



**GENERAL ASSEMBLY OF THE STATE OF TENNESSEE
FISCAL REVIEW COMMITTEE**

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**REPORT TO THE GENERAL ASSEMBLY ON
CHANGES IN THE CALCULATION
OF FISCAL NOTES FOR INCARCERATION COSTS
AND COLLECTION OF REVENUE FROM FINES
FOR THE 106TH GENERAL ASSEMBLY**

DECEMBER 18, 2008

REVISED FEBRUARY 21, 2009

Introduction

Pursuant to Senate Joint Resolution 1165 (2008), the Fiscal Review Committee has completed a thorough review of the manner in which incarceration costs and fine revenue are calculated for fiscal notes. The Committee originally approved a report at its meeting on December 17, 2008. The report was distributed to members of the General Assembly on December 18, 2008.

Since the issuance of the original report, the Fiscal Review Committee staff has obtained additional data relating to the average time served for each class of felony offenses. The original data erroneously included time served in local jails prior to trial in the average time served after conviction. The State does not reimburse local governments for pre-trial time served. The effect of this error was to overstate the average time served for each classification.

The staff has now obtained average time served data from the Department of Correction that does not include pre-trial jail time. The updated average time served includes both post-conviction time served in local jails and time served in the state prison system. The differing costs of post-conviction time served in local jails and state prisons is accounted for by the blended state and local per diem utilized in calculating incarceration costs.

The staff has also obtained 10-year data on time served. In order to smooth out random fluctuations, the staff will use a 10-year average rather than the three- or five-year average mentioned in the original report, unless a shorter period would more accurately capture the current trend in number of offenses.

The changes in average time served are reflected in the average time served table on page four of this report and the recidivism table on page five. In addition, the hypothetical examples of differences in incarceration costs as a result of the changes in methodology in the original report have been replaced by actual examples of fiscal notes on the same bill under the prior and revised methodologies.

Incarceration Costs

Estimates of incarceration costs contain three elements: (1) the per diem cost of housing each offender; (2) the number of offenders; and (3) the average post-conviction time served. These elements are multiplied to arrive at an annual cost using the following formula:

$$\text{per diem} \times \text{number of offenders} \times \text{average post-conviction time served} = \text{annualized cost}$$

Based upon the Committee's review, the Committee staff has retained the basic formula but has modified the methodology used for calculating the cost of each of these elements.

(1) Per diem cost

The per diem is currently calculated by adding the operational cost of the prison system (the operating budget for all prisons divided by the capacity of the system), administrative cost, state-wide indirect cost (allocated from the Comptroller, F&A, Health and Human Resources), major maintenance cost (maintenance costs less than \$100,000), capital maintenance cost (maintenance costs exceeding \$100,000), and training academy cost to arrive at a total per diem cost. The total cost is then weighted to account for felons held in local jails (most county jails are reimbursed for costs at a lower rate). In 2008, the per diem cost was \$62.78.

After reviewing Tenn. Code Ann. § 9-4-210, the statute governing incarceration costs, the Committee staff determined that capital maintenance costs should not be included in the per diem cost. The statute requires an appropriation for the estimated operating cost of any law increasing periods of imprisonment, but specifically excludes capital outlay costs from operating costs. Tenn. Code Ann. § 9-4-210(b). Capital maintenance costs are capital outlay costs and should be excluded.

The per diem capital maintenance cost for 2008 was \$5.15. Weighting this cost to include locally-housed felons, the reduction for capital maintenance is \$3.67. This adjustment would have reduced the overall per diem to \$59.11, a reduction of 5.8 percent. The remaining components of the per diem cost are proper and should be retained.

(2) Number of offenders

(A) Ten-year average

Calculating the number of offenders requires determining the number of existing offenders for a bill that lengthens an existing sentence, or determining the number of existing offenders for a similar offense for a bill that creates a new offense. Currently, the Department of Correction provides data to the staff on the number of offenders in the immediately preceding year.

The Committee staff will now utilize a 10-year average of existing offenders (depending on the available data) to smooth out unusual year-to-year fluctuations. The 10-year average is generally preferable (except for fast-growing crimes) and will be utilized when data are available for 10 years unless the staff determines that more recent data are more accurate. The staff believes this change will provide a more accurate estimate of the number of offenders over time. The Department has agreed to provide this historical data.

(B) Population growth adjustment

Tenn. Code Ann. § 9-4-210(c) requires incarceration costs to be based on the highest of the next ten years of estimated operating costs. This provision requires an adjustment for population growth in the number of offenders in the tenth year. The Committee staff has been using a population growth adjustment of 1.09 percent per year based on data from the 2000 federal census of Tennessee's population. Based on updated census figures, the Committee staff will adjust the growth percentage upward to 1.12 percent.

(3) Average time served

The staff will make two significant changes in the manner in which average time served is calculated. The changes are (A) utilizing actual data on average time served by felony classification; and (B) incorporating a recidivism factor in determining the number of inmate-years to be served.

(A) Use of actual data on average time served

To date the staff has assumed that sentences will be at the bottom of the sentencing

range for all Class E, D, C, and B, and less-serious Class A felonies, and mid-range for serious Class A felonies, without regard to actual time served. Length of sentence has been calculated as follows:

Class E	0.3 years
Class D	0.6 years
Class C	0.9 years
Class B	2.4 years
Class A	6.0 or 20.0 years (depending on severity of offense)

To obtain a more accurate estimate of the time served, the staff has obtained actual time served data from the Department of Correction. The Department is still working with the data to filter out the impact of convictions for multiple offenses and to isolate the sentence served for each felony class, but approximate numbers are available as follows:

Class E	1.63 years
Class D	2.43 years
Class C	3.59 years
Class B	6.17 years
Class A	14.86 years

Making this change will improve accuracy. It will increase the cost of incarceration due to the use of longer sentences in the calculation but will avoid the arbitrary understatement of costs that occurs under the current methodology.

(B) Recidivism

Based upon testimony and presentations from the witnesses, the Committee staff believes that a recidivism discount should be included within the calculation of average time served for certain offenses. The Committee staff has not previously included any recidivism discount in its calculation.

The staff believes that although recidivism cannot be calculated with precision since it involves assumptions about the number of offenders who will re-offend, the time frame in which they will re-offend, and the time served for the re-offense, a conservative assumption can be made based upon recidivism data from the Department that will more accurately reflect the fact that some offenders included in the cost of incarceration would have committed another offense during the period being measured and would have been in the prison system anyway. There should be a discount from the cost of incarceration for these re-offenders.

According to the Department, 21 percent of offenders will re-offend within one year; 35 percent will re-offend within two years; and 42 percent will re-offend within three years. The staff will apply one of these numbers to categories of offenses specified

below to reflect the likelihood that some offenders will re-offend under current law and should not be counted twice. For additional sentences less than one year, the recidivism discount will be zero. For additional sentences between one and two years, the recidivism discount will be 21 percent. For additional sentences between two and three years, the recidivism discount will be 35 percent. For additional sentences in excess of three years, the recidivism discount will be 42 percent.

The number assumes that the offender would re-offend at the same felony level as the first offense. Given the variable nature of recidivism and length of time served for various classes of felonies, the staff will only apply recidivism to offenses as to which re-offense can occur and the offender can be re-admitted to the system within the time frame of the sentence to be added under the new bill.

By definition, the recidivism factor will not apply to new offenses. It will apply to offenses for which a sentence is lengthened or for which a classification is made more serious (e.g., changing an E felony to a B felony). The recidivism discount will apply to the following offenses:

<u>Classification change</u>	<u>Additional sentence</u>	<u>Recidivism discount</u>
Class E to Class D	0.80 years	None
Class E to Class C	1.96 years	35% (two-year rate)
Class E to Class B	4.54 years	42% (three-year rate)
Class E to Class A	13.23 years	42% (three-year rate)
Class D to Class C	1.16 years	21% (one-year rate)
Class D to Class B	3.74 years	42% (three-year rate)
Class D to Class A	12.43 years	42% (three-year rate)
Class C to Class B	2.58 years	35% (two-year rate)
Class C to Class A	11.27 years	42% (three-year rate)
Class B to Class A	8.69 years	42% (three-year rate)

Other incarceration cost factors

Two other factors should be mentioned although they are not included in this revised methodology: (1) deterrence; and (2) inflation in the cost of housing offenders. Some witnesses testified that there is a deterrent effect from lengthier sentences that should be taken into account. After reviewing their presentations and other research literature, the staff believes that there is simply no way to calculate a deterrence discount that is not arbitrary and therefore problematic. The quantitative impact of

deterrence is controversial among experts in the field. More importantly, it simply cannot be measured in a way that complies with Tennessee's conservative budgeting principles necessitated by the constitutional balanced budget requirement. If a deterrent impact exists that could be measured quantitatively with any degree of accuracy, it might reduce the cost of incarceration, but that measurement cannot be made.

A second factor, which in the view of staff far outweighs the deterrence factor even using the most liberal deterrent impact assumptions, is the exclusion of an inflation factor in estimating the cost of housing offenders. The staff is required by Tenn. Code Ann. § 9-4-210(c) to use "current dollars" in estimating incarceration costs. This limitation prohibits the inclusion of the actual cost of housing prisoners in subsequent years because inflation cannot be considered.

Operating costs at Tennessee prisons have inflated at a rate of approximately six percent per year over the past five years. At this rate, the cost of housing an offender will be 79 percent higher in 10 years than it is today. By statute, fiscal notes utilize today's dollars rather than inflated dollars. The impact of excluding inflation understates the cost of incarceration in fiscal notes by an amount that far exceeds any overstatement of costs due to the inability to measure a deterrent impact.

Attached at the end of this report are two examples of the impact of the changes on fiscal notes from the 105th and 106th General Assemblies.

Fine Revenue

The staff surveyed court clerks in Tennessee to determine the percentage of fines, court costs, and litigation taxes collected, as well as obstacles limiting the collection of revenue. The available data were limited in many counties, but the staff obtained adequate quantifiable data from 15 counties, reflecting all geographic regions of the state and a broad population range. Based on these data, the average collection rate in criminal cases was 47 percent in 2007, down from 62 percent in 2003.

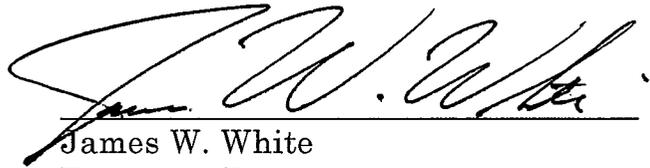
This collection percentage is higher than has been assumed in many fiscal notes. It is important to distinguish between traffic offenses and other cases. Based upon information provided by the clerks, it is reasonable to assume that an average of 80 percent of fines for traffic offenses will be collected. A much lower percentage is collected for other misdemeanor offenses. Collection of fines in felony cases is very small, although the state can garnish an inmate's prison account to recover a portion of the amount owed. Given that most inmates's prison account is very modest, the amount collected in this manner is negligible.

The staff will assume an 80 percent collection rate on traffic offenses. In 2007, fiscal notes assumed a 75 percent collection rate for traffic offenses. The staff will continue the existing policy of not assuming collection of any fine revenue for felonies.

Committee Review

The Committee held two public hearings and heard testimony from Senator Mark Norris; Barbara Toombs, Senior Fellow, Center on Sentencing and Corrections/Vera Institute of Justice; Riley Darnell, Secretary of State; George Little, Commissioner, Department of Correction; James W. White, Executive Director, Fiscal Review Committee; William Bradley, Director of the Budget Division, Department of Finance and Administration; Elizabeth Sykes, Administrative Director, Administrative Office of the Courts; William Gibbons, District Attorneys General Conference; Jeffrey Henry, District Public Defenders Conference; Dr. Richard Janikowski, Center for Community Criminology and Research, University of Memphis; Dr. Mark Lipsey, Director, Center for Evaluation Research and Methodology and Research Professor of Public Policy, Vanderbilt Institute for Public Policy Studies; Ronal Serpas, Chief of Police, Metropolitan Nashville and Davidson County; and Charles Traugher, Chairman, Tennessee Board of Probation and Paroles.

This report is based upon the testimony of these witnesses, their presentations, additional research by the Committee staff, and ongoing discussions with the Department of Correction.

A handwritten signature in black ink, appearing to read 'James W. White', is written over a horizontal line.

James W. White
Executive Director

TENNESSEE GENERAL ASSEMBLY
FISCAL REVIEW COMMITTEE



**CORRECTED
FISCAL NOTE**

HB 30 – SB 935

February 23, 2009

SUMMARY OF BILL: Increases the penalty for arson from a Class C to a Class B felony. Requires a minimum sentence of eight years for the Class B felony offense for arson of a place of worship and a minimum sentence of 15 years for the Class A felony offense for aggravated arson.

ESTIMATED FISCAL IMPACT:

On January 22, 2009, we issued a fiscal note indicating an *increase in state expenditures of \$1,856,800/Incarceration*. Based on further review and additional information provided by the Department of Correction (DOC), the fiscal impact of the bill is as follows:

(CORRECTED)

Increase State Expenditures - \$1,765,300/Incarceration*

Assumptions:

- Currently, arson is a Class C felony offense with a sentencing range of three to 15 years. Aggravated arson is a Class A felony offense with a sentencing range of 15 to 60 years. According to DOC, the average post-conviction time served for a Class A felony is 14.86 years. No significant additional incarceration cost would occur as a result of the aggravated arson offenses.
- According to DOC, there has been an average of 42 admissions for arson offenses in each of the past 10 years. According to DOC, the average operating cost per offender per day for calendar year 2009 is \$59.80.
- According to the U.S. Census Bureau, population growth in Tennessee has been 1.12 percent per year for the past 10 years, yielding a projected compound population growth of 11.78 percent over the next 10 years. Population growth would result in an additional five offenders in the tenth year.
- According to DOC, the average post-conviction time served for a Class C felony is 3.59 years and 6.17 years for a Class B felony. The cost per offender at 3.59 years is \$78,426.50 (\$59.80 x 1,311.48 days). The cost per offender at 6.17 years is \$134,727.00 (\$59.80 x 2,252.96 days).

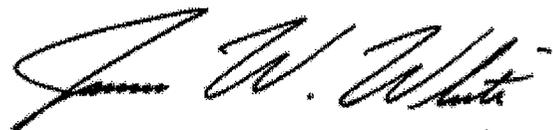
HB 30 – SB 935 (CORRECTED)

- According to DOC, 35 percent of offenders will re-offend within two years of their release. A recidivism discount of 35 percent has been applied to this estimate to account for the impact of offenders who would re-offend under current law within the additional time added by this bill. It is assumed that the re-offender would have committed the subsequent offense at the same felony level as under current law (47 offenders x 35% recidivism discount = 16.45 offenders).
- This bill will result in a person convicted of arson offenses serving an additional 2.58 years (6.17 years for a Class B – 3.59 years for a Class C). The additional cost of increasing the average sentence length by 2.58 years is \$56,300.50 (\$134,727.00 - \$78,426.50). The maximum cost in the tenth year, as required by Tenn. Code Ann. § 9-4-210, is based on 31 (47-16) offenders serving additional time on their sentences in the tenth year. The total additional operating cost for 31 offenders in the tenth year is \$1,745,315.50 (\$56,300.50 x 31).
- Currently, arson involving a place of worship is a Class B felony offense with a sentencing range of eight to 30 years. There has been an average of 0.50 admissions for arson involving a place of worship in each of the past 10 years. For these offenses, no significant incarceration cost increase will occur due to population growth in this period.
- Due to the small number of offenders, no recidivism discount has been applied for arson offenses involving a place of worship.
- This bill will require in a person convicted of arson of a place of worship offenses to serve a mandatory minimum eight-year sentence rather than the current 6.17 years resulting in an additional 1.83 years (668.41 days). The annualized time served per conviction is 334.21 days (0.50 number of annual convictions x 668.41 days). The additional annualized cost per conviction is \$19,985.46 (0.50 x 668.41 x \$59.80).

**Tennessee Code Annotated, Section 9-4-210, requires that: For any law enacted after July 1, 1986, which results in a net increase in periods of imprisonment in state facilities, there shall be appropriated from recurring revenues the estimated operating cost of such law. The amount appropriated from recurring revenues shall be based upon the highest cost of the next 10 years.*

CERTIFICATION:

This is to duly certify that the information contained herein is true and correct to the best of my knowledge.



James W. White, Executive Director

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FISCAL NOTE

HB 2604 - SB 2898

February 21, 2008

SUMMARY OF BILL: Increases the penalty for arson from a Class C to a Class B felony. Requires a minimum sentence of eight years for the Class B felony offense for arson of a place of worship and a minimum sentence of 15 years for the Class A felony offense of aggravated arson.

ESTIMATED FISCAL IMPACT:

Increase State Expenditures - \$2,205,900/Incarceration*

Assumptions:

- Currently, aggravated arson is a Class A felony offense with a sentencing range of 15 to 60 years. For purposes of fiscal notes, these offenses are calculated at 17 years which is above the proposed minimum 15-sentence requirement under this bill. No additional incarceration cost would occur as a result for aggravated arson offenses.
- An average of 40 admissions to the Department of Correction (DOC) for arson offenses in each of the past four years. DOC estimates 15 percent (6) of those involved a place of worship and would currently be sentenced as a Class B at 30 percent. The remaining 34 would be sentenced to a Class B felony for arson offenses and would serve an additional 1.5 years (an increase from 0.9 years to 2.4 years) in the first year as a result of this bill. According to the U.S. Census Bureau, population growth in Tennessee has been 1.09 percent per year for the past 10 years, yielding a projected compound population growth of 13.6 percent over the next 10 years. Population growth would result in an additional four offenders in the tenth year.
- The maximum cost in the tenth year, as required by Tenn. Code Ann. § 9-4-210, is based on 38 offenders serving additional time on their sentences in the tenth year. According to the DOC, the average operating cost per inmate per day for calendar year 2008 is \$62.78. The cost per inmate at 0.9 years is \$20,637.67 (\$62.78 x 328.73 days). The cost per inmate at 2.4 years is \$55,032.95 (\$62.78 x 876.60 days). The additional cost of increasing the average sentence length from 0.9 years to 2.4 years is \$34,395.28 (\$55,032.95 - \$20,637.67). The total

additional operating cost for 38 offenders in the tenth year is \$1,307,020.64 (\$34,395.28 x 38).

- Six offenders would be sentenced for a Class B felony offense for arson of a place of worship and would be required to serve a minimum eight-year sentence as a result of this bill in the first year. Population growth would result in one additional offender in the tenth year. The maximum cost in the tenth year is based on seven offenders serving an additional 5.6 years (an increase from 2.4 years for a Class B at 30 percent to a minimum 8 years) as a result of this bill. The cost per inmate at 2.4 years is \$55,032.95 (\$62.78 x 876.60 days). The cost per inmate at 8.0 years is \$183,443.16 (\$62.78 x 2,922 days). The additional cost of increasing the average sentence length from 2.4 years to 8.0 years is \$128,410.21 (\$183,443.16 - \$55,032.95). The total additional operating cost for seven offenders in the tenth year is \$898,871.47 (\$128,410.21 x 7).

**Tennessee Code Annotated, Section 9-4-210, requires that: For any law enacted after July 1, 1986, which results in a net increase in periods of imprisonment in state facilities, there shall be appropriated from recurring revenues the estimated operating cost of such law. The amount appropriated from recurring revenues shall be based upon the highest cost of the next 10 years.*

CERTIFICATION:

This is to duly certify that the information contained herein is true and correct to the best of my knowledge.



James W. White, Executive Director

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TENNESSEE GENERAL ASSEMBLY
FISCAL REVIEW COMMITTEE



**CORRECTED
FISCAL NOTE**

HB 53

February 23, 2009

SUMMARY OF BILL: Creates a new Class E felony for a person to knowingly publish in any form information or records relating to handgun carry permits, renewal applications or any material required for a permit.

ESTIMATED FISCAL IMPACT:

On January 14, 2009, we issued a fiscal note indicating an *increase in state expenditures of \$13,000/Incarceration*. Based on further review and additional information provided by the Department of Correction (DOC), the fiscal impact of this bill is as follows:

(CORRECTED)

Increase State Expenditures - \$11,700/Incarceration*

Assumptions:

- According to DOC, the average post-conviction time served for a Class E felony is 1.63 years.
- According to the U.S. Census Bureau, population growth in Tennessee has been 1.12 percent per year for the past 10 years, yielding a projected compound population growth of 11.78 percent over the next 10 years. No significant incarceration cost increase will occur due to population growth in this period.
- Since this bill creates a new offense, no recidivism discount has been included.
- One Class E felony every three years with 1.63 years time served (594.45 days). The annualized time served per conviction is 196.17 days (0.33 annual number of convictions x 594.45 days served). According to DOC, the average operating cost per inmate per day for calendar year 2009 is \$59.80. The annualized cost per conviction is \$11,730.97 (\$59.80 x 196.17 days).
- A small increase in cases in the court system, which will result in additional state and local government expenditures for processing the cases and additional state and local government revenue from fees, taxes and costs collected. These expenditures and revenue are estimated to be not significant.

HB 53 (CORRECTED)

*Tennessee Code Annotated, Section 9-4-210, requires that: *For any law enacted after July 1, 1986, which results in a net increase in periods of imprisonment in state facilities, there shall be appropriated from recurring revenues the estimated operating cost of such law. The amount appropriated from recurring revenues shall be based upon the highest cost of the next 10 years.*

CERTIFICATION:

This is to duly certify that the information contained herein is true and correct to the best of my knowledge.

A handwritten signature in cursive script, appearing to read "James W. White".

James W. White, Executive Director

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FISCAL NOTE

HB 3137 - SB 3755

February 27, 2008

SUMMARY OF BILL: Creates a new Class E felony for a person to knowingly publish in any form information or records relating to handgun carry permits, renewal applications or any material required for a permit.

ESTIMATED FISCAL IMPACT:

Increase State Expenditures - \$2,300/Incarceration*

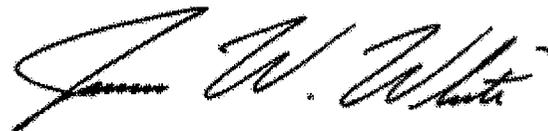
Assumptions:

- One Class E felony every three years with 0.3 years time served (109.58 days). The annualized time served per conviction is 36.16 days (0.33 annual number of convictions x 109.58 days served). According to the Department of Correction, the average operating cost per inmate per day for calendar year 2008 is \$62.78. The annualized cost per conviction is \$2,270.12 (\$62.78 x 36.16 days).
- According to the U.S. Census Bureau, population growth in Tennessee has been 1.09 percent per year for the past 10 years, yielding a projected compound population growth of 13.6 percent over the next 10 years.
- No significant incarceration cost increase will occur due to population growth in this period.

*Tennessee Code Annotated, Section 9-4-210, requires that: *For any law enacted after July 1, 1986, which results in a net increase in periods of imprisonment in state facilities, there shall be appropriated from recurring revenues the estimated operating cost of such law. The amount appropriated from recurring revenues shall be based upon the highest cost of the next 10 years.*

CERTIFICATION:

This is to duly certify that the information contained herein is true and correct to the best of my knowledge.



James W. White, Executive Director

/lsc

HB 3137 - SB 3755