

CITIZENS FOR LIMITED TAXATION

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Marblehead, Massachusetts 01945

PROPOSITION 2½ AND YOU

A Study of the Impact of Proposition 2½ on Massachusetts Taxpayers

Celebrating the 25th Anniversary of Proposition 2½

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Proposition 2½ and You

A Study of the Impact of Proposition 2½ on Massachusetts Taxpayers, by the Citizens Economic Research Foundation (CERF), for Citizens for Limited Taxation, which created Prop 2½ as a 1980 ballot question. Research by Gerald Amirault with the assistance of the assessors' offices in seven communities. Evaluation and format by Loretta Hayden and Dr. Charles Ormsby. Narrative by Barbara Anderson. © 2005 by Citizens for Limited Taxation. All rights reserved.

Proposition 2½ is twenty-five years old on November 4, 2005 – the date that Massachusetts voters passed it into law by 59-41 percent. Many studies have been done of its impact on the cities and towns, and on taxpayers in general. In 2000, CERF commissioned a formal study by Lane & Co. – “Proposition 2½ Twenty Years Later” – (available at www.cltg.org) – which showed that the per capita residential property tax levy actually dropped 1.6 percent after adjusting for inflation.

This study is a less formal look at the impact on some individual taxpayers, whose assessed values and tax rates could be traced by their local assessors back to 1970. Using an annual compounding factor, their average annual percent of increase was determined in those ten years prior to Prop 2½, and their average annual percent of increase in the twenty-five years since Prop 2½ was adopted by voters. From these actual annual amounts, the difference of what they would be paying this year, if Prop 2½ had never passed, was extrapolated.

Of course this is a “what if” study. It could be speculated that if Prop 2½ had not passed in 1980, angry voters might have eventually abolished the property tax altogether. Or, with a continuing levy among the highest property taxes in the nation, many of them may have revolted with their feet, leading to a population exodus and property value decline. This study assumes a status quo over twenty-five years, with compliant taxpayers, and property values that increase despite the tax burden on owners.

We recognize that government can never get enough, so it is assumed that even without Proposition 2½, the trend toward higher user fees, particularly water, sewer and trash fees, would have continued after 1980. It is noted that some of the tax increases during this period were the result of Prop 2½ overrides or debt exclusions, with all but one of the communities studied having passed at least one. What follows are case studies of nine actual Massachusetts taxpaying households, and their savings from Proposition 2½. I begin with myself:

Taxpayer A. Divorced taxpayer activist with one son, twin grandchildren, lives in a five room cottage that was purchased in 1975, divided from a lot that also included the home now occupied by Taxpayer C. Property value, 2005: \$376,400. Tax bill \$3,109. Average annual property tax increase on her lot before Prop 2½: 8.81%. Average annual increase since Prop 2½, even with several Marblehead overrides: 5.38%. If the pre-2½ levy had continued, the present property tax would be \$6,710. **Taxpayer A has saved \$3,601 this year alone.**

Continued –

Taxpayer B. Marblehead businessman living with his wife and four children in the small cape that was built by his lobsterman grandfather. Located on Marblehead Harbor, it has always carried a relatively high assessment. So the savings for Taxpayer C is **a relatively small \$617 this year**. However, he also owns the property next to Taxpayer A, which he rents to:

Taxpayer C. Another taxpayer activist, who pays part of the \$4,032 tax bill in his rent on this small cottage that was separated from the property of Taxpayer A in 1975. Because it carries more land, it is assessed at \$488,100. **The savings from Prop 2½ on this property: \$6,341 this year alone. The tenant also deducted \$2,448 from his state income tax this year as his rental deduction, and saved \$77.90 from the auto excise cut,** two other provisions of Prop 2½ (*see footnote*).

Taxpayer D. This couple, now in their early 50s, bought this four bedroom colonial in 1977 and raised three children, one still at home. The city of Malden, where she teaches, has never had an override. The taxes increased 5.75% a year on average during the '70s and 0.97% after Prop 2½ became law, **saving them \$5834 this year alone**.

Taxpayer E. An orthodontic lab technician and illustrator of children's books, two dogs and two cats, reside in a Topsy-style four bedroom cottage near the water in Scituate, where the couple raised three children as they added rooms. **Their savings this year was \$5,787.**

Taxpayer F. This semi-retired executive/federal official/educator and his wife, who have three sons and five grandchildren, live in a home presently valued at over a million dollars in Rockport, which has had many overrides and debt exclusions. Their annual tax increases before and after Prop 2½ were not as dramatically different as those of the other taxpayers: 7.985% before, and 6.249% after. Nevertheless **they saved \$5,520 this year**.

Taxpayer G. This couple has lived together for many years in a modest home with a swimming pool. One is a systems analyst and the other was appointed by Gov. Weld as the official astrologer of the commonwealth; they have two dogs. Their taxes increased 3.083% a year on average until Saugus had the highest vote for Prop 2½ in 1980; now the increase is .906% and **they saved \$2,173 this year**.

Taxpayer H. This retired Air Force master sergeant and his wife raised four sons in a Billerica bungalow, where two sons still live with them and they entertain three granddaughters. **They saved \$2,400 this year** toward the one-story home they are building.

Taxpayer I. A recent widow with one grown son. She has just retired from social work and lives in her East Bridgewater family home, inherited from her grandmother. **She saved \$1,260 this year**.

Any taxpayer who is living in a home that existed ten years prior to 1980, in a community that has records dating back that far, can duplicate our study and determine his own savings this year, by finding the average increase during the '70s and applying it annually for the next 25 years.

** Along with the property tax levy limit, Prop 2½ created a rental deduction from the state income tax, and cut the annual auto excise rate from \$66/\$1000 to \$25/\$1000. All the above taxpayers are also enjoying the auto excise reduction every year.*

TAXPAYER A – MARBLEHEAD

TABLE 1 - BEFORE AND AFTER

Taxpayer A - Marblehead Pre-Prop 2½	<table border="0"> <thead> <tr> <th style="text-align: left;">YEAR</th> <th style="text-align: left;">TAX BILL</th> </tr> </thead> <tbody> <tr> <td>1970</td> <td>\$362.88</td> </tr> <tr> <td>1980</td> <td>\$844.20</td> </tr> </tbody> </table>	YEAR	TAX BILL	1970	\$362.88	1980	\$844.20
YEAR	TAX BILL						
1970	\$362.88						
1980	\$844.20						
RATIO # OF YEARS ANNUAL COMPOUNDING FACTOR AVERAGE ANNUAL % INCREASE	2.3263889 = Last year divided by first year 10 = Last year minus first year 1.0880985 = 10th root of 2.3263889 8.810%						
Taxpayer A - Marblehead Post-Prop 2½	<table border="0"> <thead> <tr> <th style="text-align: left;">YEAR</th> <th style="text-align: left;">TAX BILL</th> </tr> </thead> <tbody> <tr> <td>1981</td> <td>\$884.40</td> </tr> <tr> <td>2005</td> <td>\$3,109.06</td> </tr> </tbody> </table>	YEAR	TAX BILL	1981	\$884.40	2005	\$3,109.06
YEAR	TAX BILL						
1981	\$884.40						
2005	\$3,109.06						
RATIO # OF YEARS ANNUAL COMPOUNDING FACTOR AVERAGE ANNUAL % INCREASE	3.5154455 = Last year divided by first year 24 = Last year minus first year 1.0537781 = 24th root of 3.5154455 5.378%						

TAXPAYER A – MARBLEHEAD

TABLE 2 - PROPERTY TAXES PAID

YEAR	VALUE	RATE	TAX BILL
1970	\$10,368	\$35.00	\$362.88
1971	\$10,368	\$39.50	\$409.54
1972	\$10,914	\$43.50	\$474.76
1973	\$10,914	\$44.50	\$485.67
1974	\$11,241	\$44.00	\$494.60
1975	\$11,241	\$49.50	\$556.43
1976	\$11,860	\$55.00	\$652.30
1977	\$13,100	\$56.00	\$733.60
1978	\$13,400	\$63.00	\$844.20
1979	\$13,400	\$63.00	\$844.20
1980	\$13,400	\$63.00	\$844.20
1981	\$13,400	\$66.00	\$884.40
1982	\$13,400	\$67.00	\$897.80
1983	\$16,400	\$68.50	\$1,123.40
1984	\$16,400	\$70.00	\$1,148.00
1985	\$164,000	\$12.00	\$1,968.00
1986	\$111,600	\$12.00	\$1,339.20
1987	\$110,200	\$12.20	\$1,344.44
1988	\$174,800	\$12.90	\$2,254.92
1989	\$174,800	\$8.30	\$1,450.84
1990	\$152,000	\$8.67	\$1,317.84
1991	\$152,000	\$9.77	\$1,485.04
1992	\$139,400	\$10.94	\$1,525.04
1993	\$130,200	\$11.87	\$1,545.47
1994	\$138,200	\$11.94	\$1,650.11
1995	\$144,400	\$11.85	\$1,711.14
1996	\$146,100	\$11.98	\$1,750.28
1997	\$150,800	\$12.18	\$1,836.74
1998	\$163,700	\$12.00	\$1,964.40
1999	\$172,300	\$11.60	\$1,998.68
2000	\$180,900	\$11.14	\$2,015.23
2001	\$207,000	\$10.23	\$2,117.61
2002	\$271,000	\$9.50	\$2,574.50
2003	\$315,100	\$8.42	\$2,653.14
2004	\$324,800	\$8.48	\$2,754.30
2005	\$376,400	\$8.26	\$3,109.06

Taxpayer A – Marblehead

This property was separated from that of Taxpayer C in 1975, so the taxes on each property are apportioned for the share paid by each during the years they were combined.

Note: The Massachusetts constitution requires that properties be assessed at full and fair market value. As communities complied with a court order during the late '70s and throughout the '80s, assessed values increased and tax rates dropped to reflect this revaluation.

TAXPAYER A – MARBLEHEAD

TABLE 3 - IF THERE WERE NO PROPOSITION 2½

Without Prop 2½ – Increase of 8.81% a year

YEAR	TAX BILL
1981	\$884.40
1982	\$962.32
1983	\$1,047.10
1984	\$1,139.34
1985	\$1,239.72
1986	\$1,348.94
1987	\$1,467.78
1988	\$1,597.09
1989	\$1,737.80
1990	\$1,890.90
1991	\$2,057.49
1992	\$2,238.75
1993	\$2,435.98
1994	\$2,650.59
1995	\$2,884.11
1996	\$3,138.20
1997	\$3,414.68
1998	\$3,715.51
1999	\$4,042.85
2000	\$4,399.02
2001	\$4,786.58
2002	\$5,208.27
2003	\$5,667.12
2004	\$6,166.40
2005	\$6,709.65

Taxpayer A – Marblehead

Taxpayer A - Marblehead

ACTUAL 2005 TAX BILL: \$3,109.06

SAVINGS THIS YEAR ALONE: \$3,600.59

TAXPAYER B – MARBLEHEAD

TABLE 1 - BEFORE AND AFTER

Taxpayer B - Marblehead Pre-Prop 2½	YEAR	TAX BILL
	1970	\$987.00
	1980	\$1,776.60
RATIO	1.8	= Last year divided by first year
# OF YEARS	10	= Last year minus first year
ANNUAL COMPOUNDING FACTOR	1.0605405	= 10th root of 1.8
AVERAGE ANNUAL % INCREASE	6.054%	
Taxpayer B - Marblehead Post-Prop 2½	YEAR	TAX BILL
	1981	\$1,861.20
	2005	\$7,011.91
RATIO	3.7674135	= Last year divided by first year
# OF YEARS	24	= Last year minus first year
ANNUAL COMPOUNDING FACTOR	1.0568219	= 24th root of 3.7674135
AVERAGE ANNUAL % INCREASE	5.682%	

TAXPAYER B – MARBLEHEAD

TABLE 2 - PROPERTY TAXES PAID

YEAR	VALUE	RATE	TAX BILL
1970	\$28,200	\$35.00	\$987.00
1971	\$28,200	\$39.50	\$1,113.90
1972	\$28,200	\$43.50	\$1,226.70
1973	\$28,200	\$44.50	\$1,254.90
1974	\$28,200	\$44.00	\$1,240.80
1975	\$28,200	\$49.50	\$1,395.90
1976	\$28,200	\$55.00	\$1,551.00
1977	\$28,200	\$56.00	\$1,579.20
1978	\$28,200	\$63.00	\$1,776.60
1979	\$28,200	\$63.00	\$1,776.60
1980	\$28,200	\$63.00	\$1,776.60
1981	\$28,200	\$66.00	\$1,861.20
1982	\$28,200	\$67.00	\$1,889.40
1983	\$28,200	\$68.50	\$1,931.70
1984	\$28,200	\$70.00	\$1,974.00
1985	\$294,600	\$12.00	\$3,535.20
1986	\$294,600	\$12.00	\$3,535.20
1987	\$300,600	\$12.20	\$3,667.32
1988	\$318,600	\$12.90	\$4,109.94
1989	\$318,600	\$8.30	\$2,644.38
1990	\$334,900	\$8.67	\$2,903.58
1991	\$320,200	\$9.77	\$3,128.35
1992	\$293,800	\$10.94	\$3,214.17
1993	\$287,800	\$11.87	\$3,416.19
1994	\$317,400	\$11.94	\$3,789.76
1995	\$333,900	\$11.85	\$3,956.72
1996	\$334,800	\$11.98	\$4,010.90
1997	\$343,000	\$12.18	\$4,177.74
1998	\$351,000	\$12.00	\$4,212.00
1999	\$390,900	\$11.60	\$4,534.44
2000	\$445,500	\$11.14	\$4,962.87
2001	\$498,800	\$10.23	\$5,102.72
2002	\$651,700	\$9.50	\$6,191.15
2003	\$876,500	\$8.42	\$7,380.13
2004	\$852,000	\$8.48	\$7,224.96
2005	\$848,900	\$8.26	\$7,011.91

Taxpayer B – Marblehead

Note: The Massachusetts constitution requires that properties be assessed at full and fair market value. As communities complied with a court order during the late '70s and throughout the '80s, assessed values increased and tax rates dropped to reflect this revaluation.

TAXPAYER B – MARBLEHEAD

TABLE 3 - IF THERE WERE NO PROPOSITION 2½

Without Prop 2½ – Increase of 6.054% a year

YEAR	TAX BILL
1981	\$1,861.20
1982	\$1,973.88
1983	\$2,093.38
1984	\$2,220.11
1985	\$2,354.51
1986	\$2,497.06
1987	\$2,648.23
1988	\$2,808.55
1989	\$2,978.58
1990	\$3,158.90
1991	\$3,350.14
1992	\$3,552.96
1993	\$3,768.06
1994	\$3,996.18
1995	\$4,238.11
1996	\$4,494.68
1997	\$4,766.79
1998	\$5,055.37
1999	\$5,361.42
2000	\$5,686.00
2001	\$6,030.23
2002	\$6,395.30
2003	\$6,782.48
2004	\$7,193.09
2005	\$7,628.56

Taxpayer B – Marblehead

Taxpayer B - Marblehead

ACTUAL 2005 TAX BILL: \$7,011.91

SAVINGS THIS YEAR ALONE: \$616.65

TAXPAYER C – MARBLEHEAD

TABLE 1 - BEFORE AND AFTER

Taxpayer C - Marblehead Pre-Prop 2½	<table border="0"> <thead> <tr> <th style="text-align: left;">YEAR</th> <th style="text-align: left;">TAX BILL</th> </tr> </thead> <tbody> <tr> <td>1970</td> <td>\$634.62</td> </tr> <tr> <td>1980</td> <td>\$1,423.80</td> </tr> </tbody> </table>	YEAR	TAX BILL	1970	\$634.62	1980	\$1,423.80
YEAR	TAX BILL						
1970	\$634.62						
1980	\$1,423.80						
RATIO # OF YEARS ANNUAL COMPOUNDING FACTOR AVERAGE ANNUAL % INCREASE	2.2435473 = Last year divided by first year 10 = Last year minus first year 1.0841604 = 10 root of 2.2435473 8.416%						
Taxpayer C - Marblehead Post-Prop 2½	<table border="0"> <thead> <tr> <th style="text-align: left;">YEAR</th> <th style="text-align: left;">TAX BILL</th> </tr> </thead> <tbody> <tr> <td>1981</td> <td>\$1,491.60</td> </tr> <tr> <td>2005</td> <td>\$4,031.71</td> </tr> </tbody> </table>	YEAR	TAX BILL	1981	\$1,491.60	2005	\$4,031.71
YEAR	TAX BILL						
1981	\$1,491.60						
2005	\$4,031.71						
RATIO # OF YEARS ANNUAL COMPOUNDING FACTOR AVERAGE ANNUAL % INCREASE	2.7029431 = Last year divided by first year 24 = Last year minus first year 1.0423011 = 24th root of 2.7029431 4.230%						

TAXPAYER C – MARBLEHEAD

TABLE 2 - PROPERTY TAXES PAID

YEAR	VALUE	RATE	TAX BILL
1970	\$18,132	\$35.00	\$634.62
1971	\$18,132	\$39.50	\$716.21
1972	\$19,086	\$43.50	\$830.24
1973	\$19,086	\$44.50	\$849.33
1974	\$19,659	\$44.00	\$865.00
1975	\$19,659	\$49.50	\$973.12
1976	\$20,740	\$55.00	\$1,140.70
1977	\$22,900	\$56.00	\$1,282.40
1978	\$22,600	\$63.00	\$1,423.80
1979	\$22,600	\$63.00	\$1,423.80
1980	\$22,600	\$63.00	\$1,423.80
1981	\$22,600	\$66.00	\$1,491.60
1982	\$22,600	\$67.00	\$1,514.20
1983	\$22,600	\$68.50	\$1,548.10
1984	\$25,600	\$70.00	\$1,792.00
1985	\$25,600	\$12.00	\$307.20
1986	\$150,800	\$12.00	\$1,809.60
1987	\$246,900	\$12.20	\$3,012.18
1988	\$246,900	\$12.90	\$3,185.01
1989	\$221,300	\$8.30	\$1,836.79
1990	\$221,300	\$8.67	\$1,918.67
1991	\$221,300	\$9.77	\$2,162.10
1992	\$198,000	\$10.94	\$2,166.12
1993	\$191,200	\$11.87	\$2,269.54
1994	\$206,900	\$11.94	\$2,470.39
1995	\$221,400	\$11.85	\$2,623.59
1996	\$224,700	\$11.98	\$2,691.91
1997	\$233,400	\$12.18	\$2,842.81
1998	\$257,400	\$12.00	\$3,088.80
1999	\$273,400	\$11.60	\$3,171.44
2000	\$289,400	\$11.14	\$3,223.92
2001	\$337,800	\$10.23	\$3,455.69
2002	\$433,800	\$9.50	\$4,121.10
2003	\$388,600	\$8.42	\$3,272.01
2004	\$416,100	\$8.48	\$3,528.53
2005	\$488,100	\$8.26	\$4,031.71

This property was separated from that of Taxpayer A in 1975, so the taxes on each property are apportioned for the share paid by each during the years they were combined.

Note: The Massachusetts constitution requires that properties be assessed at full and fair market value. As communities complied with a court order during the late '70s and throughout the '80s, assessed values increased and tax rates dropped to reflect this revaluation.

TAXPAYER C – MARBLEHEAD

TABLE 3 - IF THERE WERE NO PROPOSITION 2½

Without Prop 2½ – Increase of 8.416% a year

YEAR	TAX BILL
1981	\$1,491.60
1982	\$1,617.13
1983	\$1,753.23
1984	\$1,900.78
1985	\$2,060.75
1986	\$2,234.19
1987	\$2,422.21
1988	\$2,626.07
1989	\$2,847.08
1990	\$3,086.69
1991	\$3,346.46
1992	\$3,628.10
1993	\$3,933.44
1994	\$4,264.48
1995	\$4,623.38
1996	\$5,012.48
1997	\$5,434.34
1998	\$5,891.69
1999	\$6,387.53
2000	\$6,925.11
2001	\$7,507.93
2002	\$8,139.79
2003	\$8,824.84
2004	\$9,567.54
2005	\$10,372.74

Taxpayer C - Marblehead

ACTUAL 2005 TAX BILL: \$4,031.71

SAVINGS THIS YEAR ALONE: \$6,341.03

TAXPAYER D – MALDEN

TABLE 1 - BEFORE AND AFTER

Taxpayer D - Malden
Pre-Prop 2½

YEAR	TAX BILL
1970	\$1,139.00
1980	\$1,993.00

RATIO
OF YEARS
ANNUAL COMPOUNDING FACTOR
AVERAGE ANNUAL % INCREASE

1.7497805 = Last year divided by first year
10 = Last year minus first year
1.0575438 = 10th root of 1.7497805
5.754%

Taxpayer D - Malden
Post-Prop 2½

YEAR	TAX BILL
1981	\$2,270.00
2005	\$2,859.01

RATIO
OF YEARS
ANNUAL COMPOUNDING FACTOR
AVERAGE ANNUAL % INCREASE

1.2594758 = Last year divided by first year
24 = Last year minus first year
1.0096587 = 24th root of 1.2594758
0.966%

TAXPAYER D – MALDEN

TABLE 2 - PROPERTY TAXES PAID

YEAR	VALUE	RATE	TAX BILL
1970	\$8,500	\$134.00	\$1,139.00
1971	\$8,500	\$155.00	\$1,317.50
1972	\$8,500	\$173.00	\$1,470.50
1973	\$8,500	\$158.00	\$1,343.00
1974	\$8,500	\$158.00	\$1,343.00
1975	\$8,500	\$172.80	\$1,468.80
1976	\$8,500	\$198.00	\$1,683.00
1977	\$8,500	\$229.00	\$1,946.50
1978	\$8,500	\$231.00	\$1,963.50
1979	\$10,000	\$220.40	\$2,204.00
1980	\$10,000	\$199.30	\$1,993.00
1981	\$10,000	\$227.00	\$2,270.00
1982	\$10,000	\$190.00	\$1,900.00
1983	\$64,700	\$22.80	\$1,475.16
1984	\$68,400	\$22.36	\$1,529.42
1985	\$72,300	\$21.97	\$1,588.43
1986	\$96,400	\$17.18	\$1,656.15
1987	\$96,400	\$17.15	\$1,653.26
1988	\$96,400	\$17.51	\$1,687.96
1989	\$173,800	\$9.87	\$1,715.41
1990	\$173,800	\$10.08	\$1,751.90
1991	\$173,800	\$10.46	\$1,817.95
1992	\$159,600	\$11.92	\$1,902.43
1993	\$155,300	\$12.64	\$1,962.99
1994	\$151,200	\$13.63	\$2,060.86
1995	\$150,300	\$15.50	\$2,329.65
1996	\$150,300	\$15.75	\$2,367.23
1997	\$150,300	\$16.24	\$2,440.87
1998	\$157,600	\$16.38	\$2,581.49
1999	\$157,600	\$16.85	\$2,655.56
2000	\$157,600	\$17.43	\$2,746.97
2001	\$217,500	\$13.12	\$2,853.60
2002	\$217,500	\$13.54	\$2,944.95
2003	\$217,500	\$14.06	\$3,058.05
2004	\$356,200	\$8.91	\$3,173.74
2005	\$329,000	\$8.69	\$2,859.01

Note: The Massachusetts constitution requires that properties be assessed at full and fair market value. As communities complied with a court order during the late '70s and throughout the '80s, assessed values increased and tax rates dropped to reflect this revaluation.

TAXPAYER D – MALDEN

TABLE 3 - IF THERE WERE NO PROPOSITION 2½

Without Prop 2½ – Increase of 5.754% a year

YEAR	TAX BILL
1981	\$2,270.00
1982	\$2,400.62
1983	\$2,538.75
1984	\$2,684.83
1985	\$2,839.31
1986	\$3,002.69
1987	\$3,175.46
1988	\$3,358.18
1989	\$3,551.41
1990	\$3,755.75
1991	\$3,971.86
1992	\$4,200.40
1993	\$4,442.09
1994	\$4,697.69
1995	\$4,967.99
1996	\$5,253.85
1997	\$5,556.16
1998	\$5,875.86
1999	\$6,213.96
2000	\$6,571.51
2001	\$6,949.63
2002	\$7,349.52
2003	\$7,772.41
2004	\$8,219.63
2005	\$8,692.59

Taxpayer D – Malden

Taxpayer D - Malden

ACTUAL 2005 TAX BILL: \$2,859.01

SAVINGS THIS YEAR ALONE: \$5,833.58

TAXPAYER E – SCITUATE

TABLE 1 - BEFORE AND AFTER

Taxpayer E - Scituate Pre-Prop 2½	YEAR	TAX BILL
	1981	\$1,444.00
	2005	\$3,984.44
RATIO	2.7593075 = Last year divided by first year	
# OF YEARS	24 = Last year minus first year	
ANNUAL COMPOUNDING FACTOR	1.0431978 = 24th root of 2.7593075	
AVERAGE ANNUAL % INCREASE	4.320%	
Taxpayer E - Scituate Post-Prop 2½	YEAR	TAX BILL
	1973	\$776.31
	1980	\$1,355.90
RATIO	1.7465961 = Last year divided by first year	
# OF YEARS	7 = Last year minus first year	
ANNUAL COMPOUNDING FACTOR	1.0829264 = 7th root of 1.7465961	
AVERAGE ANNUAL % INCREASE	8.293%	

TAXPAYER E – SCITUATE

TABLE 2 - PROPERTY TAXES PAID

YEAR	VALUE	RATE	TAX BILL
1973	\$11,450	\$67.80	\$776.31
1974	\$11,450	\$33.40	\$382.43
1975	\$11,450	\$70.80	\$810.66
1976	\$11,450	\$74.40	\$851.88
1977	\$11,450	\$82.40	\$943.48
1978	\$11,450	\$91.60	\$1,048.82
1979	\$14,300	\$94.60	\$1,352.78
1980	\$14,900	\$91.00	\$1,355.90
1981	\$15,200	\$95.00	\$1,444.00
1982	\$70,300	\$25.90	\$1,820.77
1983	\$62,200	\$24.90	\$1,548.78
1984	\$63,700	\$24.90	\$1,586.13
1985	\$107,300	\$18.90	\$2,027.97
1986	\$107,300	\$18.68	\$2,004.36
1987	\$193,000	\$19.78	\$3,817.54
1988	\$193,000	\$10.01	\$1,931.93
1989	\$193,000	\$10.27	\$1,982.11
1990	\$193,000	\$10.57	\$2,040.01
1991	\$212,600	\$11.09	\$2,357.73
1992	\$191,000	\$12.54	\$2,395.14
1993	\$191,000	\$12.97	\$2,477.27
1994	\$175,500	\$14.50	\$2,544.75
1995	\$175,500	\$14.93	\$2,620.22
1996	\$175,500	\$15.33	\$2,690.42
1997	\$193,300	\$14.80	\$2,860.84
1998	\$193,300	\$15.19	\$2,936.23
1999	\$193,300	\$15.87	\$3,067.67
2000	\$221,800	\$13.85	\$3,071.93
2001	\$221,800	\$14.70	\$3,260.46
2002	\$221,800	\$15.31	\$3,395.76
2003	\$389,300	\$9.38	\$3,651.63
2004	\$390,300	\$10.00	\$3,903.00
2005	\$420,300	\$9.48	\$3,984.44

Note: The Massachusetts constitution requires that properties be assessed at full and fair market value. As communities complied with a court order during the late '70s and throughout the '80s, assessed values increased and tax rates dropped to reflect this revaluation.

TAXPAYER E – SCITUATE

TABLE 3 - IF THERE WERE NO PROPOSITION 2½

Without Prop 2½ – Increase of 8.293% a year

YEAR	TAX BILL
1981	\$1,444.00
1982	\$1,563.75
1983	\$1,693.43
1984	\$1,833.87
1985	\$1,985.95
1986	\$2,150.65
1987	\$2,329.00
1988	\$2,522.14
1989	\$2,731.31
1990	\$2,957.81
1991	\$3,203.10
1992	\$3,468.74
1993	\$3,756.40
1994	\$4,067.92
1995	\$4,405.27
1996	\$4,770.60
1997	\$5,166.23
1998	\$5,594.66
1999	\$6,058.63
2000	\$6,561.07
2001	\$7,105.18
2002	\$7,694.41
2003	\$8,332.51
2004	\$9,023.52
2005	\$9,771.84

Taxpayer E – Scituate

Taxpayer E - Scituate

ACTUAL 2005 TAX BILL: \$3,984.44

SAVINGS THIS YEAR ALONE: \$5,787.40

TAXPAYER F – ROCKPORT

TABLE 1 - BEFORE AND AFTER

Taxpayer F - Rockport
Pre-Prop 2½

YEAR	TAX BILL
1970	\$1,166.67
1980	\$2,515.20

RATIO	2.1558796 = Last year divided by first year
# OF YEARS	10 = Last year minus first year
ANNUAL COMPOUNDING FACTOR	1.0798476 = 10th root of 2.1558796
AVERAGE ANNUAL % INCREASE	7.985%

Taxpayer F - Rockport
Post-Prop 2½

YEAR	TAX BILL
1981	\$2,710.29
2005	\$11,609.39

RATIO	4.2834494 = Last year divided by first year
# OF YEARS	24 = Last year minus first year
ANNUAL COMPOUNDING FACTOR	1.0624897 = 24th root of 4.2834494
AVERAGE ANNUAL % INCREASE	6.249%

TAXPAYER F – ROCKPORT

TABLE 2 - PROPERTY TAXES PAID

YEAR	VALUE	RATE	TAX BILL
1970	\$39,150	\$29.80	\$1,166.67
1971	\$39,150	\$32.00	\$1,252.80
1972	\$39,150	\$33.00	\$1,291.95
1973	\$39,150	\$37.00	\$1,448.55
1974	\$39,150	\$18.00	\$704.70
1975	\$39,150	\$39.50	\$1,546.43
1976	\$39,150	\$49.30	\$1,930.10
1977	\$39,150	\$50.00	\$1,957.50
1978	\$39,150	\$54.50	\$2,133.68
1979	\$131,000	\$19.60	\$2,567.60
1980	\$131,000	\$19.20	\$2,515.20
1981	\$141,900	\$19.10	\$2,710.29
1982	\$143,900	\$19.20	\$2,762.88
1983	\$195,600	\$15.65	\$3,061.14
1984	\$195,600	\$16.06	\$3,141.34
1985	\$195,600	\$16.30	\$3,188.28
1986	\$372,200	\$11.20	\$4,168.64
1987	\$342,100	\$12.00	\$4,105.20
1988	\$342,100	\$12.15	\$4,156.52
1989	\$605,700	\$6.72	\$4,070.30
1990	\$605,700	\$7.62	\$4,615.43
1991	\$605,700	\$9.75	\$5,905.58
1992	\$494,600	\$10.76	\$5,321.90
1993	\$494,600	\$11.23	\$5,554.36
1994	\$494,600	\$11.89	\$5,880.79
1995	\$560,400	\$12.43	\$6,965.77
1996	\$489,100	\$12.80	\$6,260.48
1997	\$489,100	\$14.36	\$7,023.48
1998	\$542,200	\$15.46	\$8,382.41
1999	\$542,200	\$15.73	\$8,528.81
2000	\$542,200	\$15.88	\$8,610.14
2001	\$867,400	\$11.61	\$10,070.51
2002	\$867,400	\$11.90	\$10,322.06
2003	\$867,400	\$12.15	\$10,538.91
2004	\$1,280,300	\$8.78	\$11,241.03
2005	\$1,351,500	\$8.59	\$11,609.39

Note: The Massachusetts constitution requires that properties be assessed at full and fair market value. As communities complied with a court order during the late '70s and throughout the '80s, assessed values increased and tax rates dropped to reflect this revaluation.

TAXPAYER F – ROCKPORT

TABLE 3 - IF THERE WERE NO PROPOSITION 2½

Without Prop 2½ – Increase of 7.985% a year

YEAR	TAX BILL
1981	\$2,710.29
1982	\$2,926.71
1983	\$3,160.40
1984	\$3,412.76
1985	\$3,685.27
1986	\$3,979.54
1987	\$4,297.31
1988	\$4,640.45
1989	\$5,010.99
1990	\$5,411.11
1991	\$5,843.19
1992	\$6,309.77
1993	\$6,813.61
1994	\$7,357.67
1995	\$7,945.18
1996	\$8,579.60
1997	\$9,264.69
1998	\$10,004.47
1999	\$10,803.33
2000	\$11,665.97
2001	\$12,597.50
2002	\$13,603.41
2003	\$14,689.64
2004	\$15,862.61
2005	\$17,129.24

Taxpayer F - Rockport

ACTUAL 2005 TAX BILL: \$11,609.39

SAVINGS THIS YEAR ALONE: \$5,519.85

TAXPAYER G – SAUGUS

TABLE 1 - BEFORE AND AFTER

Taxpayer G - Saugus Pre-Prop 2½	YEAR	TAX BILL	
	1970	\$1,629.76	
	1980	\$2,208.05	
RATIO	1.3548314	= Last year divided by first year	
# OF YEARS	10	= Last year minus first year	
ANNUAL COMPOUNDING FACTOR	1.0308335	= 10 root of	1.3548314
AVERAGE ANNUAL % INCREASE	3.083%		
Taxpayer G - Saugus Post-Prop 2½	YEAR	TAX BILL	
	1981	\$2,614.90	
	2005	\$3,246.76	
RATIO	1.2416383	= Last year divided by first year	
# OF YEARS	24	= Last year minus first year	
ANNUAL COMPOUNDING FACTOR	1.0090588	= 24th root of	1.2416383
AVERAGE ANNUAL % INCREASE	0.906%		

Taxpayer G – Saugus

TAXPAYER G – SAUGUS

TABLE 2 - PROPERTY TAXES PAID

YEAR	VALUE	RATE	TAX BILL
1970	\$46,300	\$35.20	\$1,629.76
1971	\$46,300	\$37.80	\$1,750.14
1972	\$39,500	\$44.70	\$1,765.65
1973	\$39,500	\$44.70	\$1,765.65
1974	\$39,500	\$44.00	\$1,738.00
1975	\$39,500	\$49.90	\$1,971.05
1976	\$39,500	\$52.89	\$2,089.16
1977	\$39,500	\$55.00	\$2,172.50
1978	\$39,500	\$57.80	\$2,283.10
1979	\$39,500	\$59.90	\$2,366.05
1980	\$39,500	\$55.90	\$2,208.05
1981	\$39,500	\$66.20	\$2,614.90
1982	\$88,000	\$22.93	\$2,017.84
1983	\$88,000	\$22.78	\$2,004.64
1984	\$116,200	\$16.31	\$1,895.22
1985	\$116,200	\$16.94	\$1,968.43
1986	\$116,200	\$17.39	\$2,020.72
1987	\$187,000	\$10.97	\$2,051.39
1988	\$187,000	\$11.27	\$2,107.49
1989	\$187,000	\$10.47	\$1,957.89
1990	\$214,900	\$8.17	\$1,755.73
1991	\$214,900	\$8.36	\$1,796.56
1992	\$193,400	\$9.99	\$1,932.07
1993	\$192,000	\$10.77	\$2,067.84
1994	\$193,400	\$10.97	\$2,121.60
1995	\$194,700	\$11.48	\$2,235.16
1996	\$195,500	\$11.70	\$2,287.35
1997	\$195,500	\$11.95	\$2,336.23
1998	\$189,100	\$12.05	\$2,278.66
1999	\$201,500	\$11.81	\$2,379.72
2000	\$206,700	\$11.59	\$2,395.65
2001	\$220,400	\$11.00	\$2,424.40
2002	\$256,200	\$10.03	\$2,569.69
2003	\$307,300	\$9.53	\$2,928.57
2004	\$346,900	\$8.63	\$2,993.75
2005	\$389,300	\$8.34	\$3,246.76

Note: The Massachusetts constitution requires that properties be assessed at full and fair market value. As communities complied with a court order during the late '70s and throughout the '80s, assessed values increased and tax rates dropped to reflect this revaluation.

TAXPAYER G – SAUGUS

TABLE 3 - IF THERE WERE NO PROPOSITION 2½

Without Prop 2½ – Increase of 3.083% a year

YEAR	TAX BILL
1981	\$2,614.90
1982	\$2,695.52
1983	\$2,778.62
1984	\$2,864.29
1985	\$2,952.59
1986	\$3,043.62
1987	\$3,137.45
1988	\$3,234.18
1989	\$3,333.89
1990	\$3,436.68
1991	\$3,542.63
1992	\$3,651.85
1993	\$3,764.43
1994	\$3,880.49
1995	\$4,000.13
1996	\$4,123.45
1997	\$4,250.58
1998	\$4,381.62
1999	\$4,516.71
2000	\$4,655.96
2001	\$4,799.50
2002	\$4,947.47
2003	\$5,100.00
2004	\$5,257.23
2005	\$5,419.31

Taxpayer G – Saugus

Taxpayer G - Saugus

ACTUAL 2005 TAX BILL: \$3,246.76

SAVINGS THIS YEAR ALONE: \$2,172.55

TAXPAYER H – BILLERICA

TABLE 1 - BEFORE AND AFTER

Taxpayer H - Billerica
Pre-Prop 2½

YEAR	TAX BILL
1970	\$521.64
1980	\$1,010.88

RATIO	1.9378882 = Last year divided by first year
# OF YEARS	10 = Last year minus first year
ANNUAL COMPOUNDING FACTOR	1.0683975 = 10th root of 1.9378882
AVERAGE ANNUAL % INCREASE	6.840%

Taxpayer H - Billerica
Post-Prop 2½

YEAR	TAX BILL
1981	\$1,007.64
2005	\$2,531.10

RATIO	2.511909 = Last year divided by first year
# OF YEARS	24 = Last year minus first year
ANNUAL COMPOUNDING FACTOR	1.0391227 = 24th root of 2.511909
AVERAGE ANNUAL % INCREASE	3.912%

TAXPAYER H – BILLERICA

TABLE 2 - PROPERTY TAXES PAID

YEAR	VALUE	RATE	TAX BILL
1970	\$3,240	\$161.00	\$521.64
1971	\$3,240	\$162.00	\$524.88
1972	\$3,240	\$174.00	\$563.76
1973	\$3,240	\$205.00	\$664.20
1974	\$3,240	\$192.00	\$622.08
1975	\$3,240	\$190.00	\$615.60
1976	\$3,240	\$254.00	\$822.96
1977	\$3,240	\$247.00	\$800.28
1978	\$3,240	\$316.00	\$1,023.84
1979	\$3,240	\$313.00	\$1,014.12
1980	\$3,240	\$312.00	\$1,010.88
1981	\$3,240	\$311.00	\$1,007.64
1982	\$44,200	\$25.00	\$1,105.00
1983	\$44,200	\$25.00	\$1,105.00
1984	\$44,200	\$25.00	\$1,105.00
1985	\$53,500	\$17.66	\$944.81
1986	\$53,500	\$18.03	\$964.61
1987	\$53,500	\$19.49	\$1,042.72
1988	\$115,600	\$9.33	\$1,078.55
1989	\$115,600	\$9.63	\$1,113.23
1990	\$115,600	\$9.93	\$1,147.91
1991	\$118,300	\$10.55	\$1,248.07
1992	\$111,200	\$11.54	\$1,283.25
1993	\$108,000	\$12.29	\$1,327.32
1994	\$103,700	\$14.75	\$1,529.58
1995	\$100,300	\$15.13	\$1,517.54
1996	\$100,300	\$15.24	\$1,528.57
1997	\$104,000	\$15.38	\$1,599.52
1998	\$105,300	\$15.45	\$1,626.89
1999	\$114,200	\$15.11	\$1,725.56
2000	\$133,700	\$13.90	\$1,858.43
2001	\$137,400	\$13.36	\$1,835.66
2002	\$156,800	\$12.43	\$1,949.02
2003	\$183,300	\$11.06	\$2,027.30
2004	\$209,600	\$10.92	\$2,288.83
2005	\$230,100	\$11.00	\$2,531.10

Taxpayer H – Billerica

Note: The Massachusetts constitution requires that properties be assessed at full and fair market value. As communities complied with a court order during the late '70s and throughout the '80s, assessed values increased and tax rates dropped to reflect this revaluation.

TAXPAYER H – BILLERICA

TABLE 3 - IF THERE WERE NO PROPOSITION 2½

Without Prop 2½ – Increase of 6.84% a year

YEAR	TAX BILL
1981	\$1,007.64
1982	\$1,076.56
1983	\$1,150.20
1984	\$1,228.87
1985	\$1,312.93
1986	\$1,402.73
1987	\$1,498.68
1988	\$1,601.19
1989	\$1,710.71
1990	\$1,827.72
1991	\$1,952.74
1992	\$2,086.31
1993	\$2,229.01
1994	\$2,381.47
1995	\$2,544.37
1996	\$2,718.40
1997	\$2,904.34
1998	\$3,103.00
1999	\$3,315.24
2000	\$3,542.00
2001	\$3,784.28
2002	\$4,043.12
2003	\$4,319.67
2004	\$4,615.14
2005	\$4,930.81

Taxpayer H – Billerica

Taxpayer H - Billerica

ACTUAL 2005 TAX BILL: \$2,531.10

SAVINGS THIS YEAR ALONE: \$2,399.71

TAXPAYER I – EAST BRIDGEWATER

TABLE 1 - BEFORE AND AFTER

Taxpayer I - East Bridgewater Pre-Prop 2½	YEAR	TAX BILL
	1970	\$1,500.00
	1980	\$2,093.75
RATIO	1.3958333 = Last year divided by first year	
# OF YEARS	10 = Last year minus first year	
ANNUAL COMPOUNDING FACTOR	1.0339115 = 10th root of 1.3958333	
AVERAGE ANNUAL % INCREASE	3.391%	
Taxpayer I - East Bridgewater Post-Prop 2½	YEAR	TAX BILL
	1981	\$2,072.07
	2005	\$3,352.68
RATIO	1.6180341 = Last year divided by first year	
# OF YEARS	24 = Last year minus first year	
ANNUAL COMPOUNDING FACTOR	1.0202529 = 24th root of 1.6180341	
AVERAGE ANNUAL % INCREASE	2.025%	

TAXPAYER I – EAST BRIDGEWATER

TABLE 2 - PROPERTY TAXES PAID

YEAR	VALUE	RATE	TAX BILL
1970	\$31,250	\$48.00	\$1,500.00
1971	\$31,250	\$52.00	\$1,625.00
1972	\$31,250	\$46.00	\$1,437.50
1973	\$31,250	\$50.80	\$1,587.50
1974 *	\$31,250		\$750.00
1974-75	\$31,250	\$76.20	\$2,381.25
1976	\$31,250	\$55.00	\$1,718.75
1977	\$31,250	\$57.50	\$1,796.88
1978	\$31,250	\$71.00	\$2,218.75
1979	\$31,250	\$68.00	\$2,125.00
1980	\$31,250	\$67.00	\$2,093.75
1981	\$62,790	\$33.00	\$2,072.07
1982	\$61,060	\$26.00	\$1,587.56
1983	\$68,580	\$23.49	\$1,610.94
1984	\$68,580	\$24.02	\$1,647.29
1985	\$68,580	\$25.00	\$1,714.50
1986	\$90,600	\$19.25	\$1,744.05
1987	\$90,600	\$19.66	\$1,781.20
1988	\$90,440	\$20.00	\$1,808.80
1989	\$178,800	\$10.74	\$1,920.31
1990	\$178,800	\$11.11	\$1,986.47
1991	\$178,800	\$12.18	\$2,177.78
1992	\$181,900	\$12.79	\$2,326.50
1993	\$181,900	\$13.17	\$2,395.62
1994	\$158,300	\$15.06	\$2,384.00
1995	\$163,800	\$15.41	\$2,524.16
1996	\$163,800	\$15.88	\$2,601.14
1997	\$163,800	\$16.44	\$2,692.87
1998	\$161,500	\$16.44	\$2,655.06
1999	\$161,500	\$17.51	\$2,827.87
2000	\$162,200	\$17.98	\$2,916.36
2001	\$192,800	\$15.38	\$2,965.26
2002	\$193,900	\$15.75	\$3,053.93
2003	\$193,900	\$15.48	\$3,001.57
2004	\$275,400	\$10.86	\$2,990.84
2005	\$303,960	\$11.03	\$3,352.68

* The tax rate for 1974 was apparently not set in time so the previous year's rate was applied for half a year and the amount made up in 1975.

Note: The Massachusetts constitution requires that properties be assessed at full and fair market value. As communities complied with a court order during the late '70s and throughout the '80s, assessed values increased and tax rates dropped to reflect this revaluation.

TAXPAYER I – EAST BRIDGEWATER
TABLE 3 - IF THERE WERE NO PROPOSITION 2½

Without Prop 2½ – Increase of 3.391% a year

YEAR	TAX BILL
1981	\$2,072.07
1982	\$2,142.33
1983	\$2,214.98
1984	\$2,290.09
1985	\$2,367.75
1986	\$2,448.04
1987	\$2,531.05
1988	\$2,616.88
1989	\$2,705.62
1990	\$2,797.36
1991	\$2,892.22
1992	\$2,990.30
1993	\$3,091.70
1994	\$3,196.54
1995	\$3,304.93
1996	\$3,417.00
1997	\$3,532.87
1998	\$3,652.67
1999	\$3,776.54
2000	\$3,904.60
2001	\$4,037.00
2002	\$4,173.90
2003	\$4,315.44
2004	\$4,461.77
2005	\$4,613.07

Taxpayer H - East Bridgewater

ACTUAL 2005 TAX BILL: \$3,352.68

SAVINGS THIS YEAR ALONE: \$1,260.39