

Introduction

The Synar survey was established in July 1992 when Congress enacted the ADAMHA (Alcohol, Drug Abuse and Mental Health Administration) Reorganization Act (P.L. 102-321), which includes the Synar Amendment (named for its sponsor, former congressman Mike Synar of Oklahoma). Two core requirements of this amendment: enact legislation prohibiting the sale of tobacco products to minors and conduct random, unannounced inspections of outlets that sell tobacco. Pennsylvania’s Annual Synar survey is designed to satisfy this federally regulated requirement and is intended to estimate the rate at which outlets sell cigarettes to minors. The rate is also known as the “retail violation rate (RVR),” because retailers violate the law when they sell cigarettes to minors.

The survey is conducted by youth buyers, age 15-17, who attempt to purchase cigarettes from a sample of Pennsylvania cigarette retailers. The outcome of each attempt is recorded and a rate is calculated from the eligible outlets attempted. The 2012 survey was conducted during the summer of 2012.

Statewide Results

In 2012, an estimated 7 to 12 percent of Pennsylvania cigarette retailers sold cigarettes to minors. The estimate was calculated from the results of the 2012 Synar survey and used a 95 percent confidence interval with weighted violation rate (9.5 percent) and standard error (1.1).

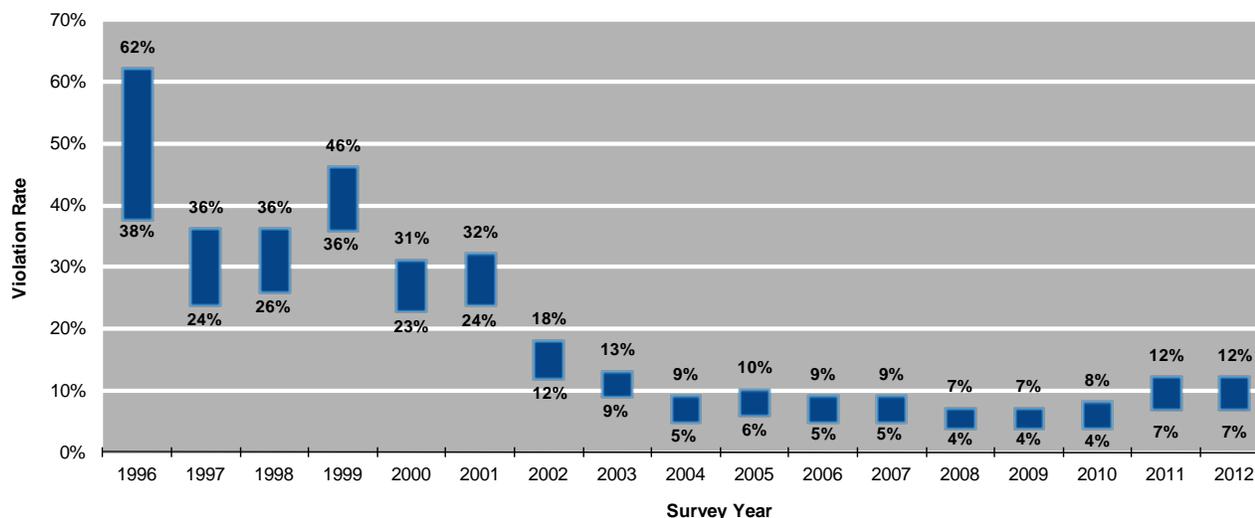
Table 1. 2012 Statewide Retail Violation Rate

Violation Rate	95% C.I.
9.5	(7.3, 11.6)

Historical Results

Pennsylvania has annually conducted the Synar survey since 1996. The history of the Pennsylvania violation rate is displayed in Graph 1. Significance tests (Rao-Scott Chi-Square) were used to examine the relationships between the 2012 statewide violation rate and the prior survey violation rates that used the current survey design (2004-2012). The tests demonstrated that the 2012 violation rate is not statistically different from the 2004, 2005, 2006, 2007 and 2011 violation rates but is statistically different from the 2008, 2009 and 2010 violation rates.

Graph 1. Pennsylvania Retail Violation Rates (1996-2012)



Results by Region

Prior to sampling, every eligible outlet on the sample list is placed into one of 10 mutually exclusive and exhaustive geographical regions (Figure 1). The geographical regions are the Northcentral (NC), Northeast (NE), Northwest (NW), Southcentral (SC), Southeast (SE), Southwest (SW) of Pennsylvania plus the four individual counties: Allegheny (AL), Delaware (DE), Erie (ER) and Philadelphia (PH). Pennsylvania's sampling methodology allows for valid estimates from each region (Table 2).

Figure 1. 2012 Synar Region Map

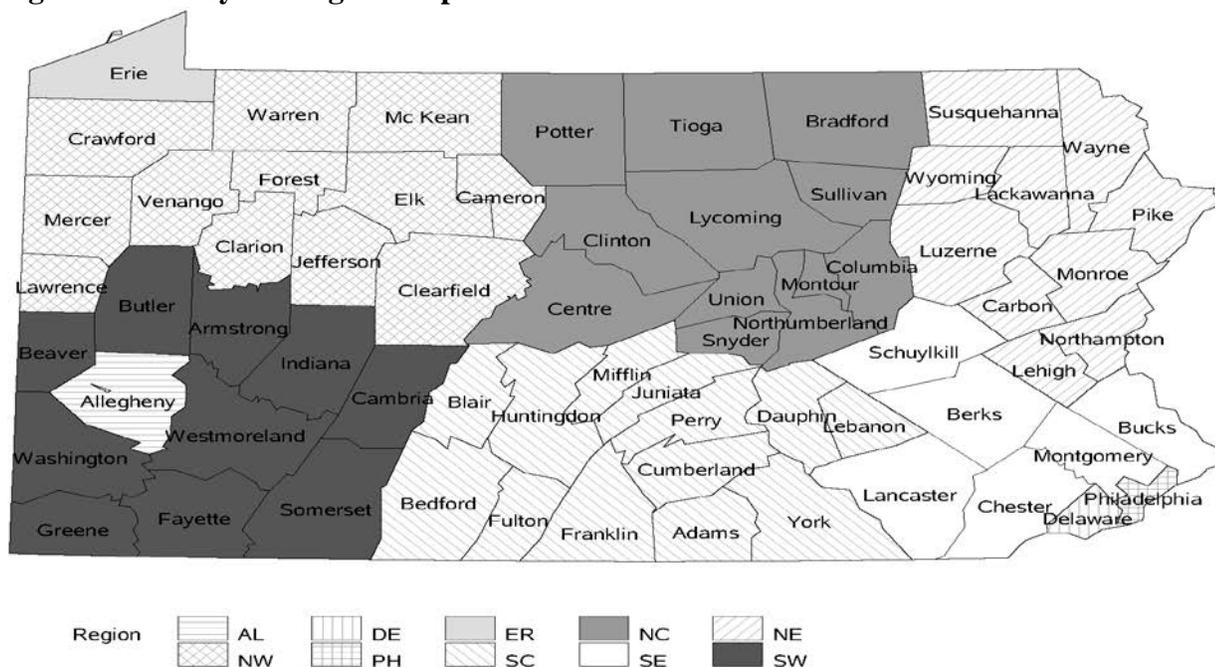


Table 2. 2012 Synar Region Results

Region	Outlets Selected	Outlets Completed	Total Violations	Wgtd Rate	Standard Error	Lower Limit	Upper Limit
Statewide	1919	1072	84	9.5	1.1	7.3	11.6
Northcentral	122	81	10	12	4.4	0.7	23.4
Northeast	270	157	17	10.8	2.7	4.8	16.7
Northwest	149	78	2	2.6	1.6	0	6.7
Southcentral	253	130	9	6.9	1.8	2.9	11
Southeast	366	209	12	5.8	2.2	1.2	10.4
Southwest	244	144	9	6.3	2	1.8	10.8
Allegheny	130	78	1	1.3	1.3	0	3.8
Delaware	60	39	0	n/a	n/a	n/a	n/a
Erie	100	39	1	n/a	n/a	n/a	n/a
Philadelphia	225	117	23	19.7	3.7	12.3	27

Note1: Confidence limits were calculated using the t-distribution with the degrees of freedom (df) determined by subtracting the total strata from the total clusters. For example, the df for NC is five because there are six clusters and one stratum.

Note2: The weighted rate takes into account unequal probabilities of selection and non-completions. It is different from the unweighted rate, which is calculated by dividing Total Violations by Outlets Completed. The WEIGHTED rate should be used at all times.

Note3: When Total Violations=0, the "Rule of Three (3/n)" is used to calculate upper limit.

Note4: The rate was marked n/a if Outlets Completed was below 40.

Significance tests (Rao-Scott Chi-Square) and odds ratio calculations were used to examine the relationships between regions with more than 50 completed visits.

- ❖ The **Philadelphia (PH)** retail violation rate is significantly different from every other region except the Northcentral and Northeast.
- ❖ The **Northwest region (NW)** retail violation rate is statistically different from the rates of the Northcentral (NC), Northeast (NE) and Philadelphia (PH). A minor is approximately 5.2 times more likely to be sold cigarettes in NC, 4.6 times in NE and 9.3 times in PH than in NW.
- ❖ The **Southcentral region (SC)** retail violation rate is statistically different from the Philadelphia (PH) rate. A minor is approximately 3.3 times more likely to be sold cigarettes in PH than in SC.
- ❖ The **Southeast region (SE)** retail violation rate is statistically different from the Philadelphia (PH) rate. A minor is approximately 4.0 times more likely to be sold cigarettes in PH than in SE.
- ❖ The **Southwest region (SW)** retail violation rate is statistically different from the Philadelphia (PH) rate. A minor is approximately 3.6 times more likely to be sold cigarettes in PH than in SW.
- ❖ The **Allegheny (AL)** retail violation rate is statistically different from the rates of the Northcentral (NC), Northeast (NE) and Philadelphia (PH). A minor is approximately 10.5 times more likely to be sold cigarettes in NC, 9.3 times in NE and 18.8 times in PH than in AL.

Results by Youth Gender

Male youth attempted to purchase cigarettes in 590 different outlets, while females attempted this in 482 (table 3). The relationship between the rates at which cigarettes were sold to males and females was statistically examined. The significance test showed that the rates are statistically different. Moreover, the odds ratio showed that a female minor is 3.5 times more likely to be sold cigarettes than a male minor.

Results by Youth Age

The age of the youth surveyors ranged from 15 to 17 years old (Table 4). A significance test and odds ratio calculation was used to examine the relationships between the age of the buyer and the violation rate. There was a significant difference between the rate at which outlets sold cigarettes to 15- and 16-year-olds. There was also a significant difference between the rates at which outlets sold to 15- and 17-year-olds. Based on the odds ratio, a 16-year-old is 3.7 times more likely to be sold cigarettes than a 15-year-old, and a 17-year-old is 6 times more likely to be sold to than a 15-year-old.

Table 3. Results by Youth Gender

Gender	Total Visited	Violations	Wgted Rate	Lower Limit	Upper Limit
M	590	27	4.8	2.7	6.8
F	482	57	14.8	11.1	18.5

Note: The weighted rate (Wgted Rate) takes into account unequal probabilities of selection and non-completions. It is different from the unweighted rate, which is calculated by dividing the Violations by the Total Visited. The WEIGHTED rate should be used at all times.

Table 4. Results by Youth Age

AGE	Total Visited	Violations	Wgted Rate	Lower Limit	Upper Limit
15	286	10	3.2	1.3	5.1
16	712	62	10.8	8.1	13.6
17	74	12	16.6	4.8	28.3

Note: The weighted rate (Wgted Rate) takes into account unequal probabilities of selection and non-completions. It is different from the unweighted rate, which is calculated by dividing the Violations by the Total Visited. The WEIGHTED rate should be used at all times.

Distribution of Outlet Types

Cigarettes are sold by a variety of outlets in Pennsylvania. Based on the surveyor's description, each outlet was categorized. The 2012 outlet definitions can be found in the technical notes. The distribution of outlets is shown in Table 5. Over 66 percent of the surveyed outlets belong to the convenience-grocery, convenience-chain, gas station/auto or drug store category.

Results by Outlet Type

The rate at which cigarettes were sold by outlet type was statistically examined. Significance tests were performed among each pair of categorized outlets with sufficient sample. The following pairs of outlet types have a statistically different violation rate.

- Beer distributor and supermarket;
- Convenience-grocery and supermarket; and
- Gas station and supermarket.

The beer distributors in Pennsylvania are six times more likely to sell cigarettes to minors than the supermarkets. A convenience-grocery outlet is 5.7 times more likely to sell cigarettes to minors than a supermarket. Lastly, the odds of a gas station selling cigarettes to minors are 4.6 times higher than a supermarket.

Table 5. Distribution of Sampled Outlets

Outlet Type	Visited	Percent
Bar/tavern	9	0.8%
Beer distributor	73	6.8%
Convenience-chain	217	20.2%
Convenience-grocery	285	26.6%
Deli	39	3.6%
Drug store	79	7.4%
Gas station/auto	135	12.6%
News outlet	20	1.9%
Restaurant/eat-in	20	1.9%
Restaurant/takeout	16	1.5%
Supermarket	97	9.0%
Tobacco	51	4.8%
Other	31	2.9%
TOTAL	1072	100%

Table 6. Results by Outlet Type

Outlet Type	Total Visited	Violations	Wgted Rate	Lower Limit	Upper Limit
Bar/tavern	9	1	n/a	n/a	n/a
Beer distributor	73	8	12.6	5.1	20.1
Convenience-chain	217	14	6.4	2.9	9.9
Convenience-grocery	285	27	12.0	7.4	16.6
Deli	39	4	n/a	n/a	n/a
Drug store	79	5	8.4	0.6	16.3
Gas station/auto	135	12	9.9	3.7	16.1
News outlet	20	0	n/a	n/a	n/a
Restaurant/eat-in	20	1	n/a	n/a	n/a
Restaurant/takeout	16	6	n/a	n/a	n/a
Supermarket	97	3	2.3	0.0	5.2
Tobacco	51	3	5.7	0.0	11.7
Other	31	0	n/a	n/a	n/a

Note1: The weighted rate (Wgted Rate) takes into account unequal probabilities of selection and non-completions. It is different from the unweighted rate, which is calculated by dividing the Violations by the Total Visited. The WEIGHTED rate should be used at all times.

Note2: The rate was marked n/a if Total Visited was below 40.

Conclusions

Synar results are not valid for state-to-state OR state-to-nation comparisons due to the differences in designs, sampling frames and quality. However, there is merit in comparing Pennsylvania to itself. The federal government sets maximum allowable violation rates for each state, including Pennsylvania. Pennsylvania is expected to be at or below the rates shown in Table 7. The Synar survey only measures the violation rates, it cannot lower them. Violation rates must be lowered through enforcement or other methods. In 1999, Pennsylvania was penalized for exceeding the maximum allowable rate set by the Center for Substance Abuse Prevention (CSAP). The penalty prompted a massive statewide campaign of enforcement, public awareness and education that still continues today. According to the data obtained from the Synar survey, Pennsylvania’s prevention efforts appear to be successful. The estimated violation rate dropped significantly after the first few years of the campaign and eventually leveled off well below Federal targets. Since 2002, the violation rate has been significantly lower than the federal target rate of 20 percent (Graph 2).

Table 7. Max Rates vs. Actual Survey Rates

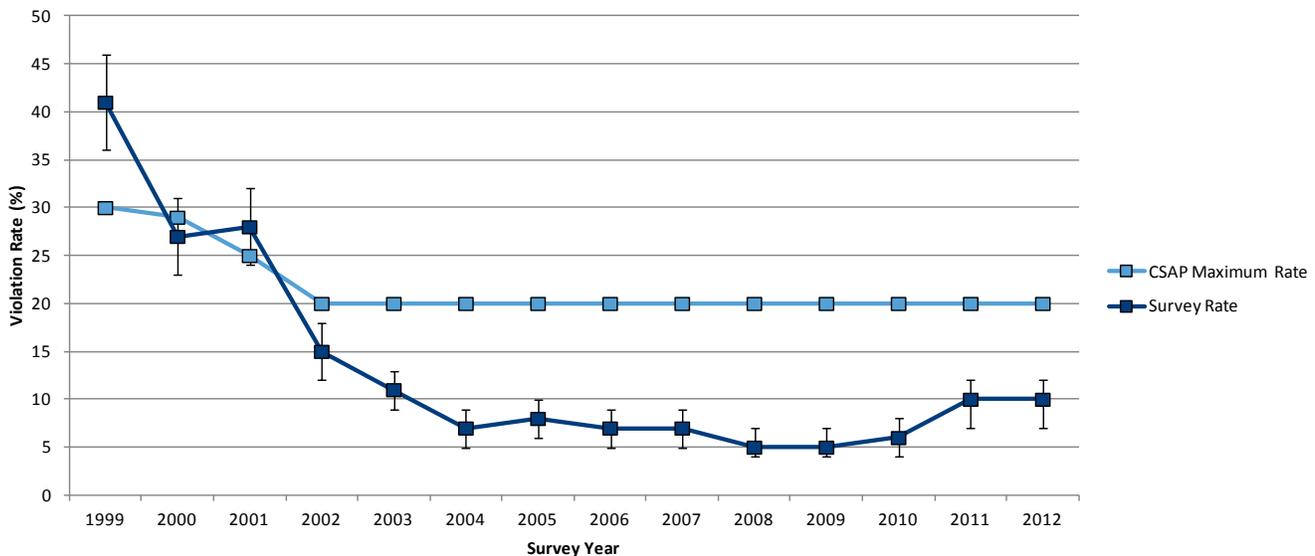
Year	Original Max Rate	Revised * Max Rate	Survey Rate	Survey Error
1996	Baseline	n/a	50%	± 12%
1997	42%	n/a	30%	± 6%
1998	31%	n/a	31%	± 5%
1999	25%	30%	41%	± 5%
2000	20%	29%	27%	± 4%
2001	20%	25%	28%	3%
2002	20%	20%	15%	3%
2003	20%	20%	11%	2%
2004	20%	20%	7%	2%
2005	20%	20%	8%	2%
2006	20%	20%	7%	2%
2007	20%	20%	7%	2%
2008	20%	20%	5%	2%
2009	20%	20%	6%	2%
2010	20%	20%	6%	2%
2011	20%	20%	10%	2%
2012	20%	20%	10%	2%

*Revised 3/8/00

Note1: Since 2001, CSAP has required a one-sided 95 percent C.I.

Note2: All rates and errors are rounded to the nearest percent.

Graph2. Allowable Max Rates vs. Actual Survey Rates



Technical Notes

Background

The U.S. Department of Health and Human Services clarified the Synar Amendment by issuing the Synar Regulation in January of 1996. SAMHSA (Substance Abuse and Mental Health Services Administration), an agency of the U.S. Department of Health and Human Services, was chosen to implement the regulation. CSAP is an agency of SAMHSA in charge of this regulation. According to the “Synar Regulation Implementation Report,” each state must:

- Have in effect a law prohibiting any manufacturer, retailer or distributor of tobacco products from selling or distributing such products to any individual under the age of 18.
- Enforce such laws in a manner that can reasonably be expected to reduce the illegal sales of tobacco products to individuals under the age of 18.
- Conduct annual, random, unannounced inspections to ensure compliance with the law. These inspections are to be conducted in such a way as to provide a valid probability sample of outlets accessible to youth.
- Develop a strategy and negotiate with SAMHSA a timeframe for achieving an inspection failure rate of less than 20 percent of outlets accessible to youth.
- Submit an annual report describing in detail the state's survey methodology and activities to enforce its law.

Failure to meet the requirements of the Synar Regulation could result in graduated penalties against a state's SAPT (Substance Abuse Prevention and Treatment) Block Grant, as specified in the statute.

The intent of the survey is to assess the effectiveness of Pennsylvania's enforcement programs by measuring the rate at which outlets sell cigarettes to minors. If the rate is high, then enforcement is failing. The survey does not lower the rate, it only measures it.

SAMHSA Detailed Survey Requirements

SAMHSA clarified the Synar regulation and provided specific survey requirements in the “Synar Regulation: Sample Design Guidance (May 2003).” Below is a list of these requirements and how Pennsylvania fared in 2012.

1. Obtain approval from SAMHSA in writing for any changes in sampling methodology prior to implementation of the Synar survey.

There were no methodology changes for the 2012 survey.

2. Develop a sampling frame that includes both over-the-counter and vending machine locations accessible to youth.

Pennsylvania only samples over-the-counter locations. Act 2002-112 restricted the placement of vending machines to locations inaccessible to minors. Since vending machines could only be located in areas inaccessible to minors, SAMHSA approved the exclusion of vending machines from the Pennsylvania survey.

3. Develop a sampling frame that includes, at a minimum, 80 percent of the tobacco outlets in the State.

Pennsylvania develops the sampling frame from the Department of Revenue's Electronic Cigarette Licensing System (ECLS). Pennsylvania requires a license to sell cigarettes, and the ECLS contains a complete list of all locations licensed to sell cigarettes. Current licenses are annually renewed by January 15. The latest coverage survey conducted in 2010, estimated that Pennsylvania's sampling frame included 99.5 percent of the tobacco outlets in the state.

4. Select a sample of outlets to inspect that is representative of the geographic distribution of all tobacco outlets accessible to youth in the state. Decide whether to use clustering or stratification or both.

Pennsylvania used both clustering and stratification and was representative of the geographic distribution. The sample size for each stratum roughly mirrored the population distribution of outlets.

5. Design a sampling methodology and implementation plan that are based on sound survey sampling methodology. Choose a sample design and decide on a random sampling method for each stage of sampling.

Pennsylvania used a sound methodology and implementation plan with a valid probability sample for which the probability of selection for each outlet was nonzero. A two-stage sampling design was used, and the first stage selected PSUs from within each stratum using probability proportionate to size (PPS) sampling technique. Stage two involved randomly selecting a pre-determined number of outlets from each of the sampled PSUs.

6. Estimate the original sample size before implementing the Synar survey. Base the estimate of the original sample size on the results of calculations of the minimum sample size needed to meet SAMHSA’s precision requirement, plus extra sample needed to account for the expected completion rate and the expected accuracy rate.

Pennsylvania calculated the sample size by first calculating the Effective Sample Size. According to CSAP requirements, the width (w) of the upper limit of the confidence interval (*c.i.*) must be less than or equal to 3 percent. Using the equation for the upper limit of a 95 percent confidence interval of the sample mean \bar{x} gives

$$\bar{x} + w \tag{S1}$$

applying the CSAP requirement for w gives

$$w \leq 3 \tag{S2}$$

Where w is defined as

$$w = z(s.e.) \tag{S3}$$

Substituting S3 into S2

$$z(s.e.) \leq 3 \tag{S4}$$

Where z is the critical value of the standard normal distribution for a one sided 95 percent *c.i.* and $s.e.$ is the standard error or standard deviation estimated from the sample data. Substituting 1.645 for z and solving equation S4 for $s.e.$ gives

$$s.e. \leq \frac{3}{1.645} \leq 1.82$$

Therefore the $s.e.$ must be less than or equal to 1.82 to maintain a width of 3 percent or less for a right-sided 95 percent *c.i.*.

Ignoring the finite population correction, the $s.e.$ is defined as,

$$s.e. = \frac{\sqrt{p(1-p)}}{\sqrt{n_e}} \tag{S5}$$

Substituting S5 into S3 gives

$$w = z \left(\frac{\sqrt{p(1-p)}}{\sqrt{n_e}} \right)$$

Solving for n_e gives the equation for the effective sample size

$$n_e = \left(\frac{z}{w} \right)^2 p(1-p),$$

Where $z = 1.645$, $w = 0.03$ (both z and w are based on 95 percent one-sided *c.i.* with tolerance of 3 percent) and $p = 3$ percent over the target rate (20 percent + 3 percent = 23 percent).

Next, the target sample size was calculated using the equation:

$$n_t = \text{Deff}_h \times n_e,$$

where Deff_h is the highest design effect from historical Synar surveys of a similar design.

Finally, the original sample size is calculated using the combined equation:

$$n_o = \frac{n_t}{r_l r_c} + n_A + n_S;$$

r_l = lowest eligibility rate of historical Synar surveys of similar design.

r_c = lowest completion rate of historical Synar surveys of similar design or 80 percent (whichever is lower).

n_A = sample added or subtracted needed to fit the clustered sample design.

n_S = supplemental sample.

n_A is the number of sample added or subtracted to guarantee that our precision goals are met and the sample size fits the design. The size of n_A is estimated after reviewing output created by a SAS program designed to simulate survey outcomes with varying designs. n_S is the number of supplemental sample allocated to the clustered areas due to sample attrition. Supplemental sample is issued if a cluster does not obtain the minimum number of completions allowed per cluster.

- 7. SAMHSA requires the results to be reported with a right-sided 95 percent confidence interval. The precision requirement for the estimate of the violation rate must have the right-side limit within 0.03 or 3 percentage points from the violation rate estimate. Using the normal distribution, the requirement can be translated into the statement that 1.645 times the standard error (s.e.) of the estimate be within 0.03. That is, $1.645 \times \text{s.e.} \leq 0.03$ or $\text{s.e.} \leq \frac{0.03}{1.645} = 0.0182$**

Pennsylvania is required to report the results of the survey within the Annual Synar Report (ASR). The confidence interval (*c.i.*) reported in the ASR is different than what is reported in this document because of rounding error and the different methods of calculation. The ASR requires a one-sided *c.i.* that assumes a

normal distribution. This document employs a two-sided *c.i.* assuming a t-distribution. Confidence intervals may be either one-sided or two-sided, although a two-sided *c.i.* is most commonly used. In the case of the ASR, where the objective is to determine whether the retailer violation rate is equal to or less than the state target rate (20 percent), the right-sided *c.i.* is used by the federal government, rather than the two-sided interval.

The right-sided 95 percent *c.i.* is always bounded by zero on the left. The right-side limit is given by (violation rate estimate) + (critical value for a normal one-sided 95 percent *c.i.*) × (standard error of the estimate). The two-sided 95 percent *c.i.* used in this report and most publications is calculated by (violation rate estimate) + (critical value for a t-distribution two-sided 95 percent *c.i.*) × (standard error of the estimate). The critical value for a normal one-sided 95 percent *c.i.* is always 1.645 and critical value for a t-distribution two-sided 95 percent *c.i.* approaches 1.96 as the sample size increases. For example, if the violation rate = 9.46, standard error = 1.1 and there is a sufficiently large sample size, then the confidence intervals for the two methods are calculated as follows:

$$\begin{array}{ll} \text{95 percent one-sided c.i. (Normal-dist)} & \text{95 percent two-sided c.i. (t-dist)} \\ 9.46 + (1.645 \times 1.1) = [0, 11.3] & 9.46 \pm (1.96 \times 1.1) = [7.3, 11.6] \end{array}$$

The precision level was achieved for the 2012 survey. The survey had a standard error of 0.0110, which is less than the required 0.0182.

8. **Determine a method of selecting additional outlets to inspect should it not be possible to reach the required minimum number of completed inspections due to sample attrition.**
 Pennsylvania uses an approved supplemental sample system for which additional outlets are issued when a minimum of 13 outlets aren't completed per cluster. The outlets are randomly selected from the unsampled outlets in the cluster. There were 367 supplemental sample issued in 2012.
9. **Obtain a completion rate of 90 percent or better.**
 Pennsylvania had a 100 percent completion rate in 2012.
10. **Record the actual steps of the survey process in the field, and keep records of all sources of sample attrition in the field.**
 Pennsylvania reported the actual steps of the survey process in the Annual Synar Report and kept all records.
11. **Incorporate the complexity of the sample design as a factor when analyzing the survey results.**
 Pennsylvania used the Taylor series (linearization) method to estimate sampling errors of estimators based on complex sample designs. This method takes into account the variances among PSUs.
12. **Weight the results of the Synar survey to account for unequal probabilities of selection, differences in percentages of eligible outlets between strata or clusters, and other deviations from the intended design.**
 A base weight is calculated for each outlet using the inverse of the probability of selection for each outlet divided by the total eligible outlets in the stratum (ELIGN). The base weight gives each sampled outlet a weight such that it sums to the number of eligible outlets in the state.

First, the probability of selection was calculated. In a complex design, such as this, the overall probability of selecting an outlet is the product of each stage's probability of selection.

(Probability of selecting a cluster) x (Probability of selecting an outlet within the cluster)

PROBCL = Probability of selecting a cluster

PROBOUT = Probability of selecting an outlet within the cluster

PROBST = Probability of selection for each outlet in the stratum

NCLUST = Number of clusters in the stratum
CPS = Cluster population size
ELIGN = Eligible stratum population size
SAMPSIZE = Sample size of the cluster
SAMPOBS = The number of completed and eligible sample per cluster

$$PROBCL = (NCLUST) \times \left(\frac{CPS}{ELIGN} \right)$$

$$PROBOUT = \left(\frac{SAMPSIZE}{CPS} \right)$$

$$\begin{aligned}
 PROBST &= (PROBCL) \times (PROBOUT) = \\
 &= (NCLUST) \times \left(\frac{CPS}{ELIGN} \right) \times \left(\frac{SAMPSIZE}{CPS} \right) = \\
 &= (NCLUST) \times \left(\frac{SAMPSIZE}{ELIGN} \right)
 \end{aligned}$$

The base weight (*BASEWGT*) is the inverse of the probability of selection.

$$BASEWGT = \frac{1}{(NCLUST)(SAMPSIZE)} \text{ or } \frac{(ELIGN)}{(NCLUST)(SAMPSIZE)}$$

The final weight adjusts the Base Weight for non-completion. The final weight gives each completed eligible outlet a weight such that it sums to the number of eligible outlets in the state. The final weight will always be greater than the base weight unless all sampled outlets are completed and eligible.

$$FINALWGT = BASEWGT \times \left(\frac{SAMPSIZE}{SAMPOBS} \right)$$

13. Meet Synar Regulation reporting requirements for the survey sampling methodology when completing the Annual Synar Report.

Pennsylvania met all methodology reporting requirements.

Survey Design

The population is defined as Pa. outlets that sell cigarettes and are accessible to minors. The survey uses a sampling frame created from the Department of Revenue's Cigarette License File, which contains the name and address of every outlet that purchased a license to sell cigarettes in the state.

The survey employs a stratified and clustered design (**Figure 1**) where every eligible outlet location on the sampling frame is grouped into 10 mutually exclusive and exhaustive geographical strata consisting of the Northcentral Health District (NC), Northeast Health District (NE), Northwest Health District (NW), Southcentral Health District (SC), Southeast Health District (SE), Southwest Health District (SW), Allegheny (AL), Delaware (DE), Erie (ER) and Philadelphia (PH).

The outlets within the six "District" strata (NC, NE, NW, SC, SE and SW) are grouped into geographic clusters of adjacent zip codes. Clusters are selected using probability proportional to size sampling and a predetermined

number of outlets within the cluster are selected. The outlets within the four “random” strata (AL, DE, ER and PH) are not clustered but are selected using a simple random selection process.

Survey Procedures

The survey is the result of the combined effort of four different state bureaus, private contractors and youth from across the state. Survey teams consisting of adult supervisors and youth between the ages of 15 and 17 are provided with a list of sampled outlets to visit. The youth enter the outlets, attempt to purchase cigarettes and record the outcome of the attempts. The survey was conducted from 07/01/2012 to 09/29/2012.

Outlet Definitions (2012)

Bar/tavern - The primary purpose of a bar or tavern is to sell alcoholic beverages for on-site consumption. Some bars or taverns provide snacks or entire meals, and some don't.

Beer distributor - A Beer Distributor sells beer by the case. It may provide either walk-in or drive-thru service or both. It does not allow on-site consumption, and it may also sell other items such as soda or snacks.

Convenience-chain - A store selling a limited variety of food and an assortment of convenience items for the house and vehicle. It is part of a regional or national chain of stores and has multiple outlets in Pennsylvania. The store is usually open long hours for the convenience of customers. Some stores have a self-service microwave oven for heating purchased food. It may sell gasoline, over-the-counter drugs or provide take-out foods, but its major sales items are food. Here is a list of the more popular outlets that should be placed in this category: 7-Eleven, AmPm, A-Plus, Circle K, Cogo's, Convenient Food Marts, Crossroads, E-Z mart, GetGo, Git N Go, Go-Mart, Kwik Fill, QuickStop, Rutters, Sheetz, Stop-N-Go, Stuckey's, Town and Country Food Stores, Turkey Hill, Uni-Mart, Wawa.

Convenience-grocery- A store that sells a limited variety of food and an assortment of convenience items for the house and vehicle but is independently owned; it does not belong to a regional or national chain. These outlets are sometimes referred to as country stores, corner stores, general stores, local markets, mini markets, convenience stores, grocery stores or “Mom and Pop” establishments. These outlets may or may not be open for long hours and they may or may not sell gas. Include outdoor produce markets in this category.

Deli - A shop that sells cooked or prepared foods ready for consumption such as cheeses, cold cooked meats, sandwiches and salads. Most delicatessens have a sandwich menu, most of which are made to order behind the counter at the time of sale. In addition to made-to-order sandwiches, many delicatessens offer made-to-order green salads. Equally common is a selection of pre-made pasta, potato, chicken, tuna, shrimp or other variety of salads. Delicatessens also offer a variety of beverages, chips and snacks.

Drug store - Drug stores sell prescription and over-the-counter medications. They may be part of a national or regional chain of outlets or owned and operated by an independent pharmacist. They may sell other items, but their major image is as a pharmacy.

Gas station/auto service - Two types of outlets fit into this category: 1) a gas station that sells gasoline as its major product (it may sell a few snacks) and usually has facilities for car repair and 2) an auto repair or service station that repairs automobiles but does not sell gasoline. Included in this category are Giant kiosks, mechanic's garages, oil change outlets and gas stations with little booths that sell a few snacks.

News outlet - News outlets sell newspapers and magazines. They usually sell other items like candy, but their main purpose is selling newspapers and magazines. Include outdoor news stands in this category.

Restaurant/eat-in - The primary purpose of an eat-in restaurant is the preparation and service of food for on-site consumption. It may offer alcoholic beverages and meals for take-out, but its major focus is food service for on-site consumption. Diners are included in this category.

Restaurant /take-Out - Restaurant /take-out establishments offer prepared foods primarily for consumption off the premises. Some may not offer entire meals (donut and bagel shops). Examples: pizza/sub shops, Chinese take-out, bagel shops, and donut/coffee shops.

Supermarket - Supermarkets sell food and household items in a large facility. It is a departmentalized self-service store offering a wide variety of food and household merchandise. It is larger in size and has a wider selection than a traditional grocery store. The supermarket typically has meat, produce, dairy and baked goods departments. Along with the items for sale in the various departments, additional items for sale may include canned and packaged goods, as well as various nonfood items such as household cleaners, pharmacy products and pet supplies. This category will include the major chains such as ACME, Food Lion, Giant, Giant Eagle, Karns, Save-A-Lot, Shop 'n Save and Weis.

Tobacco - The tobacco category covers all tobacco outlets, cigarette outlets and cigar shops. These outlets sell tobacco (cigarettes, cigars and/or smokeless tobacco) as their main product.

Other - This is a last-resort category. Use this category for locations that do not fit in any of the above categories. Describe the type of outlet in the space provided next to the “other” category. Category examples: check cashing outlets, laundromats, hotels, motels, record outlets, clothing outlets, book stores, hardware stores, video stores, campgrounds, prisons, bowling lanes (not in the bar), fire halls, The Gateway Clipper (boat), train stations, auto auctions, bait shops, car dealerships, etc.

Contacts:

Stephen Muccioli (Statistical Analyst Supervisor)

Michael Tarkoff (Statistical Analyst I)

Pennsylvania Department of Health

Bureau of Health Statistics and Research

Division of Statistical Support

Statistical Services and Survey Analysis Section

Email (Stephen Muccioli): smuccioli@pa.gov

Email (Michael Tarkoff): mtarkoff@pa.gov