

The Commonwealth of Massachusetts
Executive Office of Public Safety and
Security
Department of Fire Services



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JON M. DAVINE
STATE FIRE MARSHAL

September 3rd, 2026

Secretary Gina Kwon
Executive Office of Public Safety and Security
One Ashburton Place, Room 2133
Boston, MA 02108

Re: 2025 Annual Report of the State Fire Marshal regarding the effectiveness of the Massachusetts Fire Standard Compliant Cigarette Law (M.G.L. c. 64C, s. 2A-2F)

Dear Secretary Kwon:

Pursuant to the reporting requirements of M.G.L. c. 64C, s. 2B(f), please accept this as the ***2025 Annual Report of the State Fire Marshal regarding the effectiveness of the Massachusetts Fire Standard Compliant Cigarette law (M.G.L. c. 64C, s. 2A-2F).***

The Fire Standard Compliant Cigarette (FSC) law was enacted pursuant to Chapter 140 of the Acts of 2006, "*An Act Relative to the Loss of Life Due to Fires Caused by Cigarettes,*" and became effective on January 1, 2008. At that time, Massachusetts was the sixth state in the nation to adopt fire standard compliant cigarette legislation, and by 2011, all 50 states had passed and implemented similar legislation. The manufacturing standard outlined in the law is designed to reduce the incidence of accidental fires caused by careless disposal of cigarettes by prompting cigarettes to self-extinguish when not being actively smoked.

The law requires that all cigarettes sold in the Commonwealth be manufactured with at least two bands of a less-permeable material in the cigarette paper which, when reached by the combustion process, will restrict airflow and extinguish the burn if the smoker is not actively pulling air through the cigarette. The standard was designed specifically to prevent ignition of upholstered furniture and bedding in interior environments with static air. To certify any individual style of cigarette for sale in Massachusetts, the manufacturer must test the product in accordance with an internationally accepted standard to verify that

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these bands effectively cause the cigarette to self-extinguish, and attest in their application for certification that the test results met the performance criteria specified by law.

We are pleased to report that since the FSC law went into effect, Massachusetts has seen a substantial decrease in the number of cigarette fires that occur. From 2001-2007, an average of 252.4 residential cigarette fires per year caused 8.1 civilian deaths and 21.7 civilian injuries annually. Since the law went into effect, those averages have fallen to 200.7 residential cigarette fires per year, causing 5.9 civilian deaths and 13.9 civilian injuries annually.

While the data discussed above accounts for all types of cigarette fires, the law was most specifically intended to reduce interior structure fires where bedding and upholstered furniture are the material first ignited. These fires often involve individuals with limited mobility or those who are sleeping or have an otherwise altered level of alertness, rendering them unable to escape in time. From 2001-2007, an average of 70 cigarette fires per year originated on bedding or upholstered furniture. Since the inception of the FSC law in 2008, that average has fallen to 25 per year (Figure 1). Similarly, the average number of fatalities per year resulting from cigarette fires originating on bedding or upholstered furniture dropped from 5.3 in 2001-2007 to 2.6 from 2008-2025 (Figure 2). Further, data shows that the law is preventing nearly \$1.76 million a year in property losses associated with bedding/upholstered furniture cigarette fires (Figure 3) and reducing the number of associated firefighter injuries by over 60% (Figure 4). This is the strongest evidence available that the law is working as intended.

While the total number of cigarette fires per year that originate indoors has decreased since 2008, the number of cigarette fires that originate outdoors has increased. In each year from 2001 to 2008, more cigarette fires began indoors than outdoors. In each year since, more cigarette fires have started outside (Figure 5). The primary driver of this trend is likely public health efforts, which have effectively reduced the tolerance to indoor smoking across the population. Though outdoor cigarette fire numbers are somewhat volatile due to their dependence on weather patterns (primarily wind and rain), an emerging multi-year trend suggests that they may have peaked from 2012 to 2020 and entered a period of gradual decline since that time.

As previously mentioned, the FSC cigarette standard was designed to prevent fires from igniting on upholstered furniture and bedding in environments with motionless air, but not on porches, decks, mulch, and brush with moving air. While outdoor cigarette fires are uniquely dangerous because smoke alarms are not present to alert residents and they may burn longer before they are discovered, they have proven to be substantially less deadly than indoor cigarette fires since 2008 (one civilian death per every 174 outdoor cigarette fires as compared to one civilian death per every 15 indoor cigarette fires).

To ensure compliance with the FSC law, the Department of Fire Services (DFS) purchases cigarettes from retailers around the Commonwealth and sends them to an independent laboratory (MSR Laboratories in Rehoboth) for testing to the ASTM standard for ignition propensity and the required placement of the lower permeability bands on the paper. The ignition testing process involves lighting a cigarette that is placed on 10 layers of filter paper in a controlled chamber, and letting it burn until it either self-extinguishes or reaches the end of the tobacco column. If an individual

cigarette self-extinguishes before the entire length of the tobacco column burns, it is considered passing. If it burns the entire length of the tobacco column, it fails. The FSC law considers 40 replicate tests to be a single test trial and dictates that no more than 25% (10 cigarettes) in a test trial may fail. Cigarettes are also tested to confirm that the two lowered-permeability bands are placed in accordance with the law (at least one of the bands must be greater than 15mm from the lighting end).

To date, DFS has conducted over 245,000 ignition tests and over 22,000 band placement/measurement tests. The overall passing rate for individual cigarettes that have undergone ignition testing is 91.5%, and the passing rate for band placement/measurement is 98.9%. Each style of cigarette is sent to the lab for testing when it is first certified and then sent back for re-testing on a rolling basis in future years to ensure ongoing compliance. Cigarettes that do not perform within the confines of the FSC law are immediately re-tested. If results show consistent failure rates of greater than 25% in test trials of 40 cigarettes, administrative hearings are held with the manufacturer. In the past, these hearings have resulted in fines, testing cost reimbursement to DFS, and non-compliant products being removed from retail locations. Additionally, whenever there is a fatal fire caused by cigarettes, State Troopers assigned to the Fire and Explosion Investigation Unit determine what brand style of cigarettes caused the fire, and 20 packs of that exact product are purchased immediately by DFS staff to be sent out for testing. With all 50 states requiring cigarettes to meet the same testing standard, compliance with this law is high.

The FSC Program collects certification fees (\$3,000 per brand style of cigarette every three years) to fund this robust testing program. When the ban on the retail sale of menthol flavored tobacco products was enacted, we projected a significant drop in program revenue, as approximately 1/3 of the products certified at the time were menthol flavored. Surprisingly, many manufacturers have continued to pay to certify new menthol brand styles and recertify existing styles to this point. When the ban became effective on June 1, 2020, there were 352 menthol brand styles certified. As of December 31, 2025, there were still 164 actively certified menthol products, even though they can no longer be sold in retail locations. Regardless of this surprising pattern, we have planned for the likelihood that revenue from menthol flavored brand styles will eventually cease entirely and will still be able to run a comprehensive testing program supported entirely by certification fees for non-flavored products for the foreseeable future.

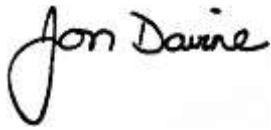
Administratively, an update to 501 CMR 14.00 that addressed several challenges discussed in this report in recent years was promulgated in 2025. First and most importantly, the updated regulation mandates that the required ignition testing conducted by the manufacturer take place no more than one year prior to the certification period start date, closing a loophole that had allowed manufacturers to reference ignition testing conducted years in advance of the certification period they were paying for. Second, the update aligned the certification period end dates of all existing products for each manufacturer to a single date. Previously, each time a manufacturer certified a new product, it would expire exactly three (3) years from the new certification date. As a result, some of the larger manufacturers who had added new products dozens of times over the program's history were managing over 30 different product end dates, which caused unnecessary complexity and an undue administrative burden to both the

manufacturers and DFS. The regulation update also provided DFS with the ability to invoice newly added products on a pro-rated basis to ensure continued alignment of certification expiration dates moving forward. Lastly, the regulation provides manufacturers with the option to pay certification fees electronically, which has expedited the certification process and eliminated the need for six-figure checks to be mailed and deposited manually.

Overall, compliance with the Fire Standard Compliant Cigarette Law remains high, and it continues to have a positive impact on the lives of the citizens of Massachusetts by preventing unnecessary loss of life and property as it was initially intended to.

As always, I thank you for your attention to this program and for all the work you do to advance fire safety for the citizens and firefighters of the Commonwealth.

Sincerely,

A handwritten signature in black ink that reads "Jon Davine". The signature is written in a cursive, slightly stylized font. The first letter "J" is large and loops around. The last name "Davine" is written in a more straightforward cursive style.

Jon M. Davine
State Fire Marshal

Appendix

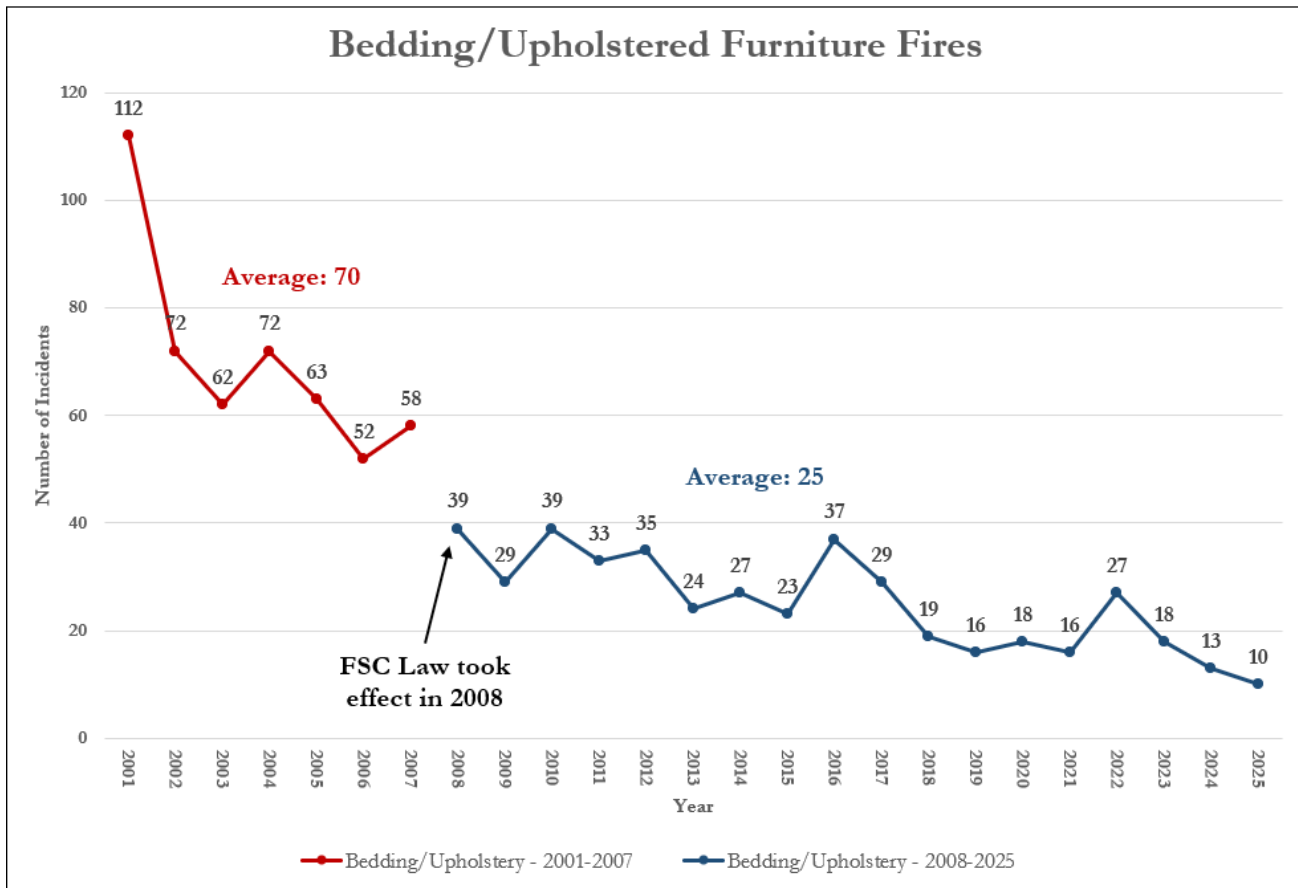


Figure 1

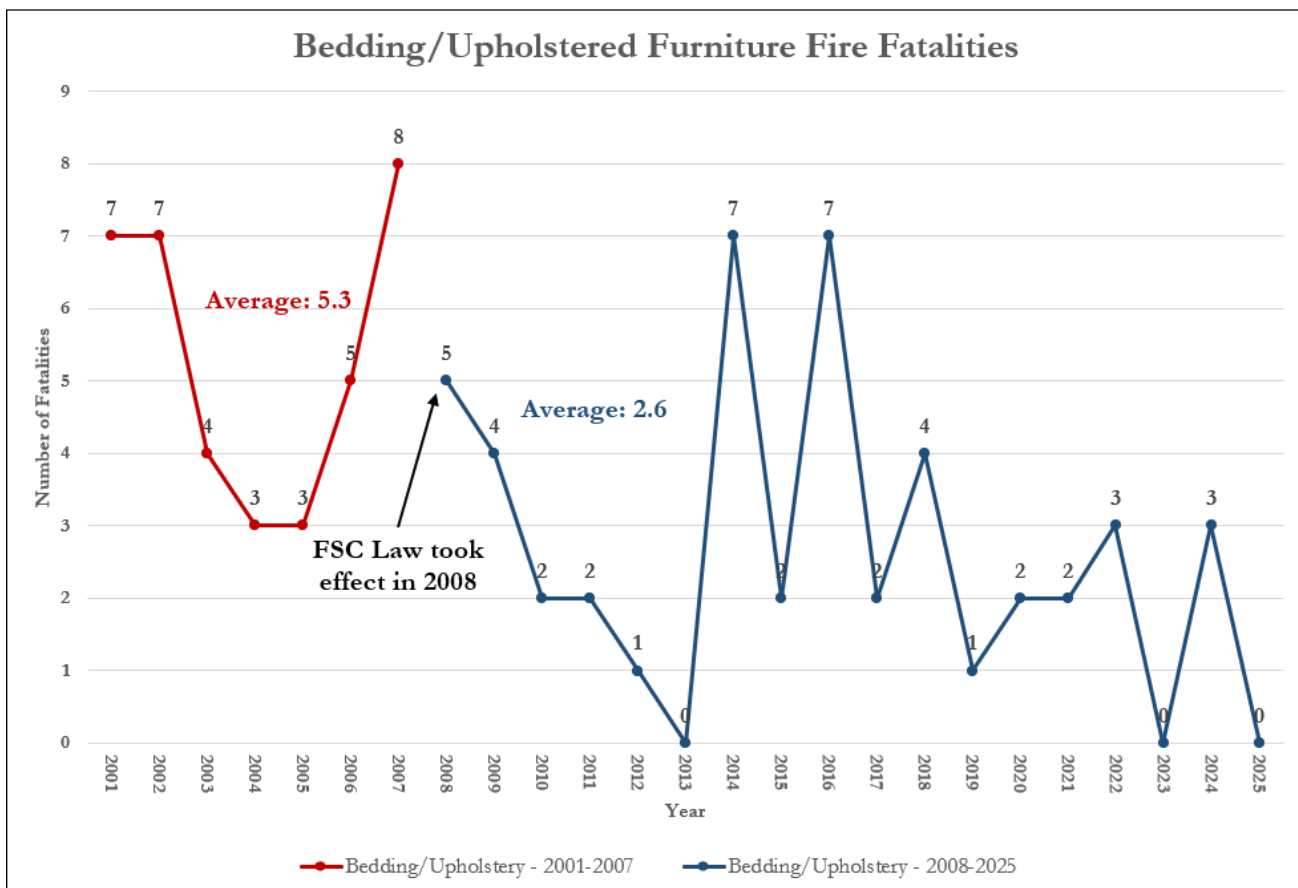


Figure 2

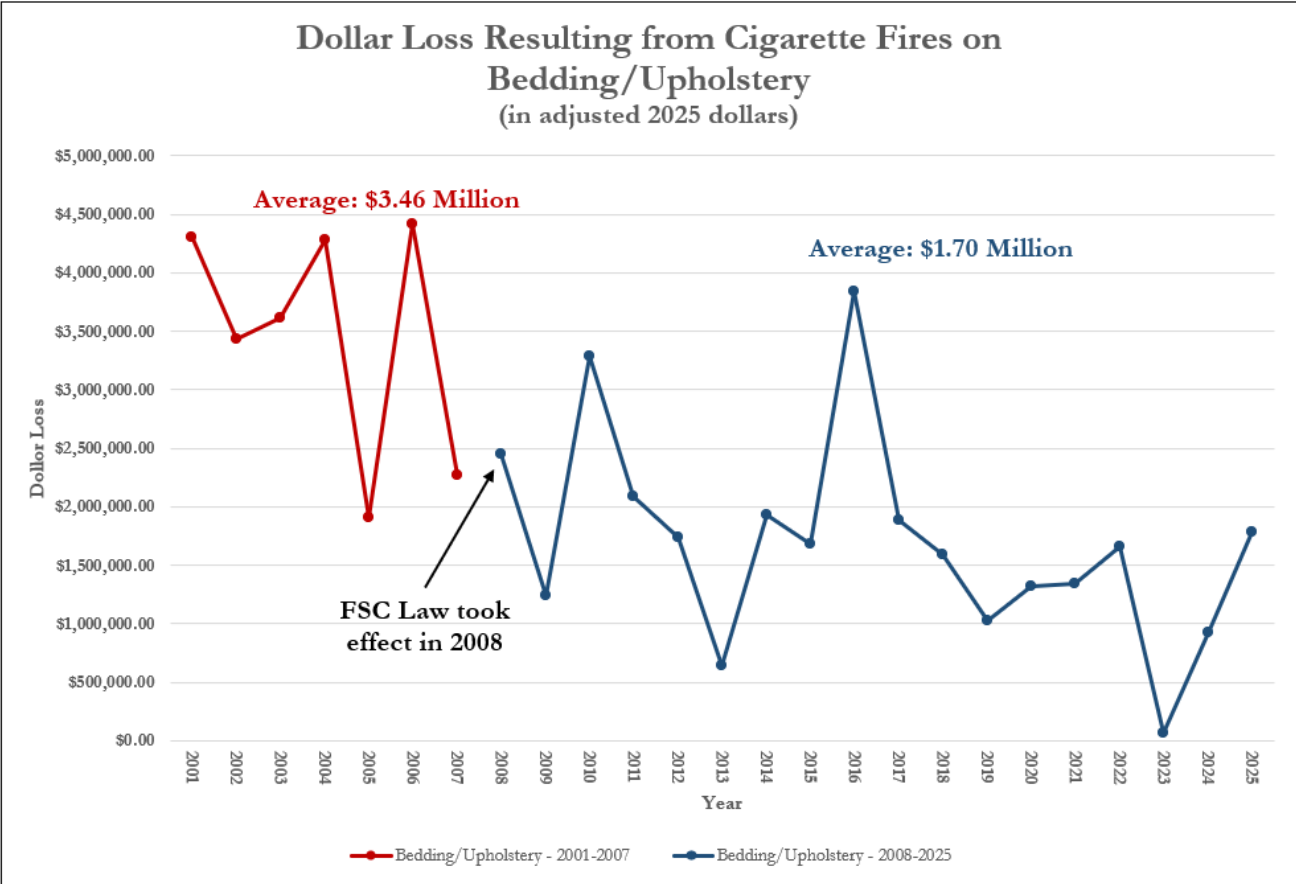


Figure 3

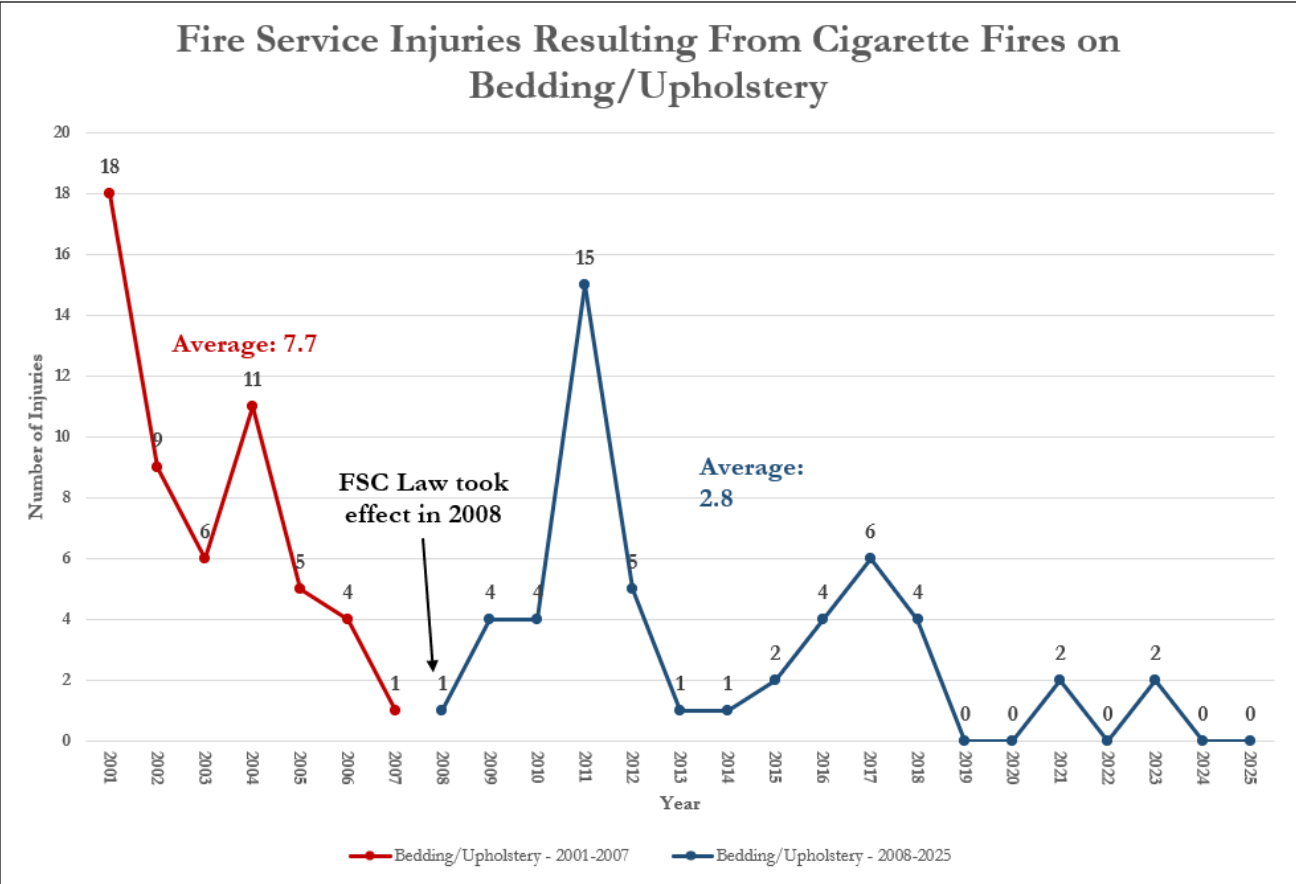


Figure 4

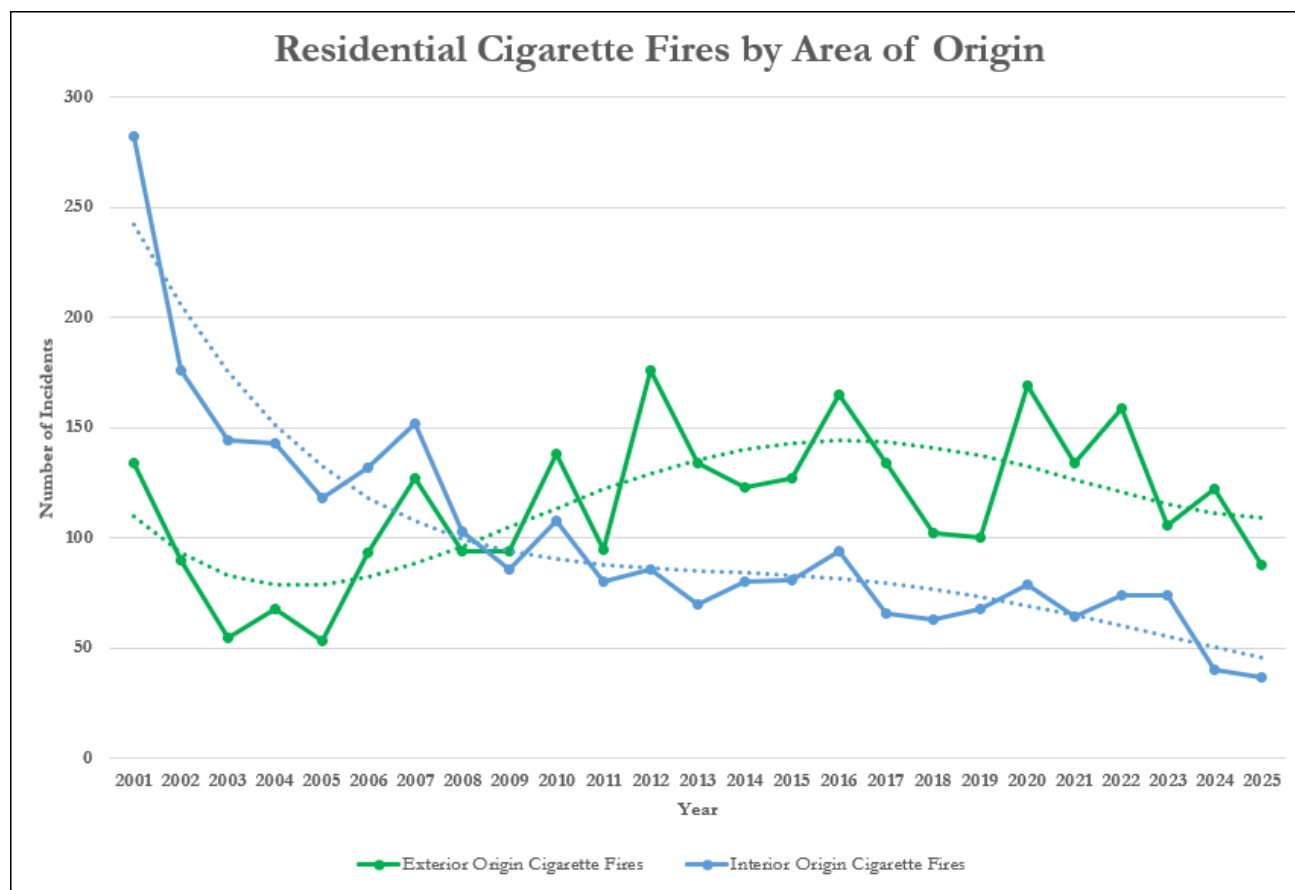


Figure 5