



LOWELL, MASSACHUSETTS

Demography and Enrollment Projections

APRIL 8, 2013

NESDEC PROJECT TEAM

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New England School Development Council

28 Lord Road, Marlborough, MA 01752 ➤ Tel: 508-481-9444 ➤ www.nesdec.org

LOWELL PUBLIC SCHOOLS (LPS) ENROLLMENTS

Slides 4-15

LOWELL DEMOGRAPHIC DATA Slides 16-49

- **HOUSING Slides 35-45**

REGIONAL AND NATIONAL DATA Slides 50-65



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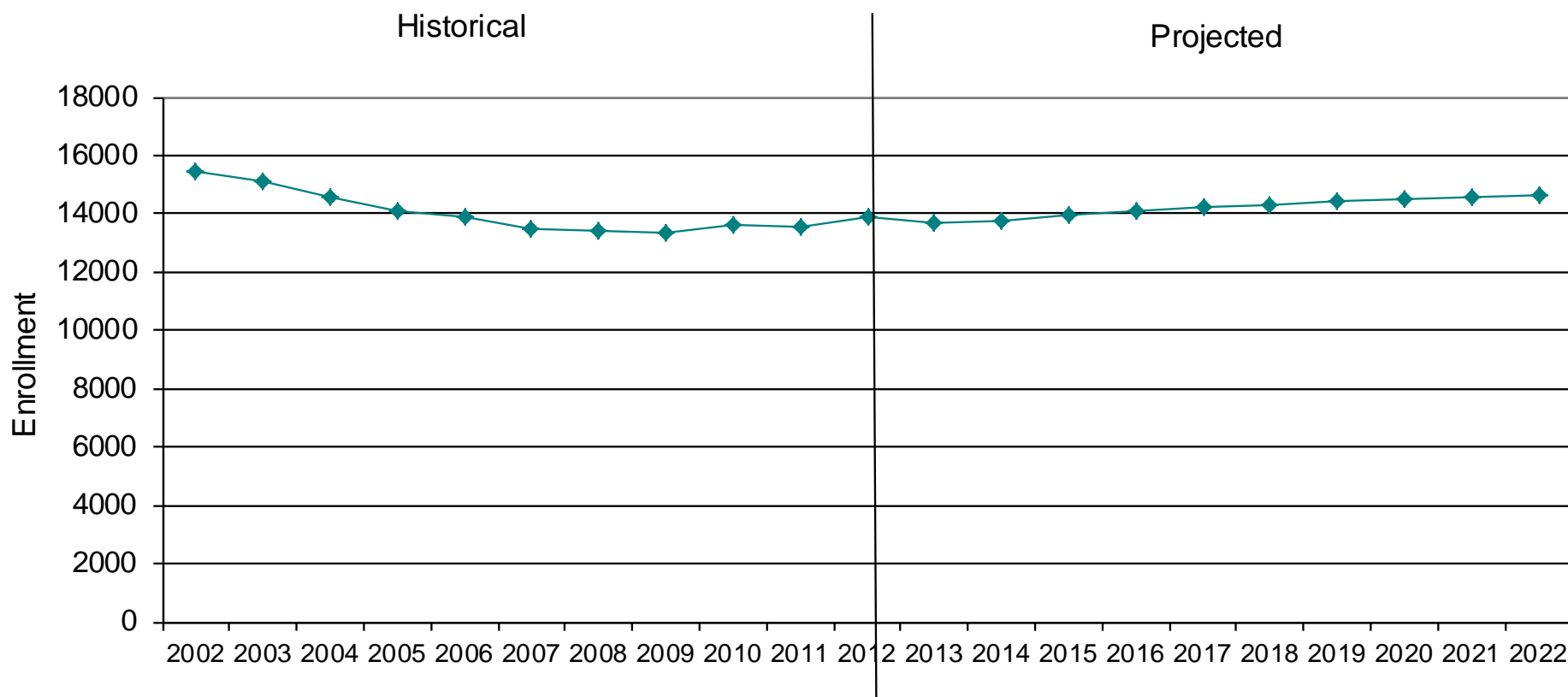
THE BOTTOM LINE:

LOWELL PUBLIC SCHOOLS (LPS) ENROLLMENTS



Historical & Projected Enrollment Scenario #3

PK-12, 2002-2022



K-12 PROJECTIONS TO 2017-18...and BEYOND

Beginning in 2000-01, enrollments began to decline; then, from 2007-08 onward, births and in-migration of new families have caused enrollments to rise, beginning at the earliest grade levels

	K-4	5-8	9-12	K-12 TOTAL
2007-08	5,173	4,307	3,573	13,053
2012-13	<u>5,898</u>	<u>4,353</u>	<u>3,113</u>	<u>13,381*</u>
	+725	+46	-460	+328

* Includes 17 “Ungraded” students

“Five-years-out”, with Lowell Collegiate Charter School opening in 2013-14...

	K-4	5-8	9-12	K-12 TOTAL
2017-18	5,743	4,707	3,254	13,721*

“Ten-years-out”, with continuation of present steady in-migration

	K-4	5-8	9-12	K-12 TOTAL
2022-23	5,739	4,777	3,593	14,126*

K-12 PROJECTIONS TO 2017-18...and BEYOND (continued)

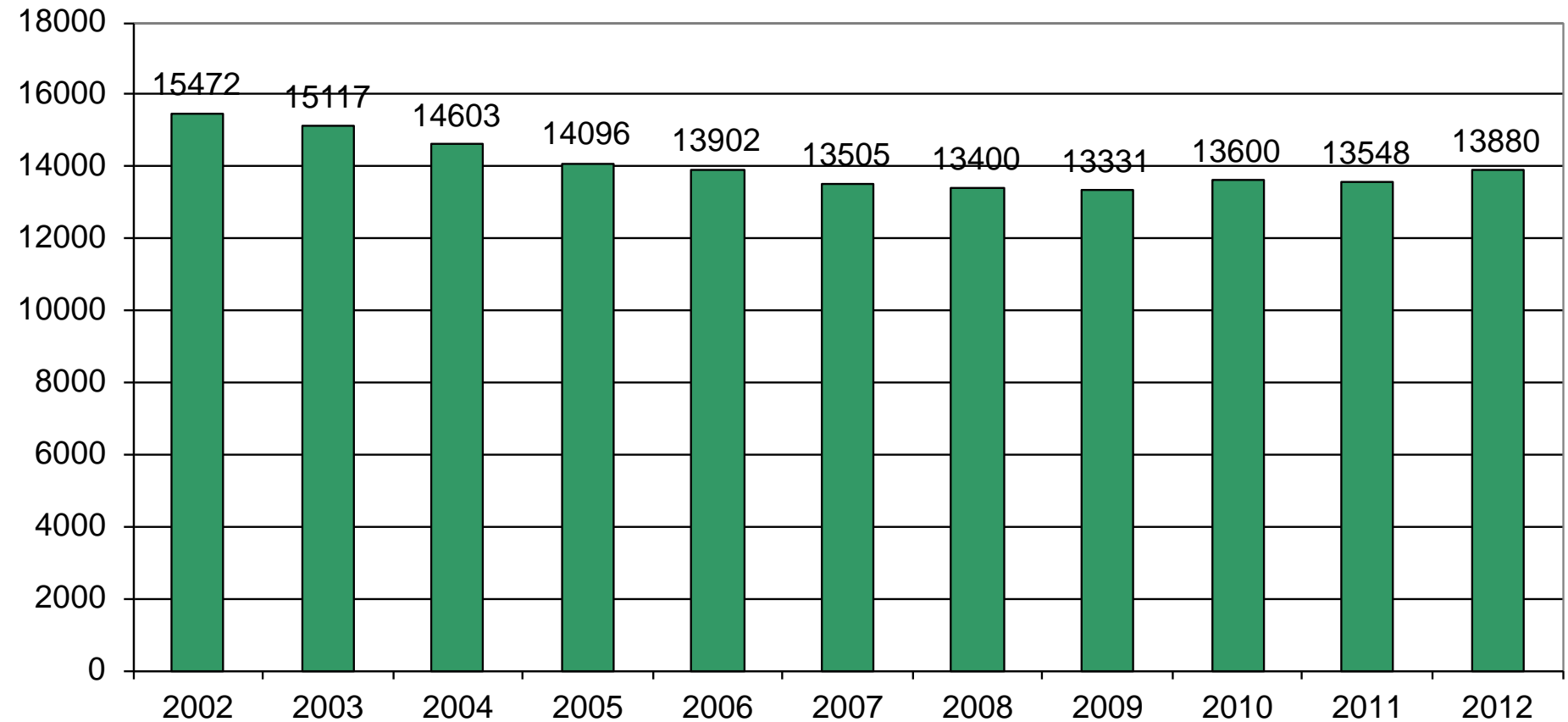
**IS THERE A POSSIBILITY THAT THE SLOW,
STEADY ENROLLMENT GROWTH FORECAST BY
NESDEC WILL BE EXCEEDED?**

**YES, THE FOOTNOTE ON SLIDE #20 DESCRIBES
THE RISING POPULATION OF LOWELL, WHICH
APPEARS TO EXCEED EARLIER ESTIMATES.
SCHOOL POPULATIONS, HOWEVER, DO NOT
ALWAYS MATCH WITH RISING/SHRINKING
POPULATION TOTALS, SEE SLIDES #24-26**

**THAT SAID, THE NESDEC PROJECTIONS COULD
PROVE TO BE AT THE LOW END OF A RANGE;
THUS AN ENROLLMENT UPDATE IN FALL 2013-
14 NEEDS TO BE WATCHED CAREFULLY**

Lowell, MA Historical Enrollment

PK-12, 2002-2012



Lowell, MA Historical Enrollment

School District: **Lowell, MA Scenario #3 revised**

3/28/2013

Historical Enrollment By Grade

Birth Year	Births	School Year	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12
1997	1691	2002-03	409	1128	1182	1191	1147	1200	1324	1371	1384	1341	1180	1033	835	747	0	15063	15472
1998	1686	2003-04	407	1071	1111	1140	1172	1129	1189	1304	1356	1320	1273	867	958	808	12	14710	15117
1999	1676	2004-05	429	1039	1076	1085	1175	1067	1139	1202	1330	1326	1170	966	772	827	0	14174	14603
2000	1761	2005-06	427	1110	1019	1013	1037	1093	1102	1111	1166	1276	1241	877	837	767	20	13669	14096
2001	1739	2006-07	468	989	1127	999	1020	1045	1097	1104	1102	1219	1113	960	806	832	21	13434	13902
2002	1790	2007-08	452	1055	974	1101	1000	1043	1004	1111	1081	1111	1095	862	816	800	0	13053	13505
2003	1696	2008-09	447	1084	1072	994	1120	1021	995	1001	1126	1119	1000	873	769	754	25	12953	13400
2004	1649	2009-10	473	1064	1104	1064	996	1117	1030	1010	1003	1152	879	858	778	775	28	12858	13331
2005	1667	2010-11	478	1120	1126	1085	1053	1031	1118	1047	1064	1075	976	850	777	781	19	13122	13600
2006	1817	2011-12	487	1257	1100	1102	1058	1043	1018	1114	1109	1080	838	810	749	767	16	13061	13548
2007	1833	2012-13	499	1337	1273	1113	1092	1083	1050	1017	1187	1099	920	716	735	742	17	13381	13880

Historical enrollments are as of October 1 of each school year. On the row below appear the March 1, 2013 net enrollment increases/decreases since October 1:

3/1/2013	54	2	11	0	11	24	9	6	14	16	-59	-6	-3	1	2
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Historical Enrollment in Grade Combinations

Year	PK-4	K-4	K-6	K-8	5-8	6-8	7-8	7-12	9-12
2002-03	6257	5848	8543	11268	5420	4096	2725	6520	3795
2003-04	6030	5623	8116	10792	5169	3980	2676	6582	3906
2004-05	5871	5442	7783	10439	4997	3858	2656	6391	3735
2005-06	5699	5272	7485	9927	4655	3553	2442	6164	3722
2006-07	5648	5180	7381	9702	4522	3425	2321	6032	3711
2007-08	5625	5173	7288	9480	4307	3303	2192	5765	3573
2008-09	5738	5291	7287	9532	4241	3246	2245	5641	3396
2009-10	5818	5345	7385	9540	4195	3165	2155	5445	3290
2010-11	5893	5415	7580	9719	4304	3186	2139	5523	3384
2011-12	6047	5560	7692	9881	4321	3303	2189	5353	3164
2012-13	6397	5898	7965	10251	4353	3303	2286	5399	3113

Historical Percentage Changes

Year	K-12	Diff.	%
2002-03	15063	0	#DIV/0!
2003-04	14710	-353	-2.3%
2004-05	14174	-536	-3.6%
2005-06	13669	-505	-3.6%
2006-07	13434	-235	-1.7%
2007-08	13053	-381	-2.8%
2008-09	12953	-100	-0.8%
2009-10	12858	-95	-0.7%
2010-11	13122	264	2.1%
2011-12	13061	-61	-0.5%
2012-13	13381	320	2.5%
Change	-1682	-11.2%	

LOWELL HIGH SCHOOL HISTORY OF CLASS OF 2013

1995 Lowell Births 1,739

Year	Grade	Lowell Public Schools
1999-00	Preschool	322
2000-01	Kindergarten	1,187
2001-02	Grade 1	1,181
2002-03	Grade 2	1,191
2003-04	Grade 3	1,172
2004-05	Grade 4	1,067
2005-06	Grade 5	1,102
2006-07	Grade 6	1,104
2007-08	Grade 7	1,081
2008-09	Grade 8	1,119
2009-10	Grade 9	897
2010-11	Grade 10	850
2011-12	Grade 11	749
2012-13	Grade 12	742

Note the pattern of “steadiness/growth/shrinkage” that a class typically experiences between Kindergarten and Grade 12

Lowell, MA Projected Enrollment Scenario #3

School District: Lowell, MA **Scenario #3 revised**

3/28/2013

Assumes new K-5 charter school opens in 2013-14 with 75 students per grade - with NONE later returning to the Lowell Public Schools

Enrollment Projections By Grade*

Birth Year	Births		School Year	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12
2007	1833		2012-13	499	1337	1273	1113	1092	1083	1050	1017	1187	1099	920	716	735	742	17	13381	13880
2008	1775		2013-14	501	1163	1286	1187	1022	1035	1006	1054	1077	1218	908	813	643	731	17	13160	13661
2009	1736		2014-15	503	1136	1185	1274	1168	1040	1033	1010	1117	1105	1006	802	730	639	17	13262	13765
2010	1679		2015-16	505	1096	1157	1174	1254	1188	1038	1037	1074	1146	913	889	720	726	17	13429	13934
2011	1768	(est.)	2016-17	507	1159	1117	1146	1156	1276	1186	1042	1103	1104	947	807	798	716	17	13574	14081
2012	1758	(est.)	2017-18	509	1152	1181	1106	1128	1176	1274	1191	1108	1134	899	837	725	793	17	13721	14230
2013	1743	(est.)	2018-19	511	1141	1174	1170	1089	1148	1174	1279	1266	1139	924	786	752	721	17	13780	14291
2014	1737	(est.)	2019-20	513	1137	1163	1163	1152	1108	1146	1179	1359	1301	928	808	698	747	17	13906	14419
2015	1737	(est.)	2020-21	515	1137	1158	1152	1145	1172	1106	1151	1253	1396	1062	811	718	693	17	13971	14486
2016	1749	(est.)	2021-22	517	1145	1158	1147	1134	1165	1170	1111	1224	1287	1140	930	721	713	17	14062	14579
2017	1745	(est.)	2022-23	519	1142	1167	1147	1129	1154	1163	1175	1181	1258	1050	999	828	716	17	14126	14645

*Projections should be updated on an annual basis.



Based on an estimate of births



Based on children already born



Based on students already enrolled

See "Historical Enrollment" net increases/decreases for March 1, 2013; these numbers could be used to adjust the 2013-14 projections; see "Flex" (final tab)

Projected Enrollment in Grade Combinations*

Year	PK-4	K-4	K-6	K-8	5-8	6-8	7-8	7-12	9-12
2012-13	6397	5898	7965	10251	4353	3303	2286	5399	3113
2013-14	6194	5693	7753	10048	4355	3349	2295	5390	3095
2014-15	6306	5803	7846	10068	4265	3232	2222	5399	3177
2015-16	6374	5869	7944	10164	4295	3257	2220	5468	3248
2016-17	6361	5854	8082	10289	4435	3249	2207	5475	3268
2017-18	6252	5743	8208	10450	4707	3433	2242	5496	3254
2018-19	6233	5722	8175	10580	4858	3684	2405	5588	3183
2019-20	6236	5723	8048	10708	4985	3839	2660	5841	3181
2020-21	6279	5764	8021	10670	4906	3800	2649	5933	3284
2021-22	6266	5749	8030	10541	4792	3622	2511	6015	3504
2022-23	6258	5739	8077	10516	4777	3614	2439	6032	3593

Projected Percentage Changes

Years	K-12	Diff.	%
2012-13	13381	0	0.0%
2013-14	13160	-221	-1.7%
2014-15	13262	102	0.8%
2015-16	13429	167	1.3%
2016-17	13574	145	1.1%
2017-18	13721	147	1.1%
2018-19	13780	59	0.4%
2019-20	13906	126	0.9%
2020-21	13971	65	0.5%
2021-22	14062	91	0.7%
2022-23	14126	64	0.5%

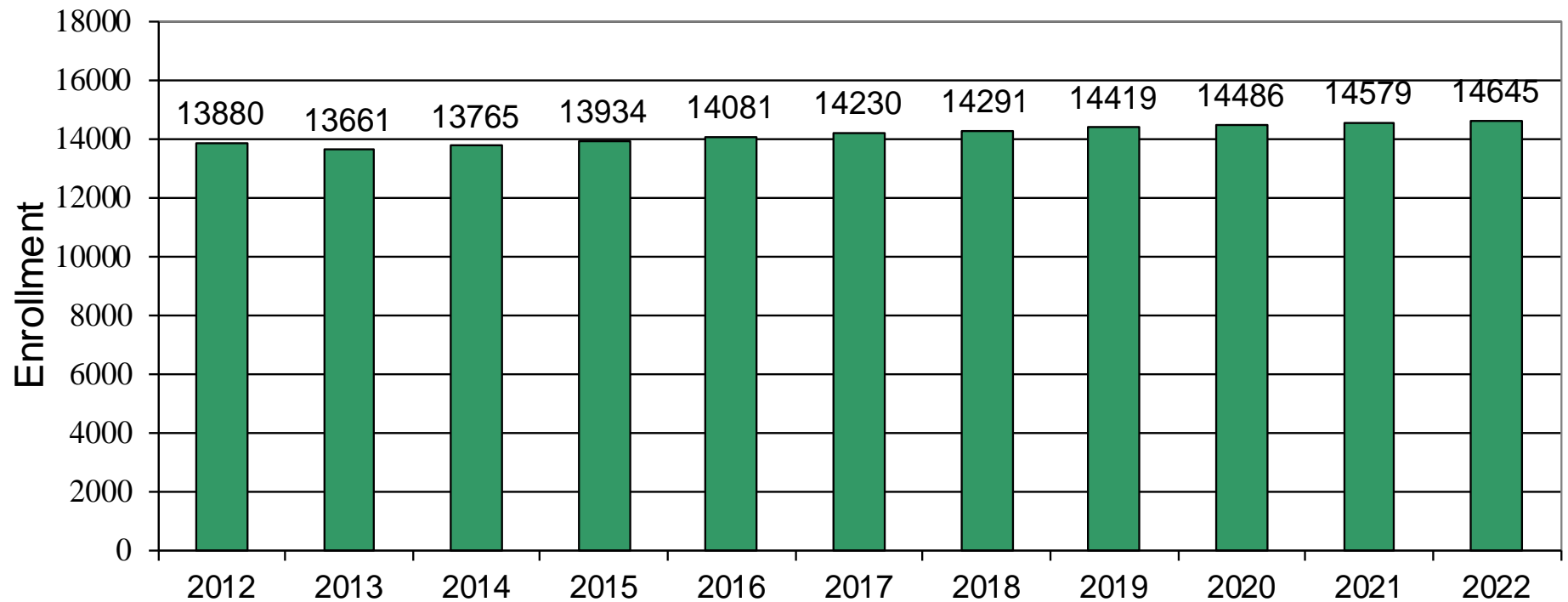
Change **745** **5.6%**

See "Reliability of Enrollment Projections" section of accompanying letter.

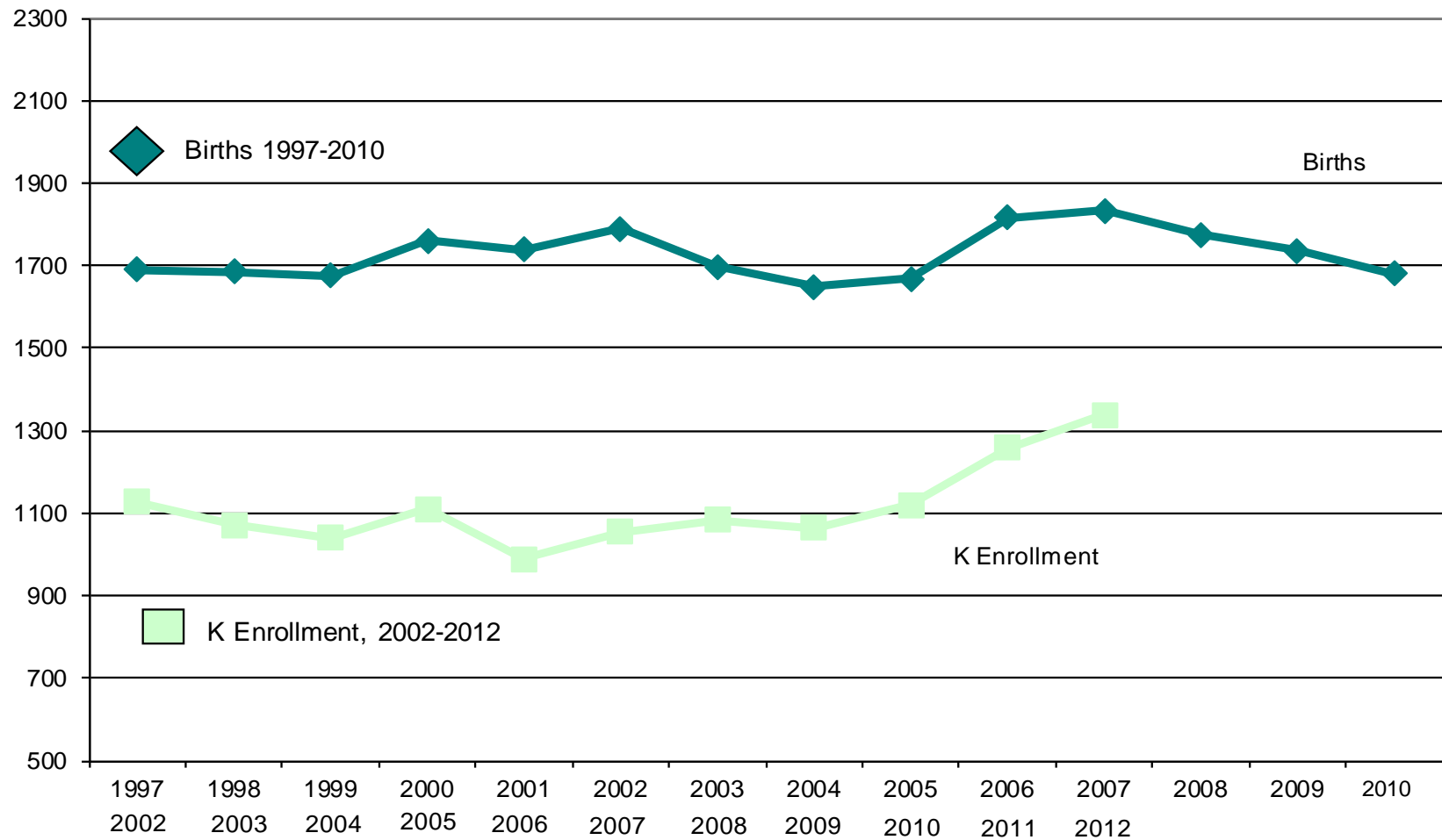
Projections are more reliable for Years 1-5 in the future than for Years 6 and beyond.

Lowell, MA Projected Enrollment Scenario #3

PK-12 TO 2022 Based On Data Through School Year 2012-13



Lowell, MA Birth-to-Kindergarten Relationship



Lowell, MA Additional Data

Building Permits Issued		
Year	Single-Family	Multi-Units
2000	98	8
2008	92	49
2009	27	2
2010	39	2
2011	44	46
2012	11	8

Source: HUD and Building Department

Enrollment History		
Year	Voc-Tech 9-12 Total	Non-Public K-12 Total
2000-01	n/a	n/a
2008-09	n/a	n/a
2009-10	n/a	n/a
2010-11	n/a	n/a
2011-12	n/a	n/a
2012-13	n/a	n/a

Residents in Non-Public Independent and Parochial Schools (Regular Education)														
Enrollments as of Oct. 1	K	1	2	3	4	5	6	7	8	9	10	11	12	K-12 TOTAL
	0	0	0	0	0	0	0	0	0	0	0	0	0	n/a

K-12 Home-Schooled Students	
2012	n/a

K-12 Residents "Choiced-Out" or in Charter or Magnet Schools	
2012	n/a

K-12 SpEd Outplaced Students	
2012	n/a

K-12 Choiced-In, Tuitioned-In, & Other Non-Residents	
2012	n/a

The above data were used to assist in the preparation of the enrollment projections. If additional demographic work is needed, please contact our office.

LOWELL, MA OCT 1 TO MAR 1 "FLEX" IN ENROLLMENT - WORKSHEET

SCHOOL YEAR	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	Ungr.	K-12 TOTAL	PK-12 TOTAL
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2007-08	452	1055	974	1101	1000	1043	1004	1111	1081	1111	1095	862	816	800	0	13053	13505
Mar 1,08	500	1082	984	1106	987	1036	998	1105	1091	1104	1002	850	778	774	16	12913	13414
10/1-3/1	48	27	10	5	-13	-7	-6	-6	10	-7	-93	-12	-38	-26	16	-140	-91

2008-09	447	1084	1072	994	1120	1021	995	1001	1126	1119	1000	873	769	754	25	12953	13400
Mar 1,09	499	1092	1054	976	1103	1014	955	1003	1131	1091	967	847	770	727	27	12757	13299
10/1-3/1	52	8	-18	-18	-17	-7	-40	2	5	-28	-33	-26	1	-27	2	-196	-101

2009-10	473	1064	1104	1064	996	1117	1030	1010	1003	1152	879	858	778	775	28	12858	13331
Mar 1,10	516	1102	1113	1074	1008	1125	1030	1024	1024	1149	956	825	766	773	25	12994	13510
10/1-3/1	43	38	9	10	12	8	0	14	21	-3	77	-33	-12	-2	-3	136	179

2010-11	478	1120	1126	1085	1053	1031	1118	1047	1064	1075	976	850	777	781	19	13122	13600
Mar 1,11	527	1130	1132	1088	1040	1033	1104	1041	1060	1067	953	802	745	743	19	12957	13484
10/1-3/1	49	10	6	3	-13	2	-14	-6	-4	-8	-23	-48	-32	-38	0	-165	-116

2011-12	487	1257	1100	1102	1058	1043	1018	1114	1109	1080	838	810	749	767	16	13061	13548
Mar 1,12	534	1282	1109	1113	1071	1049	1021	1124	1101	1099	770	789	763	725	11	13027	13561
10/1-3/1	47	25	9	11	13	6	3	10	-8	19	-68	-21	14	-42	-5	-34	13

2012-13	499	1337	1273	1113	1092	1083	1050	1017	1187	1099	920	716	735	742	17	13381	13880
Mar 1,13	553	1339	1284	1113	1103	1107	1059	1023	1201	1115	861	710	732	743	19	13409	13962
10/1-3/1	54	2	11	0	11	24	9	6	14	16	-59	-6	-3	1	2	28	82

Three Year Avg. Flex

10/1-3/1 in FY10-12 46 24 8 8 4 5 -4 6 3 3 -5 -34 -10 -27 -3

FY13 flex 54 2 11 0 11 24 9 6 14 16 -59 -6 -3 1 2

**Potential Adjustment
to NESDEC Projection
for subsequent Grade**

-20 +3 -8 +7 +19 +13 0 +11 +13 -54 -28 +7



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HOW WE KNOW WHAT WE THINK WE KNOW:

LOWELL DEMOGRAPHIC DATA



TABLE 1

TOTAL POPULATION

STATE OF MASSACHUSETTS:

		POPULATION	NO. CHANGE	% CHANGE
1990		6,016,425		
2000		6,349,097	332,672	5.5%
2010		6,547,629	198,532	3.1%

MIDDLESEX COUNTY:

		POPULATION	NO. CHANGE	% CHANGE
1990		1,398,468		
2000		1,465,396	66,928	4.8%
2010		1,503,085	37,689	2.6%

CITY OF LOWELL:

		POPULATION	NO. CHANGE	% CHANGE
1990		103,439		
2000		105,167	1,728	1.7%
2010		106,519	1,352	1.3%

CHANGES IN POPULATION SIZE, 1990 TO 2010

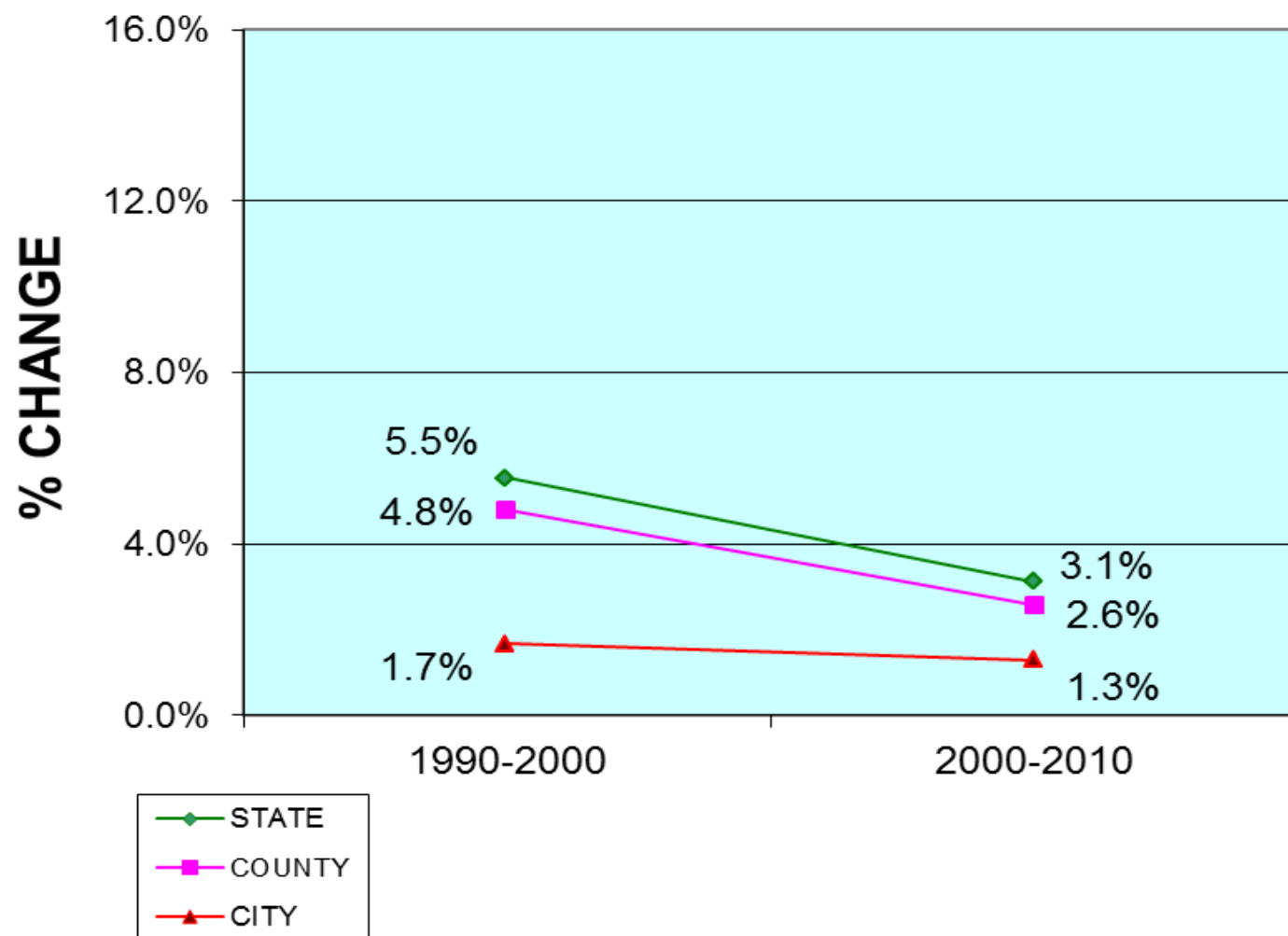


TABLE 1A
PERSONS IN GROUP QUARTERS
LOWELL

1990	2000	2010
1,320 + 2,858 "Other" = 4,178	1,120 + 2,721 "Other" = 3,841	1,112 + 3,234 "Other" = 4,346

“Group Quarters” is a Census Bureau term which includes “Institutionalized Persons” in nursing homes, mental hospitals, and correctional facilities; plus “Other Persons” in college and school dormitories, group homes, religious communities, shelters, and military barracks. In Lowell in the 2000 Census, 1,898 of the “Other Persons” lived in college dormitories; in 2010, 2,411 of the “Other Persons” lived in college dormitories. As additional dorms are constructed, students will vacate their present low-end rentals, thus making apartments available for newly-arrived families – a current need within Lowell’s housing stock.

Slides #24-30 display the Lowell population by age-groupings, and include data about births. In order to assist in projecting the numbers of future school children, it is important to learn whether the population ages 25-44 is increasing/decreasing, as almost 88% of babies are born to women in this age group. The “Group Quarters” population data above show general stability across a period of 20 years; although with an increase in 2010 of 513 persons living in college dormitories – and generally below the age of 25. Persons in “Group Quarters” are not a factor in predicting the numbers of future births/school children.

TABLE 1B

LOWELL POPULATION 1910-2035

Year	U.S. Census	Mass DOT Projections*
1910	106,294	-
1920	112,759	-
1930	100,234	-
1940	101,389	-
1950	97,249	-
1960	92,107	-
1970	94,239	-
1980	92,418	-
1990	103,439	-
2000	105,167	-
2010	106,519	-
2020	-	106,920
2025	-	108,220
2030	-	109,820
2035	-	111,360

* Northern Middlesex Metropolitan Planning Organization, *Northern Middlesex Regional Transportation Plan 2012-2035*, Mass DOT projections in consultation with Northern Middlesex Council of Governments, page 34; the US Census estimates Lowell's population in 2011 was 107,584; the 2012 estimate will be issued by July, 2013, however the US Census estimates that Middlesex County grew 2.3% between 2010 and 2012, largely fueled by urban immigration – applying that percentage directly to Lowell would yield a 2012 estimate of 108,969, making the Mass DOT projections appear to be too conservative

TABLE 2

PERCENTAGE OF POPULATION UNDER THE AGE OF 18 AND MEDIAN AGE

STATE OF MASSACHUSETTS:

	NO. UNDER 18	% UNDER 18	MEDIAN AGE
1990	1,353,075	22.5%	33.6
2000	1,500,064	23.6%	36.5
2010	1,418,923	21.7%	39.1

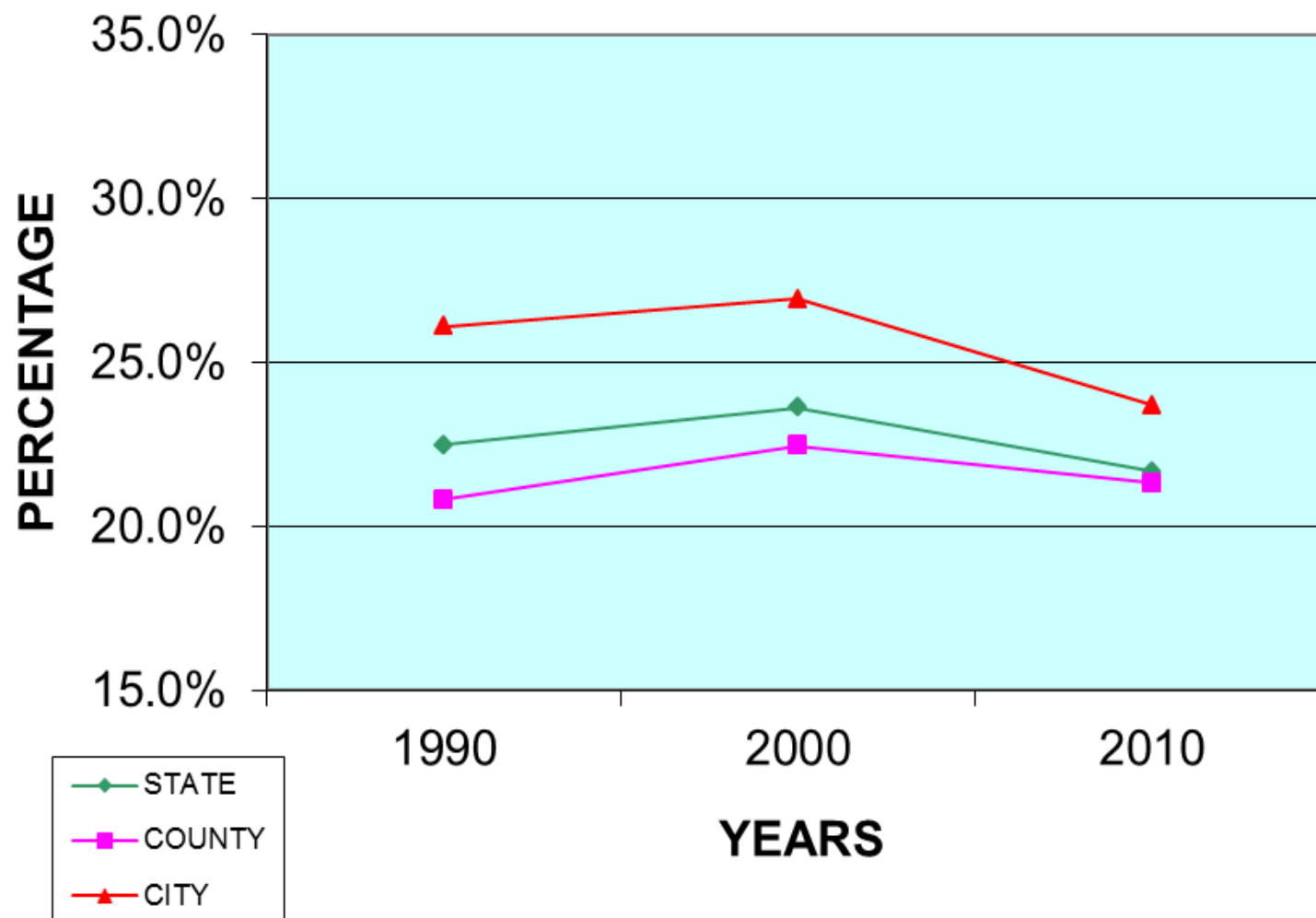
MIDDLESEX COUNTY:

	NO. UNDER 18	% UNDER 18	MEDIAN AGE
1990	290,992	20.8%	33.6
2000	329,073	22.5%	36.4
2010	320,439	21.3%	38.5

CITY OF LOWELL:

	NO. UNDER 18	% UNDER 18	MEDIAN AGE
1990	27,001	26.1%	29.4
2000	28,341	26.9%	31.4
2010	25,260	23.7%	32.6

PERCENTAGE OF POPULATION UNDER 18



LOWELL: CHANGES IN MEDIAN AGE

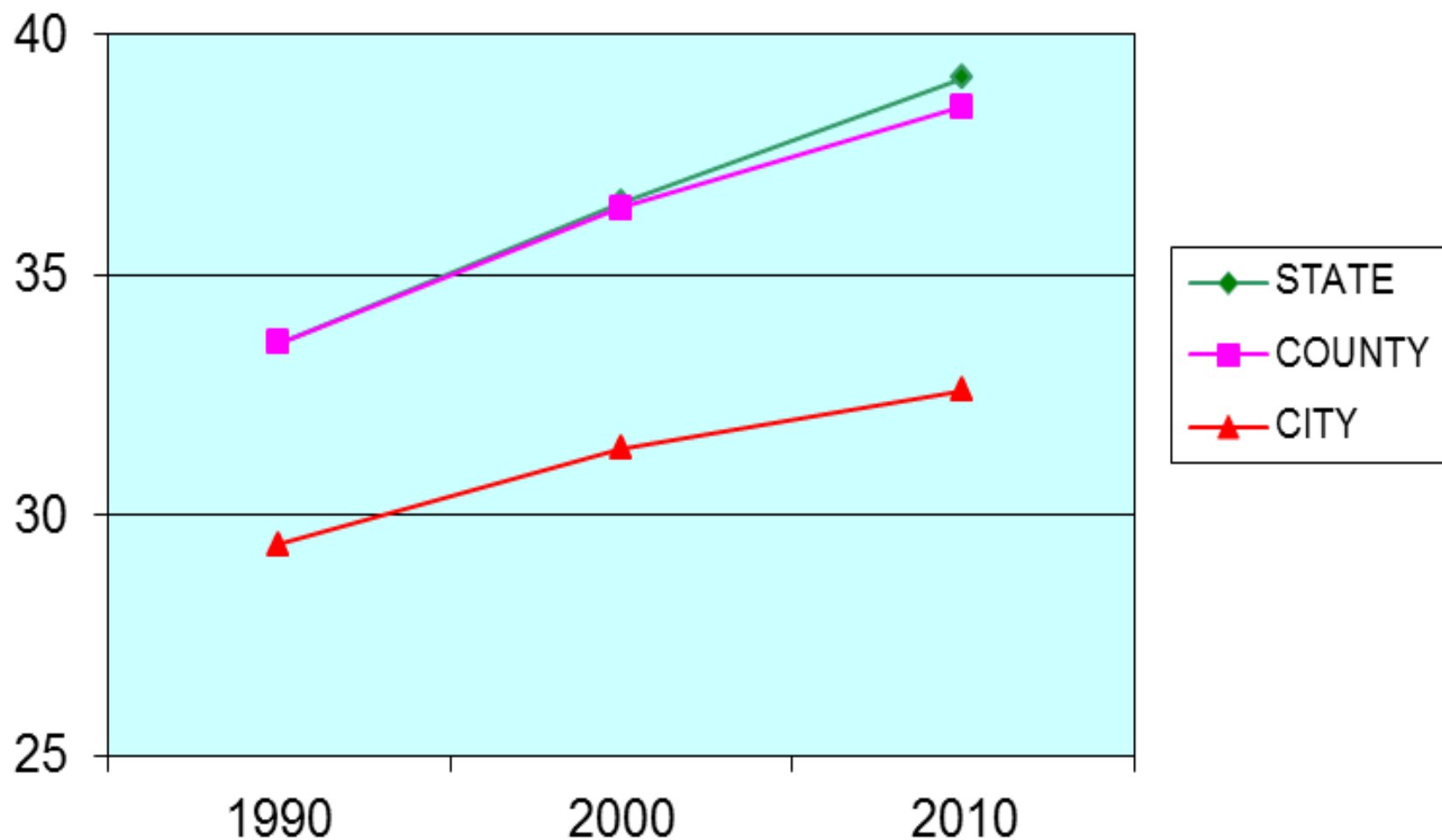


TABLE 3

AGE COHORT – LOWELL, MA

AGE COHORT DATA - LOWELL, MA

AGE	SIZE OF COHORT			% CHANGE, 2000 TO 2010
	1990	2000	2010	
0-4	8930	7696	7828	1.7%
5-9	7644	8261	6673	-19.2%
10-14	6620	7945	6325	-20.4%
15-19	7697	8111	8740	7.8%
20-24	10859	8892	10071	13.3%
25-34	20934	18025	17130	-5.0%
35-44	12768	16137	14218	-11.9%
45-54	8036	11588	14437	24.6%
55-59	3654	4026	5897	46.5%
60-64	3787	3173	4482	41.3%
65+	12510	11313	10718	-5.3%
TOTAL:	103,439	105,167	106,519	1.3%

Age cohort 0-19

Decrease 2,447 +8%

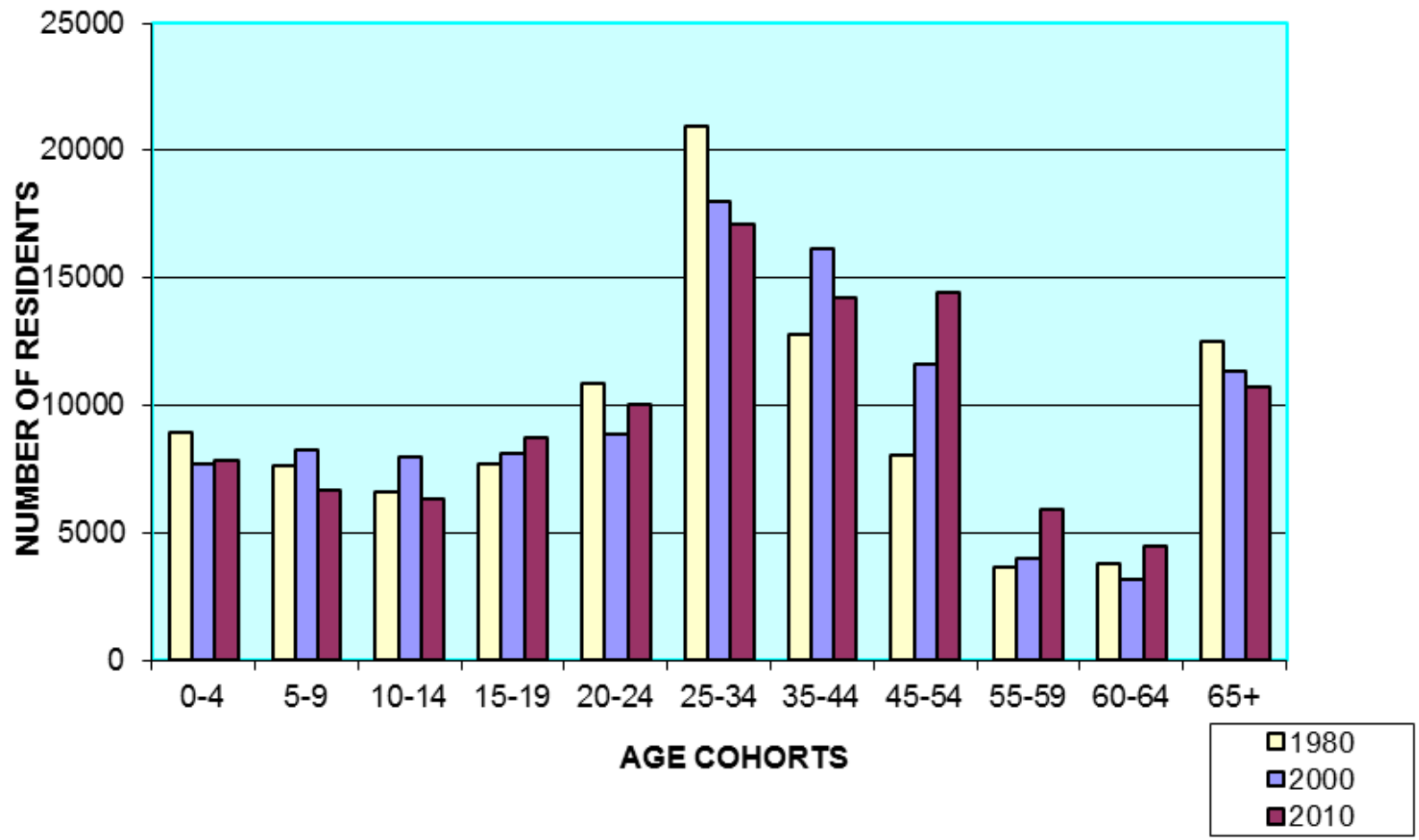
Age cohort 25-44

Decrease -1,635 (-4%)

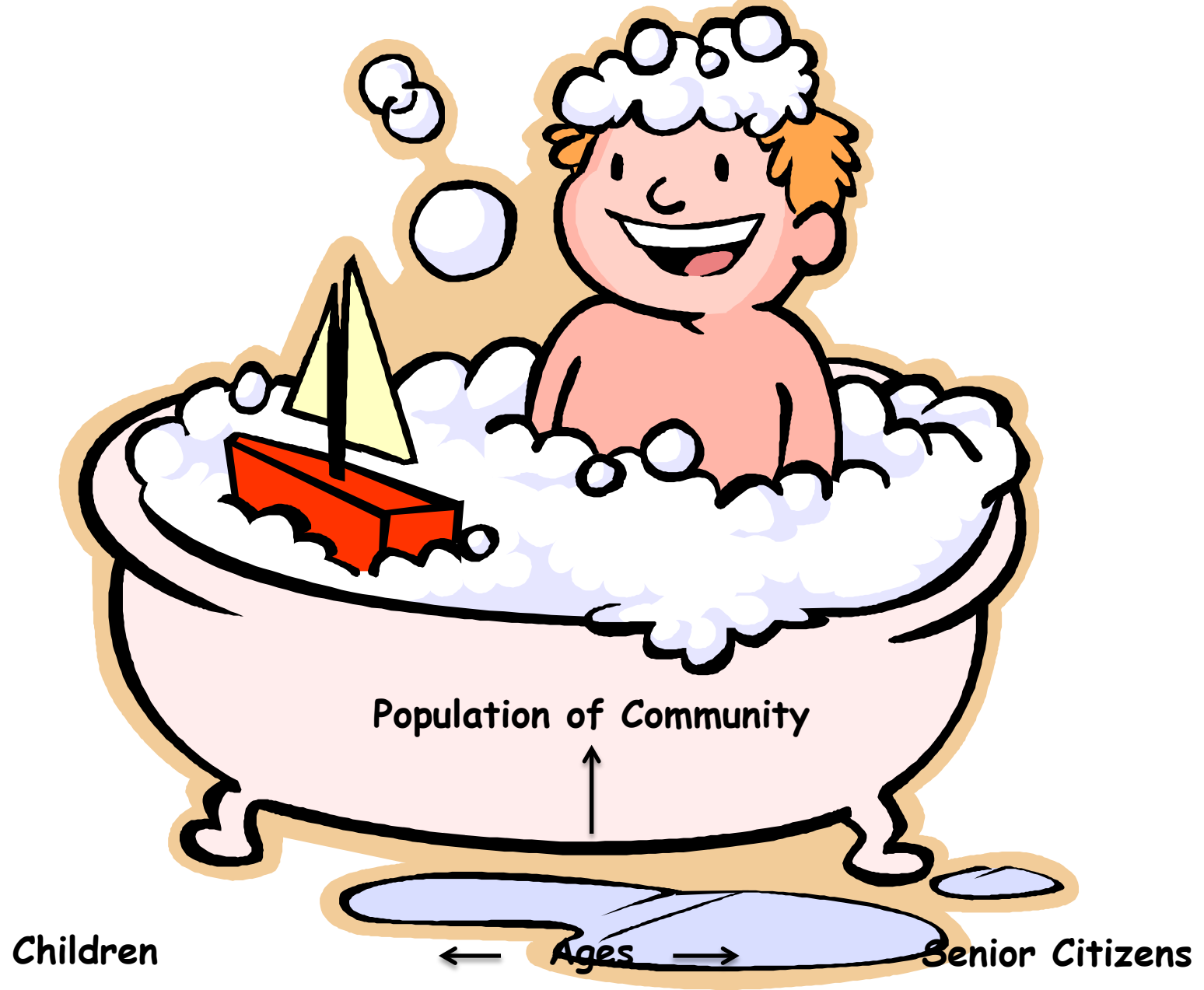
Age cohort 45+

Increase +5,434 (+18%)

AGE COHORTS, 1990, 2000, 2010 - LOWELL, MA



Due to changing sizes of age-cohorts, school populations often do not match with rising/shrinking population totals of communities



Due to changing sizes of age-cohorts, school populations often do not match with rising/shrinking population totals of communities

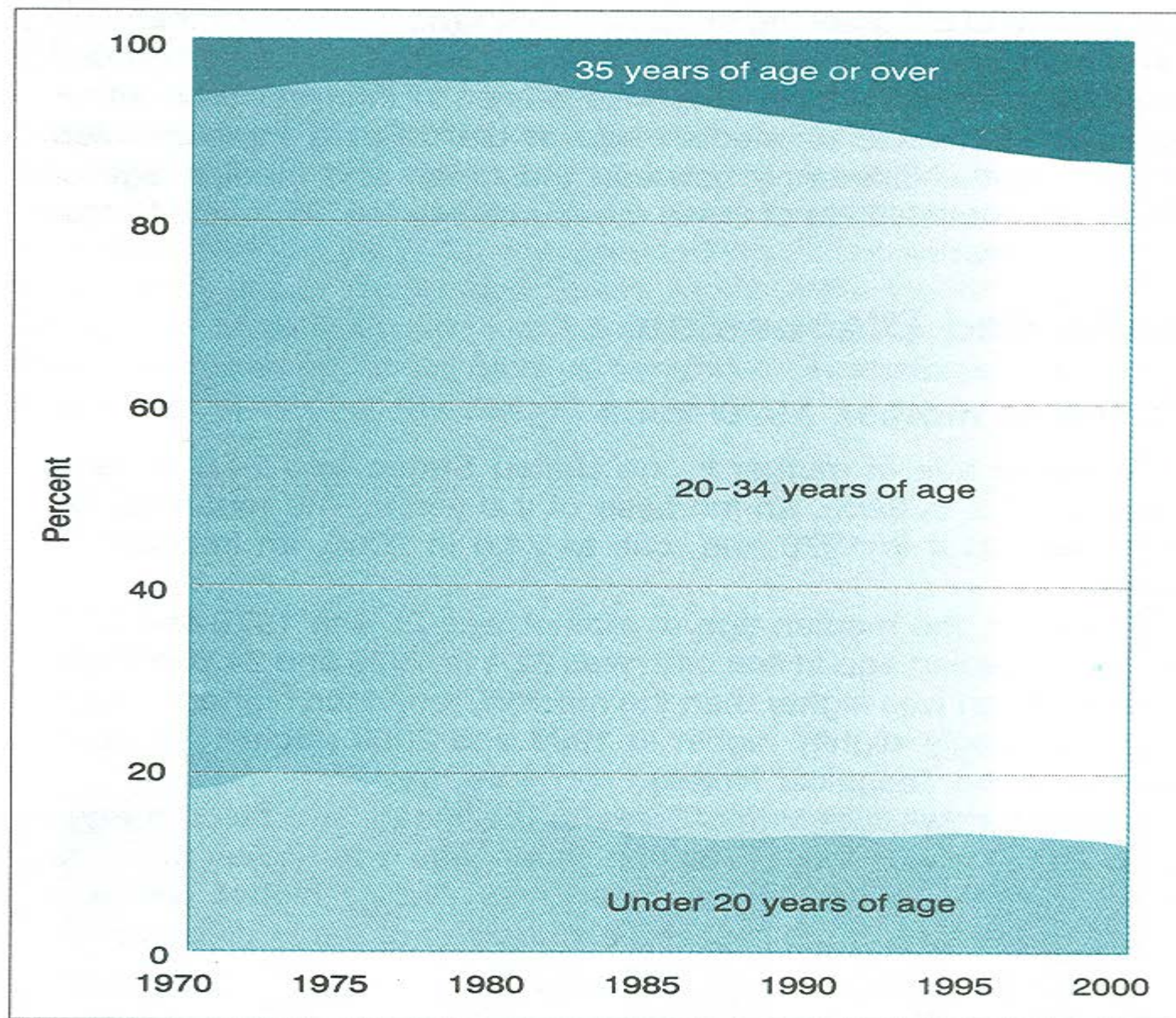
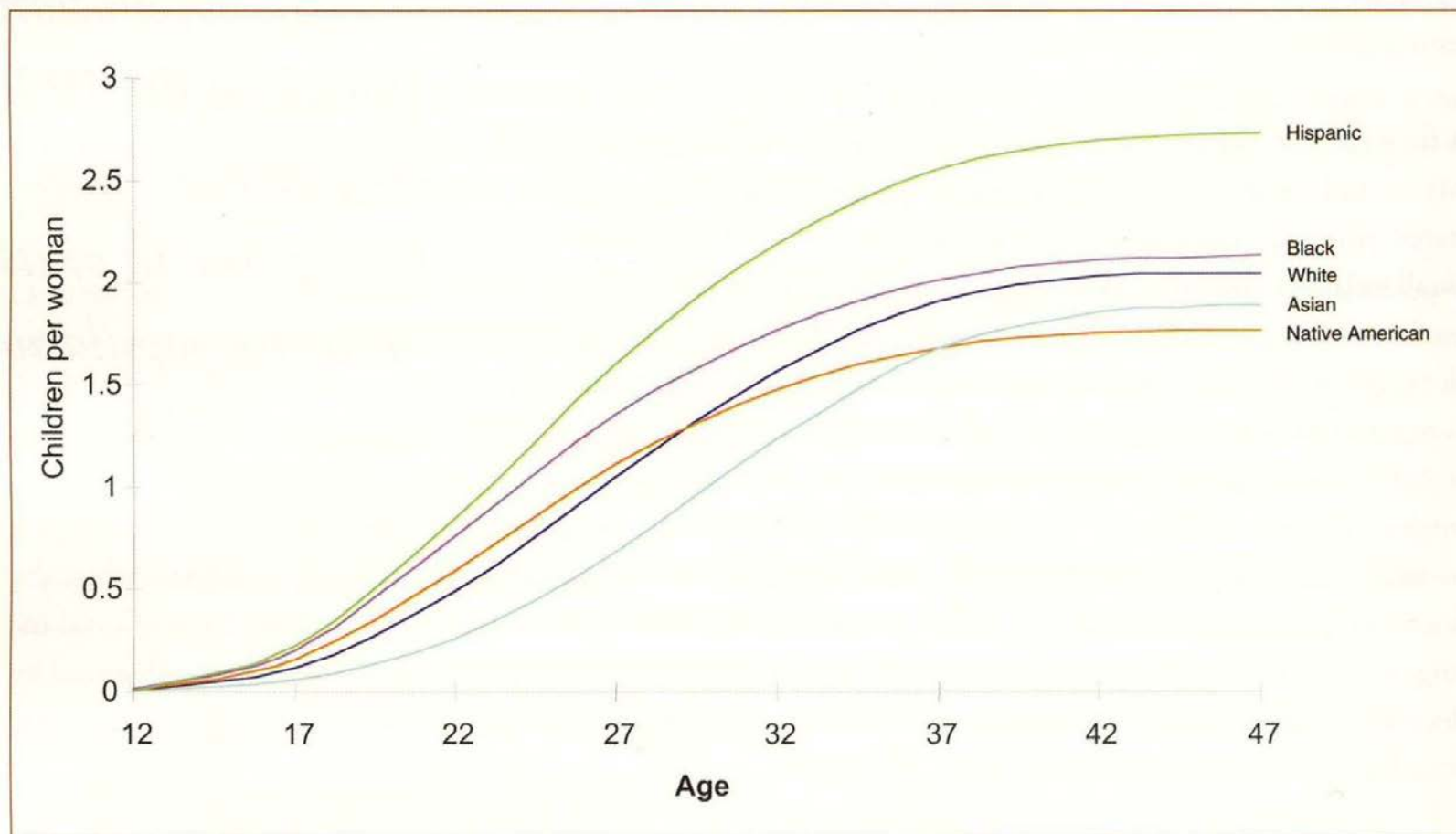


Figure 1. Percent of all live births by age of mother, 1970–2000

Fertility Rate by Age, Race, & Ethnicity

Figure 2: U.S. Fertility Rate by Age, Race, and Ethnicity



BIRTHS IN THE RECESSION

- **From 2003, U.S. births rose to a peak in 2007**
- **U.S. births declined 2% in 2008 and an additional 2.6% in 2009**
- **Pew Research Center found that states hardest hit by the recession experienced the largest declines in births**
- **Pew Center estimates that 14% of Americans age 18-34 postponed having a child (2% with incomes above \$75,000)**
- **Less “hope” = fewer births**

BIRTHS IN THE RECESSION (continued)

- **Recession accelerated an ongoing trend in New England - region already had some decline, due to higher median ages**
- **CT dropped 8.6% (41,684 in 2007 to 38,083 in 2009)**
- **RI declined 8.1% (12,503 in 2007 to 11,494 in 2009)**
- **VT dropped 5.8% (6,492 in 2007 to 6,118 in 2009)**
- **ME declined 4.7% (14,177 in 2007 to 13,506 in 2009)**
- **NH dropped 4.4% (14,397 in 2007 to 13,764 in 2009)**
- **MA declined 3.9% (77,731 in 2007 to 74,643 in 2009)**

TABLE 4

PERCENTAGE OF K-12 ENROLLMENT IN POPULATION

STATE OF MASSACHUSETTS:

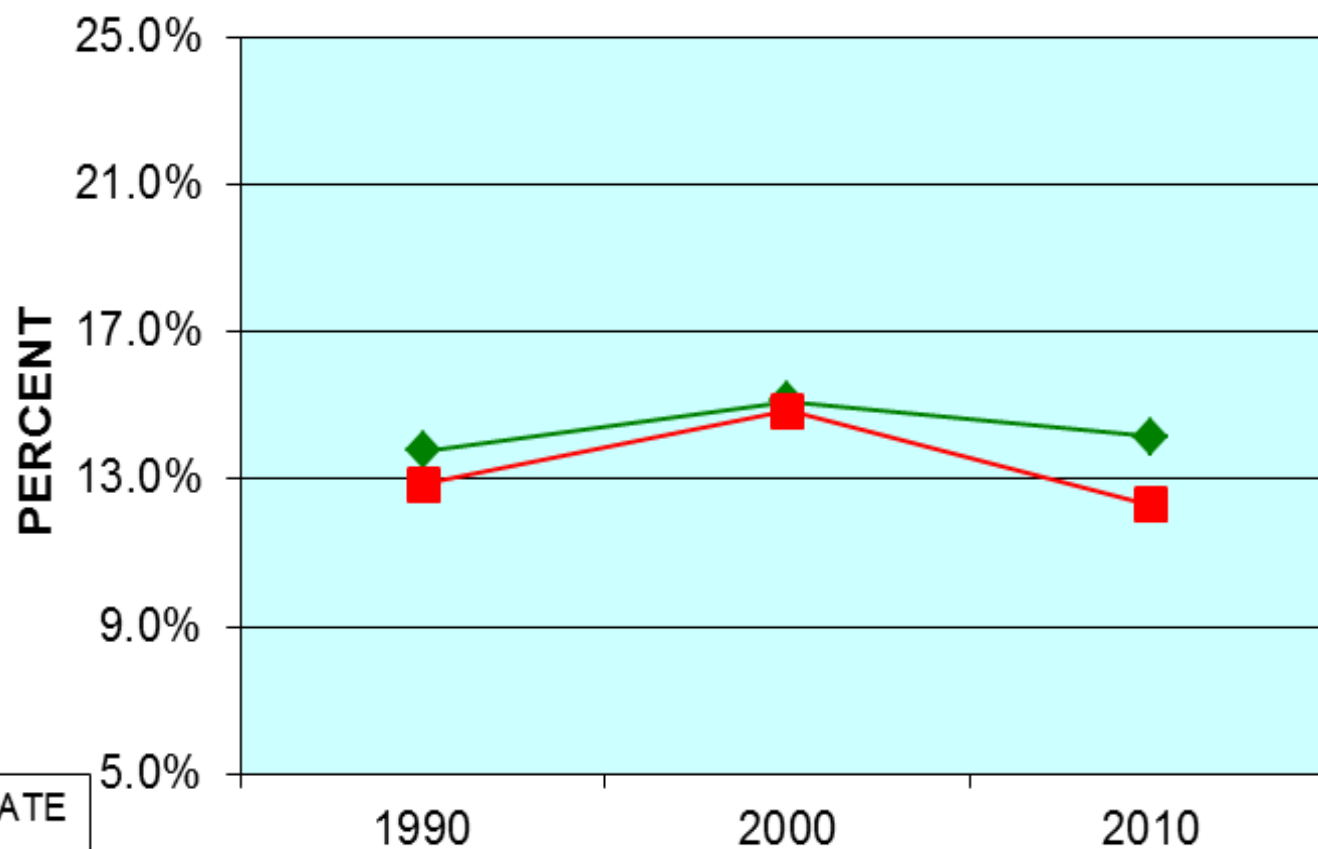
		POPULATION	PUBLIC K-12 ENROLLMENT*	% K-12 ENR. IN POPULATION
1990		6,016,425	828,816	13.8%
2000		6,349,097	959,655	15.1%
2010		6,547,629	926,940	14.2%

* Massachusetts Department of Elementary and Secondary Education

CITY OF LOWELL:

		POPULATION	LPS K-12 ENROLLMENT	% K-12 ENR. (LPS) IN POPULATION
1990		103,439	13,308	12.9%
2000		105,167	15,635	14.9%
2010		106,519	13,122	12.3%

PERCENTAGE K-12 LPS ENROLLMENT IN LOWELL POPULATION



—◆— STATE
—■— CITY

TABLE 5

POPULATION BY RACE AND HISPANIC ORIGIN

STATE OF MASSACHUSETTS:

	WHITE	BLACK	ASIAN	OTHER	% NON-WHITE	HISPANIC ORIGIN (of any race)	% HISPANIC
1990	5,405,374	300,130	143,392	167,259	10.2%	287,549	4.8%
2000	5,367,286	343,454	238,124	400,233	15.5%	428,729	6.8%
2010	5,265,236	434,398	349,768	498,227	19.6%	627,654	9.6%

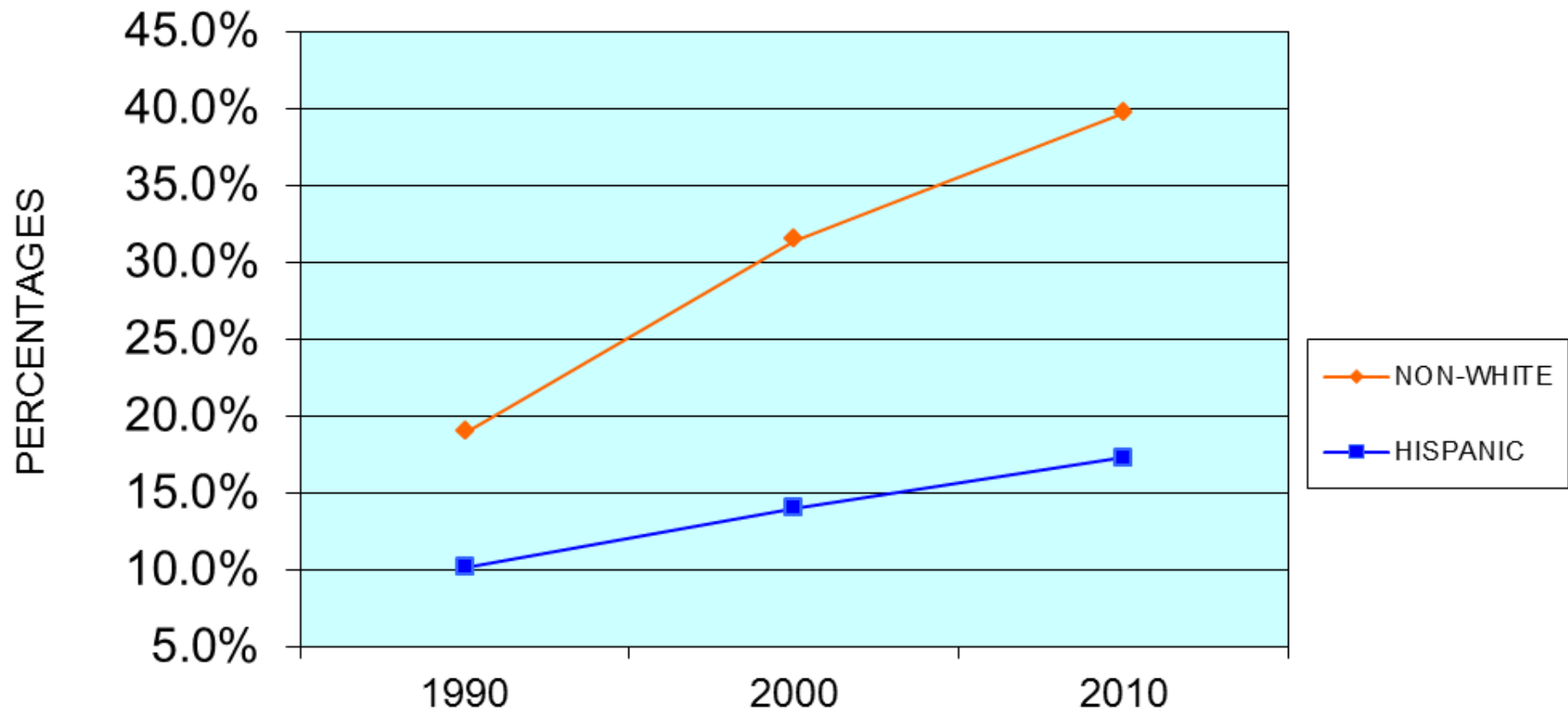
MIDDLESEX COUNTY:

	WHITE	BLACK	ASIAN	OTHER	% NON-WHITE	HISPANIC ORIGIN (of any race)	% HISPANIC
1990	1,287,412	40,236	51,826	18,994	7.9%	47,383	3.4%
2000	1,258,476	49,310	91,685	65,925	14.1%	66,707	4.6%
2010	1,202,411	70,021	139,943	90,710	20.0%	98,350	6.5%

CITY OF LOWELL:

	WHITE	BLACK	ASIAN	OTHER	% NON-WHITE	HISPANIC ORIGIN (of any race)	% HISPANIC
1990	83,859	2,474	11,493	5,613	18.9%	10,499	10.1%
2000	72,145	4,423	17,371	11,228	31.4%	14,734	14.0%
2010	64,240	7,238	21,513	13,528	39.7%	18,396	17.3%

CHANGE IN PERCENTS OF NON-WHITE AND HISPANIC POPULATIONS- LOWELL



Note: Lowell has the second largest Cambodian population in the U.S., and has a consulate of the Government of Cambodia. Among Lowell's Asian population, 52% have roots in Cambodia. Among Lowell's Hispanic population, 65% have roots in Puerto Rico. Lowell has an annual African Festival in June, and a Folk Festival in July – among its cultural celebrations.

TABLE 6

NUMBER OF DWELLING UNITS AND PERSONS PER UNIT

STATE OF MASSACHUSETTS:

		NO. OF DWELLING UNITS	% CHANGE	PERSONS PER UNIT
1990		2,472,711		2.4
2000		2,621,989	6.0%	2.4
2010		2,808,254	7.1%	2.3

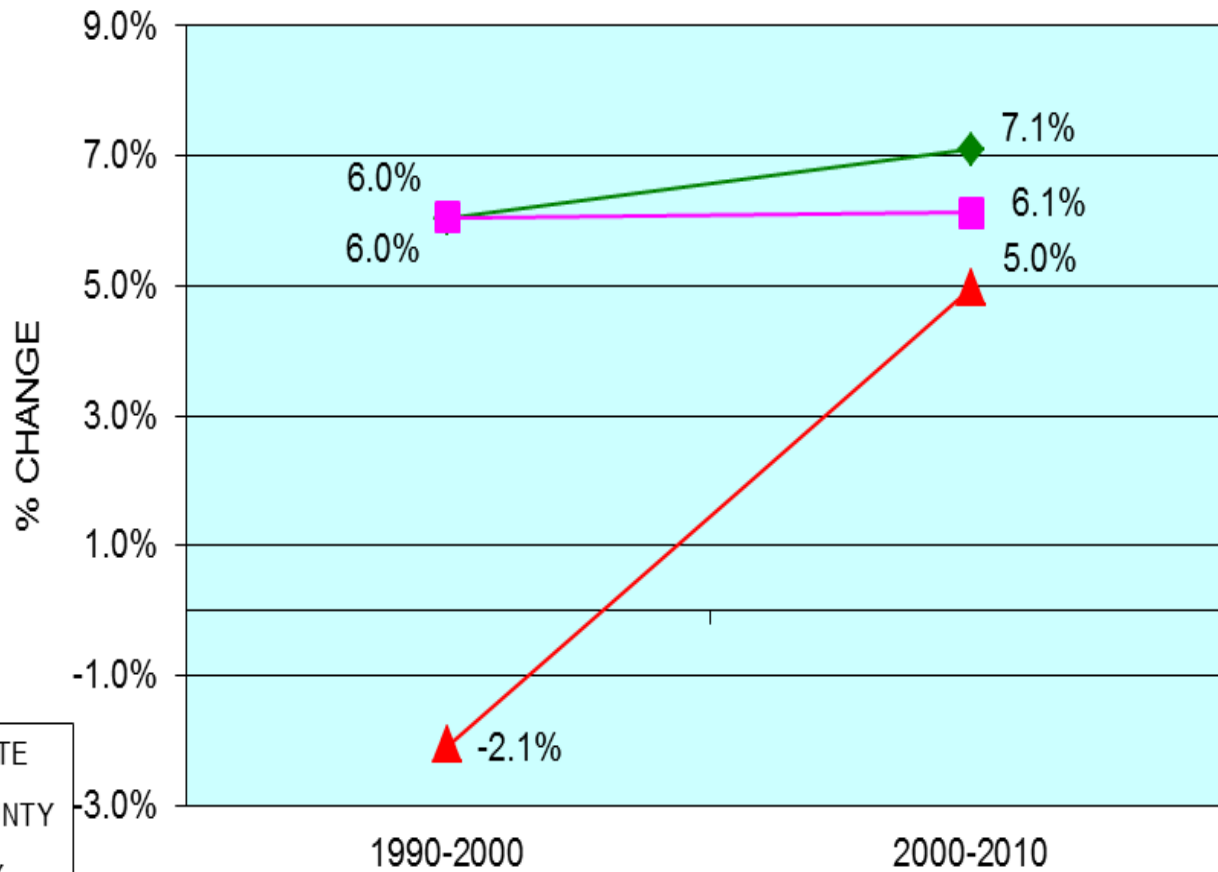
MIDDLESEX COUNTY:

		NO. OF DWELLING UNITS	% CHANGE	PERSONS PER UNIT
1990		543,796		2.6
2000		576,681	6.0%	2.5
2010		612,004	6.1%	2.5

CITY OF LOWELL:

		NO. OF DWELLING UNITS	% CHANGE	PERSONS PER UNIT
1990		40,302		2.6
2000		39,468	-2.1%	2.7
2010		41,431	5.0%	2.6

CHANGES IN HOUSING GROWTH, 1990 TO 2010 LOWELL, MA



LOWELL GRANDPARENTS AS RESOURCES

725* Children below age of 18 with Grandparent(s) as
Primary Care-Giver

+ 2,453* Children below age of 18 with Parent(s) as
Primary Care-Giver (Grandparent(s) live in home)

= 3,178* Lowell Children below age of 18
= 22% of K-12 students

* Subtracting out the charter school children, the estimate for the LPS would be 689 children with Grandparent(s) as Primary Care-Giver plus 2,331 additional children with Grandparent(s) living in home = 3,020 children

Source: U.S. Census American Community Survey, 2010 estimate

TABLE 6A

LOWELL HOUSING DETAIL

2000 Dwellings	Occupied	Vacant	2010 Dwellings	Occupied	Vacant
39,468	37,887	1581	41,431	38,470	2,961
76 mobile (est.)	96% occupied	87 for seasonal use	19 mobile (est.)	93% occupied	123 for seasonal use
	43% owner occupied	3.1% rental vacancy rate		45% owner occupied	7.1% rental vacancy rate
	57% renter occupied			55% renter occupied	

Source: U.S. Census, Tables DP-1,4

TABLE 6B
LOWELL BUILDING PERMITS

	Units				Units		
Year	S-F	Duplex	Multi-	Year	S-F	Duplex	Multi-
1980	45	6	30	1997	53	6	
1981	31	6	51	1998	120	6	18
1982	46	8	135	1999	73		24
1983	208	18	145	2000	98	2	6
1984	146	18	296	2001	35	20	20
1985	325	48	219	2002	35	26	27
1986	244	62	991	2003	129	2	14
1987	130	28	21	2004	191		24
1988	157	48	66	2005	191		120
1989	74	24	162	2006	143	14	11
1990	36	8		2007	101	8	5
1991	42	2		2008	92	2	47
1992	60	6		2009	27	2	
1993	45	2		2010	39	2	
1994	41	18	4	2011	44		46
1995	53	6		2012	11	8	
1996	29	4		2013			15
				to Jan 31			

Sources: Building Dept./Town Report/HUD; some years differ slightly

TABLE 6C

LOWELL HOUSING

Year	# Single-Family	Median Sales Price	# Condo Units
1993	417	\$90,000	166
1994	472	\$89,000	211
1995	405	\$91,000	276
1996	545	\$95,000	238
1997	593	\$99,000	256
1998	649	\$119,000	304
1999	698	\$130,000	410
2000	629	\$151,000	477
2001	541	\$176,000	409
2002	464	\$206,000	336
2003	607	\$230.,000	463
2004	796	\$252,000	666
2005	767	\$275,000	804
2006	533	\$265,000	607
2007	413	\$251,000	564
2008	420 (44)	\$195,000	321 (41)
2009	437 (55)	\$195,000	280 (28)
2010	412 (55)	\$190,000	276 (35)
2011	410 (40)	\$183,000	221 (26)
2012	417 (52)	\$185,000	234 (32)

2013 through February 28, **46** S-F homes sold, and **36** condos.
 Numbers in parenthesis are sales through February 28

Source: The Warren Group, *Banker & Tradesman*

TABLE 6D

LOWELL HOUSING FACTORS

- Realtors indicate a gradual uptick in sales
- Demand is high at low-end of the market, and for rentals; as dorms are built, students will vacate their current apartments, making these available for newly-arrived persons/families
- Some purchases at lower end are for renovation and resale
- Regionally, there are indicators that significant numbers of “empty nesters” and “baby boomers” may downsize, vacating single-family 3-4 bedroom homes; these residences would often be acquired by families with school-aged children
- The city is near build-out, and there is a land conservation effort

TABLE 6D

LOWELL HOUSING FACTORS (continued)

- Several projects that had been delayed are now moving forward (lists below)
- Approved in 2010 and 2012 (now active): Rogers St. 4 condos; Boot Mill, John St. 76 unit condo conversion; Chambers Estates, 945 Middlesex St. 7 townhouses; (no name) renovate and convert to 22 residential units; Chippewa, Rock Sts. construct 9 duplexes
- Proposed, not yet approved (may advance): 109 Jackson St. in existing mill, 26 market rate units and 26 affordable units; 101 Jackson St. mixed use, mostly commercial; 169 Bridge St. Mass Mills, Phase I 13 market rate units and 57 affordable units; Phase II units not known; 71 Jackson St. mill conversion 3+ years out, 95,000 s.f. 20-50% affordable; Hamilton Canal District #8/#9, two multi-family structures, 60-70 units each, 1-2 BR approx. 5 years out, 80% market/20% affordable; River's Edge, 17 market rate units, 11 affordable units; Umass-Lowell housing expansion may pull some students out of rental properties thereby creating some (needed) additional available space

TABLE 6E

OTHER LOWELL ENROLLMENT FACTORS

- In 2012-13, 750 students attend two public charter schools – Lowell Community Charter School (K-6) and Middlesex Academy Charter School (Grades 9-12)
- The new Lowell Collegiate Charter School recently has received a charter and permits to open in 2013-14 with about 75 students in each grade K-5, and to grow an additional grade each year, becoming a K-12 public charter school – the enrollment projections in this report assume that all of these students will come from the group that otherwise would have attended the Lowell Public Schools, thus their numbers have been deducted from the projection forecast in this report
- On the “Historical Enrollments” page, note the yellow boxes which display the changes in enrollment between October 1, 2012 and March 1, 2013 - these are potential considerations for adjustments to the 2013-14 projections, however, no adjustments have yet been made as a result of this factor

LOWELL: A “GATEWAY CITY”

Lowell’s Citywide Master Plan envisions two trends as especially important in the two decades 2010-2030:

- **Americans from a wide range of backgrounds have begun to embrace the vitality and energy of cities as unique and desirable places to live**
- **The nation’s economy has become increasingly driven by service and knowledge-based industries, with access to creative and educated employees who can adapt to ever-changing work environments**

Note: The recent strengthening of UMASS-Lowell is consistent with this vision; the modest population increases and job expansion forecasts on the slides below may prove to be overly modest estimates, given the City’s recent successes

LOWELL: A “GATEWAY CITY” (continued)

Demographics of the Northern Middlesex Regional Transportation Plan forecast:

- **The number of households in Lowell to increase from 38,470 in 2010, to 38,650 by 2020 and 39,370 by 2025**
- **The number of jobs in Lowell to increase from 33,204 in 2010, to 36,520 by 2020 and 36,680 by 2025**

TABLE 7

NUMBER OF LPS STUDENTS PER DWELLING UNIT

STATE OF MASSACHUSETTS:

		# OF HOUSING UNITS	PUBLIC K-12 ENROLLMENT	K-12 STUDENTS PER UNIT
1990		2,472,711	828,816	0.34
2000		2,621,989	959,655	0.37
2010		2,808,254	926,940	0.33

2010 Number of Households with individuals under 18: 784,853

2010 Percentage of Households with individuals under 18: 30.8%

CITY OF LOWELL:

		# OF HOUSING UNITS	LPS K-12 ENROLLMENT	K-12 LPS STUDENTS PER UNIT
1990		40,302	7,122	0.18
2000		39,468	8,306	0.21
2010		41,431	7,891	0.19

2010 Number of Households with individuals under 18: 13,432

2010 Percentage of Households with individuals under 18: 34.9%

K-12 PUBLIC SCHOOL STUDENTS (LPS) PER LOWELL DWELLING UNIT

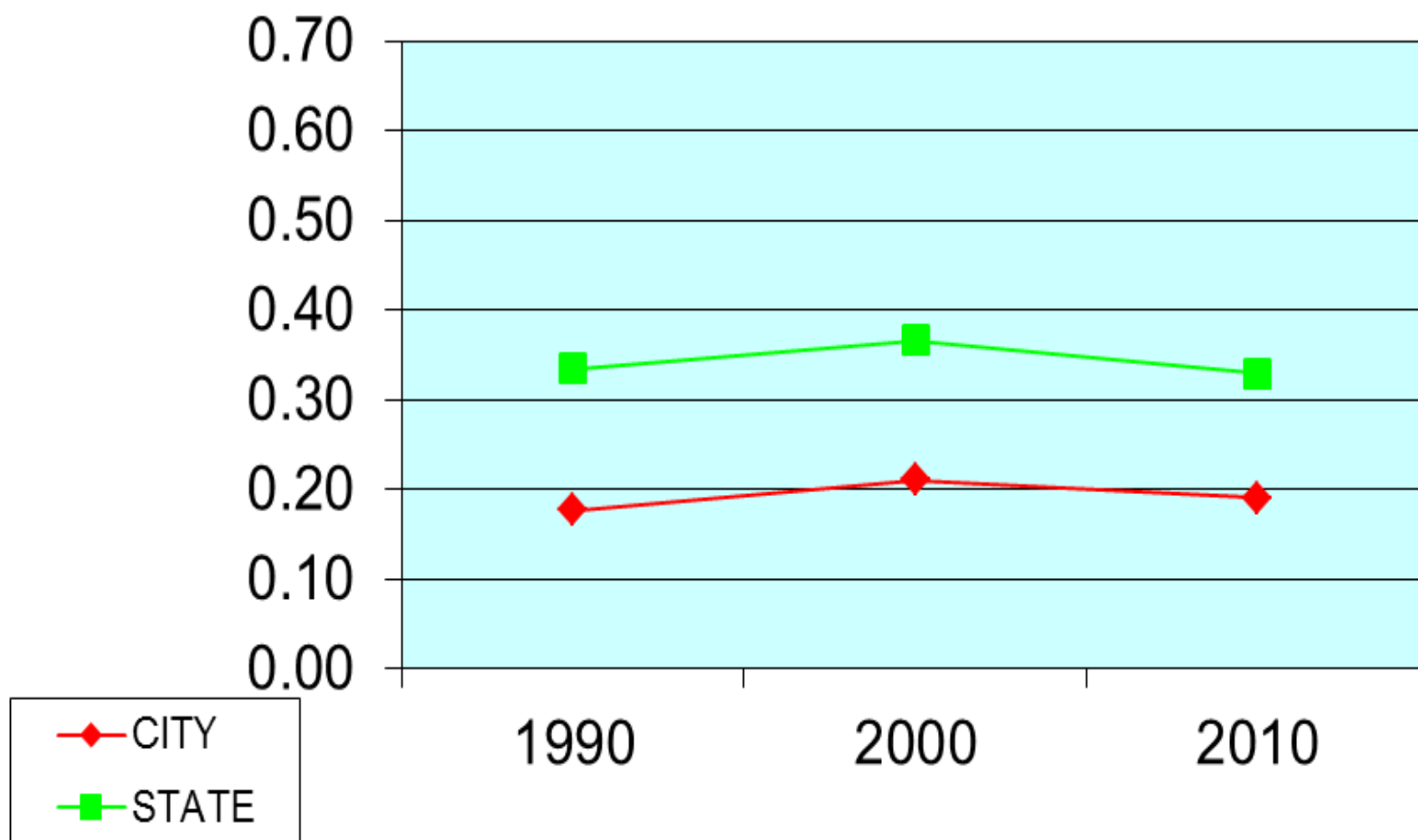


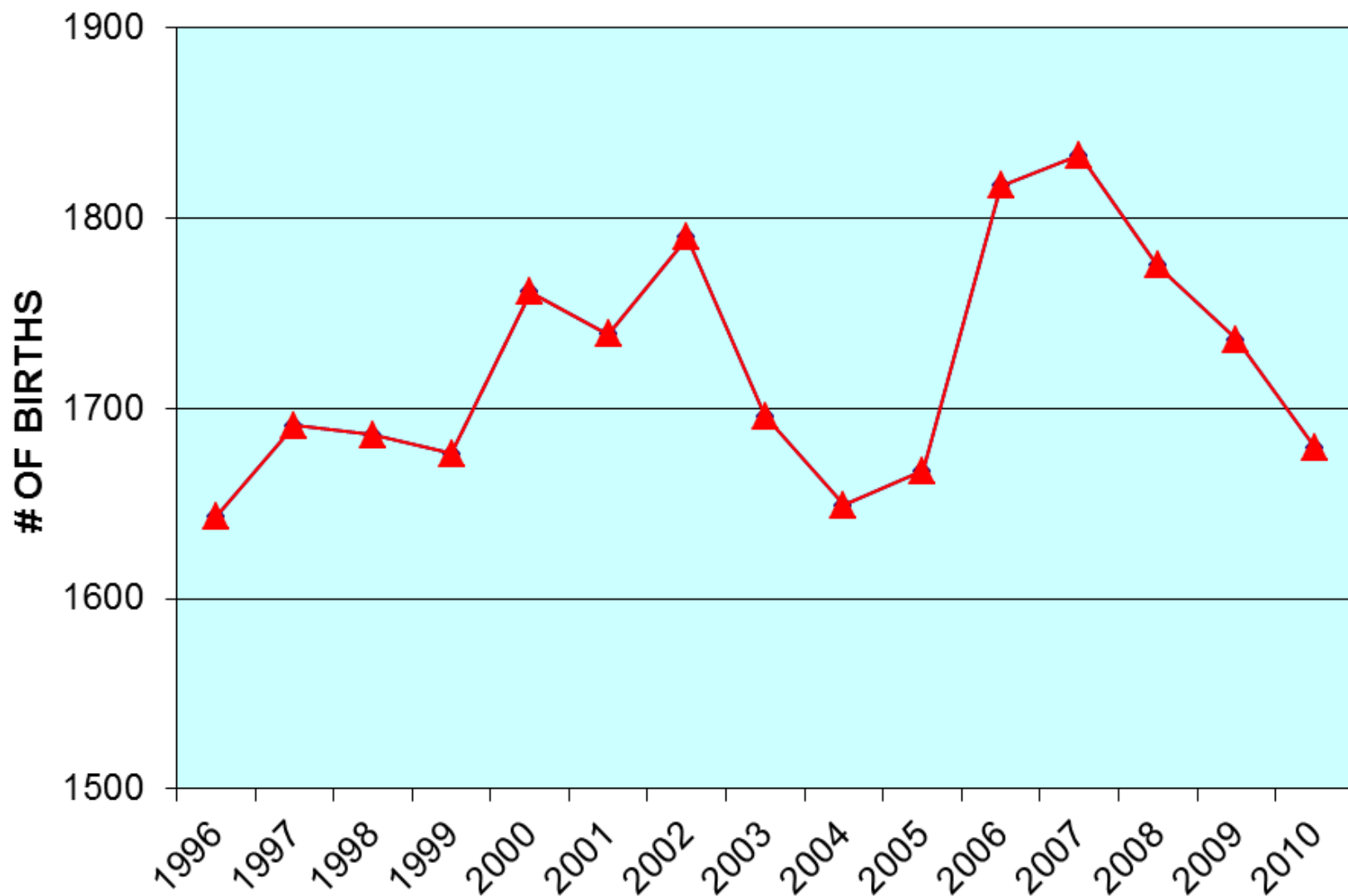
TABLE 8

LIVE BIRTHS TO RESIDENTS OF LOWELL

YEAR	# OF BIRTHS	AVERAGE	% CHANGE
1996	1643	1691	1.0%
1997	1691		
1998	1686		
1999	1676		
2000	1761		
2001	1739	1708	2.8%
2002	1790		
2003	1696		
2004	1649		
2005	1667		
2006	1817	1756	
2007	1833		
2008	1775		
2009	1736		
2010	1679		

Source: MA Department of Public Health

BIRTHS TO LOWELL RESIDENTS





New England School Development Council

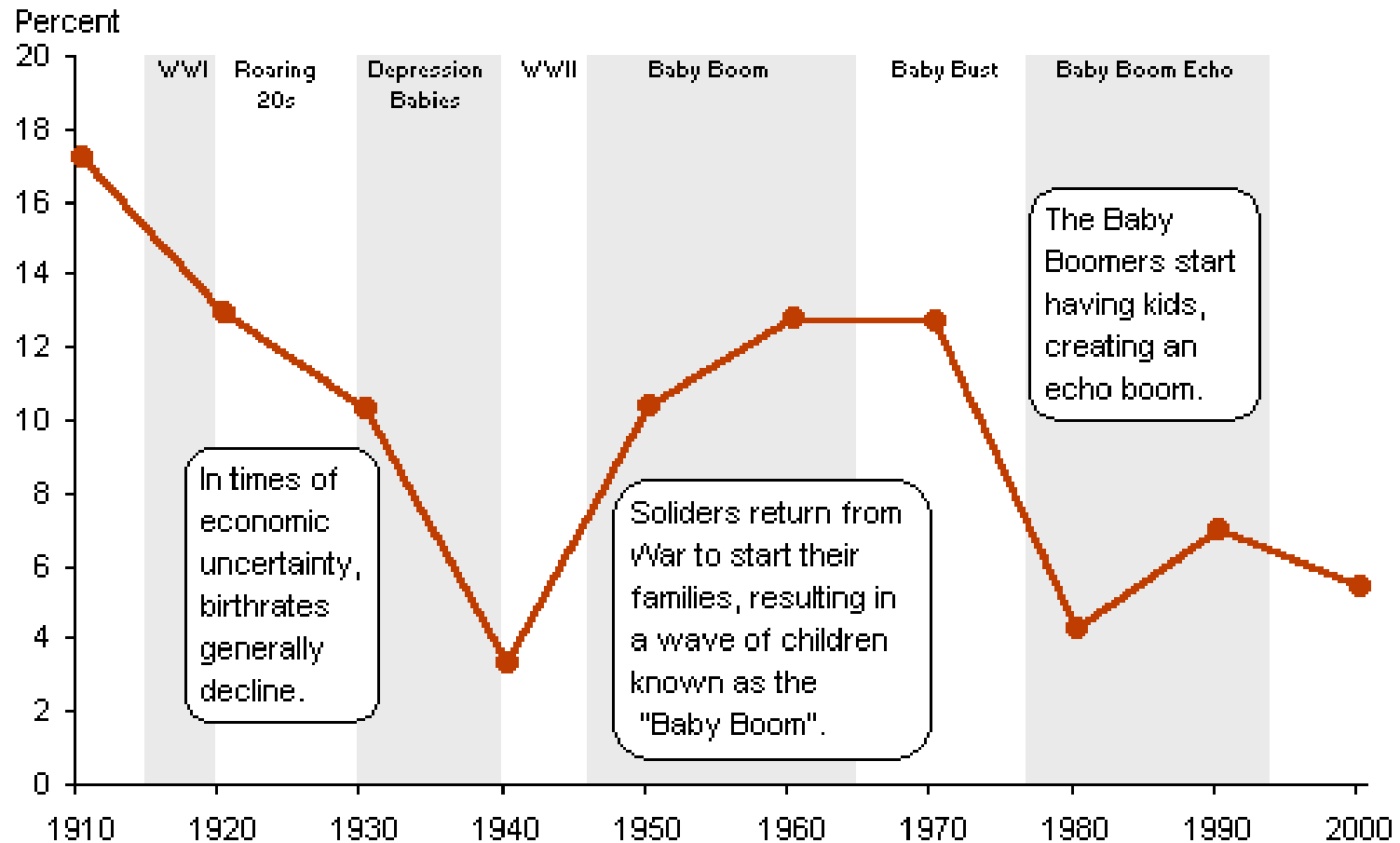
28 Lord Road, Marlborough, MA 01752 ➤ Tel: 508-481-9444 ➤ www.nesdec.org

HOW WE KNOW WHAT WE THINK WE KNOW:

REGIONAL AND NATIONAL DATA

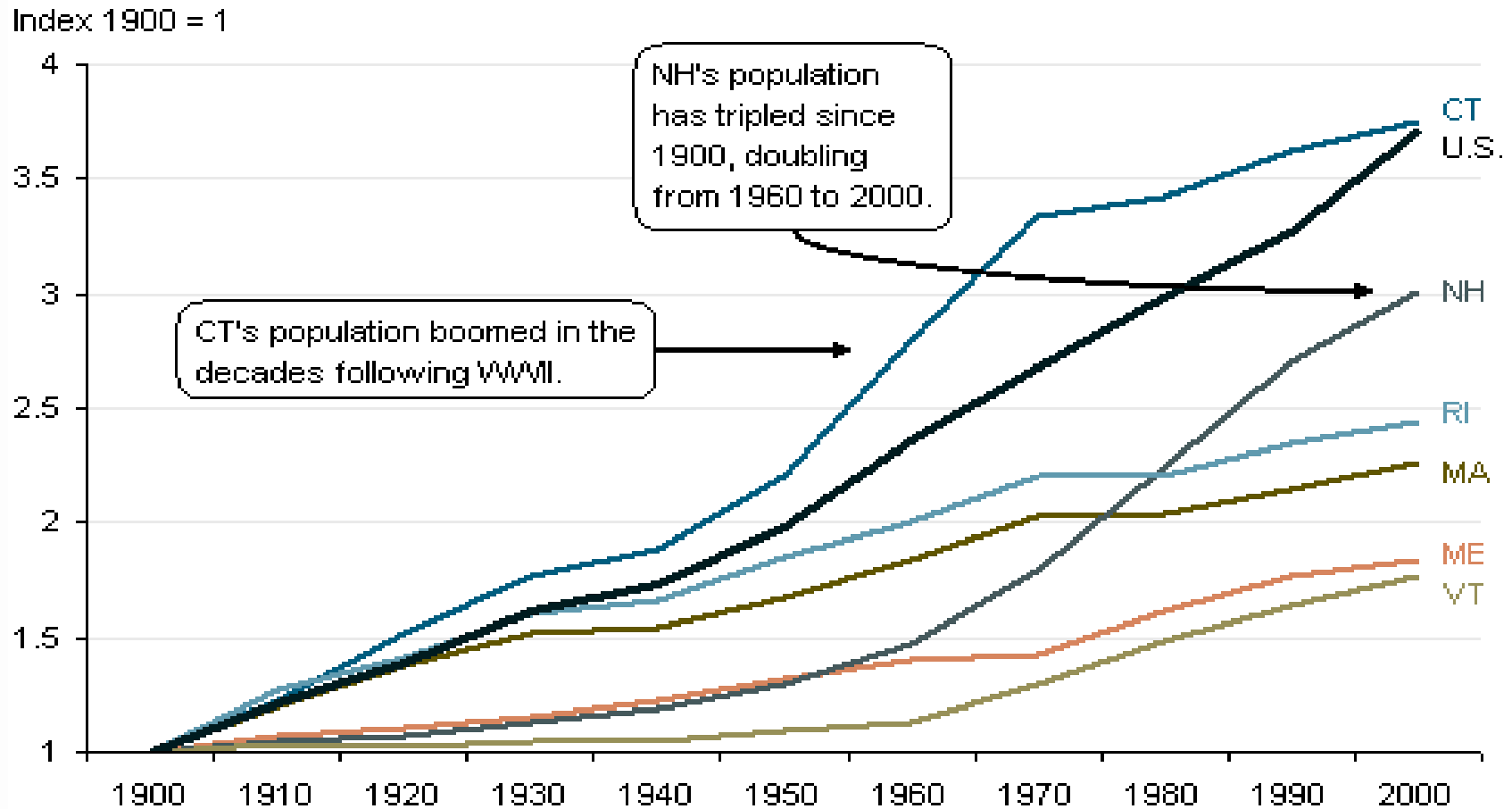


U. S. POPULATION: INCREASE FROM PREVIOUS CENSUS, 1910 - 2000



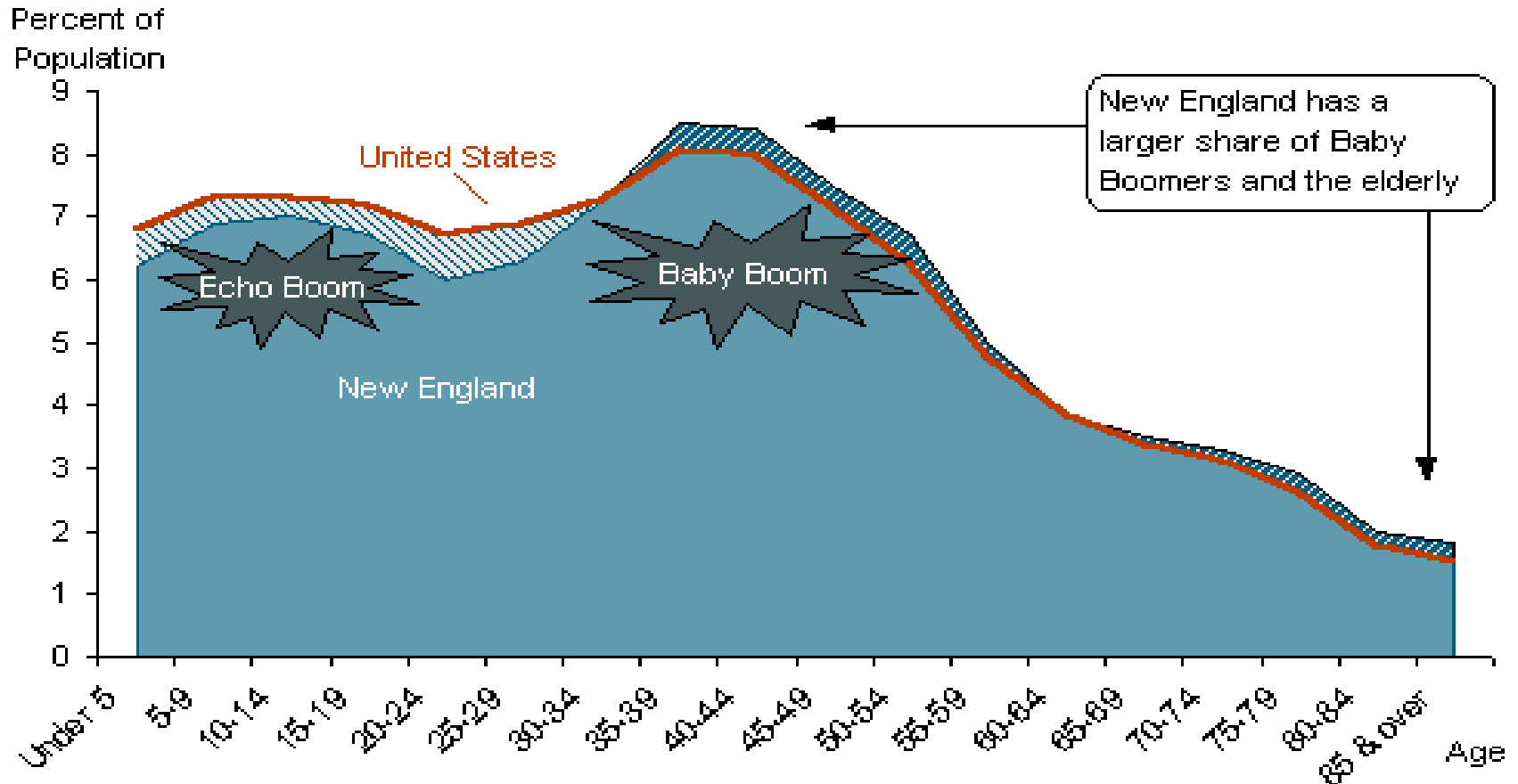
Source: Federal Reserve Bank of Boston; used with permission

POPULATION INCREASE IN NEW ENGLAND STATES: 1900 - 2000



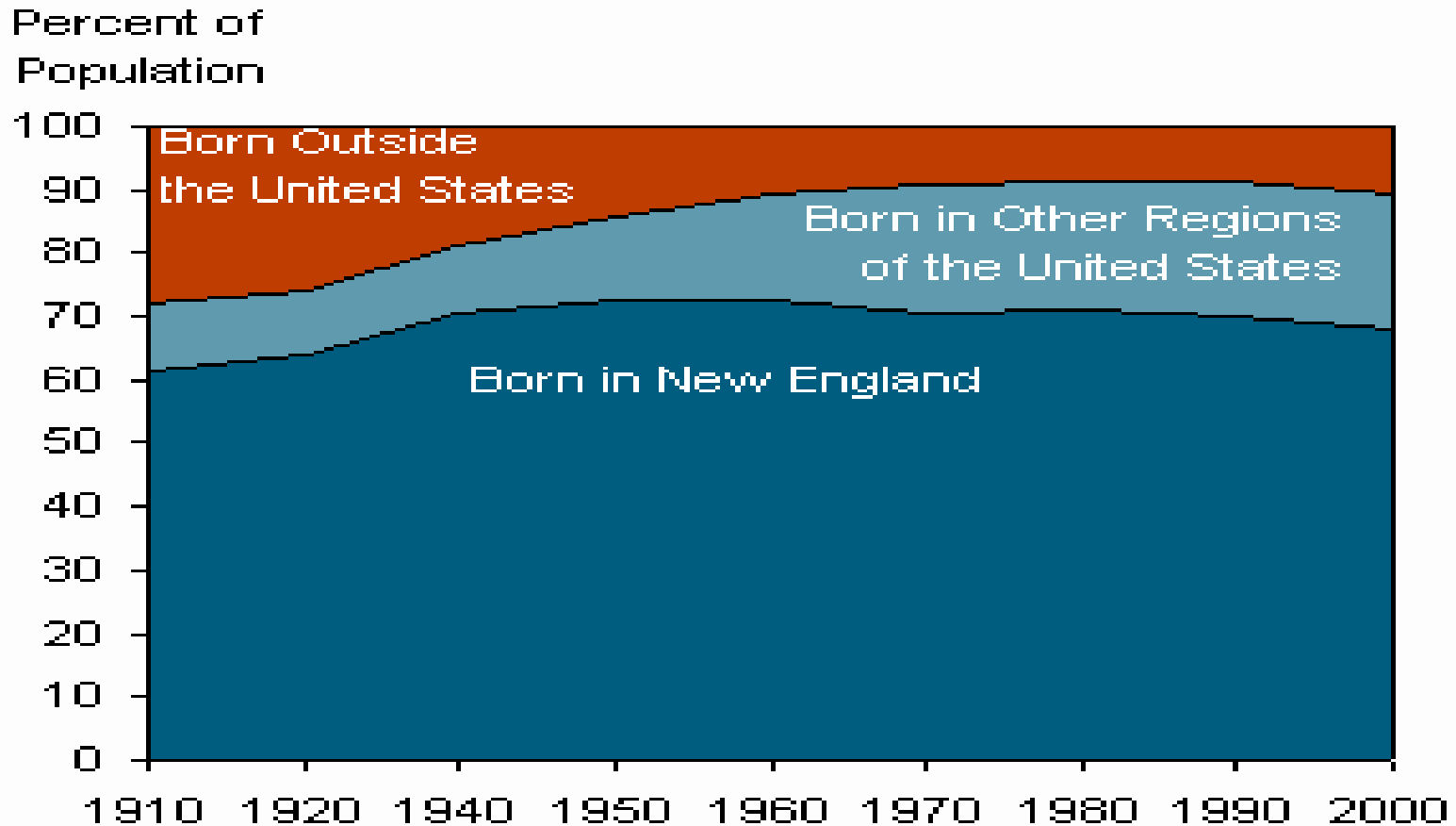
Source: Federal Reserve Bank of Boston; used with permission

U.S. AND NEW ENGLAND IN 2000: AGE COHORT COMPARISON



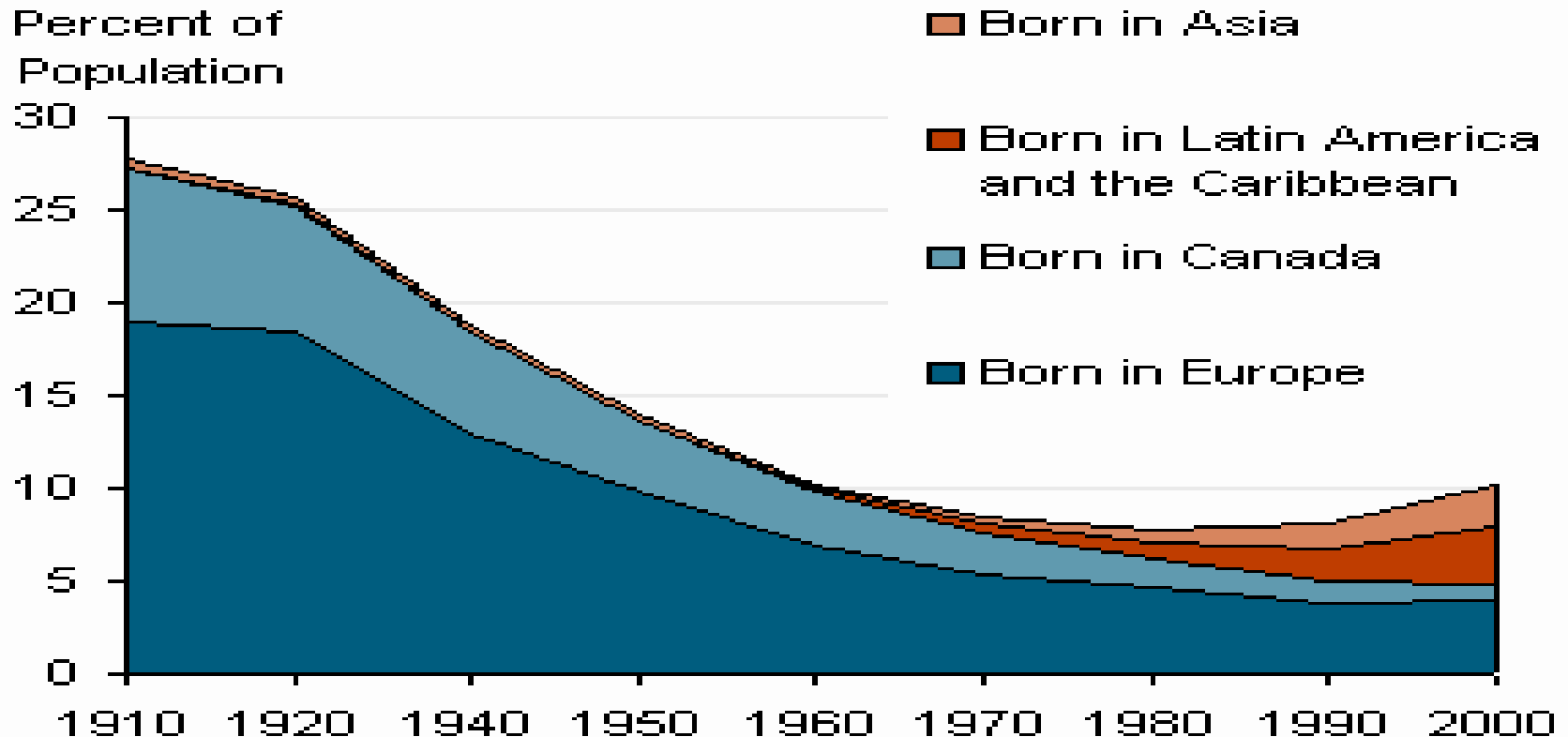
Source: Federal Reserve Bank of Boston; used with permission

NEW ENGLAND RESIDENTS: LOCATION OF BIRTH, 1910 - 2000



Source: Federal Reserve Bank of Boston; used with permission

NEW ENGLAND RESIDENTS: BORN ABROAD, 1910-2000

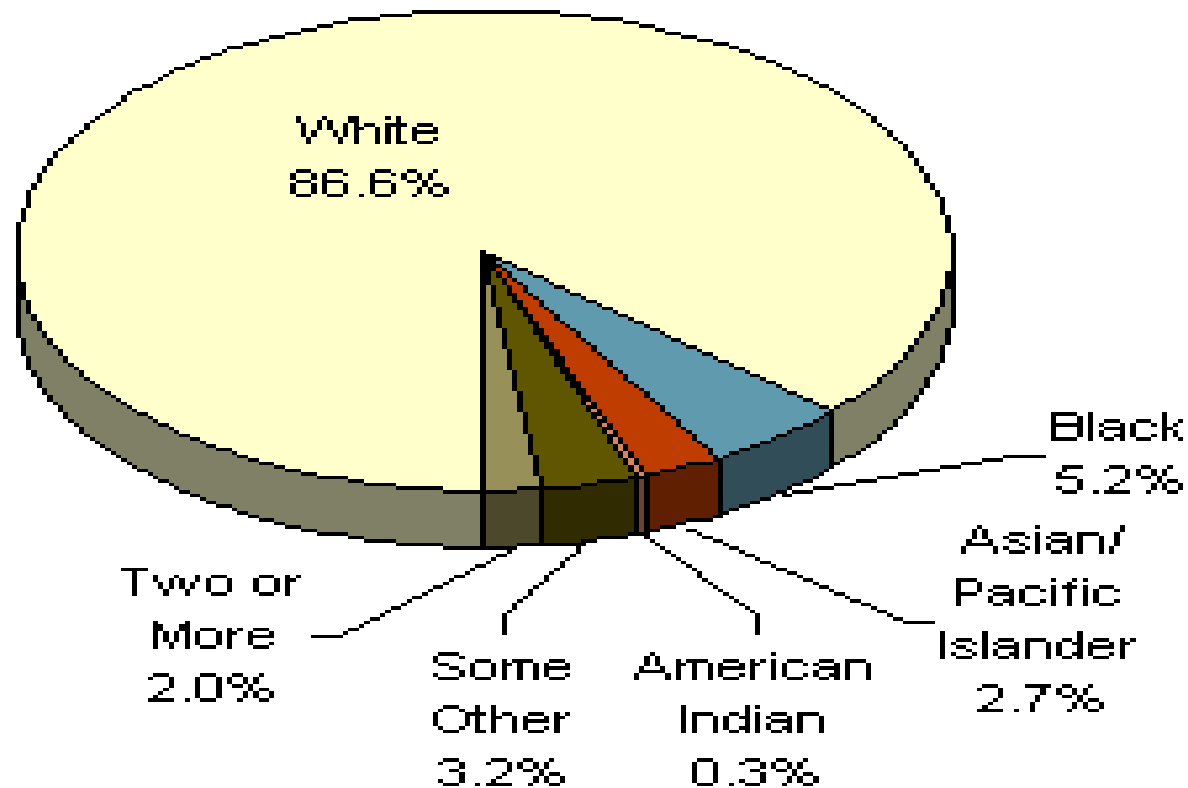


Note: Africa and Oceania contribute a negligible share of New England population throughout the period.

Source: Federal Reserve Bank of Boston; used with permission

ETHNIC/RACIAL BREAKDOWN: NEW ENGLAND. 2000

New England

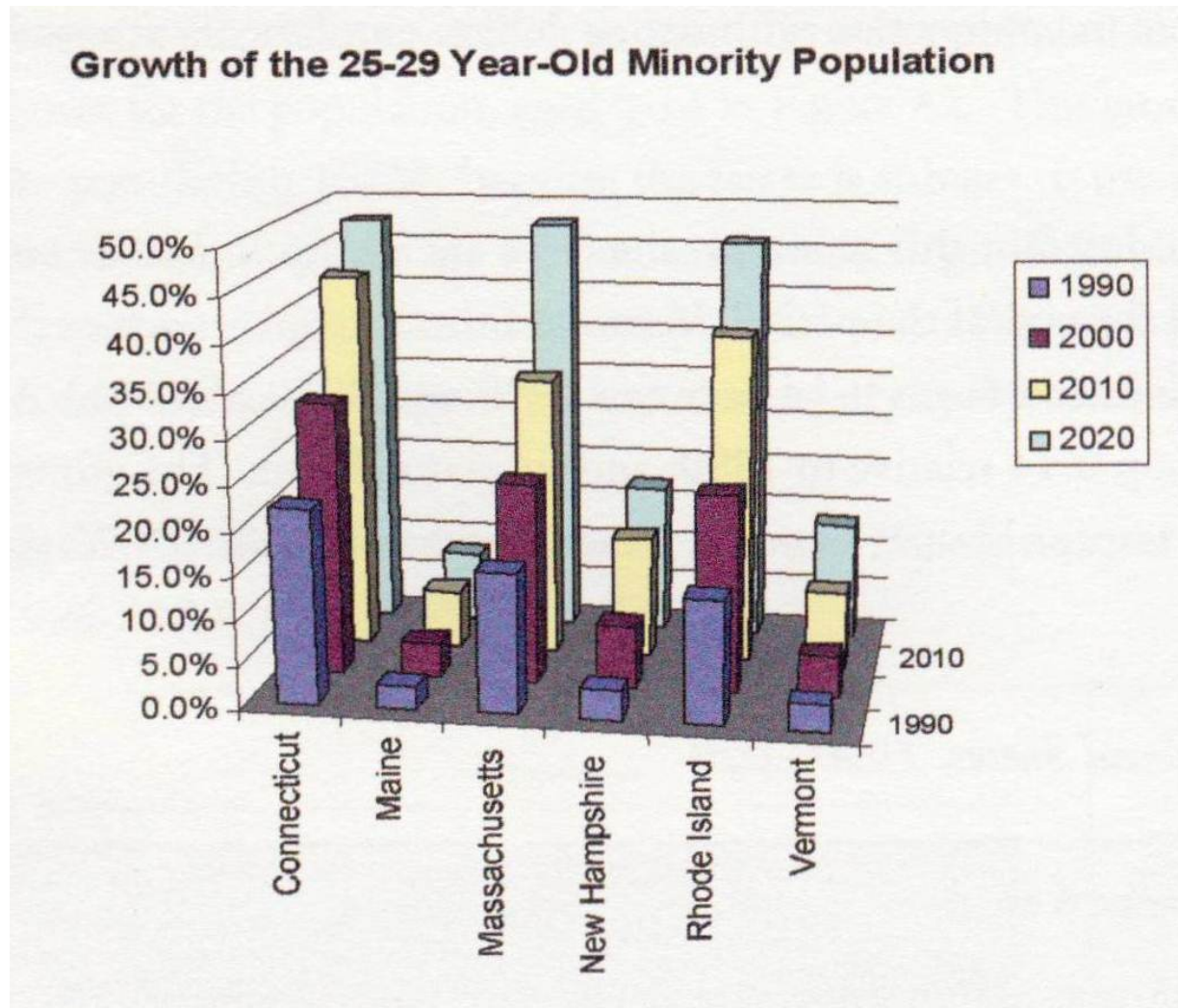


Hispanic Origin = 6.3%

Source: Federal Reserve Bank of Boston; used with permission

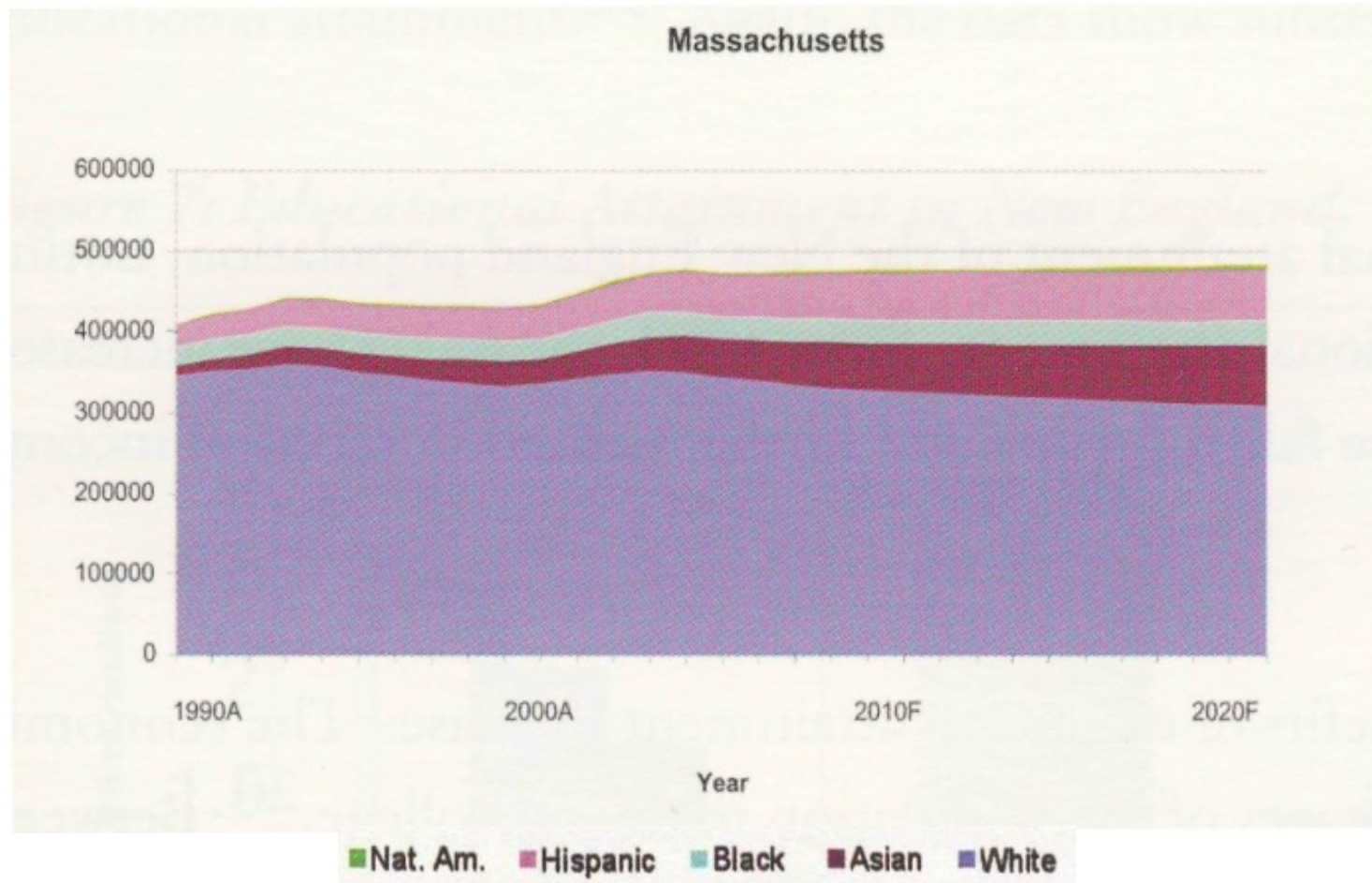
Note: on the three slides which follow, the numbers and percentages of minorities were increasing at greater rates in 2010 and 2020 than numbers of whites

Minority Population Growth, Ages 25-29



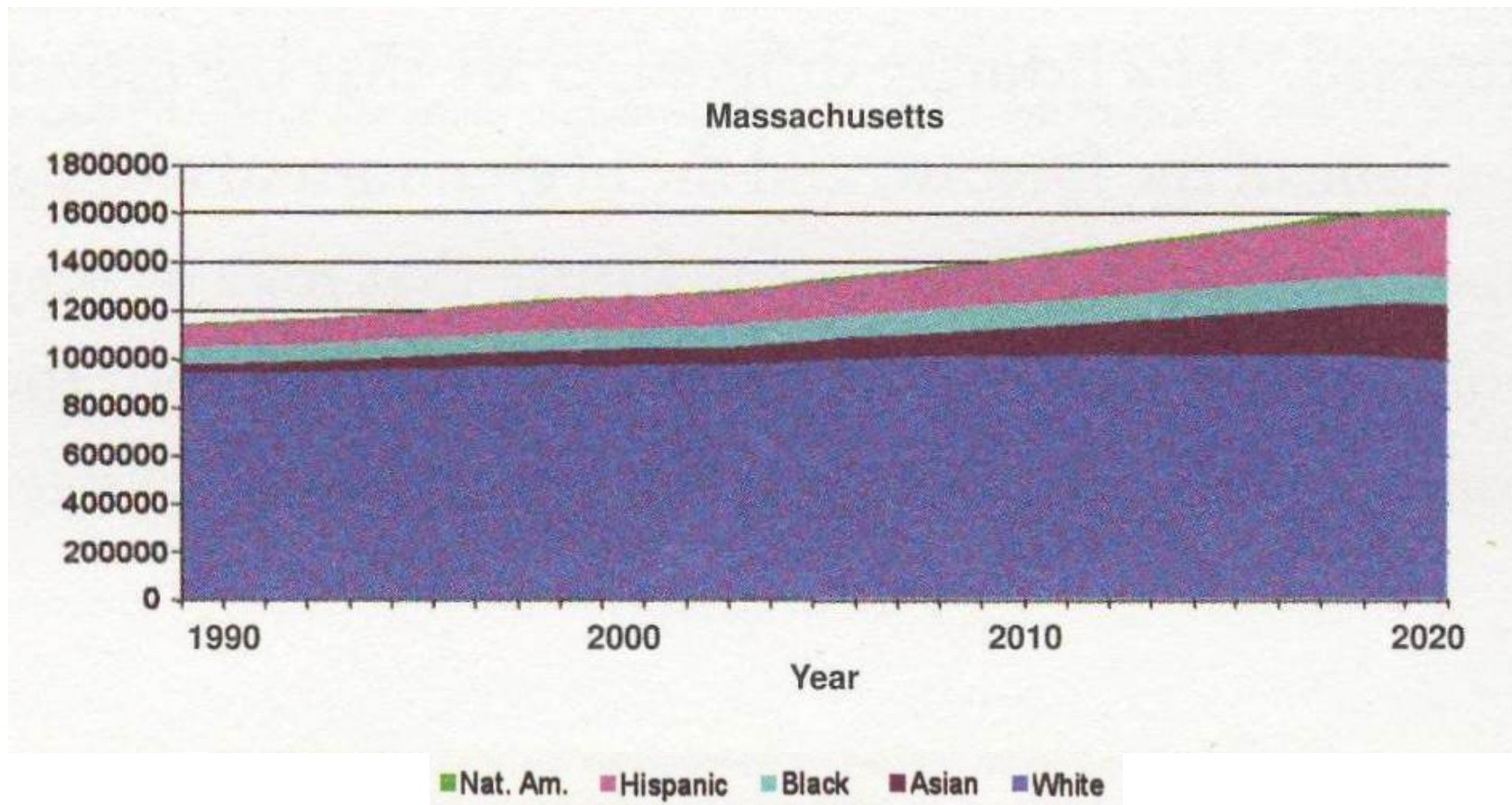
Note: The numbers and percentages of minorities were increasing at greater rates in 2010 and 2020 than numbers and percentages of whites

Forecast of Young Workers (25-29) by Race & Ethnicity



Note: The numbers and percentages of minorities were increasing at greater rates in 2010 and 2020 than numbers and percentages of whites

0-14 Year Olds By Race % Ethnicity



Note: The numbers and percentage of minorities were increasing at greater rates in 2010 and 2020 than numbers and percentages of whites

100 YEARS OF U.S. BIRTHS AND ECONOMIC CYCLES, 1909-2009

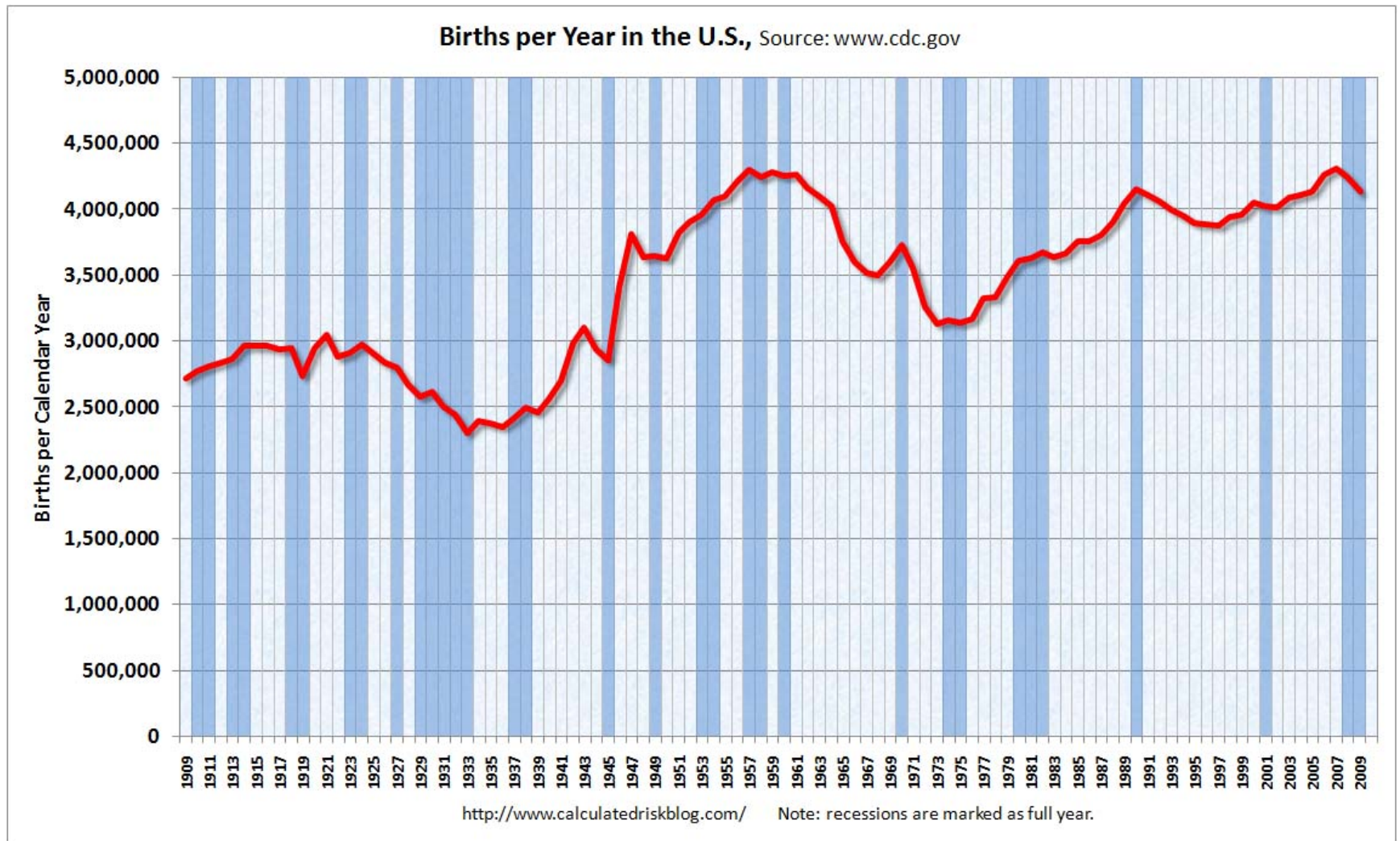
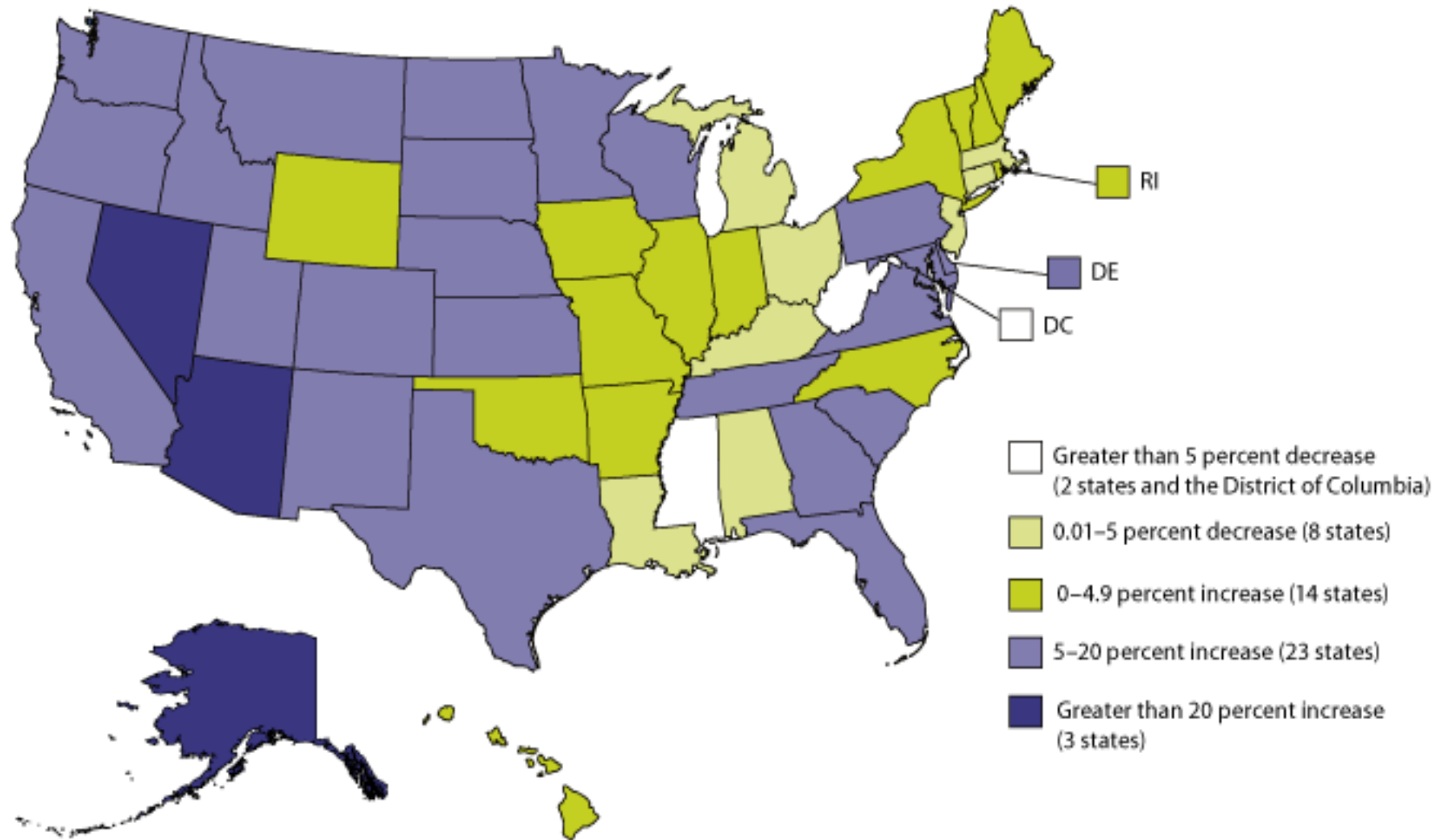


Figure 3-2: Projected percent change in public school enrollment in grades prekindergarten (preK) through 12, by state or jurisdiction: Between school years 2010-11 and 2021-22

Public school enrollment is increasing at higher rates in the Western and Southern states

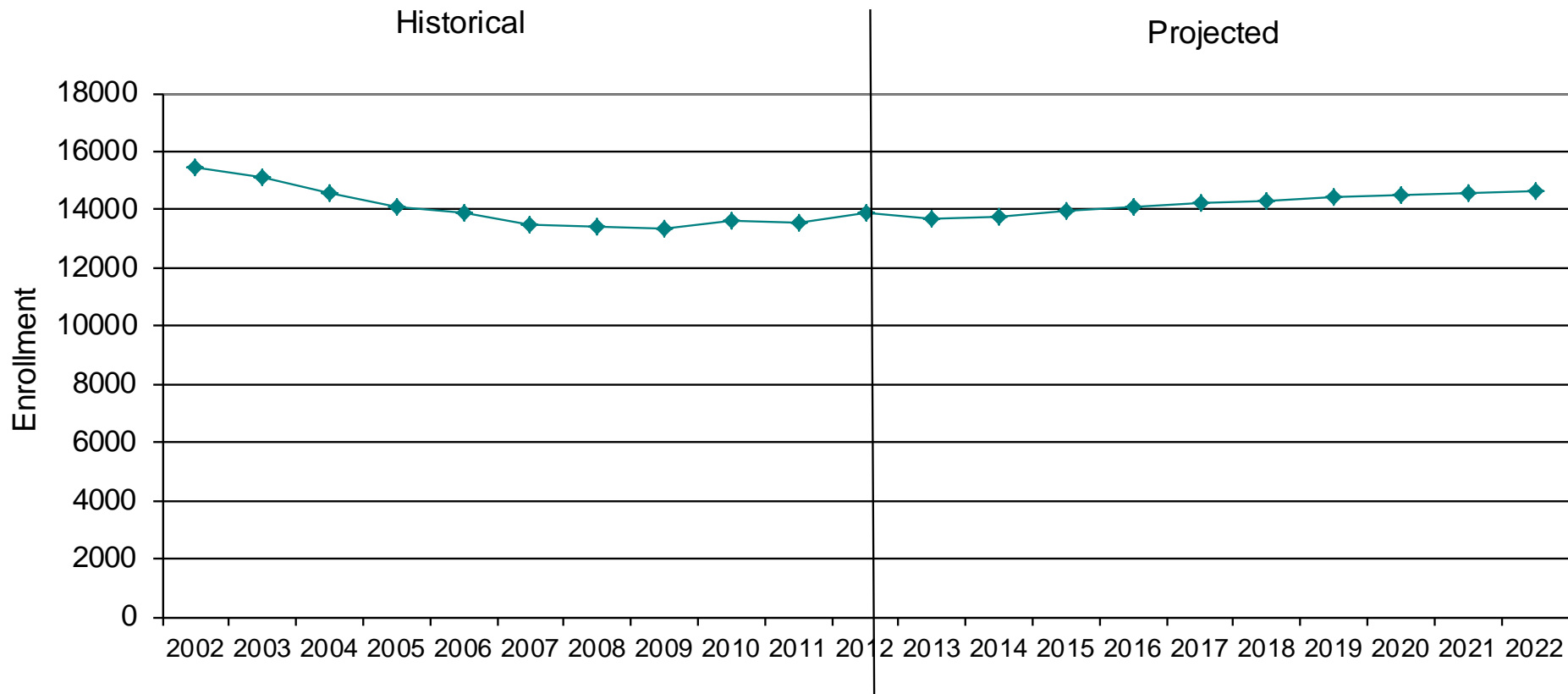


NOTE: The most recent year of actual data is 2010–11, and 2021–22 is the last year for which projected data are available. For more information on projections, see NCES 2012-XXX.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2010–11; and Public State Elementary and Secondary Enrollment Model, 1980–2010.

Historical & Projected Enrollment Scenario #3

PK-12, 2002-2022



K-12 PROJECTIONS TO 2017-18...and BEYOND

Beginning in 2000-01, enrollments began to decline; then, from 2007-08 onward, births and in-migration of new families have caused enrollments to rise, beginning at the earliest grade levels

	K-4	5-8	9-12	K-12 TOTAL
2007-08	5,173	4,307	3,573	13,053
2012-13	<u>5,898</u>	<u>4,353</u>	<u>3,113</u>	<u>13,381*</u>
	+725	+46	-460	+328

* Includes 17 “Ungraded” students

“Five-years-out”, with Lowell Collegiate Charter School opening in 2013-14...

	K-4	5-8	9-12	K-12 TOTAL
2017-18	5,743	4,707	3,254	13,721*

“Ten-years-out”, with continuation of present steady in-migration

	K-4	5-8	9-12	K-12 TOTAL
2022-23	5,739	4,777	3,593	14,126*

K-12 PROJECTIONS TO 2017-18...and BEYOND (continued)

**IS THERE A POSSIBILITY THAT THE SLOW,
STEADY ENROLLMENT GROWTH FORECAST BY
NESDEC WILL BE EXCEEDED?**

**YES, THE FOOTNOTE ON SLIDE #20 DESCRIBES
THE RISING POPULATION OF LOWELL, WHICH
APPEARS TO EXCEED EARLIER ESTIMATES.
SCHOOL POPULATIONS, HOWEVER, DO NOT
ALWAYS MATCH WITH RISING/SHRINKING
POPULATION TOTALS, SEE SLIDES #24-26**

**THAT SAID, THE NESDEC PROJECTIONS COULD
PROVE TO BE AT THE LOW END OF A RANGE;
THUS AN ENROLLMENT UPDATE IN FALL 2013-
14 NEEDS TO BE WATCHED CAREFULLY**



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BEST WISHES

FROM THE NESDEC LOWELL TEAM

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