2.1%
Mucin-producing adenocarcinoma (8481)	119	0.0%	99	0.0%	-	-	-	-	-	-	-	-
Tubular adenocarcinoma (8211)	3,180	1.3%	2,896	1.4%	135	0.6%	110	0.6%	-	-	185	0.8%
Papillary adenocarcinoma (8050,8260,8503,8504)	1,427	0.6%	1,031	0.5%	218	1.0%	152	0.9%	-	-	164	0.7%
Paget disease (8540-8543)	1,430	0.6%	1,166	0.6%	138	0.6%	116	0.7%	-	-	170	0.8%
Other adenocarcinomas <sup>f</sup>	3,508	1.4%	2,792	1.4%	369	1.6%	308	1.8%	-	-	358	1.6%
Other specific carcinomas <sup>g</sup>	2,621	1.1%	1,943	1.0%	492	2.2%	159	0.9%	-	-	339	1.5%
Medullary adenocarcinoma (8510-8513)	1,341	0.5%	944	0.5%	295	1.3%	87	0.5%	-	-	217	1.0%
Other <sup>h</sup>	1,280	0.5%	999	0.5%	197	0.9%	72	0.4%	-	-	122	0.5%
Unspecified, Carcinoma, NOS (8010-8011,8020-8022)	2,792	1.1%	2,210	1.1%	350	1.5%	167	1.0%	-	-	302	1.4%

Source: SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey). Percents may not sum to 100 due to rounding.

<sup>a</sup> Excludes Kaposi Sarcoma, mesothelioma, lymphomas, leukemias, myelomas, lymphoreticular, and immunoproliferative diseases.

<sup>b</sup> Estimates for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.

<sup>c</sup> Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives.

<sup>d</sup> Underlying incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

<sup>e</sup> Epidermoid carcinoma includes squamous, basal, and transitional cell carcinomas.

<sup>f</sup> Adenocarcinoma includes histologies 8050, 8140-8147, 8160-8162, 8180-8221, 8250-8507, 8514, 8520-8551, 8560, 8570-8574, 8576, 8940-8941.

<sup>g</sup> Other adenocarcinomas include histologies 8141-8147, 8160-8162, 8180-8210, 8212-8221, 8250-8259, 8261-8479, 8483-8499, 8501-8502, 8505-8507, 8514, 8521, 8525-8529, 8531-8539, 8544-8551, 8560, 8570-8574, 8576, 8940-8941.

<sup>h</sup> Other specific carcinomas include histologies 8012-8015, 8030-8046, 8150-8155, 8170-8175, 8230-8249, 8508, 8510-8513, 8561-8562, 8575, 8580-8671.

<sup>-</sup> Statistic not shown due to fewer than 16 cases during the time period.

Table 4.26 - continued

## Cancer of the Female Breast (Invasive)

Percent Distribution and Counts by Histology among Histologically Confirmed Cases, 2003-2007  
Females by Race

Histology <sup>a</sup>	All Races		White		Black		Asian/Pacific Islander		American Indian/Alaska Native <sup>b</sup>		Hispanic <sup>c</sup>	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Sarcoma and other soft tissue tumors (8680-8713, 8800-8921, 9040-9044, 9120-9136, 9150-9252, 9370-9373, 9540-9582)	309	0.1%	256	0.1%	31	0.1%	16	0.1%	-	-	22	0.1%
Hemangiosarcomas (9120-9126, 9170)	151	0.1%	135	0.1%	-	-	-	-	-	-	-	-
Other sarcomas <sup>d</sup>	158	0.1%	121	0.1%	23	0.1%	-	-	-	-	-	-
Other specific types (8720-8790, 8930-8936, 8950-9030, 9060-9110, 9260-9365, 9380-9539)	688	0.3%	519	0.3%	74	0.3%	77	0.5%	-	-	126	0.6%
Phyllodes tumor, malignant (9020)	564	0.2%	426	0.2%	54	0.2%	68	0.4%	-	-	107	0.5%
Other <sup>e</sup>	124	0.1%	93	0.0%	20	0.1%	-	-	-	-	19	0.1%
Unspecified (8000-8005)	450	0.2%	353	0.2%	52	0.2%	20	0.1%	-	-	59	0.3%
Total <sup>f</sup>	246,500	100.0%	203,742	100.0%	22,659	100.0%	17,057	100.0%	911	100.0%	22,369	100.0%

Source: SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey). Percents may not sum to 100 due to rounding.

<sup>a</sup> Excludes Kaposi Sarcoma, mesothelioma, lymphomas, leukemias, myelomas, lymphoreticular, and immunoproliferative diseases.

<sup>b</sup> Estimates for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.

<sup>c</sup> Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives.

<sup>d</sup> Underlying incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

<sup>e</sup> Other sarcomas include histologies 8680-8713, 8800-8921, 9040-9044, 9127-9136, 9150-9169, 9171-9252, 9370-9373, 9540-9582.

<sup>f</sup> Other includes histologies 8720-8790, 8930-8936, 8950-9019, 9021-9030, 9060-9110, 9260-9365, 9380-9539.

- Total includes carcinoma cases from the previous page.

- Statistic not shown due to fewer than 16 cases during the time period.

Table 4.27

Cancer of the Female Breast (*In Situ*)

Percent Distribution and Counts by Histology among Histologically Confirmed Cases, 2003-2007  
Females by Race

Histology <sup>a</sup>	All Races		White		Black		Asian/Pacific Islander		American Indian/Alaska Native <sup>b</sup>		Hispanic <sup>c</sup>	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Adenocarcinoma <sup>d</sup>	60,394	99.7%	49,063	99.7%	5,355	99.4%	5,028	99.8%	164	100.0%	4,920	99.7%
Adenocarcinoma <i>in situ</i> , NOS (8140/2)	18	0.0%	17	0.0%	-	-	-	-	-	-	-	-
Ductal carcinoma <i>in situ</i> <sup>e</sup>	50,554	83.4%	40,642	82.6%	4,644	86.2%	4,574	90.8%	127	77.4%	4,198	85.0%
Cribiform carcinoma <i>in situ</i> (8201/2)	4,844	8.0%	3,863	7.8%	403	7.5%	484	9.6%	17	10.4%	413	8.4%
Ductal carcinoma <i>in situ</i> , solid type(8230/2)	3,092	5.1%	2,584	5.3%	211	3.9%	269	5.3%	-	-	224	4.5%
Ductal carcinoma <i>in situ</i> , NOS (8500/2)	20,986	34.6%	17,054	34.7%	1,942	36.1%	1,687	33.5%	63	38.4%	1,675	33.9%
Comedocarcinoma <i>in situ</i> (8501/2)	4,568	7.5%	3,762	7.6%	396	7.4%	364	7.2%	-	-	386	7.8%
Ductal carcinoma <i>in situ</i> papillary(8503/2)	1,144	1.9%	841	1.7%	156	2.9%	113	2.2%	-	-	97	2.0%
Noninfiltrating intracystic carcinoma(8504/2)	300	0.5%	211	0.4%	38	0.7%	47	0.9%	-	-	28	0.6%
Ductal carcinoma <i>in situ</i> micropapillary(8507/2)	1,656	2.7%	1,335	2.7%	182	3.4%	113	2.2%	-	-	150	3.0%
Intraductal with other types of carcinoma <i>in situ</i> (8523/2)	13,758	22.7%	10,820	22.0%	1,308	24.3%	1,473	29.2%	19	11.6%	1,205	24.4%
Lobular carcinoma <i>in situ</i> (8520/2-8521/2, 8524/2)	6,974	11.5%	6,031	12.3%	466	8.7%	264	5.2%	21	12.8%	506	10.3%
Lobular carcinoma <i>in situ</i> , NOS (8520/2)	6,948	11.5%	6,009	12.2%	463	8.6%	263	5.2%	21	12.8%	506	10.3%
Lobular CIS <sup>f</sup> with other CIS <sup>f</sup> (8524/2)	24	0.0%	20	0.0%	-	-	-	-	-	-	-	-
Intraductal and lobular <i>in situ</i> carcinoma (8522/2)	2,405	4.0%	2,025	4.1%	196	3.6%	152	3.0%	-	-	188	3.8%
Other adenocarinomas <sup>g</sup>	443	0.7%	348	0.7%	49	0.9%	37	0.7%	-	-	28	0.6%
Other <i>in situ</i> histologies <sup>h</sup>	192	0.3%	148	0.3%	31	0.6%	-	-	-	-	16	0.3%
Total	60,586	100.0%	49,211	100.0%	5,386	100.0%	5,037	100.0%	164	100.0%	4,936	100.0%

Source: SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey).

Percents may not sum to 100 due to rounding.

<sup>a</sup> Excludes Kaposi Sarcoma, mesothelioma, lymphomas, leukemias, lymphoreticular, and immunoproliferative diseases.

<sup>b</sup> Estimates for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.

<sup>c</sup> Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives.

<sup>d</sup> Underlying incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

<sup>e</sup> Adenocarcinoma includes histologies 8050,8140-8147,8160-8162,8180-8221,8230,8250-8507,8514,8520-8551,8560,8570-8574,8576,8940-8941.

<sup>f</sup> Ductal carcinoma includes histologies 8201, 8230, 8401, 8500-8507, 8523.

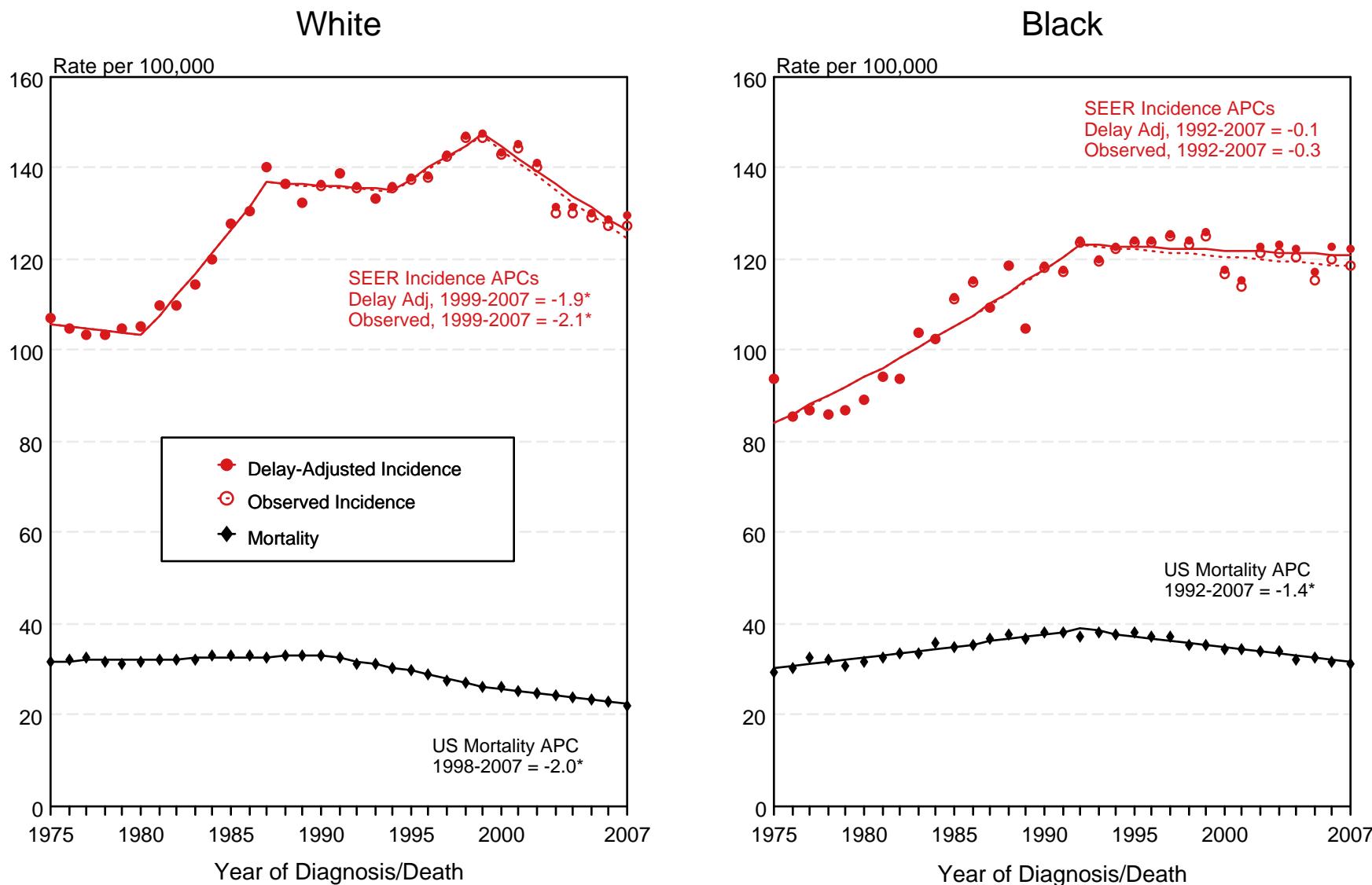
<sup>g</sup> CIS = Carcinoma *in situ*.

<sup>h</sup> Other adenocarinomas include 8050, 8141-8147, 8160-8162, 8180-8200, 8202-8221, 8250-8400, 8402-8499, 8514, 8525-8551, 8560, 8570-8574, 8576, 8940-8941.

<sup>i</sup> Other histologies include 8000-8049, 8051-8139, 8148-8159, 8163-8179, 8222-8229, 8231-8249, 8508-8513, 8515-8519, 8552-8559, 8561-8569, 8575, 8577-8939, 8942-9989.

<sup>j</sup> Statistic not shown due to fewer than 16 cases during the time period.

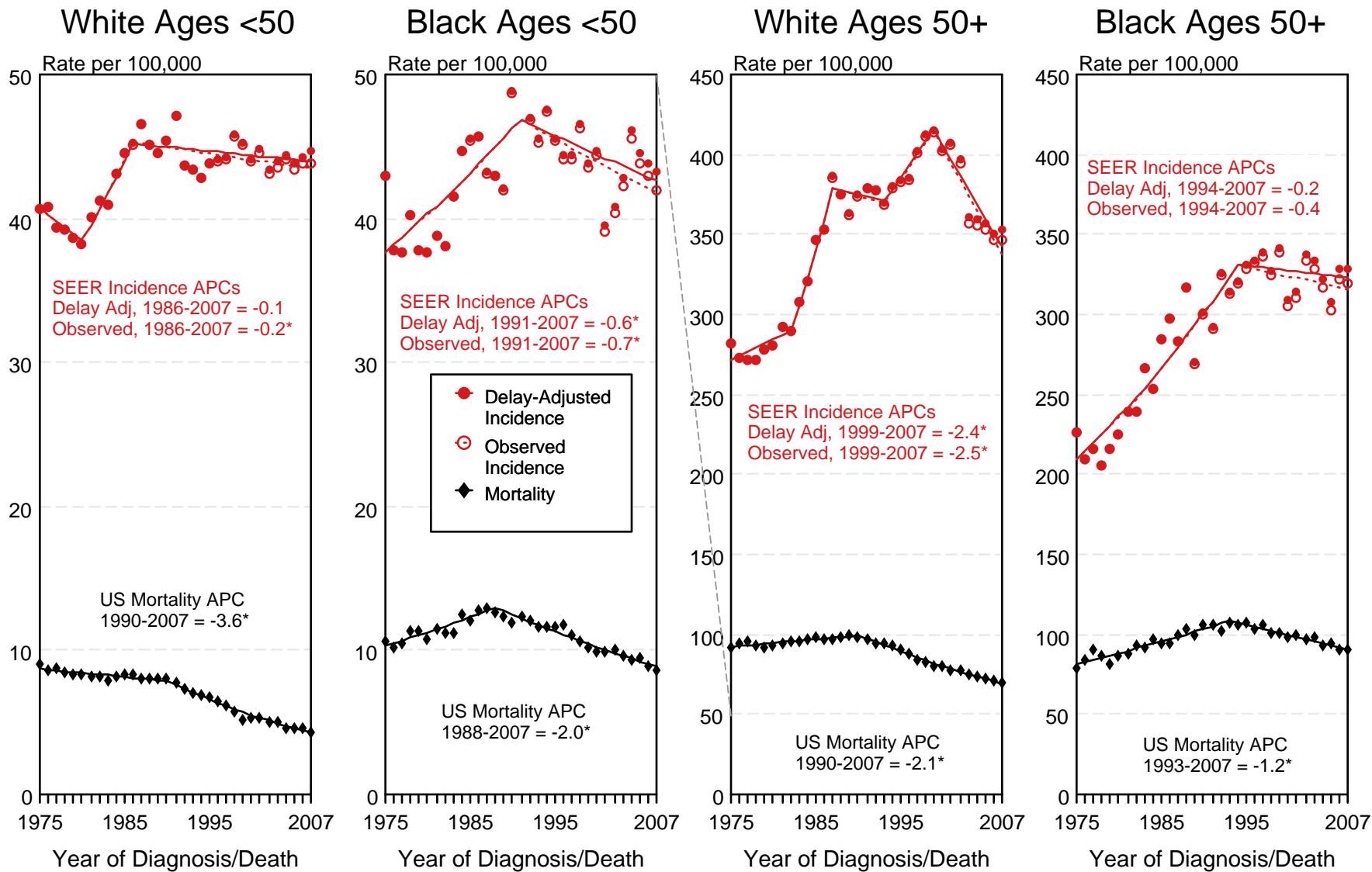
# SEER Observed Incidence, SEER Delay Adjusted Incidence and US Death Rates<sup>a</sup> Cancer of the Female Breast, by Race



<sup>a</sup> Source: SEER 9 areas and US Mortality Files (National Center for Health Statistics, CDC). Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines and APCs are calculated using the Joinpoint Regression Program Version 3.4.3, April 2010, National Cancer Institute. The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.  
\* The APC is significantly different from zero ( $p < 0.05$ ).

Figure 4.1

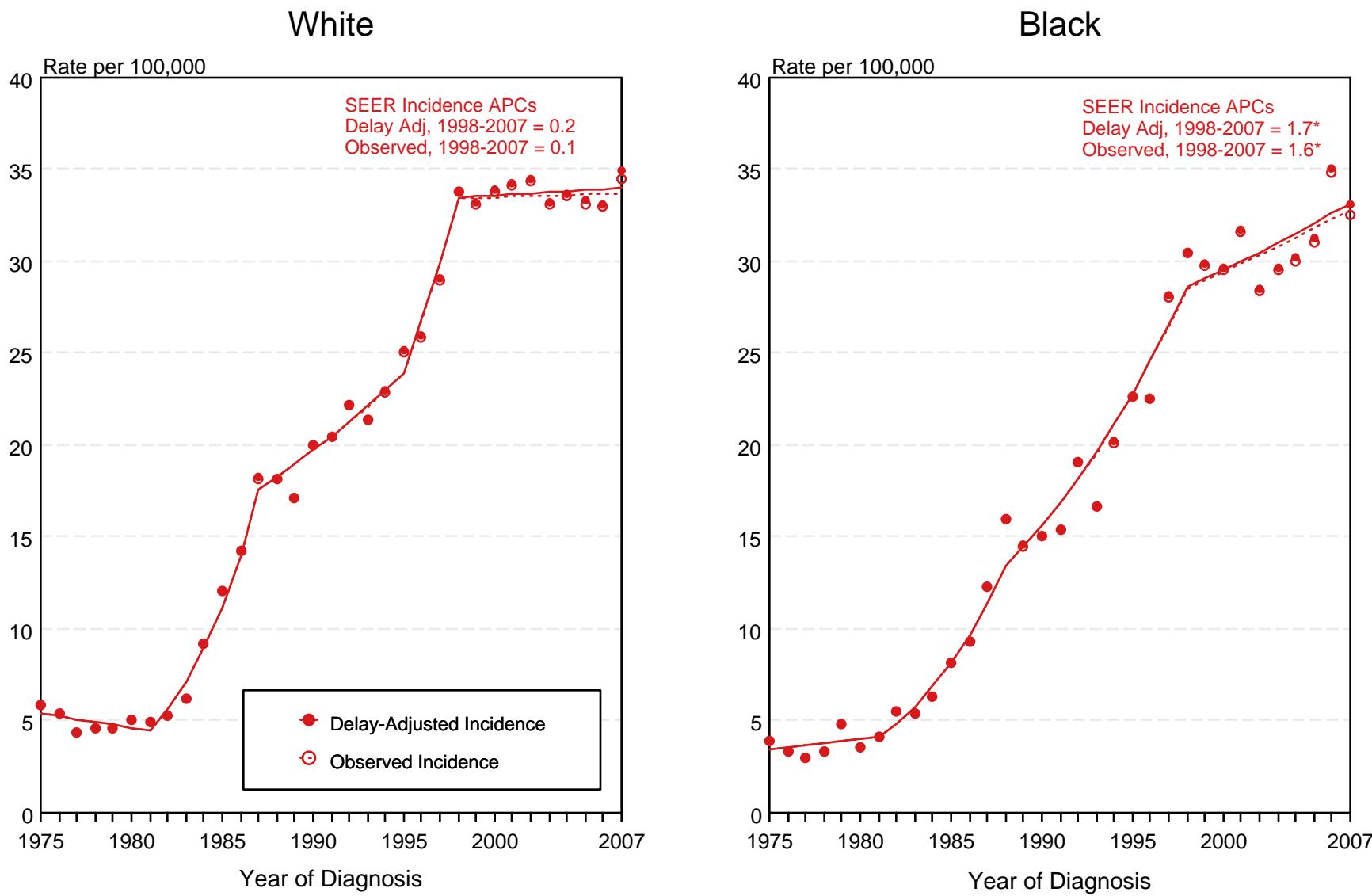
# SEER Observed Incidence, SEER Delay Adjusted Incidence and US Death Rates<sup>a</sup> Cancer of the Female Breast, by Age and Race



<sup>a</sup> Source: SEER 9 areas and US Mortality Files (National Center for Health Statistics, CDC). Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines and APCs are calculated using the Joinpoint Regression Program Version 3.4.3, April 2010, National Cancer Institute. The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.  
\* The APC is significantly different from zero ( $p < 0.05$ ).

Figure 4.2

# SEER Observed Incidence and Delay Adjusted Incidence Rates<sup>a</sup> Cancer of the Female Breast (*In Situ*), by Race



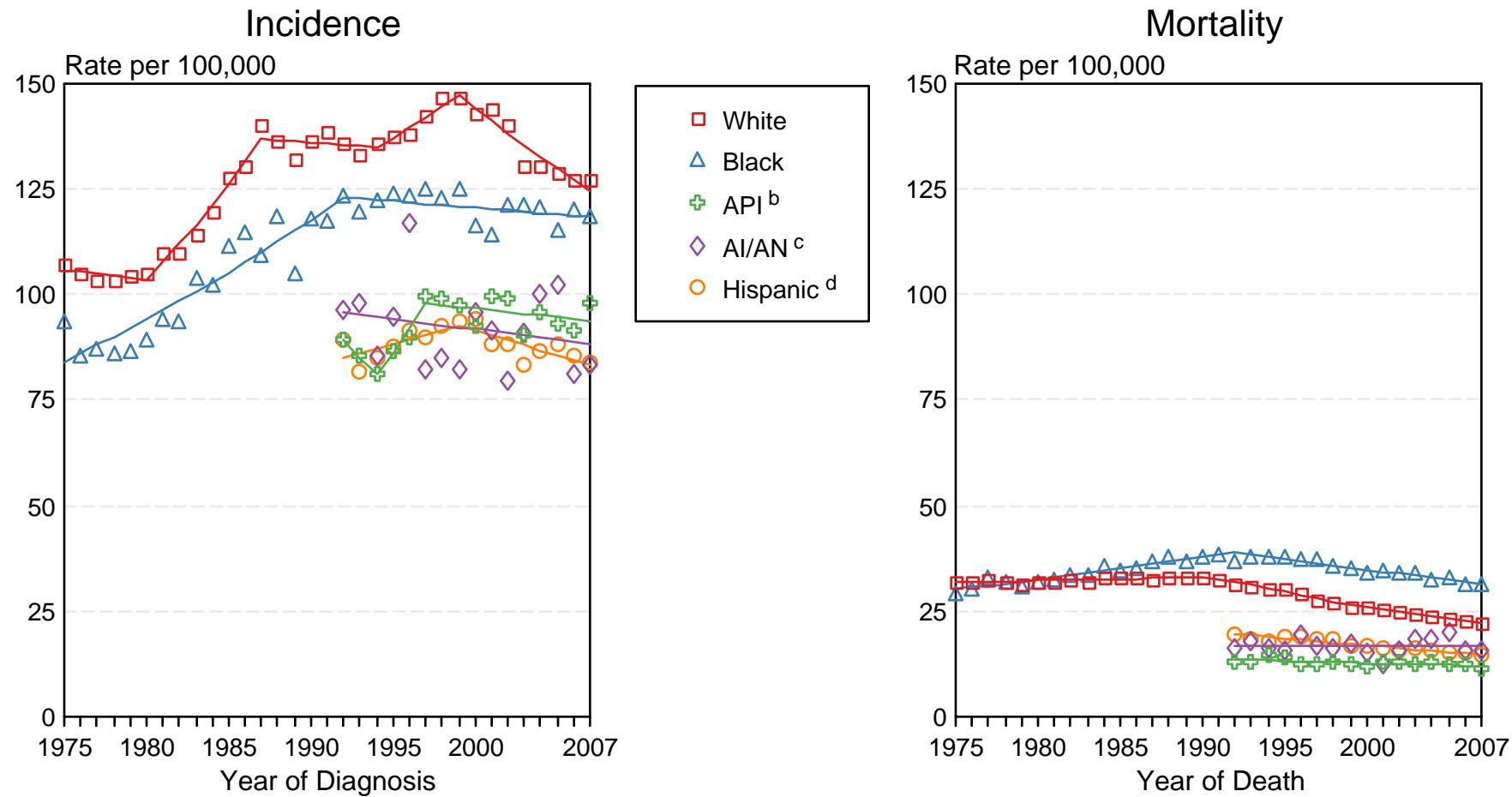
<sup>a</sup> Source: SEER 9 areas. Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines and APCs are calculated using the Joinpoint Regression Program Version 3.4.3, April 2010, National Cancer Institute. The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend. \*The APC is significantly different from zero ( $p < 0.05$ ).

Figure 4.3

# SEER Incidence and US Death Rates<sup>a</sup>

## Cancer of the Female Breast

Joinpoint Analyses for Whites and Blacks from 1975-2007  
and for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics from 1992-2007



Source: Incidence data for whites and blacks are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta). Incidence data for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics are from the SEER 13 Areas (SEER 9 Areas, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia). Mortality data are from US Mortality Files, National Center for Health Statistics, CDC.

<sup>a</sup> Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

Regression lines are calculated using the Joinpoint Regression Program Version 3.4.3, April 2010, National Cancer Institute. Joinpoint analyses for Whites and Blacks during the 1975-2007 period allow a maximum of 4 joinpoints. Analyses for other ethnic groups during the period 1992-2007 allow a maximum of 2 joinpoints.

<sup>b</sup> API = Asian/Pacific Islander.

<sup>c</sup> AI/AN = American Indian/Alaska Native. Rates for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.

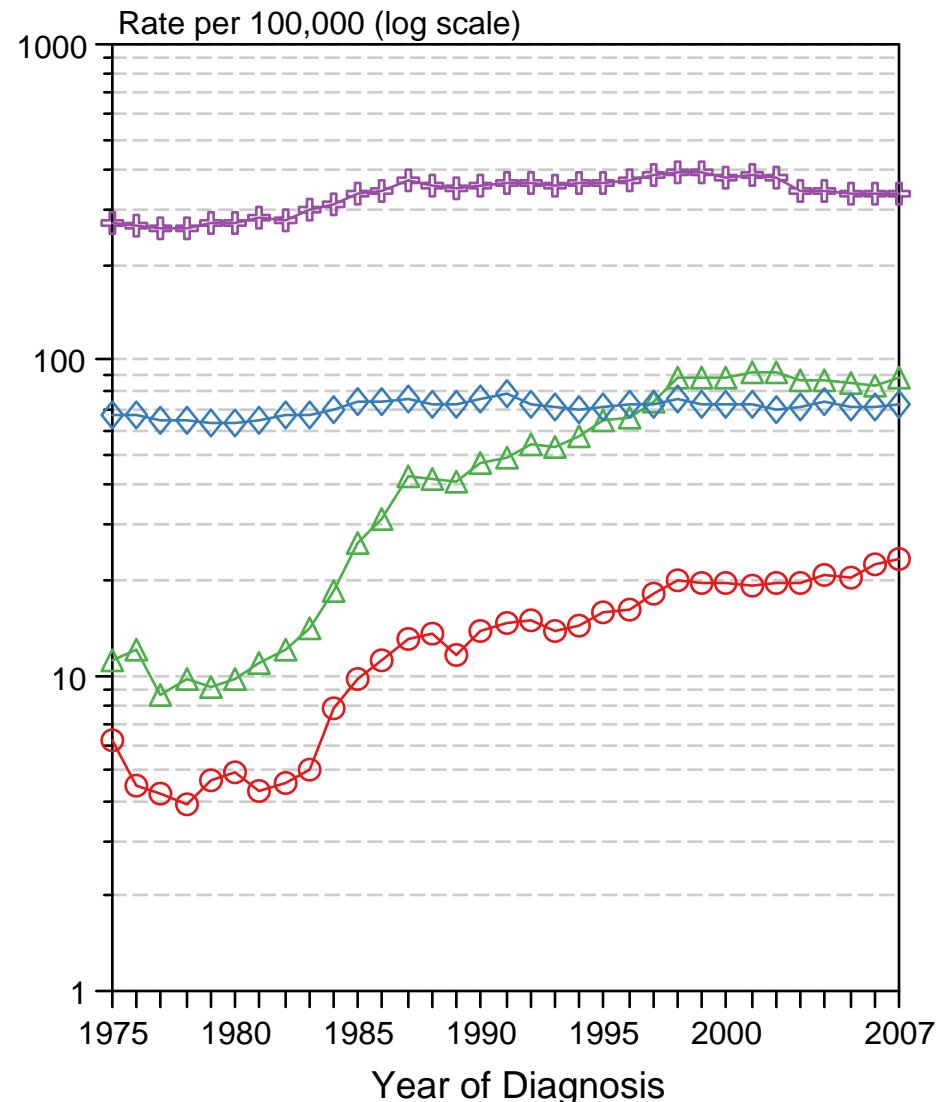
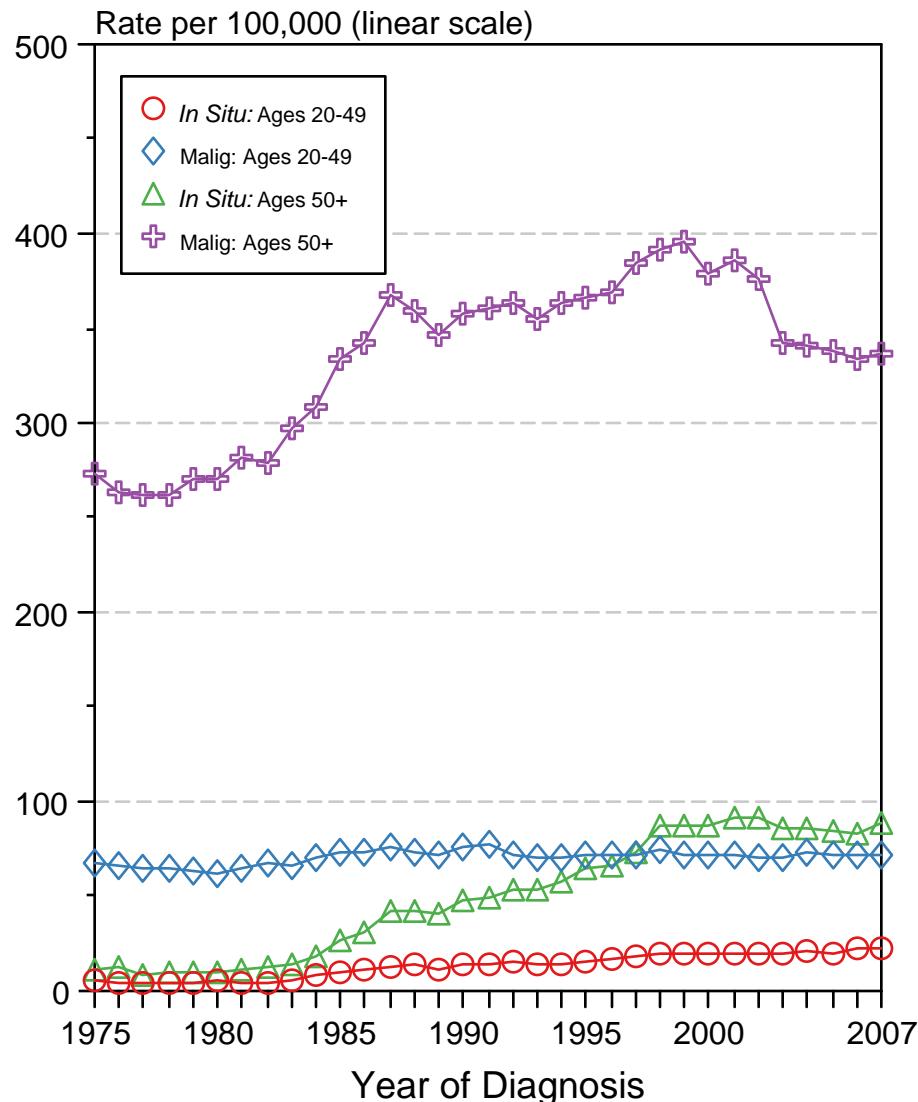
<sup>d</sup> Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry. Mortality data for Hispanics exclude cases from Connecticut, the District of Columbia, Maine, Maryland, Minnesota, New Hampshire, New York, North Dakota, Oklahoma, and Vermont.

Figure 4.4

# Cancer of Female Breast Incidence Rates, 1975-2007

## In situ vs Malignant, by Age

### All Races, Females



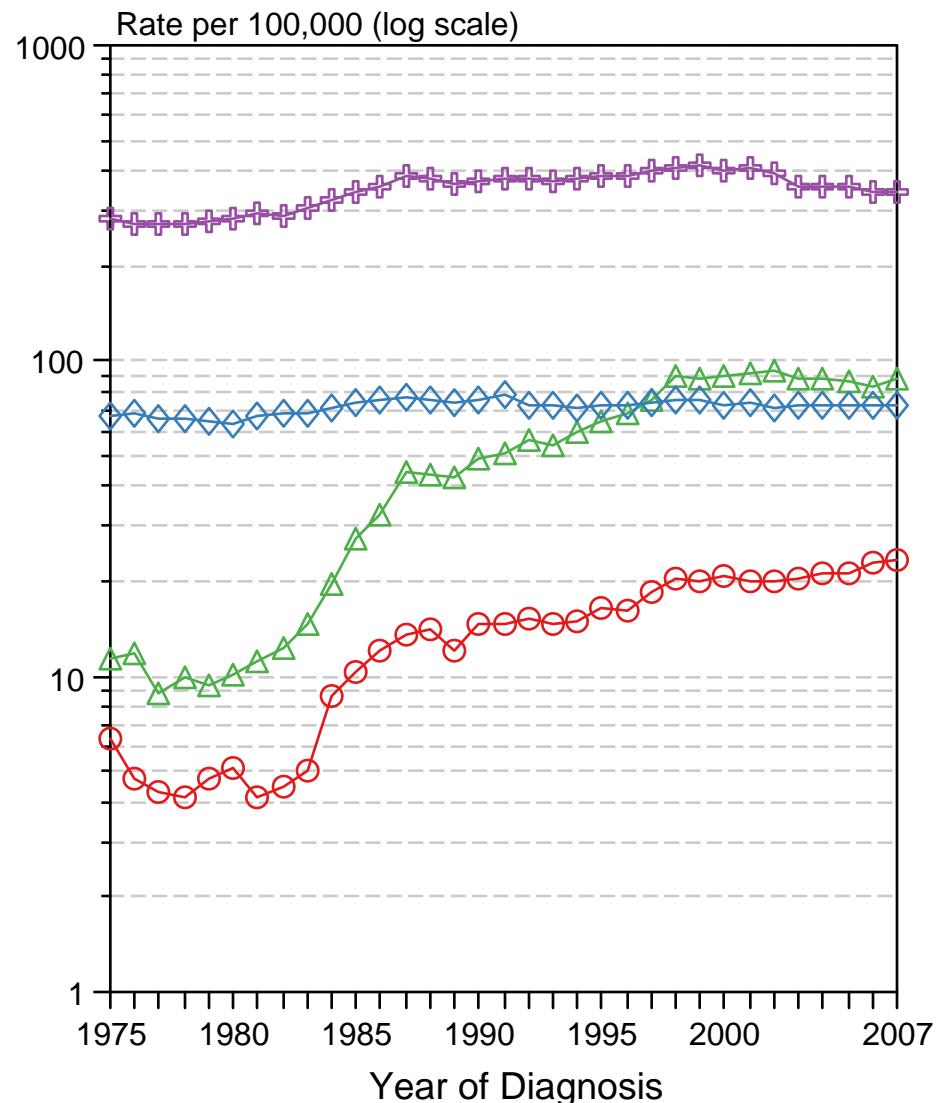
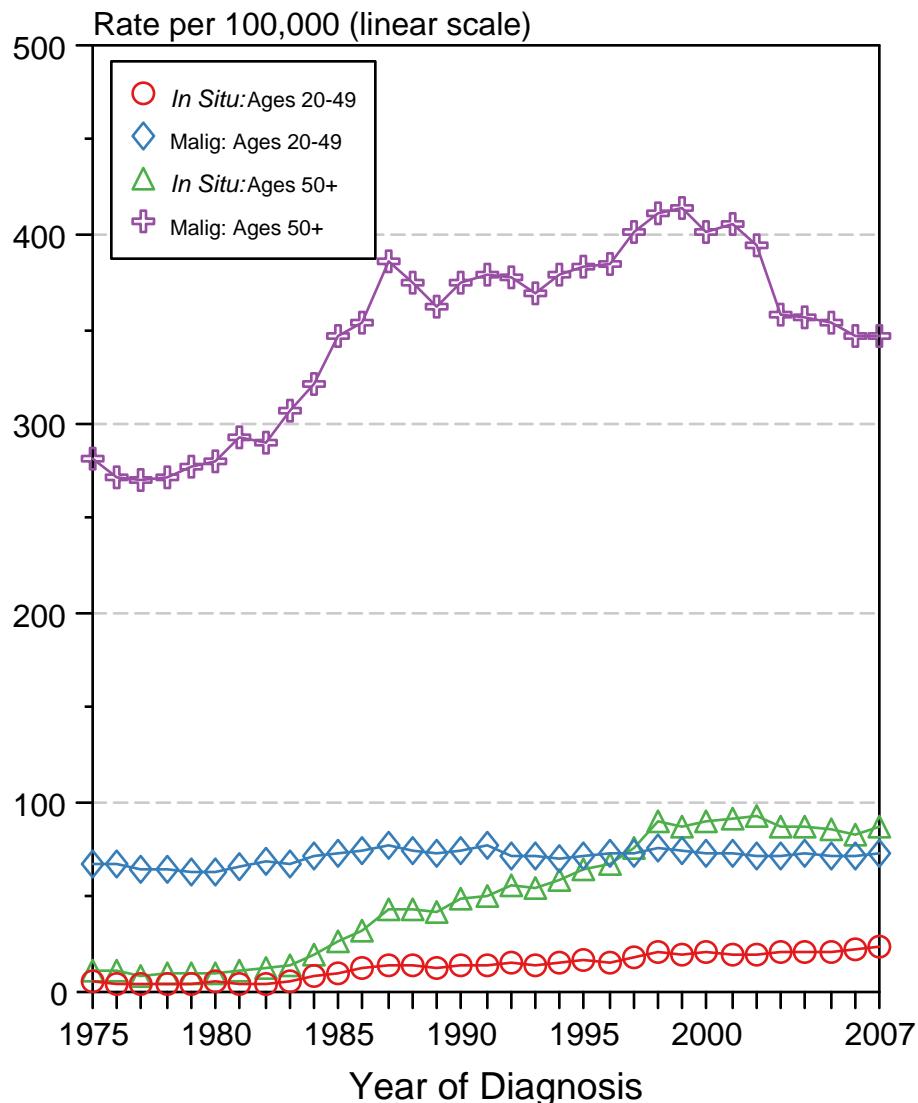
Source: SEER 9 areas. Rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

Figure 4.5

# Cancer of Female Breast Incidence Rates, 1975-2007

## In situ vs Malignant, by Age

### White, Females



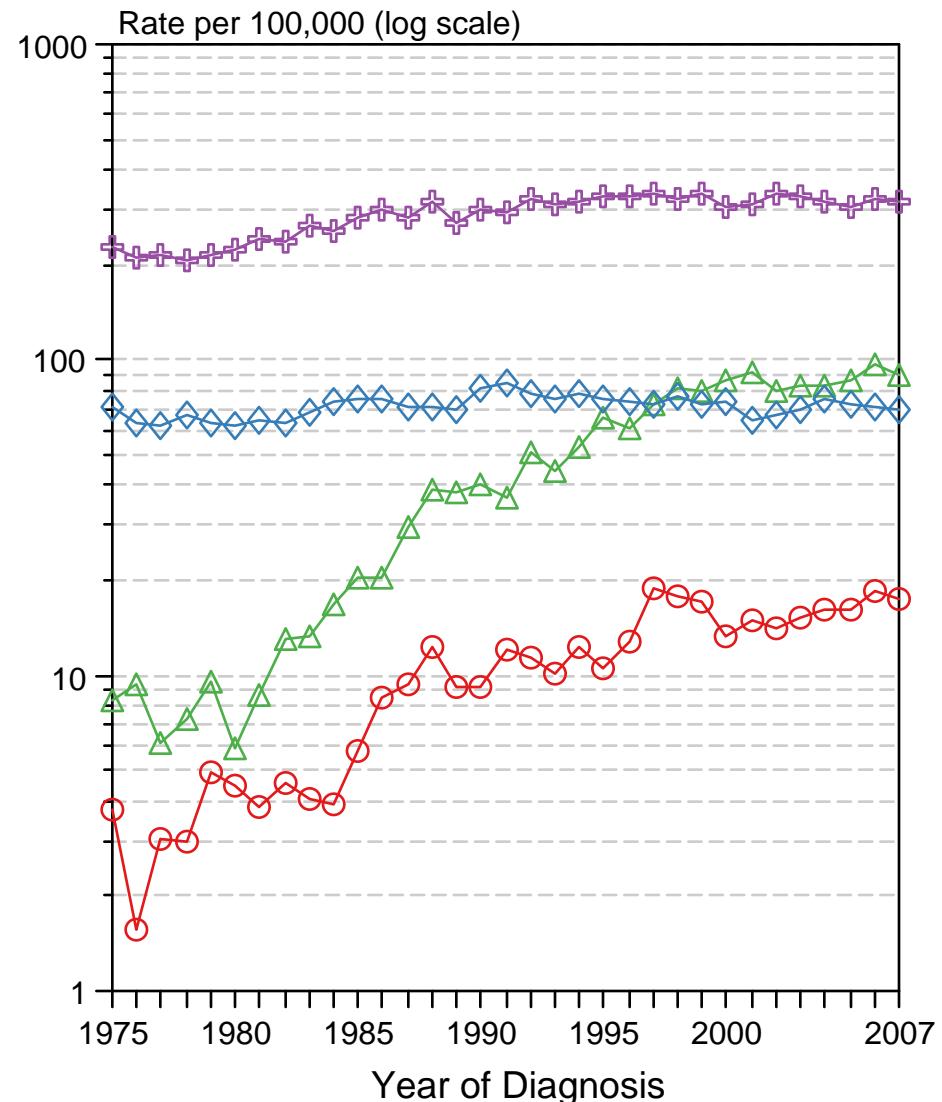
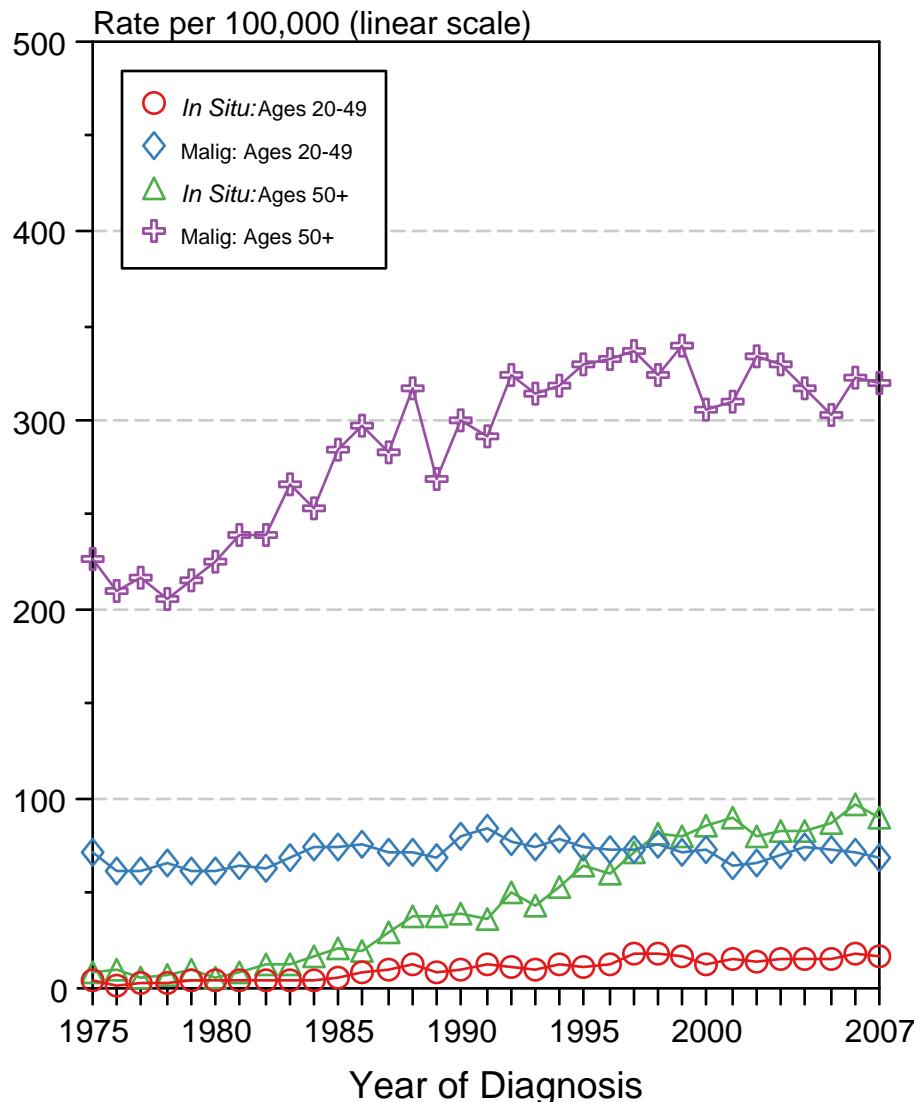
Source: SEER 9 areas. Rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

Figure 4.6

# Cancer of Female Breast Incidence Rates, 1975-2007

## In situ vs Malignant, by Age

### Black, Females



Source: SEER 9 areas. Rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

Figure 4.7

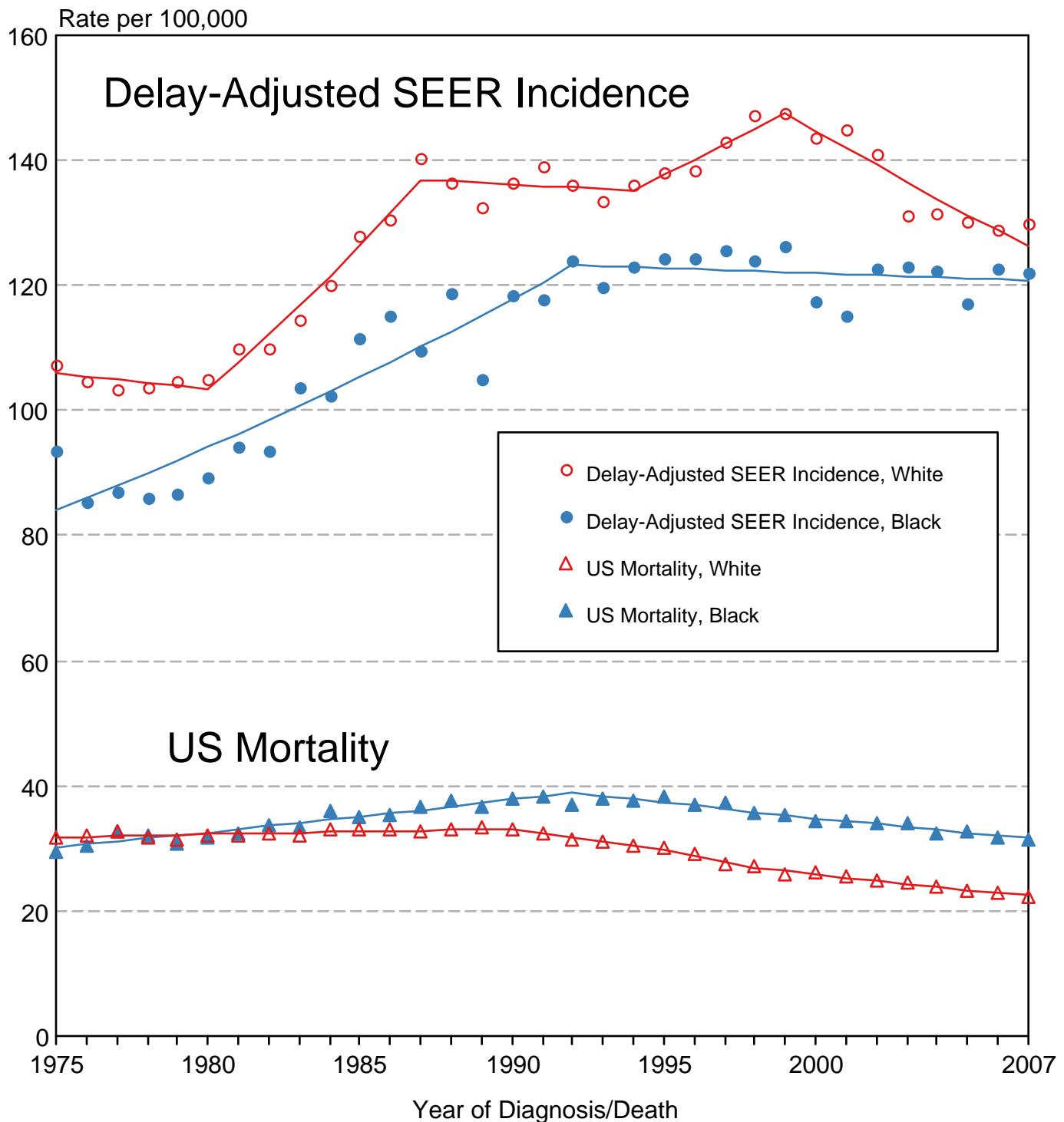
Figure 4.8

# Cancer of the Breast

## Delay-Adjusted SEER Incidence & US Mortality

### White Females vs Black Females

#### 1975-2007



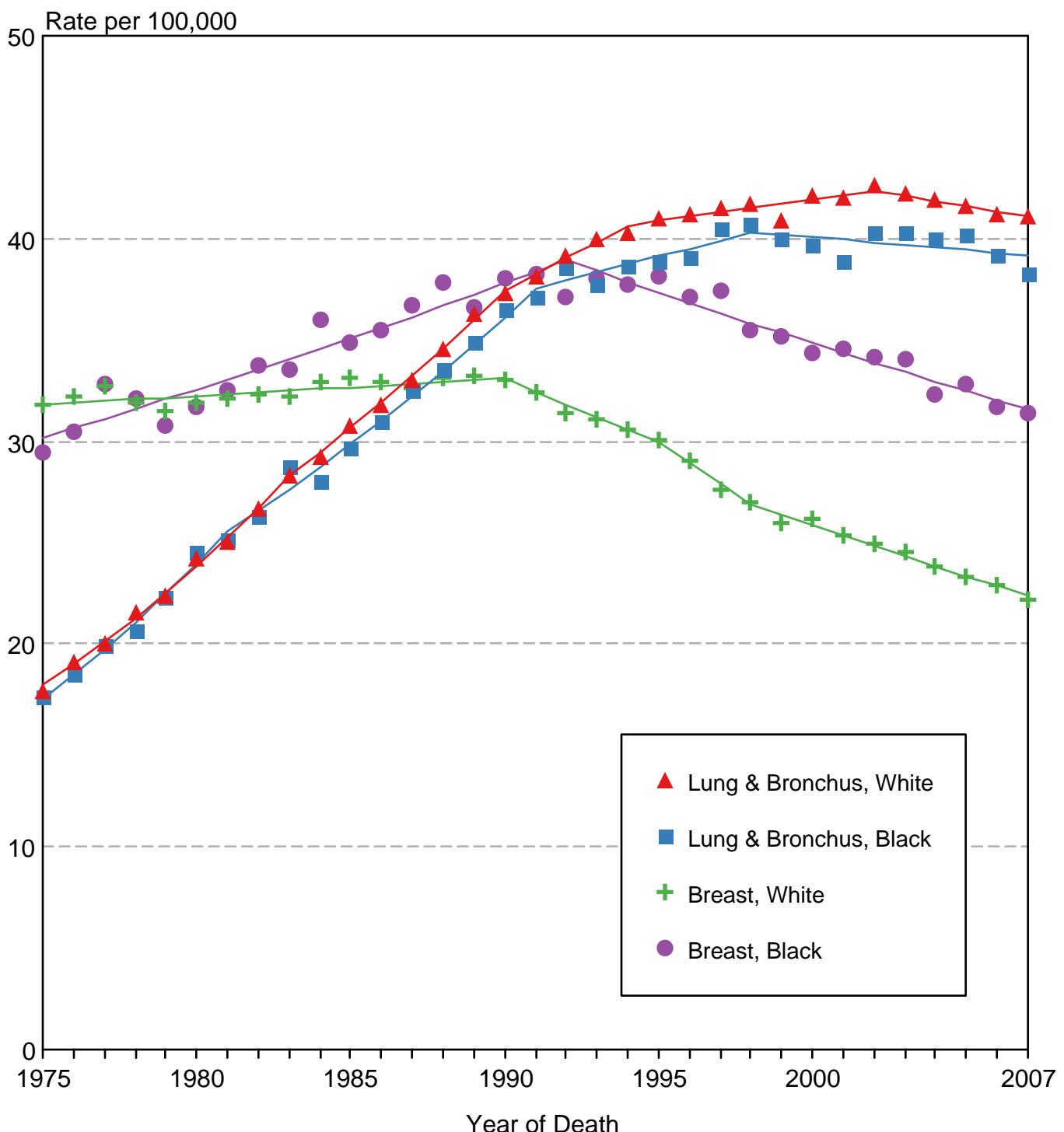
Source: SEER 9 areas and US Mortality Files (National Center for Health Statistics, CDC).

Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

Regression lines are calculated using the Joinpoint Regression Program Version 3.4.3, April 2010, National Cancer Institute.

Figure 4.9

# US Death Rates for Cancer of the Breast and Cancer of the Lung and Bronchus White Females vs Black Females 1975-2007



Source: US Mortality Files, National Center for Health Statistics, CDC.

Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

Regression lines are calculated using the Joinpoint Regression Program Version 3.4.3, April 2010, National Cancer Institute.

# SEER Observed Incidence and SEER Delay Adjusted Incidence Rates<sup>a</sup>

## SEER 9 Areas Compared to SEER 13 Areas

### Cancer of the Female Breast, by Race

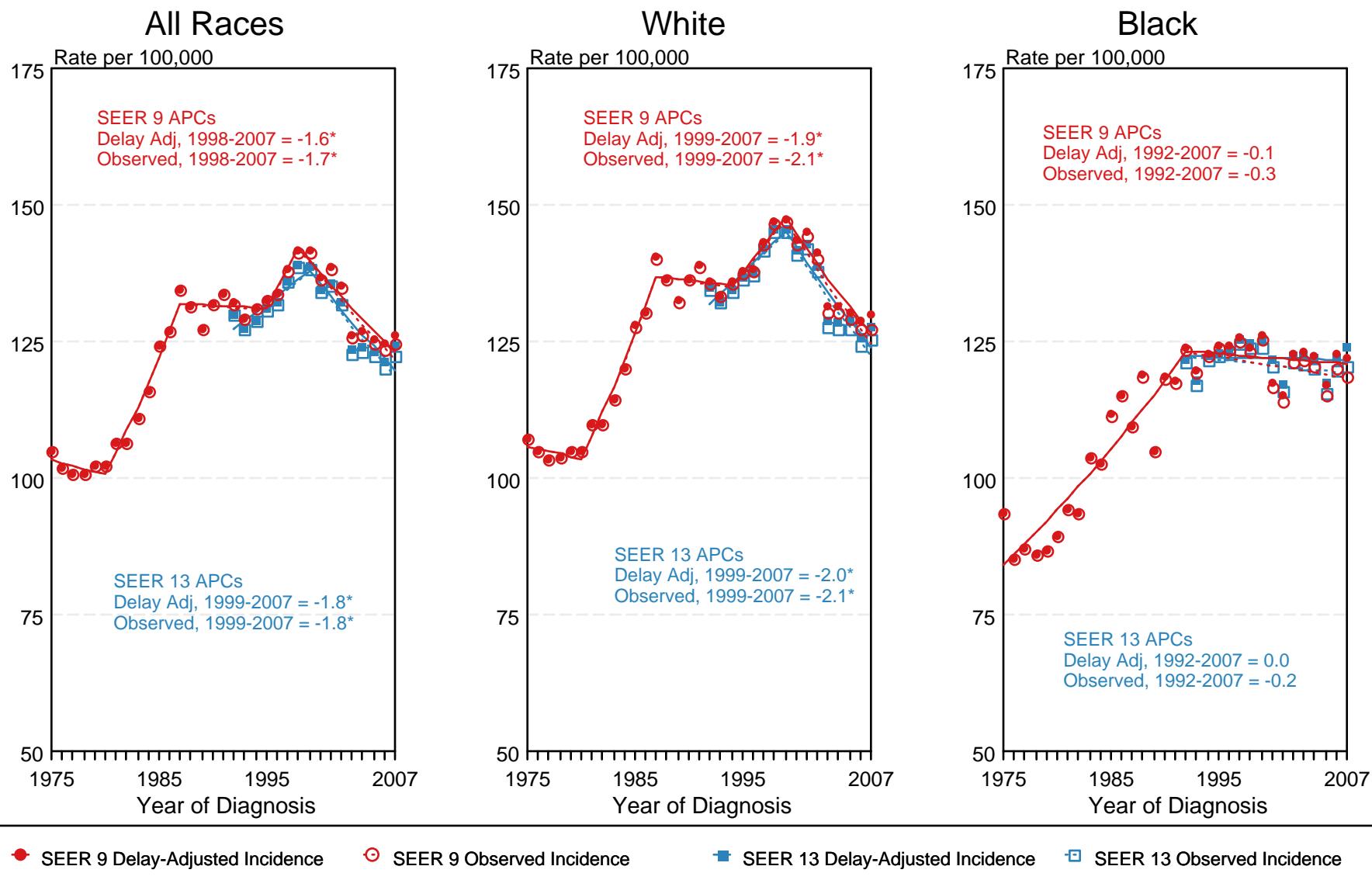


Figure 4.10

<sup>a</sup> Source: SEER 9 areas and SEER 13 areas.

Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

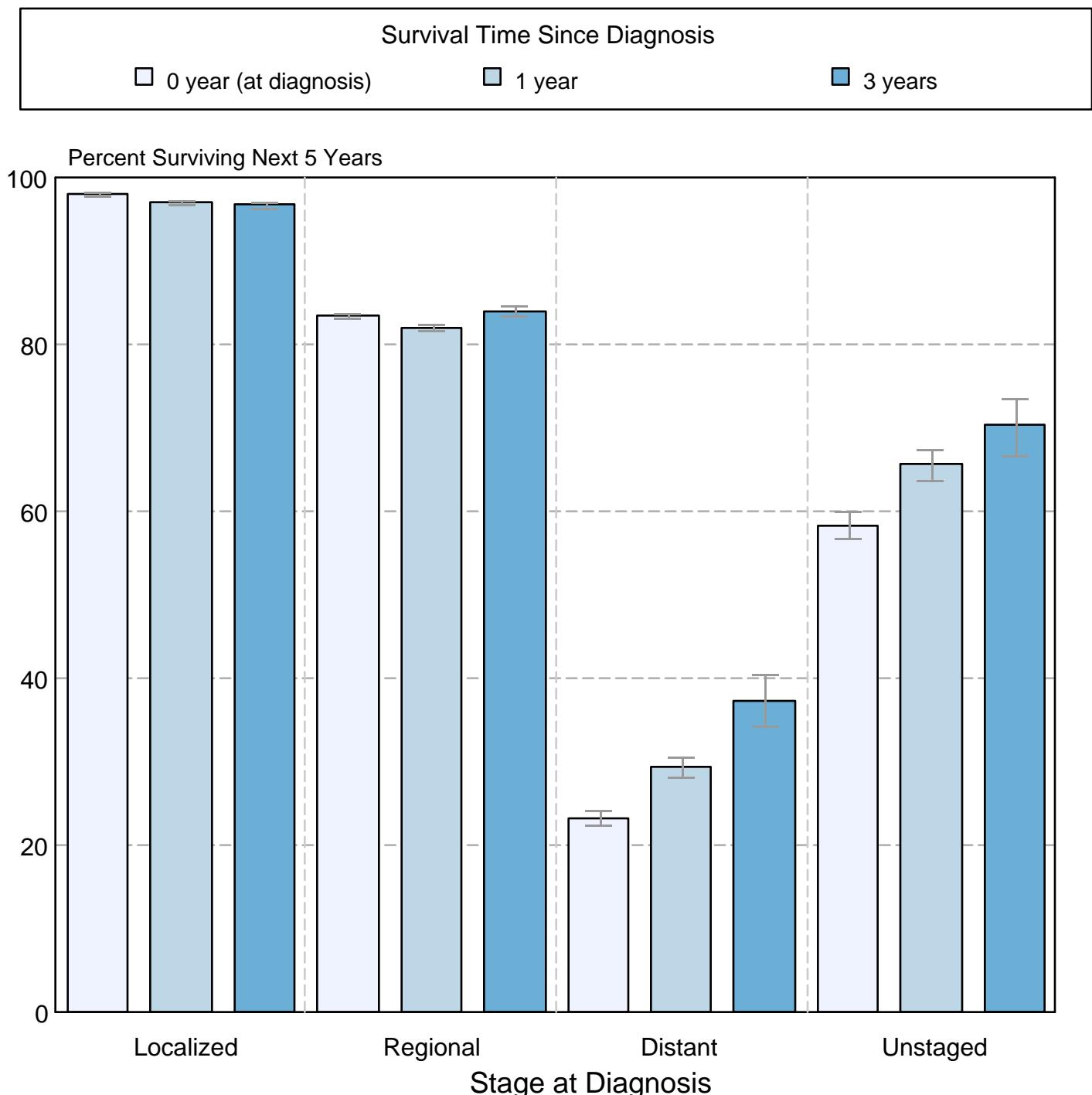
Regression lines and APCs are calculated using the Joinpoint Regression Program Version 3.4.3, April 2010, National Cancer Institute.

The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.

\* The APC is significantly different from zero ( $p < 0.05$ ).

Figure 4.11

**Cancer of the Female Breast**  
**5-Year SEER Conditional Relative Survival and**  
**95% Confidence Intervals**  
**Probability of surviving the next 5 years given the cohort**  
**has already survived 0, 1, or 3 years**  
**1998-2006 by stage at diagnosis**



Source: SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey). California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey contribute cases for diagnosis years 2000-2006. The remaining 13 SEER Areas contribute cases for the entire period 1998-2006.

Percent surviving is not shown if based on less than 25 cases.

Confidence intervals are not shown if length of the confidence interval is greater than 5 times the standard error.