



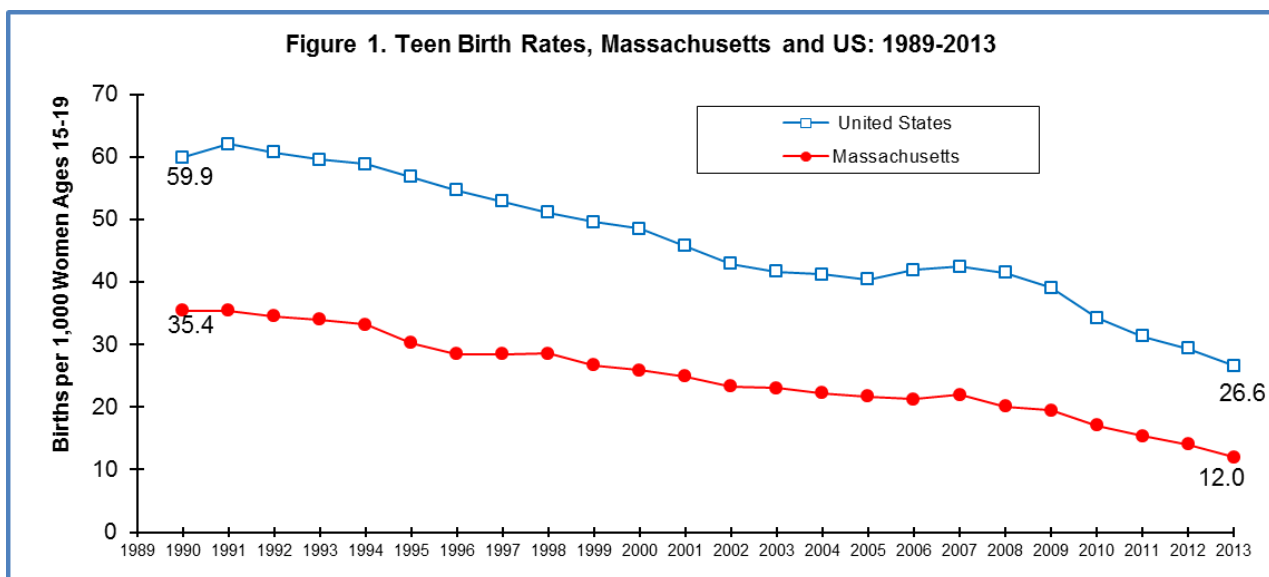
Teen Births Massachusetts: 2013

Office of Data Management and Outcomes Assessment, Massachusetts Department of Public Health

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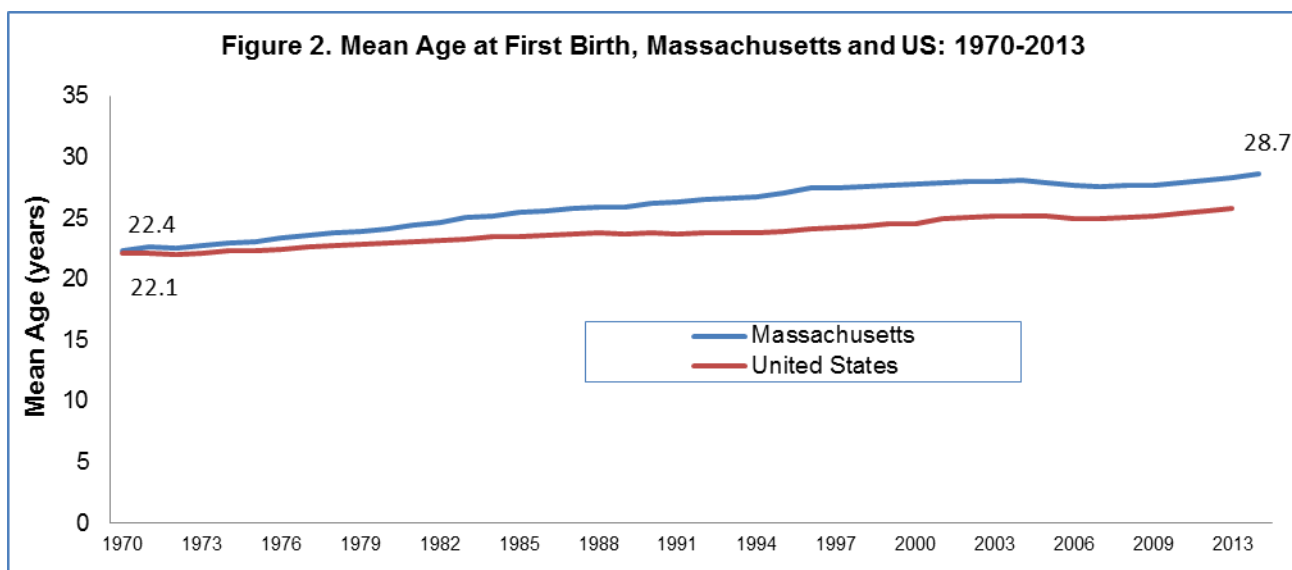
Over the past several decades, there has been long-term progress made on addressing the critical problem of teen births in Massachusetts. The adverse consequences of teen pregnancy, such as lower levels of educational attainment, higher rates of marital instability, and increased likelihood of single parenthood compared to older mothers make it a particularly crucial health measure for communities to track and an important health risk to target for intervention.

The birth rate among teens (aged 15-19 years) is dropping for all age groups, for all racial and ethnicity groups, and in small and large communities across the state. In 2013, the rate reached a historic low. In addition, the age that a woman first gives birth is also increasing. In 2013, the teen birth rate in Massachusetts reached an all-time low of 12.0 births per 1,000 women ages 15-19. This represented a decline of 14% from the 2012 rate of 14.0 births per 1,000 women ages 15-19. Teen birth rates in Massachusetts have been consistently lower than the United States as shown below in Figure 1.



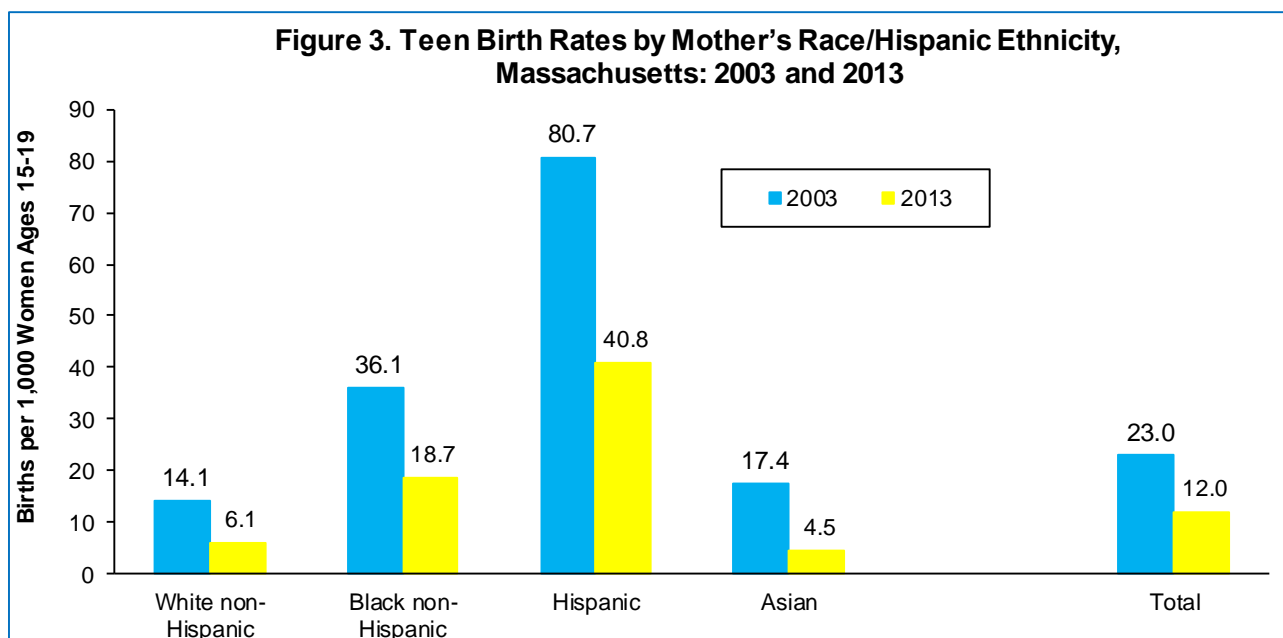
Note: Births, Preliminary Data for 2013. NCHS, May 29, 2014. Volume 63, Number 2

Another useful measure in interpreting childbearing patterns is the mean age at first birth, which is the arithmetic average age of mothers at the time of birth and is computed directly from the frequency of first births by age of mother. The mean or average maternal age at first birth in 2013 was 28.7 years, which was higher than the mean for 2012 (28.3 years). The increase in the mean age in 2013 reflects, in part, the relatively large decline in births to women in their teens and twenties. Among the different racial and ethnic groups, Asian mothers continued to have the highest mean age at first birth (30.1 years) while Hispanic mothers had the lowest mean age (24.7 years) in 2013. In 2013, there were significant increases in the mean age at first birth for Whites (29.2 to 29.6 years) and Blacks (26.3 to 26.9 years) from 2012.



Note: 2013 mean age at first birth for the US was not available at the time of publication of this report.

Teen birth rates for all races have shown large declines when compared to 2003 (Figure 3). Yet disparities still exist by race and Hispanic ethnicity. In 2013, the teen birth rate for Hispanics was almost 7 times that of Whites (40.8 vs. 6.1 births per 1,000 women ages 15-19 years) and the rate for Blacks was over three times the rate of Whites.

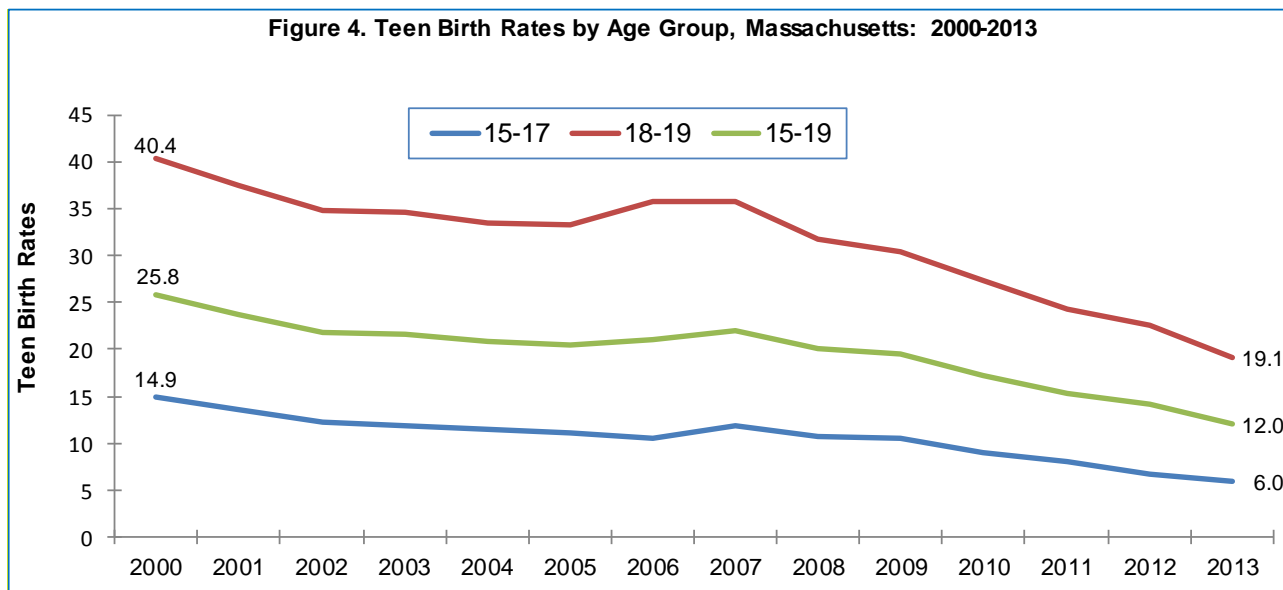


Compared to 2012, teen birth rates for Whites declined by 19% (7.5 in 2012 to 6.1 births per 1,000 women ages 15-19 in 2013), the rate for Blacks declined by 19% (23.0 in 2012 to 18.7 births per 1,000 women ages 15-19 in 2013), and the rate for Hispanics declined by 11% (46.1 in 2012 to 40.8 births per 1,000 women ages 15-19 in 2013).

Looking at decade long trends, teen birth rates were declining by 2.4% per year between 2002 and 2009 and have been decreasing by 11.5% per year since 2009. At this rate, the birth rate among teens will drop below 10 per 1,000 by 2015.

In 2013, the majority (73.2%) of teen births continue to occur to teenagers 18 and 19 years old (2,001 births) while 26.8% of teen births were to teenagers 15-17 years (731 births). Looking at decade long trends, rates for 15-17 years old have been declining by 13.4% per year since 2009. Rates for 18-19 years old declined by 4.5% per year between 2000 and 2004, were stable between 2005 and 2007 and have been decreasing by 9.5% per year since 2007. At current rates of decline, birth rates among all of these age groups will drop below 10 per 1,000 by 2020.

Figure 4. Teen Birth Rates by Age Group, Massachusetts: 2000-2013



In 2013, three out of four teen mothers were born in the continental United States (75.7%). Thirteen percent of births to teens were to mothers with at least one prior live birth and 1.3% were to mothers with two or more prior live births. In 2013, most teens are first-time mothers, but nearly 1 in 5 births to teens are repeat births. Most of these (90%) are 2nd births while some teens are giving birth for the 3rd time or more (10% of repeat births). Younger teens (15-17) were more likely than older teens (18-19) to give birth for the first time. In 2013, only 67.5% of teen mothers received adequate prenatal care and the percentage of teen mothers who had their prenatal care paid through public programs was 80.2% (Table 1).

Table 2 presents the 25 communities with the greatest numbers of births to teen mothers in 2013 and compares them with the rates for the last few years. In 2013, 18 out of these 25 communities had teen birth rates¹ higher than the state and these included Holyoke (46.4), Chelsea (45.9), Southbridge (43.8), Springfield (42.3), New Bedford (41.5) and Lawrence (40.9). These communities had rates over three times the statewide rate of 12.0. There were no statistical changes in teen birth rates in these communities compared with 2012. Year to year changes tend to be small and thus are unlikely to show statistical significance. However, over the past decade, all 25 communities shown in Table 2 have experienced declines in the teen birth rate. Holyoke, Lawrence, Pittsfield, Fitchburg, Everett, Boston, and Attleboro have shown decreases of over 50% in their teen birth rates.

Among the largest communities in the state, Arlington, Brookline, and Newton all had fewer than 5 teen births. Sixteen of the largest 25 communities were also among the 25 communities with the highest teen birth rates. In twelve of these sixteen communities, the majority of 2013 teen births

¹ Birth rates for cities and towns were calculated using the Massachusetts Department of Public Health Race Allocated Census 2010 Estimates file (MRACE 2010), which is the most up-to-date information available on the number of persons by age, race, and sex at the sub-state level. **Please note:** If the population in your community increased from 2010 to 2013, the rates listed may **overestimate** the actual rate. If the population in your community declined from 2010 to 2013, the rates given in the publication may **underestimate** the actual rate.

were to Hispanic mothers (Table 3); the exceptions were Fall River, Pittsfield, Marlborough and Taunton.

The communities with the highest Hispanic teen birth rates included: Pittsfield (80.4), New Bedford (79.2), Haverhill (67.2), Springfield (65.5), Fall River (65.1), Southbridge (63.9), Holyoke (60.5), and Chicopee (57.1) (Table 4). These communities had rates over 1.3 times the statewide Hispanic rate. The Boston Hispanic teen birth rate was lower than the statewide Hispanic rate (31.8 births per 1,000 females ages 15-19 vs. 40.8 births per 1,000 females ages 15-19).

Summary

Previous research has shown that teen pregnancy and childbearing bring substantial social and economic costs through immediate and long-term impacts not only on teen parents, but also on their children². These impacts tend to remain even after adjusting for those factors that increased the teenager's risk for pregnancy, such as growing up in poverty, having parents with low levels of education, growing up in a single-parent family, and having poor performance in school.³

Teen pregnancy prevention is one of CDC's top six "Winnable Battles." Massachusetts has achieved great success in reducing teen birth rates reaching its lowest level yet in 2013. Despite our many successes, Massachusetts still faces health disparities in teen birth rates. In 2013, rates for Blacks and Hispanics continued to be 3 to 7 times higher than the rate for Whites.

In order to understand patterns for all communities even those with small numbers of teen births, DPH has done preliminary statistical analysis with multivariate models examining socio-demographic characteristics and teen births in the last several years. This analysis shows that mothers who reside in the most economically deprived areas ($\geq 20\%$ of its population below poverty) were 3 times more likely to be teens than mothers in the most affluent areas. Also, mothers who were born in the mainland US or who prefer to speak in English had higher odds of being teen mothers than mothers who were born in US territories or elsewhere or mothers who prefer to speak in a language other than English. The following ethnicities were also predictive of being a teen mother: Puerto Rican, Guatemalan, Salvadoran, Dominican and African American. Lastly, mothers residing in rural communities and transitional suburbs with socioeconomic and health challenges were more than twice as likely to be teen mothers than mothers residing in growing well off suburbs.

DPH Programs

Reasons for the steady decline in the Massachusetts teen birth rate might include increased availability of a wide-range of contraceptives, including highly-effective long-acting reversible contraceptives (LARC); implementation of evidence-based programs that include information on how to use and where to obtain contraceptives; youth development programs that work toward increasing protective factors and decreasing risk factors associated with teen pregnancy; and targeting of resources in communities with the highest teen birth rates and other associated risk factors, such as higher than average high school dropout rates, high rates of sexually transmitted infections (STI), and low income levels. Working together, MDPH's Office of Child and Adolescent Health (OCAH) and Family Planning Program (FPP) oversee statewide prevention programs in select high teen birth rate communities that employ multiple strategies to reduce the likelihood of unintended pregnancy and help decrease the teen birth rate.

² National Campaign to Prevent Teen and Unplanned Pregnancy, [Counting It Up: The Public Costs of Teen Childbearing](#) 2014. Accessed May 21, 2014.

³ Singh S, Darroch JE. Adolescent pregnancy and childbearing: levels and trends in developed countries. *Fam Plann Perspect.* 2000;32(1):14-23.

The Family Planning Program, funded by the Massachusetts legislature and the U.S. Department of Health and Human Services, Office of Population Affairs, seeks to decrease unintended pregnancy and the incidence of sexually transmitted infections through the following: 1) the provision of clinical family planning services (including but not limited to pregnancy testing, STI testing and treatment, provision of birth control methods, and clinical education and counseling), 2) education and technical assistance on family planning topics, 3) outreach to promote utilization of family planning services, and 4) supportive services to assist highest-need populations in accessing clinical family planning services. These services are targeted to low-income Massachusetts residents at or below 300% of the federal poverty level and those populations who need confidential care such as adolescents, young adults, and survivors of violence. In FY 13, the FPP funded 12 agencies statewide, providing family planning services to 12,635 unduplicated young men and women aged 19 and under.

Funded by the Massachusetts legislature, the OCAH Teen Pregnancy Prevention Program (TPP) supports 15 high teen birth rate communities in implementation of evidence-based teen pregnancy prevention curricula, adulthood preparation content and related youth development programming in order to prevent or reduce teen pregnancy and STIs including HIV/AIDS, and to reduce sexual activity among youth ages 10-19. Seven evidence-based curricula are being implemented in various settings including middle and high schools, after-school settings, community-based agencies and in housing developments. TPP programs are also contracted to serve as community resources to schools, youth serving organizations, DCF staff and foster parents of adolescents. In FY13 this program served 17,908 youth and adults, including approximately 600 youth engaged in state systems of care.

The Massachusetts Pregnant and Parenting Teen Initiative (MPPTI), funded by the U.S. Department of Health and Human Services Office of Adolescent Health, provides comprehensive case management support for pregnant and parenting teens (male and female) in five cities with disproportionately high teen birth rates. Program goals include participant graduation from high school or GED program, delayed subsequent pregnancy for 24 months from date of entry into program, and attainment by infants and children of the appropriate social and emotional developmental outcomes to ensure optimal development. In FY13, 257 adolescent parents and 224 children were served by MPPTI programs.

Funded by the U.S. Department of Health and Human Services, Office of Adolescent Health and together with the Massachusetts Department of Elementary and Secondary Education, OCAH oversees the Personal Responsibility Education Program (PREP) operating in seven high teen birth rate communities and in three school districts with Level 4 middle schools. In addition to the replication of evidence-based models, PREP programming incorporates three adulthood preparation subjects into teen pregnancy prevention programming to middle school youth and community youth populations that are the most high-risk or vulnerable for pregnancies. In FY13, a total of 2,439 were served by PREP programming – 1,773 youth in middle schools and 666 youth in community-based agencies.

Table 1. Summary of Selected Teen Birth Characteristics, Massachusetts: 2013

	Ages 15-17		Ages 18-19		Combined Ages 15-19	
	N	% ¹	N	% ¹	N	% ¹
State total	731	26.8%	2,001	73.2%	2,732	100.0%
Maternal Demographics						
Race/Hispanic Ethnicity	N	% ²	N	% ²	N	% ²
White non-Hispanic	219	30.2%	752	37.9%	971	35.8%
Black non-Hispanic	96	13.2%	268	13.5%	364	13.4%
Asian	16	2.2%	51	2.6%	67	2.5%
Hispanic	384	52.9%	893	45.0%	1,277	47.1%
Other	11	1.5%	21	1.1%	32	1.2%
Birthplace						
US States / D.C.	547	74.8%	1,521	76.0%	2,068	75.7%
Puerto Rico / US Terr.	71	9.7%	162	8.1%	233	8.5%
Non-US-born	113	15.5%	318	15.9%	431	15.8%
Prenatal care funding						
Public	601	84.3%	1,525	78.7%	2,126	80.2%
Private, other	112	15.7%	413	21.3%	525	19.8%
Pregnancy-Related Factors						
Adequacy of Prenatal Care³						
Adequate Total ⁴	471	66.8%	1,307	67.8%	1,778	67.5%
Adequate Intensive	245	34.8%	676	35.1%	921	35.0%
Adequate Basic	226	32.1%	631	32.7%	857	32.5%
Intermediate	44	6.2%	145	7.5%	189	7.2%
Inadequate/None	121	17.2%	283	14.7%	404	15.3%
Unknown	69	9.8%	193	10.0%	262	10.0%
Parity⁵						
1	696	95.3%	1,677	83.8%	2,373	86.9%
2	32	4.4%	291	14.5%	323	11.8%
3+	2	-- ⁶	32	1.6%	34	1.2%
Smoking during Pregnancy						
Yes	60	8.7%	239	12.6%	299	11.6%
No	632	91.3%	1,653	87.4%	2,285	88.4%
Birth Outcomes						
Birthweight						
< 500 g	0	0.0%	4	-- ⁶	4	-- ⁶
500-1,499 g	11	1.5%	23	1.2%	34	1.2%
1,500-2,499 g	46	6.3%	142	7.1%	188	6.9%
LBW (<2,499 g)	57	7.8%	169	8.5%	226	8.3%
2,500-3,999 g	649	88.9%	1,723	86.2%	2,372	87.0%
4000+ g	24	3.3%	106	5.3%	130	4.8%
Gestational Age						
< 28 weeks	6	0.8%	14	0.7%	20	0.7%
Preterm (< 37 weeks)	68	9.3%	173	8.7%	241	8.9%
37-42 weeks	662	90.7%	1,819	91.3%	2,481	91.1%
43+ weeks	0	0.0%	0	0.0%	0	0.0%
Plurality						
Singleton	727	99.5%	1,969	98.4%	2,696	98.7%
Multiple birth	4	-- ⁶	32	1.6%	36	1.3%

NOTE: All percentages are calculated based on only those births with known values for the characteristic(s) of interest, unless otherwise stated.

1. For state total row, percentages are based on total births to females ages 15-19. For the rest of the table, percentages are based on births for a given age group and characteristic. 2. Percents are based on state total of the age group. 3. Based on Adequacy of Prenatal Care Utilization (APNCU) Index. Does not include data from Newton Wellesley, Saint Vincent, and Winchester hospitals because of reporting problems. 4. Adequate Total = Adequate Basic + Adequate Intensive. 5. Number of live births including the current birth. 6. Calculations based on 1-4 events are excluded.

**Table 2. Trends in Teen Birth Rates for Selected Communities, Ranked by 2013 Teen Birth Rate,
Massachusetts: 2003, 2011-2013**

2013 Rank	Municipality ¹	2003		2011		2012		2013	
		Number of Teen Births	Teen Birth Rate ²	Number of Teen Births	Teen Birth Rate ^{2,3}	Number of Teen Births	Teen Birth Rate ^{2,3}	Number of Teen Births	Teen Birth Rate ^{2,3}
	State Total	4,639	23.0	3,480	15.4	3,219	14.1	2,732	12.0
1	Holyoke	139	98.1	103	68.3	86	57.1	70	46.4
2	Chelsea	68	70.1	69	57.6	60	50.1	55	45.9
3	Southbridge	37	68.6	28	49.0	31	54.3	25	43.8
4	Springfield	479	83.2	367	53.7	319	46.7	289	42.3
5	New Bedford	169	59.6	137	45.1	129	42.5	126	41.5
6	Lawrence	236	82.9	163	48.0	174	51.3	139	40.9
7	Lynn	145	49.0	119	36.9	113	35.1	106	32.9
8	Fall River	163	59.1	115	41.4	101	36.3	89	32.0
9	Brockton	148	42.9	121	36.1	105	31.3	96	28.6
10	Pittsfield	72	56.0	45	33.6	34	25.4	37	27.6
11	Revere	50	47.5	35	24.4	28	19.5	37	25.8
12	Lowell	174	45.0	151	36.7	130	31.6	106	25.7
13	Chicopee	59	34.7	47	25.0	48	25.5	44	23.4
14	Worcester	263	38.7	193	25.0	186	24.1	179	23.2
15	Leominster	43	35.5	27	20.6	27	20.6	30	22.9
16	Haverhill	53	29.0	56	31.3	41	22.9	40	22.3
17	Marlborough	24	27.7	23	22.4	26	25.3	22	21.4
18	Fitchburg	75	49.9	56	31.5	53	29.8	38	21.4
19	Everett	41	39.6	31	23.5	30	22.8	25	19.0
20	Taunton	58	36.8	36	20.6	41	23.5	29	16.6
21	Framingham	38	19.9	31	13.2	43	18.3	32	13.6
22	Methuen	29	22.7	27	16.6	20	12.3	22	13.5
23	Boston	573	29.0	401	15.4	368	14.2	318	12.2
24	Salem	34	27.3	21	13.4	25	15.9	19	12.1
25	Attleboro	45	40.8	24	17.9	24	17.9	16	11.9

1. Selected communities include the 25 Massachusetts cities and towns with the greatest number of teen births in 2013. Ranking is by 2013 teen birth rate. 2. Rates are per 1,000 females ages 15-19 per city/town. 3. Birth rates for cities and towns were calculated using the Massachusetts Department of Public Health Race Allocated Census 2010 Estimates file (MRACE 2010), which is the most up-to-date information available on the number of persons by age, race, and sex at the sub-state level.
Please note: If the population in your community increased from 2010 to 2013, the rates listed may **overestimate** the actual rate. If the population in your community declined from 2010 to 2013, the rates given in the publication may **underestimate** the actual rate.

Table 3. Resident Teen Birth Characteristics, 30 Largest Municipalities, Massachusetts: 2013

Municipality ¹	Total Population Rank	Female Population, ages 15-19	Number of Teen Births	Teen Birth Rate ²	Mother's Race and Hispanic Ethnicity (% of teen births)			
					White non-Hispanic	Black non-Hispanic	Hispanic	Asian or Other ³
State Total		226,727	2,732	12.0	35.8	13.4	47.1	3.7
Arlington	30	867	-- ⁴	-- ⁴	-- ⁴	-- ⁴	-- ⁴	-- ⁴
Attleboro	29	1,344	16	11.9	62.5	-- ⁴	31.3	0.0
Barnstable	27	1,278	11	8.6	72.7	0.0	-- ⁴	0.0
Boston	1	25,988	315	12.1	6.7	39.4	52.4	1.6
Brockton	7	3,354	96	28.6	20.8	51.0	24.0	-- ⁴
Brookline	18	1,469	-- ⁴	-- ⁴	-- ⁴	-- ⁴	-- ⁴	-- ⁴
Cambridge	5	3,550	8	2.3	-- ⁴	-- ⁴	-- ⁴	0.0
Chicopee	22	1,881	44	23.4	43.2	0.0	56.8	0.0
Fall River	10	2,781	88	31.6	68.2	8.0	22.7	-- ⁴
Framingham	14	2,351	32	13.6	18.8	15.6	65.6	0.0
Haverhill	15	1,791	40	22.3	32.5	-- ⁴	65.0	0.0
Lawrence	12	3,395	139	40.9	5.0	-- ⁴	94.2	0.0
Lowell	4	4,118	105	25.5	27.6	4.8	40.0	27.6
Lynn	9	3,223	101	31.3	12.9	10.9	68.3	7.9
Malden	17	1,548	11	7.1	18.2	-- ⁴	45.5	0.0
Medford	20	1,683	7	4.2	-- ⁴	-- ⁴	-- ⁴	-- ⁴
Methuen	26	1,624	22	13.5	36.4	0.0	63.6	0.0
New Bedford	6	3,037	125	41.2	37.6	13.6	45.6	-- ⁴
Newton	11	4,195	-- ⁴	-- ⁴	-- ⁴	-- ⁴	-- ⁴	-- ⁴
Peabody	25	1,405	11	7.8	-- ⁴	-- ⁴	45.5	-- ⁴
Pittsfield	28	1,339	37	27.6	70.3	-- ⁴	24.3	-- ⁴
Plymouth	19	1,641	16	9.8	75.0	-- ⁴	0.0	-- ⁴
Quincy	8	1,984	16	8.1	56.3	-- ⁴	-- ⁴	-- ⁴
Revere	24	1,434	37	25.8	18.9	-- ⁴	75.7	-- ⁴
Somerville	13	1,711	16	9.4	25.0	-- ⁴	56.3	-- ⁴
Springfield	3	6,836	288	42.1	8.7	16.7	72.9	1.7
Taunton	21	1,744	29	16.6	62.1	-- ⁴	24.1	-- ⁴
Waltham	16	2,356	15	6.4	-- ⁴	-- ⁴	66.7	0.0
Weymouth	23	1,444	9	6.2	88.9	0.0	-- ⁴	0.0
Worcester	2	7,726	179	23.2	31.3	9.5	56.4	2.8

Table 3 (cont'd). Resident Teen Birth Characteristics, 30 Largest Municipalities, Massachusetts: 2013

Municipality	Public Payment for Prenatal Care ⁵ (%)	Unmarried (%)	Low Birthweight ⁶ (%)	Preterm ⁷ (%)	Adequacy of Prenatal Care ⁸			
					Adequate Intensive	Adequate Basic	Intermediate	Inadequate ⁹
State Total	80.2	93.8	8.3	8.9	38.8	36.1	8.0	17.0
Arlington	0.0	-- ⁴	0.0	0.0	-- ⁴	0.0	0.0	0.0
Attleboro	43.8	93.8	0.0	0.0	43.8	-- ⁴	-- ⁴	-- ⁴
Barnstable	81.8	90.9	-- ⁴	-- ⁴	20.0	-- ⁴	-- ⁴	-- ⁴
Boston	84.8	96.5	11.4	9.9	28.6	45.7	8.1	17.5
Brockton	86.5	95.8	8.3	9.4	28.1	36.5	12.5	22.9
Brookline	-- ⁴	-- ⁴	0.0	0.0	-- ⁴	-- ⁴	0.0	-- ⁴
Cambridge	-- ⁴	100.0	0.0	0.0	-- ⁴	-- ⁴	0.0	-- ⁴
Chicopee	84.1	84.1	-- ⁴	11.4	46.3	43.9	-- ⁴	-- ⁴
Fall River	91.8	96.5	13.5	9.0	58.6	14.9	2.3	24.1
Framingham	68.8	90.6	-- ⁴	-- ⁴	72.7	18.2	-- ⁴	-- ⁴
Haverhill	65.0	95.0	20.0	25.0	33.3	53.8	-- ⁴	-- ⁴
Lawrence	85.6	95.0	11.5	11.5	24.4	42.2	14.8	18.5
Lowell	83.0	97.2	13.2	10.4	47.1	30.4	5.9	16.7
Lynn	85.6	86.8	6.6	7.5	44.4	26.3	5.1	24.2
Malden	70.0	81.8	0.0	0.0	-- ⁴	70.0	-- ⁴	-- ⁴
Medford	-- ⁴	85.7	0.0	-- ⁴	-- ⁴	71.4	0.0	0.0
Methuen	86.4	100.0	-- ⁴	-- ⁴	36.4	31.8	-- ⁴	22.7
New Bedford	79.5	97.5	6.3	8.7	32.8	38.5	14.8	13.9
Newton	-- ⁴	-- ⁴	0.0	0.0	0.0	-- ⁴	-- ⁴	0.0
Peabody	72.7	90.9	0.0	0.0	-- ⁴	45.5	-- ⁴	-- ⁴
Pittsfield	72.2	94.6	-- ⁴	-- ⁴	-- ⁴	56.8	21.6	13.5
Plymouth	68.8	100.0	-- ⁴	-- ⁴	43.8	-- ⁴	-- ⁴	-- ⁴
Quincy	68.8	100.0	-- ⁴	-- ⁴	45.5	-- ⁴	0.0	-- ⁴
Revere	75.8	94.6	21.6	16.2	51.7	24.1	-- ⁴	20.7
Somerville	87.5	87.5	-- ⁴	-- ⁴	-- ⁴	33.3	-- ⁴	-- ⁴
Springfield	92.3	95.2	9.7	11.8	41.9	33.7	5.4	19.0
Taunton	86.2	93.1	20.7	20.7	17.9	39.3	25.0	17.9
Waltham	62.5	75.0	-- ⁴	0.0	46.7	40.0	0.0	-- ⁴
Weymouth	88.9	77.8	-- ⁴	-- ⁴	-- ⁴	-- ⁴	-- ⁴	-- ⁴
Worcester	90.5	95.0	7.3	8.4	40.9	44.3	5.7	9.1

NOTE: All percentages are calculated based on only those births with known values for the characteristic(s) of interest, unless otherwise stated.

1. The 30 largest municipalities are the cities and towns in Massachusetts with the largest populations according to the 2010 Census. 2. Birth rates represent the number of births per 1,000 females ages 15-19. Birth rates for cities and towns were calculated using MDPH population estimates for 2010. 3. Mothers who designated themselves as Asian, American Indian, or Other. 4. Counts and calculations based on values of 1-4 are excluded. 5. Government programs including CommonHealth, Healthy Start, Medicaid/MassHealth, and Medicare (may also be HMO or managed care), or free care; other: Worker's Compensation and other sources. 6. Less than 2,500 grams or 5.5 pounds. 7. Less than 37 weeks of gestational age. 8. Based on Adequacy of Prenatal Care Utilization (APNCU) Index. State total does not include data from Newton Wellesley, Saint Vincent and Winchester hospitals because of reporting problems. 9. Inadequate includes those mothers with no prenatal care.

Table 4. Number and Teen Birth Rates by Race and Hispanic Ethnicity for Selected Communities, Massachusetts: 2013

Municipality ¹	Teen Births		White non-Hispanic		Black non-Hispanic		Hispanic	
	N	Rate (95%CI) ^{2,3}	N	Rate (95%CI) ^{2,3}	N	Rate (95%CI) ^{2,3}	N	Rate (95%CI) ^{2,3}
State Total	2,732	12.0 (11.6, 12.5)	971	6.1 (5.7, 6.4)	364	18.7 (16.8, 20.6)	1,277	40.8 (38.6, 43.1)
Holyoke	70	46.4 (34.1, 60.7)	-- ⁴	-- ⁴	-- ⁴	-- ⁴	64	60.5 (46.3, 76.7)
Chelsea	55	45.9 (33.6, 60.2)	0	0 (0, 0)	-- ⁴	-- ⁴	50	56.6 (42.8, 72.2)
Southbridge	25	43.8 (31.8, 57.7)	9	27.4 (18.1, 38.6)	-- ⁴	-- ⁴	14	63.9 (49.2, 80.5)
Springfield	289	42.3 (37.4, 47.2)	25	13.1 (7.0, 21.0)	48	31.8 (21.7, 43.8)	210	65.5 (56.6, 74.3)
New Bedford	126	41.5 (34.2, 48.7)	47	23.1 (14.7, 33.5)	17	70.0 (54.5, 87.3)	57	79.2 (62.7, 97.5)
Lawrence	139	40.9 (34.1, 47.7)	7	18.6 (11.1, 28.0)	-- ⁴	-- ⁴	131	45.8 (37.9, 53.6)
Lynn	106	32.9 (26.6, 39.1)	13	11.5 (5.8, 19.0)	11	24.4 (15.7, 35.0)	69	51.5 (38.4, 66.5)
Fall River	89	32.0 (21.9, 44.0)	60	27.3 (18.1, 38.5)	7	45.2 (33.0, 59.3)	20	65.1 (50.3, 81.9)
Brockton	96	28.6 (19.1, 40.0)	20	14.6 (8.1, 22.9)	49	33.4 (23.0, 45.6)	23	56.4 (42.6, 72.0)
Pittsfield	37	27.6 (18.3, 38.8)	26	23.4 (14.9, 33.8)	-- ⁴	-- ⁴	9	80.4 (63.8, 98.9)
Revere	37	25.8 (16.8, 36.7)	7	9.6 (4.5, 16.6)	-- ⁴	-- ⁴	28	53.5 (40.2, 68.8)
Lowell	106	25.7 (20.8, 30.6)	29	15.3 (8.6, 23.8)	5	17.4 (10.2, 26.5)	42	42.6 (30.7, 56.3)
Chicopee	44	23.4 (14.9, 33.8)	19	14.4 (7.9, 22.7)	0	0 (0, 0)	25	57.1 (43.2, 72.8)
Worcester	179	23.2 (19.8, 26.6)	56	12.5 (6.6, 20.3)	17	22.2 (13.9, 32.3)	101	50.9 (41.0, 60.8)
Leominster	30	22.9 (14.5, 33.2)	15	16.3 (9.3, 25.1)	0	0 (0, 0)	15	53.0 (39.7, 68.2)
Haverhill	40	22.3 (14.1, 32.5)	13	9.8 (4.7, 16.9)	-- ⁴	-- ⁴	26	67.2 (52.1, 84.2)
Marlborough	22	21.4 (13.3, 31.4)	11	13.9 (7.6, 22.2)	-- ⁴	-- ⁴	10	54.6 (41.1, 70.1)
Fitchburg	38	21.4 (13.3, 31.3)	8	6.8 (2.7, 12.8)	-- ⁴	-- ⁴	23	49.3 (36.5, 63.9)
Everett	25	19.0 (11.4, 28.4)	-- ⁴	-- ⁴	-- ⁴	-- ⁴	18	55.0 (41.5, 70.5)
Taunton	29	16.6 (9.6, 25.5)	18	12.1 (6.3, 19.8)	-- ⁴	-- ⁴	7	52.2 (39.0, 67.3)
Framingham	32	13.6 (7.4, 21.7)	6	3.6 (0.9, 8.2)	5	29.4 (19.8, 41)	21	49.2 (36.4, 63.8)
Methuen	22	13.5 (7.3, 21.7)	8	7.3 (3.0, 13.4)	0	0 (0, 0)	14	31.3 (21.3, 43.2)
Boston	318	12.2 (10.9, 13.6)	21	1.8 (0.2, 5.3)	124	19 (15.7, 22.4)	165	31.8 (26.9, 36.6)
Salem	19	12.1 (6.3, 19.8)	5	4.8 (1.5, 10.0)	1	-- ⁴	12	31.4 (21.4, 43.3)
Attleboro	16	11.9 (6.1, 19.6)	10	9.0 (4.1, 15.7)	-- ⁴	-- ⁴	5	45.5 (33.2, 59.6)

Note: The total number of Asian teen births in MA was 67 for a rate of 4.5/1,000 significantly lower than the state rate of 12.0. The only community with more than 10 Asian teen births was Lowell. There were 28 teen Asian births in 2013 for a rate of 29.9/1000. This rate was higher than the state rate.

1. Selected communities include the 25 Massachusetts cities and towns with the greatest number of teen births. 2. Rates are per 1,000 females ages 15-19 per city/town. 3. Birth rates for cities and towns were calculated using the Massachusetts Department of Public Health Race Allocated Census 2010 Estimates file (MRACE 2010), which is the most up-to-date information available on the number of persons by age, race, and sex at the sub-state level. Please note: If the population in your **community increased from 2010 to 2013, the rates listed may overestimate the actual rate. If the population in your community declined from 2010 to 2013, the rates given in the publication may underestimate the actual rate.** 4. Counts and rates based on counts of 1-4 births are not presented.

**Table 5. Birth Characteristics: Occurrence and Resident Births,
Massachusetts Municipalities: 2013**

Community	Occurrence Births¹	Resident Births²	Low Birthweight (Less than 2,500 grams (5.5 lbs.))	Preterm (<37 weeks gestation)	Teen Births (15-19 years)
STATE TOTAL	72,188	71,618	5,495	6,300	2,732
Abington	0	190	13	21	--
Acton	0	139	16	16	--
Acushnet	1	73	--	9	--
Adams	2	68	5	--	--
Agawam	0	248	11	16	11
Alford	0	3	0	0	--
Amesbury	0	160	11	12	--
Amherst	2	149	7	10	--
Andover	4	249	18	26	--
Arlington	2	612	45	48	--
Ashburnham	0	39	5	--	--
Ashby	0	21	--	--	--
Ashfield	3	10	0	0	--
Ashland	2	221	18	22	0
Athol	0	108	10	11	9
Attleboro	731	455	38	41	16
Auburn	0	144	--	7	0
Avon	0	44	--	5	--
Ayer	2	109	9	13	--
Barnstable	778	396	33	42	11
Barre	0	45	--	--	--
Becket	0	23	--	--	--
Bedford	1	131	10	15	0
Belchertown	2	128	7	10	--
Bellingham	2	177	8	8	--
Belmont	2	279	15	24	--
Berkley	1	62	--	--	0
Berlin	0	25	--	0	0
Bernardston	0	15	--	--	0
Beverly	2,238	384	26	32	11
Billerica	0	416	30	38	10
Blackstone	2	84	7	7	--
Blandford	0	10	0	0	0
Bolton	0	38	--	--	0
Boston	21,032	7,834	686	723	318
Bourne	3	145	15	18	--
Boxborough	0	41	--	--	--
Boxford	1	41	--	--	0
Boylston	0	27	--	--	0
Braintree	2	410	34	37	5
Brewster	2	47	--	5	0
Bridgewater	0	174	10	12	5
Brimfield	0	26	--	0	--
Brockton	1,971	1,492	127	147	96
Brookfield	0	26	--	--	--
Brookline	1	718	54	54	--
Buckland	0	14	0	0	--
Burlington	0	306	21	28	--
Cambridge	3,839	1,284	102	87	8
Canton	4	221	12	15	--

**Table 5. Birth Characteristics: Occurrence and Resident Births,
Massachusetts Municipalities: 2013**

Community	Occurrence Births¹	Resident Births²	Low Birthweight (Less than 2,500 grams (5.5 lbs.))	Preterm (<37 weeks gestation)	Teen Births (15-19 years)
Carlisle	0	29	5	--	0
Carver	0	108	9	8	--
Charlemont	0	14	--	--	--
Charlton	4	120	8	13	--
Chatham	2	30	0	0	0
Chelmsford	1	342	36	40	5
Chelsea	0	655	58	63	55
Cheshire	0	29	0	--	--
Chester	0	9	--	--	--
Chesterfield	0	13	--	--	--
Chicopee	2	627	47	50	44
Chilmark	0	9	--	--	0
Clarksburg	1	13	--	5	0
Clinton	2	174	17	16	6
Cohasset	0	63	--	6	0
Colrain	0	13	--	--	--
Concord	1,130	128	11	12	0
Conway	0	8	0	0	--
Cummington	0	4	--	--	0
Dalton	0	51	6	6	--
Danvers	2	261	18	19	--
Dartmouth	0	184	11	20	5
Dedham	3	270	18	21	--
Deerfield	1	32	--	--	--
Dennis	1	82	0	10	--
Dighton	1	63	--	--	--
Douglas	1	76	0	5	--
Dover	2	27	--	--	0
Dracut	1	340	23	29	5
Dudley	1	100	9	12	--
Dunstable	0	13	--	5	0
Duxbury	0	84	--	6	0
East Bridgewater	0	119	12	12	--
East Brookfield	0	13	--	0	0
East Longmeadow	0	105	9	11	0
Eastham	1	23	0	--	0
Easthampton	0	136	6	8	--
Easton	0	192	11	21	--
Edgartown	0	42	0	--	0
Egremont	1	3	--	--	--
Erving	0	10	0	--	0
Essex	0	26	--	--	0
Everett	1	636	56	60	25
Fairhaven	1	123	11	13	--
Fall River	1,508	1,067	95	86	89
Falmouth	426	222	18	22	9
Fitchburg	3	476	48	49	38
Florida	0	5	0	--	0
Foxborough	0	158	9	12	5
Framingham	852	875	64	82	32
Franklin	2	250	21	25	7
Freetown	0	54	--	5	--

**Table 5. Birth Characteristics: Occurrence and Resident Births,
Massachusetts Municipalities: 2013**

Community	Occurrence Births¹	Resident Births²	Low Birthweight (Less than 2,500 grams (5.5 lbs.))	Preterm (<37 weeks gestation)	Teen Births (15-19 years)
Gardner	437	216	20	19	10
Gay Head	0	4	0	0	0
Georgetown	1	87	8	11	--
Gill	0	11	0	--	--
Gloucester	1	253	13	14	--
Goshen	1	9	0	0	0
Gosnold	0	0	0	0	0
Grafton	1	199	15	15	--
Granby	2	58	10	6	--
Granville	0	9	0	--	0
Great Barrington	137	42	7	--	0
Greenfield	475	187	7	7	11
Groton	1	85	--	--	--
Groveland	0	62	--	--	--
Hadley	1	34	--	--	0
Halifax	0	69	--	5	--
Hamilton	0	87	6	5	0
Hampden	0	29	--	0	--
Hancock	0	4	0	--	0
Hanover	1	126	10	13	0
Hanson	0	100	10	10	--
Hardwick	0	22	--	--	--
Harvard	0	19	--	--	0
Harwich	0	82	--	--	--
Hatfield	1	21	0	0	0
Haverhill	4	800	82	98	40
Hawley	0	2	0	0	--
Heath	0	4	0	0	0
Hingham	0	223	--	5	0
Hinsdale	0	17	0	0	--
Holbrook	0	136	7	12	6
Holden	5	165	10	17	--
Holland	0	19	--	--	--
Holliston	1	112	14	15	0
Holyoke	442	607	47	59	70
Hopedale	1	53	--	--	--
Hopkinton	0	118	8	10	0
Hubbardston	0	20	0	--	--
Hudson	1	191	9	14	--
Hull	1	72	--	5	--
Huntington	0	21	--	--	--
Ipswich	0	84	--	--	--
Kingston	1	120	13	18	--
Lakeville	0	96	--	5	0
Lancaster	4	56	0	0	--
Lanesborough	0	17	--	--	--
Lawrence	1,517	1,308	124	131	139
Lee	0	39	--	5	--
Leicester	0	93	8	10	--
Lenox	0	15	--	--	0
Leominster	926	485	39	50	30
Leverett	1	8	0	0	0

**Table 5. Birth Characteristics: Occurrence and Resident Births,
Massachusetts Municipalities: 2013**

Community	Occurrence Births¹	Resident Births²	Low Birthweight (Less than 2,500 grams (5.5 lbs.))	Preterm (<37 weeks gestation)	Teen Births (15-19 years)
Lexington	1	225	11	12	--
Leyden	0	3	0	0	0
Lincoln	1	76	5	5	--
Littleton	0	81	--	8	0
Longmeadow	1	99	--	6	--
Lowell	2,281	1,623	136	148	106
Ludlow	0	147	10	13	5
Lunenburg	1	101	9	13	5
Lynn	7	1,455	108	121	106
Lynnfield	0	112	9	14	0
Malden	2	837	67	79	11
Manchester	0	39	--	--	0
Mansfield	1	198	13	18	--
Marblehead	0	145	22	20	--
Marion	0	37	5	6	--
Marlborough	4	504	41	40	22
Marshfield	3	188	11	16	--
Mashpee	0	101	9	10	--
Mattapoisett	0	37	--	5	--
Maynard	2	131	14	17	--
Medfield	0	98	5	--	0
Medford	4	696	47	59	7
Medway	2	134	6	13	--
Melrose	983	337	17	31	--
Mendon	2	41	--	--	0
Merrimac	0	62	--	5	--
Methuen	981	598	33	38	22
Middleborough	1	233	13	15	10
Middlefield	0	4	0	0	0
Middleton	0	54	--	0	0
Milford	895	335	26	27	10
Millbury	1	130	9	16	--
Millis	0	51	--	--	--
Millville	2	17	--	--	0
Milton	2	289	22	30	--
Monroe	0	2	0	0	0
Monson	2	50	0	--	--
Montague	2	82	6	9	5
Monterey	0	3	0	--	0
Montgomery	0	3	0	0	0
Mount Washington	0	0	0	0	0
Nahant	0	15	--	0	0
Nantucket	120	131	--	--	--
Natick	2	429	30	46	--
Needham	1	296	18	20	--
New Ashford	0	1	0	0	0
New Bedford	1,431	1,306	117	135	126
New Braintree	0	8	--	--	0
New Marlborough	0	6	--	--	0
New Salem	0	11	0	--	--
Newbury	0	50	5	7	--
Newburyport	702	166	9	13	--

**Table 5. Birth Characteristics: Occurrence and Resident Births,
Massachusetts Municipalities: 2013**

Community	Occurrence Births¹	Resident Births²	Low Birthweight (Less than 2,500 grams (5.5 lbs.))	Preterm (<37 weeks gestation)	Teen Births (15-19 years)
Newton	4,196	801	59	69	5
Norfolk	1	72	--	6	0
North Adams	238	132	6	13	15
North Andover	1	298	25	27	0
North Attleboro	0	286	24	27	9
North Brookfield	1	45	--	--	--
North Reading	0	154	8	12	0
Northampton	824	194	8	13	--
Northborough	1	138	7	7	0
Northbridge	1	147	8	9	--
Northfield	0	23	0	--	--
Norton	0	134	5	6	7
Norwell	0	92	7	5	0
Norwood	422	379	31	35	5
Oak Bluffs	145	49	--	5	--
Oakham	0	14	0	--	--
Orange	2	61	5	7	--
Orleans	0	26	0	--	0
Otis	0	8	0	0	0
Oxford	0	140	11	10	--
Palmer	2	123	8	--	6
Paxton	0	24	--	--	0
Peabody	0	477	32	42	11
Pelham	0	14	0	0	--
Pembroke	1	133	0	--	--
Pepperell	2	96	--	5	--
Peru	0	8	0	--	--
Petersham	1	9	0	0	0
Phillipston	0	18	--	--	--
Pittsfield	615	446	33	32	37
Plainfield	0	3	0	0	0
Plainville	0	75	8	9	--
Plymouth	632	508	46	54	16
Plympton	0	27	6	--	--
Princeton	2	21	--	--	0
Provincetown	0	11	0	0	0
Quincy	6	1,251	80	92	16
Randolph	4	352	28	27	12
Raynham	0	142	6	9	--
Reading	0	269	20	20	0
Rehoboth	0	88	6	8	--
Revere	0	761	64	61	37
Richmond	2	8	0	0	0
Rochester	0	40	--	5	0
Rockland	1	221	14	15	10
Rockport	0	41	5	6	--
Rowe	0	2	0	0	0
Rowley	0	47	--	6	--
Royalston	0	6	--	0	--
Russell	0	11	--	--	0
Rutland	0	84	9	8	0
Salem	1,347	524	35	53	19

**Table 5. Birth Characteristics: Occurrence and Resident Births,
Massachusetts Municipalities: 2013**

Community	Occurrence Births¹	Resident Births²	Low Birthweight (Less than 2,500 grams (5.5 lbs.))	Preterm (<37 weeks gestation)	Teen Births (15-19 years)
Salisbury	1	86	6	--	--
Sandisfield	0	10	--	0	--
Sandwich	0	122	9	9	--
Saugus	0	271	17	23	6
Savoy	0	0	0	0	0
Scituate	2	164	13	24	--
Seekonk	0	102	7	7	--
Sharon	1	143	9	13	--
Sheffield	1	30	--	--	--
Shelburne	1	13	--	--	0
Sherborn	0	26	6	7	0
Shirley	0	59	6	6	5
Shrewsbury	3	370	28	25	--
Shutesbury	4	11	0	0	0
Somerset	0	141	11	15	--
Somerville	11	964	78	75	16
South Hadley	1	148	9	11	--
Southampton	0	37	--	0	0
Southborough	0	91	--	8	0
Southbridge	294	222	21	21	25
Southwick	0	73	--	6	--
Spencer	1	123	5	6	--
Springfield	5,374	2,194	204	230	289
Sterling	0	47	--	6	0
Stockbridge	0	15	--	--	0
Stoneham	0	247	23	21	--
Stoughton	1	290	20	24	6
Stow	2	58	--	--	0
Sturbridge	1	88	5	6	--
Sudbury	0	149	7	16	--
Sunderland	0	27	--	--	0
Sutton	0	68	--	7	--
Swampscott	0	126	8	12	0
Swansea	2	114	11	12	--
Taunton	384	637	47	46	29
Templeton	2	70	13	11	--
Tewksbury	1	273	19	20	--
Tisbury	0	39	--	--	--
Tolland	0	1	0	0	0
Topsfield	0	42	--	--	0
Townsend	1	63	--	5	--
Truro	0	13	--	--	0
Tyngsborough	0	119	11	13	--
Tyringham	0	2	0	0	0
Upton	1	54	5	5	--
Uxbridge	4	132	15	16	--
Wakefield	2	296	29	33	--
Wales	0	11	0	--	--
Walpole	3	265	15	17	--
Waltham	4	782	62	66	16
Ware	1	94	8	6	6
Wareham	480	216	16	18	10

**Table 5. Birth Characteristics: Occurrence and Resident Births,
Massachusetts Municipalities: 2013**

Community	Occurrence Births¹	Resident Births²	Low Birthweight (Less than 2,500 grams (5.5 lbs.))	Preterm (<37 weeks gestation)	Teen Births (15-19 years)
Warren	0	47	--	--	--
Warwick	0	3	0	0	0
Washington	0	5	0	0	--
Watertown	3	494	38	45	--
Wayland	1	120	6	9	0
Webster	2	189	19	16	14
Wellesley	1	209	18	20	0
Wellfleet	1	20	0	--	--
Wendell	0	10	--	--	0
Wenham	0	23	--	--	0
West Boylston	1	71	6	8	--
West Bridgewater	2	61	6	10	0
West Brookfield	0	23	0	0	--
West Newbury	0	23	--	--	0
West Springfield	0	352	35	34	16
West Stockbridge	0	10	0	0	0
West Tisbury	0	26	0	0	--
Westborough	0	225	24	24	--
Westfield	3	439	24	31	16
Westford	1	152	9	15	0
Westhampton	1	13	0	0	0
Westminster	0	63	7	5	0
Weston	1	55	9	9	0
Westport	0	111	5	5	--
Westwood	0	111	15	13	0
Weymouth	3,343	630	53	64	9
Whately	0	7	--	0	0
Whitman	0	146	10	13	--
Wilbraham	1	95	9	9	--
Williamsburg	1	23	--	--	--
Williamstown	0	35	0	--	--
Wilmington	1	242	16	16	--
Winchendon	0	83	5	--	5
Winchester	1,928	215	9	11	--
Windsor	0	4	0	0	0
Winthrop	2	185	8	9	--
Woburn	2	514	46	48	8
Worcester	5,882	2,499	201	224	179
Worthington	1	7	0	--	0
Wrentham	0	83	8	10	--
Yarmouth	0	184	15	21	5

1. Births occurring in a geographical place (state, city/town) regardless of the residency of the mother. 2. Births to mothers who report their usual place of residence as a particular geographical place (state, or city/town).

-- Due to small numbers (n=1-4), exact count not provided.

DATA SOURCES AND METHOD NOTES

Data on births are based on information from the Massachusetts Standard Certificate of Live Birth filed with the Registry of Vital Records and Statistics.

We have used two population files based upon the 2010 Census for denominators in rate calculations:

- The 2013 Modified Age, Race/Ethnicity, and Sex file (MARS), which is a bridged population file produced by the National Center for Health Statistics (NCHS) and the Census Bureau Population Estimates Program was used to calculate state rates by race and Hispanic ethnicity, e.g., teen birth rates. This file has data by single years of age, sex, race and Hispanic ethnicity in the five mutually exclusive categories used by the Department: White Non-Hispanic, Black Non-Hispanic, Asian Non-Hispanic, American Indian/Alaska Native Non-Hispanic, and Hispanic.
- The Massachusetts Department of Public Health Race Allocated Census 2010 Estimates file, which contains population estimates based upon the Census 2010 Summary File 1, was used to calculate city, town, and other substate rates. In this file, the Census 2010 race categories, “Two or more races” and “Some other race” are redistributed to the MDPH standard race categories: Non-Hispanic White, Non-Hispanic Black, Non-Hispanic Asian and Pacific Islander, and Non-Hispanic American Indian and Alaska Native. All persons in the Census 2010 Hispanic ethnicity category are counted as “Hispanic” race in the MDPH estimates. **Please note:** If the population in your community increased from 2010 to 2013, the rates listed may **overestimate** the actual rate. If the population in your community declined from 2010 to 2012, the rates given in the publication may **underestimate** the actual rate.

Rate, Proportion, and Number Comparisons

The comparison of rates, proportions, and numbers is based on tests of statistical significance. Comparative words, for example, “higher”, “lower”, “increase”, and “decrease” are used only when the statistics being compared are statistically different (i.e., statistically significant at the $P \leq .05$ level). All statistics presented, unless stated otherwise, are based upon the number of births and not on the number of mothers. .

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