

Fiscal Impact of Lower Ignition Strength Cigarettes on New Hampshire State Tobacco Tax Revenues Addendum

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Executive Summary

New Hampshire is considering legislation that would require all cigarettes sold in the State to meet fire safety standards. Cigarettes are the leading cause of fire deaths in the United States.

New York is the only state currently requiring cigarettes sold within its borders to meet fire safety standards. In 2005, Vermont and California both passed legislation requiring cigarette fire safety standards, but the legislation has yet to take effect.

This addendum analyzed New York sales data through December 2005 to determine impacts on tobacco tax revenue from the introduction of lower ignition strength cigarettes. The original report analyzed sales data up until July 2005 and determined that the introduction of cigarette fire safety standards did not adversely affect cigarette sales in NY State. This addendum supported previous findings, including:

In New York, after the introduction of lower ignition strength cigarettes:

- Cigarette consumption trends did not significantly change.
- Retail cigarette prices did not significantly change.
- Tobacco tax revenues did not significantly change.

Additional findings:

- Manufacturers continue to introduce lower ignition strength versions of their cigarettes in New York. Currently, 222 fire safe cigarette brands in 883 different varieties are certified.
- A nationwide survey showed New York smokers did not change smoking behavior after the introduction of lower ignition strength cigarettes. NY smokers were no more likely than the national population of smokers to report differences in cigarette taste, an intention to quit smoking, or smoking cessation attempts.
- Border state New Jersey has not experienced a significant increase or change in trend in cigarette sales after the introduction of lower ignition strength cigarettes in New York.

If New Hampshire were to introduce lower ignition strength cigarettes, based on the experience in New York, we would expect New Hampshire to experience:

- no significant increase in cigarette retail prices.
- no significant change in cigarette sales to border states.
- no significant change in trend in cigarette consumption caused by lower ignition strength cigarettes.
- no significant change in tobacco tax revenues caused by lower ignition strength cigarettes.

Introduction

This is an addendum to the study Fiscal Impact of Lower Ignition Strength Cigarettes on New Hampshire State Tobacco Tax Revenues released on September 19, 2005. The previous study analyzed tobacco tax stamp revenue in New York up until July 2005. This data went exactly one year from the date, July 2004, when cigarettes sold in New York were required to meet fire safety standards. New York is the only state in the country to currently have cigarette fire safety standards in effect.

The original study concluded that the introduction of lower ignition strength cigarettes did not increase or decrease cigarette consumption trends in New York and therefore did not have any significant impact on tobacco tax revenue.

This addendum analyzes New York tax stamp revenue data up until December 2005 (18 months after the introduction of lower ignition strength cigarettes). Our finding is that after approximately 18 months, the introduction of lower ignition strength cigarettes has not caused any change in cigarette consumption trends nor have the cigarettes had any substantive impact on New York State tobacco tax revenues.

Based on the experience in New York, it is not expected that the introduction of lower ignition strength cigarettes in New Hampshire would have significant impact on cigarette consumption and State tobacco tax revenues.

Cigarette Regulation Update

In New York, there has not been any significant change in cigarette regulation since the introduction of lower ignition strength cigarettes. The last major change to the New York tobacco excise tax was in 2002.

At the federal level, two bills related to cigarette fire safety that were introduced in 2005, S. 389 and H.R.1850, continue to remain in committee. However, cigarette fire safety legislation continues to be active at the state level. On October 7, 2005, California became the third state, after New York and Vermont, to pass legislation requiring cigarettes sold within the state to meet fire safety standards. California's law takes effect January 1, 2007.

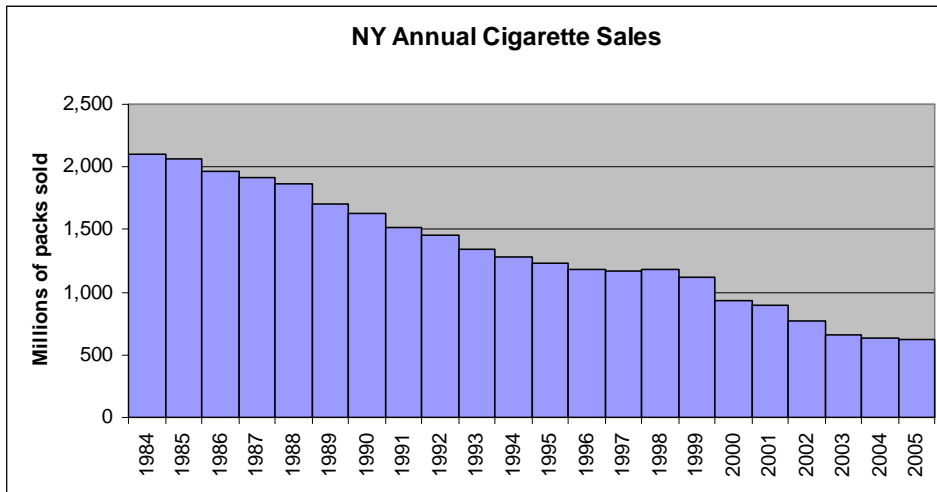
In New England, only Massachusetts and New Hampshire have active bills related to cigarette fire safety standards. On October 25, 2005, the Massachusetts Joint Committee on Public Safety and Homeland Security favorably passed the "fire-safe cigarettes" bill out of committee. It is now pending before the Massachusetts legislature. In New Hampshire, HB 645 successfully passed the House with amendment and is now before the Senate Committee of Public and Municipal Affairs.

In the other New England states, Vermont was the second State to pass legislation requiring cigarette fire safety standards with the passage of S.0040 and takes effect May 1, 2006. Connecticut, Rhode Island and Maine do not currently have any active legislation in regards to cigarette fire safety standards.

New York Cigarette Consumption

Finding: NY cigarette consumption declined slightly in 2005 but the rate of decline was less than the long-term trend.

In New York, cigarette consumption fell 0.7% in 2005. In 2005, 625 million cigarette packs were consumed down from 630 million cigarette packs in 2004. This rate of decline is significantly less than the long-term trend seen in New York. New York has averaged an annual rate of decline of 5.7% from 1984 through 2004. The rate of decline in 2005 is also less than the national long-term trend which has been approximately 2% annually over the past decade¹. National cigarette consumption statistics for 2005 were not available at the time of the writing of this addendum.



Source: NY Department of Taxation & Finance

Monthly Cigarette Sales in New York (Not Seasonally Adjusted)

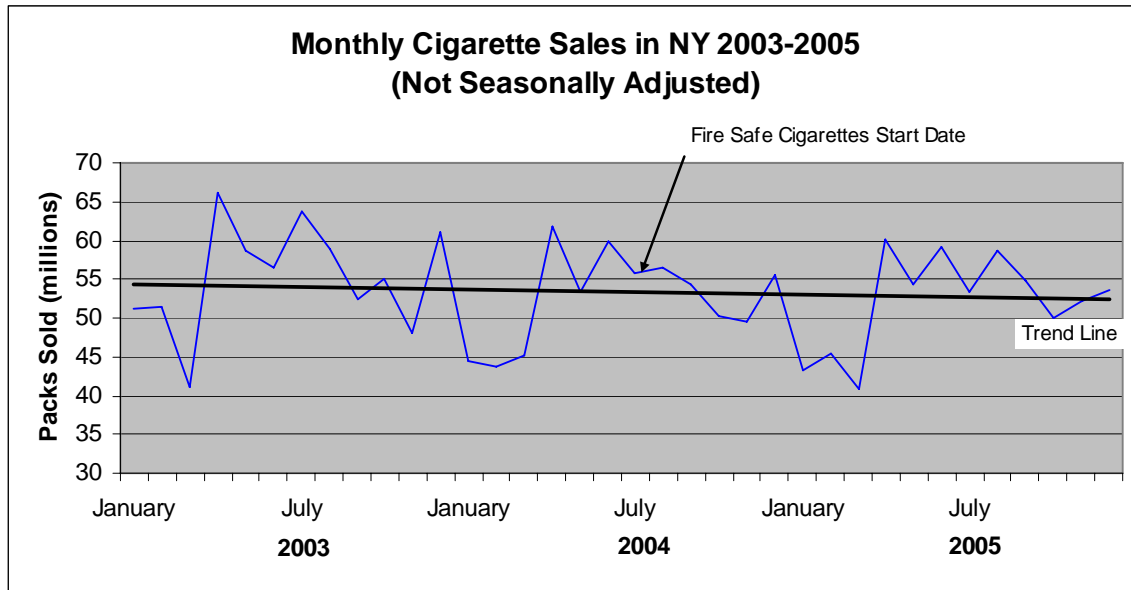
Finding: There was no significant difference in NY sales for the six months before and the 18 months after the introduction of lower ignition strength cigarettes.

Monthly cigarette sales in New York were analyzed to determine if there was a significant difference in cigarette sales for the six months before and the 18 months after the introduction of lower ignition strength cigarettes. Previous analysis had shown no

¹ Capehart, T., "Tobacco Outlook," United States Department of Agriculture, TBS-258, April 22, 2005.

statistically significant difference in the six months before and after the introduction of lower ignition strength cigarettes.

Student's t-test was used for statistical analysis. There was not a statistically significant difference in the monthly sales six months before and the 18 months after the introduction of lower ignition strength cigarettes ($p = 0.52$).



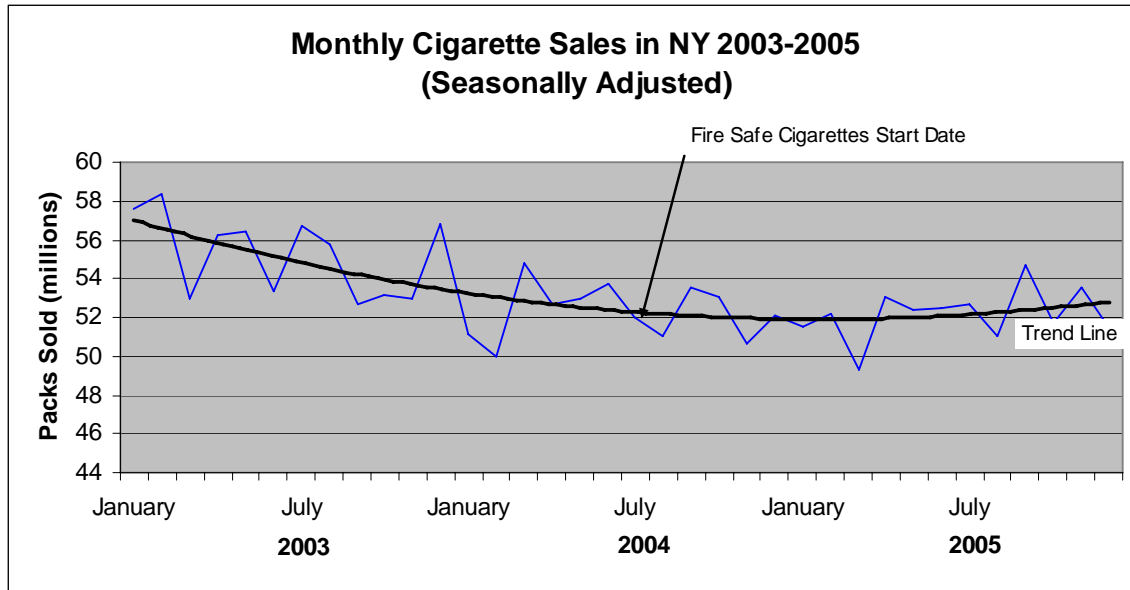
Source: NY Department of Taxation & Finance

Monthly Cigarette Sales in New York (Seasonally Adjusted)

Finding: When adjusted for seasonality, there was no significant difference in sales when comparing the six months before and the 18 months after the introduction of lower ignition strength cigarettes.

Monthly cigarette sales in New York were adjusted for seasonality to determine if there was a significant difference in the cigarette sales trend after the introduction of lower ignition strength cigarettes in 2004. Previous analysis had shown no significant difference in cigarette sales six months before and after the introduction of lower ignition strength cigarettes.

Student's t-test was used for statistical analysis. There was not a statistically significant difference in the seasonally adjusted monthly sales in the six months before and the 18 months after the introduction of lower ignition strength cigarettes ($p = 0.58$).



Source: NY Department of Taxation & Finance, Seasonally adjusted using X12 procedure

Other Findings in New York

Finding: Cigarette manufacturers continue to increase the number of brands and varieties available in lower ignition strength versions. A nationwide survey showed New York smokers did not change smoking behavior after the introduction of lower ignition strength cigarettes. Retail cigarette prices did not change after the introduction of lower ignition strength cigarettes in New York.

As of July 2005, New York had 208 brands of lower ignition strength cigarettes certified with 815 varieties offered in terms of flavor, filter, style and package. By January 2006, the number of brands offered had increased to 222 in a total of 883 different varieties².

A study published in the February 2006 issue of the journal Tobacco Control conducted a nationwide survey of smokers. The study found that the introduction of lower ignition strength cigarettes appeared to have no impact on smoking habits in New York.

2088 smokers (143 from New York) were surveyed from July 2004 to December 2004 and asked if they had noticed any change in the taste of their cigarettes in the past 12 months. The study found that NY smokers were no more likely to report differences in cigarette taste, an intention to quit smoking, or smoking cessation attempts³.

² “New York State Department of State Office of Fire Prevention and Control Cigarettes Certified by Manufacturers as of 1/30/06.” Retrieved February 8, 2006, from New York State Department of State Office of Fire Prevention and Control Web site. <http://www.dos.state.ny.us/fire/pdfs/cigarettelist.pdf>

³ O'Connor, R J, Giovino, G A, Fix, B V, Hyland, A, Hammond, D, Fong, G T, Bauer, U, Cummings, K M, "Smokers' reactions to reduced ignition propensity cigarettes," Tobacco Control 2006 15: 45-49

At the time of the study, no retail pricing data was available for 2005. Findings in the original report showed that there was no significant change in retail cigarette prices after the introduction of lower ignition strength cigarettes.

Impact on Cigarette Consumption in New Jersey

Finding: Border state New Jersey has not experienced a significant increase in sales after the introduction of lower ignition strength cigarettes in NY. In fact, the rate of decline in consumption in New Jersey was over eight times greater than that of New York in 2005.

New Jersey is a key border state with New York and shares a major market. New Jersey cigarette sales in 2004 and 2005 were analyzed to determine if there was any substantive change in New Jersey cigarette consumption due to the introduction of lower ignition strength cigarettes in New York.

Cigarette sales in New Jersey declined 5.8% from 350.8 million packs in 2004 to 330.5 million packs in 2005. New York only experienced a 0.7% decline during the same period of time. This would indicate that New Jersey did not experience an increase in cigarette purchases by New York smokers.

Cigarette Pack Sales (Millions)			
State	2004	2005	Difference
New Jersey	350.8	330.5	-5.8%
New York	629.9	625.4	-0.7%

NY Department of Taxation & Finance, NJ Division of Taxation

Fiscal impact of Lower Ignition Strength Cigarettes in New Hampshire

Finding: We would not expect New Hampshire to experience a significant change in tobacco tax revenue due to the introduction of lower ignition strength cigarettes.

Based on the analysis of the New York cigarette market and consistent with our previous findings, it is not expected that the introduction of lower ignition strength cigarettes in New Hampshire will have an impact on tobacco tax revenues.

The experience in New York showed that lower ignition strength cigarettes did not have any significant impact on consumption and also did not impact the retail prices of cigarettes. Therefore the introduction of lower ignition strength cigarettes in New Hampshire should not significantly impact NH State tobacco tax revenues.

Conclusion

Cigarettes and lighted tobacco products are the leading cause of fire deaths in the United States. New Hampshire is considering joining New York, Vermont and California in passing state legislation requiring cigarettes to meet fire safety standards.

The introduction of lower ignition strength cigarettes in New York has not caused a significant change in cigarette consumption trends or tobacco tax revenues. Retail prices did not significantly change after the introduction of lower ignition strength cigarettes and brand variety and diversity has not been adversely affected in New York.

This addendum supports the previous conclusion that the introduction of lower ignition strength cigarettes should not cause any significant change in cigarette consumption in New Hampshire. Therefore, it is our assessment that NH cigarette tobacco tax revenues should not experience substantive change due to the introduction of lower ignition strength cigarettes.

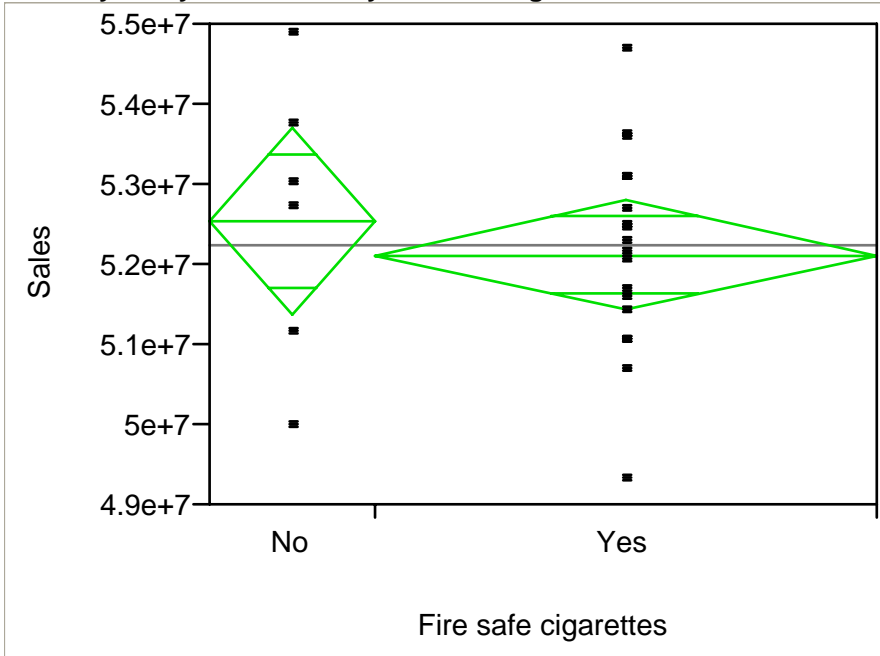
Appendix A: New York State Stamp Sales - January 2003 to January 2006

	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03
Stamp Sales	51,262,800	51,492,000	41,047,200	66,176,400	58,639,200	56,451,600	63,698,400	58,987,200	52,413,600	55,072,800	48,097,200	61,076,400
Stamp Sales (seasonally adjusted)	57,572,121	58,325,308	53,009,233	56,203,758	56,445,322	53,303,485	56,729,675	55,767,210	52,669,517	53,151,344	52,963,474	56,805,266
	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04
Stamp Sales	44,460,000	43,671,600	45,158,400	61,692,000	53,338,800	59,839,200	55,814,400	56,580,000	54,247,200	50,149,200	49,424,400	55,537,200
Stamp Sales (seasonally adjusted)	51,125,806	49,941,131	54,836,054	52,686,420	52,989,903	53,733,045	52,022,308	51,025,603	53,555,579	53,039,901	50,633,905	52,115,981
	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05
Stamp Sales	43,267,200	45,420,000	40,724,400	60,060,000	54,300,000	59,070,000	53,377,200	58,740,000	54,857,200	49,930,800	52,094,400	53,511,600
Stamp Sales (seasonally adjusted)	51,561,358	52,238,582	49,275,271	53,036,881	52,427,073	52,448,254	52,647,398	51,001,324	54,653,190	51,665,215	53,582,622	51,397,920
	Jan-06											
Stamp Sales	46,080,000											
Stamp Sales (seasonally adjusted)	53,395,561											

Appendix B: Statistical Analysis

T-Test of Monthly Sales(not seasonally adjusted)

Oneway Analysis of Sales By Fire safe cigarettes



Oneway Anova Summary of Fit

Rsquare	0.018667
Adj Rsquare	-0.02594
Root Mean Square Error	1386116
Mean of Response	52235030
Observations (or Sum Wgts)	24

t-Test

	Difference	t-Test	DF	Prob > t
Estimate	422706	0.647	22	0.5244
Std Error	653421			
Lower 95%	-932407			
Upper 95%	1777820			

Assuming equal variances

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio	Prob > F
Fire safe cigarettes	1	8.04063e11	8.0406e11	0.4185	0.5244
Error	22	4.2269e+13	1.9213e12		
C. Total	23	4.30731e13			

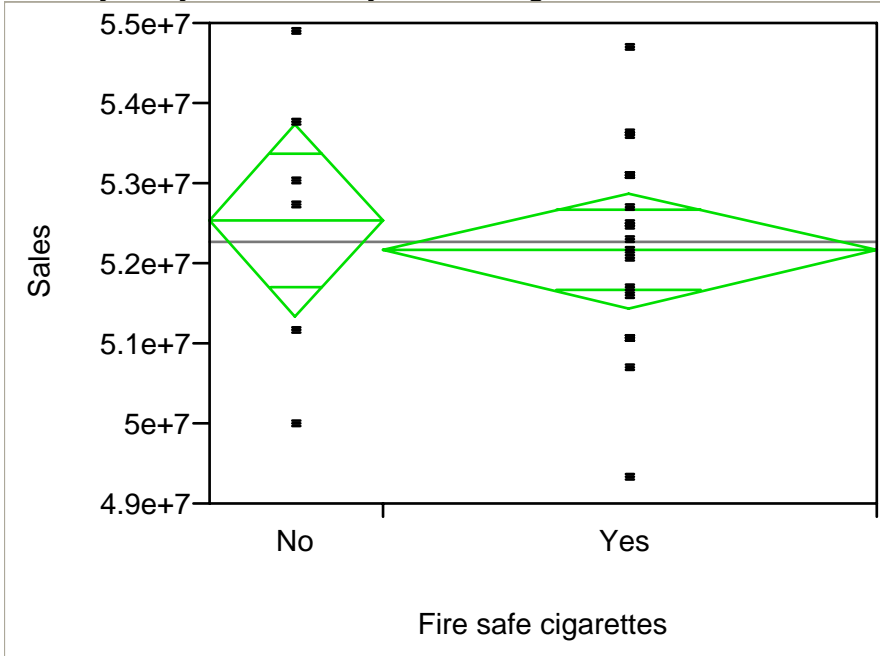
Means for Oneway Anova

Level	Number	Mean	Std Error	Lower 95%	Upper 95%
No	6	52552060	565880	51378497	53725622
Yes	18	52129354	326711	51451797	52806910

Std Error uses a pooled estimate of error variance

T-Test of Monthly Sales(seasonally adjusted)

Oneway Analysis of Sales By Fire safe cigarettes



Oneway Anova Summary of Fit

Rsquare	0.015099
Adj Rsquare	-0.0318
Root Mean Square Error	1409197
Mean of Response	52271426
Observations (or Sum Wgts)	23

t-Test

	Difference	t-Test	DF	Prob > t
Estimate	379681	0.567	21	0.5765
Std Error	669168			
Lower 95%	-1011931			
Upper 95%	1771293			

Assuming equal variances

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio	Prob > F
Fire safe cigarettes	1	6.39307e11	6.3931e11	0.3219	0.5765
Error	21	4.17025e13	1.9858e12		
C. Total	22	4.23418e13			

Means for Oneway Anova

Level	Number	Mean	Std Error	Lower 95%	Upper 95%
No	6	52552060	575302	51355654	53748466
Yes	17	52172379	341780	51461608	52883150

Std Error uses a pooled estimate of error variance

X-12-ARIMA monthly seasonal adjustment Method

D 8.A F-tests for seasonality

Test for the presence of seasonality assuming stability.

	Sum of Squares	Dgrs.of Freedom	Mean Square	F-Value
Between months	18367.4721	11	1669.77019	54.046**
Residual	7816.5052	253	30.89528	
Total	26183.9773	264		

**Seasonality present at the 0.1 per cent level.

Nonparametric Test for the Presence of Seasonality Assuming Stability

Kruskal-Wallis Statistic	Degrees of Freedom	Probability Level
187.4002	11	0.000%

Seasonality present at the one percent level.

Moving Seasonality Test

	Sum of Squares	Dgrs.of Freedom	Mean Square	F-value
Between Years	423.4921	21	20.166288	0.872
Error	5340.6739	231	23.119800	

No evidence of moving seasonality at the five percent level.