Future Felon Population of the State of Tennessee FY 2007-2008

FY 2007-2019 Felon Population Projections



Tennessee Department of Correction

Presented before the Select Oversight Committee on Corrections

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Compiled by TDOC's Division of Policy, Planning, and Research

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EXECUTIVE SUMMARY

This report presents the annual projections of the Tennessee incarcerated felon population. The projection data is produced for the Tennessee Department of Correction (TDOC) by JFA Associates in Washington D.C. This report is then compiled and prepared by the Department of Correction's Policy, Planning, and Research unit.

Highlights and findings of this projection report:

Model Accuracy: An evaluation of the January 2007 felon population projection model revealed that the model performed exceptionally well during the projection year, with an average monthly deviation from the actual felon population of -0.1 (actual population was more than the projected population). At mid-year, it was determined that as of July 1, 2007, the projected population figures generated by the model deviated from the actual felon population in Tennessee by an average of +0.1% (actual population was less than the projected population). Due to the accuracy of the model, it was decided that no mid-year recast was necessary as the model was performing well within the Department's range of no more than +/-2.0% annual deviation from the model. In the second half of the projection year (July-December 2007), the average monthly deviation was -0.4, (actual population was greater than the projected population). During CY 2007, the actual population was greater than the projected population during 8 of the 12 months.

Incarcerated Felon Population Projections

Total Population: During the past fiscal year, the total incarcerated felon population (including TDOC backup and locally sentenced felons) increased from 26,110 in June 2006 to 26,551 in June 2007, an increase of 1.7%.

Over the past 15 fiscal years (1993-2007) the total incarcerated population has increased 76.6% (from 15,038 to 26,551), with a mean annual change of 4.2%.

Over the *next* 12 fiscal years (through June 2019), Tennessee's incarcerated population is projected to increase a total of 11.7% (from 26,849 to 29,983) with a mean annual change of 1.0%.

Projections by Gender

Males: The overall growth rate for male felons for the 12-year projection period is projected to be 11.1% (increasing from 24,786 in June 2008 to 27,541 in June 2019).

Females: The anticipated growth rate for female felons is higher, with an 18.4% increase expected during the 12-year projection period (from 2,063 in June 2008 to 2,442 in June 2019).

Unmet Bed Demand:

UNMET DEMAND = <u>Projected Felon Population</u> – <u>Planned Capacity</u>

Where

<u>Planned Capacity</u> = Number of TDOC beds available + (1,025 county jail beds for back-up felons + 4,282 local jail beds for locally sentenced felons)

Based on current growth *trends and TDOC's expansion plans*¹, the unmet demand (the number of incarcerated felons *exceeding* the number of beds) is currently projected to be 1,443 by June 2010. If the addition of 2,557 operational beds (Morgan County expansion, the West Tennessee and Turney Center Annex, replacement of TPW's annex, and the Bledsoe County project) is completed by mid 2012, the unmet bed demand will still be 1,125 in June 2015 and 2,315 in June 2019.

If the planned new construction is not completed, the unmet demand is projected to be 3,682 by June 2015 and will reach 4,872 by June 2019.

Males: When broken down by gender, the unmet bed demand is projected to be 1,040 by June 2010, assuming all planned expansions are completed and in operation as expected. By June 2019, it is anticipated that unmet capacity for males will reach 1,686.

Females: There is currently only a 7-bed increase in capacity funded for female inmates (replacement of the annex). The unmet bed demand for females is projected to be 393 by June 2010 and 629 by 2019.

Admissions: Compared to FY 2005-2006, total felon admissions for FY 2006-2007 increased by 1.0% from 14,408 to 14,551). This increase followed a 2.6% increase in admissions that was seen from FY 2005 to FY2006. In FY 06-07, new court commitments decreased by 1.2%. This represents a significant change from the 2.1% increase seen during the previous fiscal year. The number of probation and parole violators returned increased 4.2% during this period. This is higher than the 3.3% increase seen in the previous fiscal year.

Projected Admissions: Continued growth in new court commitments is expected over the next twelve years, at the low rate of average annual change (1.0% per year). An overall increase of 14.1% is projected to occur between 2008 and 2019. Growth in probation and parole violator returns is also expected over the next twelve years, with an average annual change of 0.5% during the projection period, for a total increase of 6.8% between fiscal years 2008 and 2019.

Releases: Total releases <u>decreased 0.1% from the previous fiscal year</u> (FY 2005-06), with releases to probation or community corrections decreasing 4.1%, releases

for expiration of sentence and other decreasing 1.1%. Releases to parole showed an increase of 7.7%.

Projected Releases: Over the next twelve years, it is anticipated that all releases (parole, probation & community corrections, expiration of sentence, and other) will increase by approximately 14.8%, with an average annual change of about 1.5% each year.

Probation and community corrections release rates are projected to increase 27.7% between 2008 and 2019 while releases for expiration of sentence and other are expected to increase approximately 5.7% between 2008 and 2019. The average annual growth rates of 2.2% and 0.7% projected for these two categories are significantly lower than their historic pattern of growth of 6.1% and 9.2% respectively.

Parole Grant Rate: During FY 2006-07, the average parole grant rate was 34.2%, up from the prior year's grant rate of 31.1%.

Projected Grant Rate: Based on trends in parole grant rates over the past fiscal year, it is projected that the grant rate will remain relatively low, at approximately 31.0% over the next twelve years, with an average annual increase in parole releases of 1.5%.

Inmate Age Projections

- The two offense groups with the largest average forecasted age increases over the next thirteen (12) years are lifers with a projected increase of 7.1 years (to 48.7 years old) and the 85% offense group with a projected increase of 4.2 years (to 39.8 years old). The average age of inmates with 1-2 year offenses is expected to decrease 0.3 years (from 34.1 to 33.8 years old) during this same time period.
- Male inmates show a slightly higher average age increase over the projected period (from 36.3 years to 37.9 years) than female inmates (from 34.9 years to 35.9 years).

INTRODUCTION

The Tennessee Department of Correction (TDOC) produces its incarcerated felon population projections annually, with mid-year adjustments to these projections when deemed necessary.² These projections are the basis of the TDOC planning process and are used for the following key functions:

- 1) to monitor the growth of the incarcerated felon population and specific elements of that population;
- 2) to simulate the impact of various decisions and legislation for a variety of criminal justice agencies; and most importantly,
- 3) the projections become the foundation for policy and decisions concerning the Department of Correction's capital project and building plans.

The annual felon population projections and the mid-year assessment are guided by TDOC policy (114.01) and are consistent with the goals set forth in the American Correctional Association's *Standards for Administration of Correctional Agencies*, 4th Edition (Standard 2-CO-1A-09).

At midyear, the January 2007 model was assessed for accuracy. It was determined that the projected population figures generated by the model deviated from the actual incarcerated population by a monthly average of +0.1% through mid-year (January-June 2007), thereby meeting the Department's annual established standard of model accuracy (+/-2% margin of error). Between January and June 2007, there was an average of 18 fewer felons than projected each month.

During the next six (6) months (July 2007– December 2007), the deviation between the projected population and the actual felon population grew slightly, with an average difference between the projected and actual inmate population of -0.4%. During this period, there was an average of 55 *more* felons than projected each month.

Overall, the January 2007 projection model performed well within the acceptable standard of model accuracy, showing a -0.1% deviation between the number of projected felons and the actual felon population from January to December 2007. There was an average of 37 more felons than projected each month during this period. The difference between the projected population and the actual felon population reached a high of -1.3% in November 2007 (actual population was higher than was projected) however, the projections overestimated the population by 1.2% the very next month.

While the model deviated -0.1% overall from the actual felon population, the average monthly deviation for the female felon population was +0.5% between January-December 2007. The actual female felon population was *less* than was projected, with an average of 10 fewer felons than projected each month during this period. The difference reached a high of 4.5% during December 2007 (87 fewer felons than projected). This difference of 87 felons was more than twice that seen in any other month, and accounted for 73% of the total difference seen during 2007. Further, it should be noted that the population was underestimated during six months during this period.

It was determined that the assumptions for the female felon population did not need to be adjusted as the model was performing well.

METHODOLOGY

TDOC currently contracts with Mr. Jim Austin, Ph.D. and Ms. Wendy Naro-Ware at JFA Associates in Washington D.C. to run the Department of Correction's annual population forecasts.³ JFA Associates assist in the determination of population assumptions, works with TDOC's Policy, Planning, and Research staff to extract the necessary data, and produces the raw projection data. JFA Associates also assist in reviewing the end results of the projections and placing them into context given the Department's annual felon population forecast report and capacity determination.

Projection Software

The felon population projections presented in this report was developed using JFA Associates' Wizard 2000 simulation software as the primary projection tool. Wizard 2000 is a second-generation enhancement of the Prophet software previously used to conduct the population forecasts in this state⁴. This software is used to forecast incarcerated population projections in at least 30 of the 50 United States and is considered to be an extremely reliable and valid state-of-the-art simulation model. Each projection model is specifically designed for the context in which it is used; therefore, the Tennessee projection model is based on Tennessee criminal statutes, movement patterns in and among institutions, parole and probation patterns, etc. The model simulates the future movements of inmates through the correctional system based on key correctional information regarding offenders admitted to and released from the department in FY 2007.

Source Data

The data in this report is taken from the Tennessee Offender Management Information System (TOMIS) database and the Tennessee Felon Population Updates. Data is extracted from tapes created monthly by the Office of Information Resources. The data provided for the projection models come from the November 2007 monthly extracts. Because it typically takes 4-6 months for the data in TOMIS to "settle" (i.e., for processing most of the information that is relevant to the previous fiscal year ending in June) there may be discrepancies in information between reports presented from year to year. Thus, information reported for prior years in this report may vary slightly from what has been previously reported for those same years. Additionally, data used in the projection model may vary from the current actual data due to the aforementioned settling issues.

The incarcerated felon population projections represented in this report includes all felons sentenced to incarceration for one year or more. The projections include felons sentenced to the TDOC as well as those sentenced to serve their time in local facilities (e.g., all felons within TDOC's jurisdiction). More specifically, this report considers those felons housed in (1) TDOC facilities, (2) local jails through local sentencing, and (3) local jails awaiting transfer to a TDOC facility ("back-up").

Information for the 2008 model was extracted from TOMIS for the period July 1, 2006 through June 30, 2007 in order to provide the most current patterns and trends of the offender population. The data reflect characteristics of the stock population, as well as admission and release patterns, which are subsequently used to simulate offender movement through the projection period. Offender movement in the modeling process is based on a variety of variables such as: sentence length, time served, average wait time between parole hearings, and parole grant rates.

Projection Assumptions

All projection data are based on the assumptions one makes about the target population and the factors that affect said population. There are a number of assumptions which are essential to the production of the annual felon population projections. These assumptions form the foundation of the future felon-forecasting model and are reviewed biannually for accuracy and consistency. The most fundamental principle inherent to this or any projection model is that current sentencing and release practices will remain constant over the projection period. The impact of unconfirmed future events, such as the felon population implication resulting from recent legislation such as "Jessica's Law" and "Crooks with Guns" was therefore not factored into this model.

The assumptions underlying the model are assessed in a multi-stage process. Trends in the data are examined utilizing a variety of methods. In addition, TDOC staff meets with members of several state agencies (Population Projection Assumptions Committee⁵) to discuss the assumptions and their viability in light of changing trends, legislation, and policy that might affect inmate populations. Finally, review and input from JFA consultants is a critical element in developing the underlying assumptions for the felon population projections.

The primary assumptions resulting from the aforementioned process are described below.

Key Assumptions

- 1. Significant Legislation from the 2007 General Assembly. A review of the legislation enacted during the 2007 General Assembly sessions indicated that there were Public Acts passed that would influence either sentencing structure or future felon populations. While no substantial changes were assumed in this model, TDOC will closely monitor the impact of recent legislation including "Jessica's Law", "Crooks with Guns", and other sex offender and sexual predator legislation. After consulting with JFA Associates regarding the potential impact of recent legislation, it was determined that the effects of the above mentioned legislation on the felon population counts are not known at this point.
- 2. Capacity for locally sentenced offenders. Tennessee's local jails continue to hold significant numbers of locally sentenced felons and contribute significantly to Department of Correction's capacity. There has been a great deal of growth in the size of this population over the past decade, and as a result the Assumption Committee increased the average capacity assumption from 4,000 to 4,125 for the 2006 projection model. While the Assumption Committee determined that there

was no need to change this assumption for the 2007 model, the capacity assumption for the 2008 model was increased from 4,125 to 4,282 to account for the continued growth seen in this category. Based on data from the past four (4) fiscal years, the locally sentenced felon population is estimated to be approximately 17.4% of the total Tennessee felon inmate population.

- 3. Capacity for TDOC Sentenced Felons Housed in Local Jails: Since FY 1998-99, TDOC capacity assumptions have included estimates of TDOC-sentenced offenders housed in local jails. The projections assume that, at any one time, there will be 350 offenders with valid judgement orders but who are within the 14-day legislated transfer requirement, and 675 offenders with no judgement orders for which capacity will be provided by the local jails. This number is included in all capacity assumptions and bed demand calculations. Over the past four (4) fiscal years, this population has made up an average of 8.0% of the total Tennessee felon population.
- 4. **Admissions.** Total admissions system-wide⁶ remained high during FY 2006-07 at 14,551. After seeing a decrease of 2.6% from FY 2002 to FY 2003, admissions then increased 4.2%, from FY 2003-FY 2004, 2.5% from FY 2004-FY 2005 and 2.6% from FY 2005-FY 2006. Admissions increased 1.0% during FY 2006-07. For a more detailed description of historic and projected admissions, please refer to Table 1.
 - New Commitments⁷. New commitments for FY 2006-07 decreased 1.2% from FY 2005-06 to 2006-07 (from 8,620 to 8,520 respectively). There were no adjustments to this key assumption in the January 2008 projection model.
 - Parole and Probation Violators⁸. With the exception of FY 2002-03, there has been a consistent increase in violators returning to TDOC since FY 1999-00). There was a 4.2% increase during this past fiscal year (2006-07).

There were no changes to this assumption for the 2008 projection model. During FY 2006-07, the average difference in projected and actual violator admissions was - 3.8%. There was an average of 23 more parole, probation, and community corrections violators than projected each month.

Table 1. Historical and Projected Admissions, 1993-2019

Fiscal year	New commitments	Violators returned	Total admissions
1992-93	6,842	3,209	10,051
1993-94	6,104	3,700	9,804
1994-95	6,358	3,907	10,265
1995-96	6,761	3,986	10,747
1996-97	7,642	4,762	12,404
1997-98	8,284	5,153	13,437
1998-99	8,107	4,954	13,061
1999-00	8,759	4,574	13,333
2000-01	8,363	4,902	13,265
2001-02	8,337	5,155	13,492
2002-03	8,063	5,077	13,140
2003-04	8,436	5,261	13,697
2004-05	8,440	5,602	14,042
2005-06	8,620	5,788	14,408
2006-07	8,520	6,031	14,551
Numeric change EV 1002 03			
Numeric change FY 1992-93 to FY 2006-07	1,678	2,822	4,500
Percent change FY 1992-93 to FY 2006-07	24.5%	87.9%	44.8%
Average annual percent change	1.8%	4.8%	2.8%
2007-08	8,383	5,974	14,357
2008-09	7,955	6,128	14,083
2009-10	8,163	6,078	14,241
2010-11	8,393	6,078	14,471
2011-12	8,419	6,150	14,569
2012-13	8,887	6,257	15,144
2013-14	8,976	6,198	15,174
2014-15	9,066	6,189	15,255
2015-16	9,226	6,217	15,443
2016-17	9,248	6,336	15,584
2017-18	9,560	6,332	15,892
2018-19	9,568	6,378	15,946
Numeric change FY 2007-08 to 2018-19	1,185	404	1,589
Percent change FY 2007-08 to 2018-19	14.1%	6.8%	11.1%
Average annual percent change	1.0%	0.5%	0.8%
* Does not include Interstate Compact or	Escape returns		

^{*} Does not include Interstate Compact or Escape returns

- 5. **Releases**. Total releases <u>decreased</u> by 0.1% between FY 2005-06 and FY 2006-07. For FY 2006-07, the difference between actual (15,594) and projected (14,779) total releases was 5.2%. For a more detailed description of historic and projected releases, please refer to Table 2.
 - **Probation and Community Corrections and Expiration of Sentence**. Both of these release types decreased between FY 2005-06 and FY 2006-07, with probation and community correction releases decreasing by 4.1% and expiration of sentence releases decreasing by 1.1%. In FY 2006-07, actual probation and community corrections releases differed from projected releases by -15.9%(more releases than projected) and only 3.4% for expiration of sentences and other. The 2008 model was adjusted to reflect a lower rate of growth in releases that was seen during the past fiscal year.

Release to Parole. Releases to parole increased 7.7% between FY 2005-06 and FY 2006-07, marking four consecutive annual increases in this category. In FY 2006-07, the average parole grant rate was 34.2%, up from the prior year's grant rate of 31.1%, making it the highest grant rate since FY 1997-98 (for a graphic illustration of historical parole grant rate, please see Figure 1). Actual parole releases were 0.8% higher than projected in FY 2006-07. The assumptions for parole releases were adjusted slightly to reflect a four-year average grant rate of 31.0% In Table 3, found on page 12, parole grant rates for FY 2006-07 are broken down by offense group.

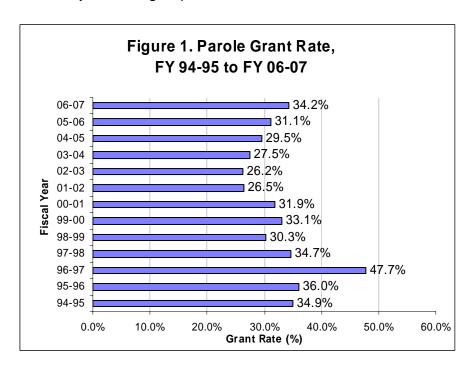


Table 2. Historical and Projected Releases, 1993-2019

Fiscal year	Parole	Probation & Community Corrections	Expiration and Others	Total Releases
1992-93	4,907	2,778	1,600	9,285
1993-94	3,532	3,016	2,011	8,559
1994-95	3,301	3,421	2,576	9,298
1995-96	3,503	4,432	3,104	11,039
1996-97	4,581	4,989	3,300	12,870
1997-98	3,365	5,557	3,702	12,624
1998-99	3,312	5,286	4,233	12,831
1999-00	3,704	4,897	4,388	12,989
2000-01	3,763	4,953	4,231	12,947
2001-02	3,003	5,100	4,472	12,575
2002-03	2,951	5,247	4,692	12,890
2003-04	3,208	5,449	4,935	13,592
2004-05	3,524	5,739	5,113	14,376
2005-06	4,007	6,303	5,293	15,603
2006-07	4,315	6,043	5,236	15,594
Numeric change FY 1992-93 to 2006-07	-592	3,265	3,636	6,309
Percent change FY 1992-93 to 2006-07	-12.1%	117.5%	227.3%	67.9%
Average annual percent change	0.4%	6.1%	9.2%	4.0%
2007-08	4,739	6,123	5,407	16,269
2008-09	4,770	6,377	5,442	16,589
2009-10	4,827	6,643	5,460	16,930
2010-11	4,867	6,876	5,466	17,209
2011-12	4,850	7,091	5,507	17,448
2012-13	4,796	7,116	5,546	17,458
2013-14	4,886	7,317	5,557	17,760
2014-15	4,934	7,447	5,569	17,950
2015-16	4,947	7,498	5,585	18,030
2016-17	5,033	7,624	5,642	18,299
2017-18	5,178	7,588	5,646	18,412
2018-19	5,153	7,817	5,713	18,683
Numeric change FY 2007-08 to 2018-19	414	1,694	306	2,414
Percent change FY 2007-08 to 2018-19	8.7%	27.7%	5.7%	14.8%
Average annual percent change	1.5%	2.2%	0.7%	1.5%

Table 3. Parole Grant Rates by Model Group, FY 2006-07

		He	earing Numb	er			Mean Wait					
Model Group			Janning Hannis	<u>. </u>		Overall	Time					
	1	2	3	4	5		(months)					
	MALE											
Lifer						1						
85% Person						1						
85% Sex						1						
85% Agg Robbery						1						
Person A,B	11.5%	36.0%	36.7%	45.1%	29.6%	28.7%	24.1					
Person C	8.9%	32.7%	37.1%	27.1%	31.0%	19.4%	14.1					
Person D,E	15.5%	30.0%	42.9%	50.0%	0.0%	23.3%	15.5					
Sex A,B	6.5%	5.7%	9.1%	0.0%	5.7%	6.0%	34.5					
Sex C,D,E	0.0%	21.4%	33.3%	0.0%	50.0%	5.3%	19.0					
Agg Robbery A,B	11.2%	42.8%	40.6%	39.9%	32.5%	30.8%	16.5					
Agg Robbery												
C,D,E	22.4%	28.0%	50.0%	71.4%	0.0%	29.4%	11.3					
Drug A,B	19.0%	54.9%	55.6%	38.2%	42.1%	37.2%	14.8					
Drug C,D,E	26.9%	52.3%	34.4%	39.5%	27.3%	35.1%	12.8					
Prop A,B	22.9%	20.8%	62.5%	25.0%	11.1%	25.0%	16.2					
Prop C	16.7%	41.7%	39.9%	33.6%	33.6%	28.2%	12.8					
Prop D,E	19.4%	46.6%	36.7%	22.8%	29.6%	28.7%	11.5					
Other A,B	14.5%	31.6%	40.0%	42.9%	31.3%	25.4%	19.1					
Other C	27.6%	43.3%	34.8%	40.0%	60.0%	33.3%	13.4					
Other D,E	21.7%	50.7%	39.7%	40.0%	33.3%	32.5%	13.2					
		He	earing Numb	er			Mean Wait					
Model Group						Overall	Time					
	1	2	3	4	5		(months)					
			FEMALE									
Lifer												
85%												
Person A,B	16.7%	12.5%	57.1%	33.3%	66.7%	30.3%	28.1					
Person C,D,E	15.0%	44.8%	27.3%	25.0%	100.0%	24.6%	9.9					
Sex	0.0%					0.0%	35.9					
Agg Robbery	15.6%	64.3%	70.6%	42.9%	100.0%	45.9%	13.5					
Drug A,B	18.3%	66.0%	31.3%	40.0%	50.0%	36.9%	11.8					
Drug C,D,E	27.7%	63.3%	45.0%	50.0%	0.0%	38.8%	10.7					
Prop A,B	33.3%	100.0%				50.0%	12.6					
Prop C,D,E	23.3%	54.5%	56.6%	39.3%	27.3%	36.0%	9.7					
Other A,B	20.0%	50.0%	50.0%		0.0%	34.4%	26.1					
Other C,D,E	37.0%	67.7%	100.0%		100.0%	57.3%	10.8					
Missing	9.8%	46.2%	36.4%	44.4%	0.0%	24.5%	12.3					
FY 2007 Total	17.4%	42.9%	39.3%	34.5%	30.4%	28.6%	17.1					

6. **Capital Projects and Renovations**. Projects and renovations that are currently funded and scheduled for completion through the projection period (June 2019) will produce a net operating gain of 2,557 new beds (2,587 increase in total institutional capacity) in Tennessee. TDOC's operating capacity as of December 2007 was 19,804. TDOC's total operating capacity will increase to 22,361 during the projection period.⁹

Table 4. Funded TDOC Expansions

Facility	Operating Capacity Increase (raw number of additional beds)	Planned Completion Date
Morgan County Expansion/New	829 (838)	Mid 2009
West Tennessee	146 (150)	Mid 2010
Turney Center	145 (148)	Late 2010
TPW (Replace Annex)	7(7)	Early 2011
Bledsoe County	1430 (1444)	Mid 2012
TOTAL	2557 (2587)	

7. **Female Population Considerations**. With few exceptions (FY 1994, FY 1996, and FY 2006), Tennessee has seen a steady growth in the female felon population since FY 1992-93. The female felon population has grown 149.7% since FY 1992-93, with a mean annual increase of 7.3%. Modifications were made in the 2006 projection model to reflect this continued growth. However, between FY 2004-2005 and FY 2005-06, the female felon population actually declined 1.6% (from 1,958 to 1,926). While the female population increased once again (3.5%) during FY 2006-07, the rate of growth was much slower than the historical trend.

The 2007 model deviated from the actual female felon population by an average of 0.5% each month between January and December 2007. It should be noted that while the actual female felon population was an average of 0.5% *lower* than was projected, the model actually underestimated the felon population for 6 months during FY 2006-07. Further, December 2007 accounted for 73% of the total difference (119) seen in FY 2006-07.

As a result of the accuracy of the 2007 projection model, the current model (2008) was not modified.

8. Model Groups

The offense model groups, used for the forecasting model, are based on the FBI's National Incident Based Reporting System (NIBRS) method of offense classification. These NIBRS-based model groups are the same as those used in the prior projection models.

The model groups used in this projection model are presented below. Offenders are categorized based on their primary or most serious offense:

Sentencing Model Groups

- ▶ Lifers: Offenders who receive Life, Life (Minimum 25 years), Life Without Parole (includes Repeat Violent Offenders), Death, and/or Habitual Offender sentences.
- ▶ 85%: Offenders who are sentenced under the state's 100% sentencing statute and must serve 85% of their sentence at a minimum. It is also important to note that some offenders with life sentences also fall into the 85% offender group.
- ▶ 1-2 Years: This group includes those offenders who receive a 1 to 2 year sentence and who are generally sentenced to serve their time in a local facility. 1-2 Year offenders most commonly fall into drug, property, and "other" offense categories.

Offense Model Groups

- ▶ Drugs: This group is comprised of offenders whose primary charge is drugrelated. The majority of these offenders receive sentences for cocainerelated offenses.
- Aggravated Robbery: This group includes those offenders receiving a primary charge of Aggravated Robbery.
- Sex Offenders: This group is comprised of offenders receiving a sex-related charge as their primary offense. The bulk of these offenders are sentenced for Rape and Aggravated Rape.
- Property Offenders: This group includes offenders whose primary charge is related to a property offense. This includes the property crimes of Arson, Bad Checks, Bribery, Burglary, Embezzlement, Extortion, Forgery/Fraud, Larceny/Theft, Motor Vehicle Theft, Robbery, and Vandalism; Aggravated Robbery is categorized separately.
- Person Offenders: This group includes offenders whose primary charge is related to personal offenses. This includes Homicides, Kidnapping and Assault Offenses; Sex Offenses are categorized separately.
- Other: This group includes offenders whose primary charge is for an offense not covered in the above categories. Under the NIBRS offense classification system, this will most often include non-substantive offenses that involve Facilitation, Solicitation, Conspiracy, etc (e.g., Conspiracy To Commit Rape).
- Juveniles: The number of offenders under the age of 18 admitted to the Department peaked in FY 1996-97. Since that point, both the admissions and total population of juvenile offenders have declined substantially. In prior years, a forecast of the juvenile population was conducted; however, because the projection model does not "age out" offenders, the projection of these

offenders has been seriously overestimated in past reports. Until such time as a reliable projection for these offenders is available, the report will only track the total population of these offenders over time.

These model groups are further delineated by gender. This allows the Department to gain better information on the number and type of women coming into its jurisdiction. Female felons are an increasingly important population issue facing the Department as their growth rate is substantially higher than that of incarcerated males, and projecting this particular population will assist in future capacity and program planning efforts.

To provide a clearer picture of these model groups, Tables 5 and 6 show the distribution and sentencing profiles of total admissions and releases by gender system-wide (for both TDOC and locally sentenced felons) across the model groups for the period July 2006 through June 2007. One of the basic assumptions of the projection process is that future admissions will be similar to these population characteristics.

Table 5. Tennessee Population Projections ADMISSION Statistics by Gender, FY 2006-07

Frequency	D	Mean Sentence								
	Percent	(MO)	Mean Jail Days	% to PED						
MALE										
90	0.6%	540.0	718.5	100%						
108	0.7%	285.5	685.9	97%						
147	1.0%	194.2	384.9	76%						
15	0.1%	231.6	511.5	86%						
317	2.2%	21.6	155.7	30%						
162	1.1%	19.1	121.9	30%						
10	0.1%	19.2	325.1	29%						
510	3.5%	20.0	88.3	30%						
1,494	10.2%	21.1	110.8	30%						
852	5.8%	20.0	88.1	31%						
220	1.5%	283.7	411.1	33%						
950	6.5%	68.2	245.0	31%						
134		55.9		32%						
39	0.3%	184.0		35%						
+				31%						
772		155.4		29%						
80				31%						
1,136		127.7		30%						
·		59.8		30%						
·				30%						
				31%						
,				32%						
,				30%						
				30%						
				34%						
			-							
6			313.7	100%						
28	0.2%			93%						
+				30%						
+				30%						
				30%						
				30%						
+				30%						
				30%						
+				31%						
4				30%						
47				30%						
				29%						
				30%						
t t				30%						
				31%						
				29%						
				31%						
				100%						
				33%						
	108 147 15 317 162 10 510 1,494 852 220 950 134 39 164 772 80 1,136 1,632 25 1,809 1,141 123 231 408 6 28 43 6 82 428 137 12 105	90 0.6% 108 0.7% 147 1.0% 15 0.1% 317 2.2% 162 1.1% 10 0.1% 510 3.5% 1,494 10.2% 852 5.8% 220 1.5% 950 6.5% 134 0.9% 39 0.3% 164 1.1% 772 5.3% 80 0.5% 1,136 7.8% 1,632 11.2% 25 0.2% 1,809 12.4% 1,141 7.8% 123 0.8% 231 1.6% 408 2.8% FEN 6 0.0% 28 0.2% 43 0.3% 6 0.0% 82 0.6% 428 2.9% 137 0.9% 117 0.8% 117 0.8% 317 2.2% 12 0.1% 506 3.5% 13 0.1% 506 3.5% 13 0.1% 506 3.5% 13 0.1% 506 3.5% 13 0.1% 506 3.5% 13 0.1%	90 0.6% 540.0 108 0.7% 285.5 147 1.0% 194.2 15 0.1% 231.6 317 2.2% 21.6 162 1.1% 19.1 10 0.1% 19.2 510 3.5% 20.0 1,494 10.2% 21.1 852 5.8% 20.0 220 1.5% 283.7 950 6.5% 68.2 134 0.9% 55.9 39 0.3% 184.0 164 1.1% 68.3 772 5.3% 155.4 80 0.5% 64.7 1,136 7.8% 127.7 1,632 11.2% 59.8 25 0.2% 127.0 1,809 12.4% 73.0 1,141 7.8% 62.0 123 0.8% 151.9 231 1.6% 63.2	90 0.6% 540.0 718.5 108 0.7% 285.5 685.9 147 1.0% 194.2 384.9 15 0.1% 231.6 511.5 317 2.2% 21.6 155.7 162 1.1% 19.1 121.9 10 0.1% 19.2 325.1 510 3.5% 20.0 88.3 1.494 10.2% 21.1 110.8 852 5.8% 20.0 88.1 220 1.5% 283.7 411.1 950 6.5% 68.2 245.0 134 0.9% 55.9 207.0 39 0.3% 184.0 352.3 164 1.1% 68.3 241.4 772 5.3% 155.4 384.6 80 0.5% 64.7 292.0 1,136 7.8% 127.7 177.1 1,632 11.2% 59.8 139.7 25 0.2% 127.0 299.0 1,809 12.4% 73.0 197.9 1,141 7.8% 62.0 157.0 123 0.8% 151.9 439.5 231 1.6% 63.2 176.4 408 2.8% 54.8 137.2 FEMALE 6 0.0% 54.0 313.7 2 56.0 66.6 6 0.0% 19.0 10.0 82 0.6% 21.2 72.5 428 2.9% 20.8 72.0 137 0.9% 20.6 66.6 12 0.1% 150.7 150.7 143 0.9% 20.6 66.6 12 0.1% 133.2 247.3 117 0.8% 133.2 247.3 117 0.8% 133.2 247.3 117 0.8% 133.2 247.3 117 0.8% 133.2 247.3 117 0.8% 133.2 247.3 117 0.8% 133.2 247.3 117 0.8% 133.2 247.3 117 0.8% 133.2 247.3 117 0.8% 112.8 109.1 317 2.2% 53.9 91.9 12 0.1% 148.1 346.8 153 1.0% 54.3 108.2						

Table 6. Tennessee Population Projections RELEASE Statistics by Gender, FY 2006-07

TADIE V. TEIIIIC	ennessee Population Projections RELEASE Statistics by Gender, FY 2006-07 Mean Mean Time Served by Release Type (months)											
	Time											
Model Group	Frequency	Percent	Served (months)	Expire	Other	Parole	Probation	Community Correction				
MALE												
Lifer	73	0.5%	321.7			321.7						
85% Person	22	0.1%	117.0	121.5		107.3						
85% Sex	101	0.7%	87.6	101.0	33.8	89.9	35.6	4.5				
85% Agg												
Robbery	1	0.0%	61.3	0.0	61.3	0.0	0.0					
1-2 yr Person	296	1.9%	10.0	14.8	7.6	9.8	8.0	8.8				
1-2 yr Sex	157	1.0%	11.0	19.4	2.5	13.1	7.7	13.8				
1-2 yr Agg												
Robbery	26	0.2%	10.3	12.7	0.0	0.0	9.5	10.8				
1-2 yr Drug	476	3.1%	9.4	0.0	0.0	10.6	7.0	12.2				
1-2 yr Prop	1,487	9.7%	9.3	14.1	3.7	10.1	7.2	5.4				
1-2 yr Other	907	5.9%	8.8	13.1	5.4	9.1	7.3	9.0				
Person A,B	336	2.2%	164.4	164.3	18.1	170.7	121.7	47.3				
Person C	957	6.2%	44.4	46.2	19.1	51.0	24.0	40.7				
Person D,E	170	1.1%	31.5	35.4	10.7	34.9	15.0	31.3				
Sex A,B	101	0.7%	177.3	184.7	0.0	165.4	102.3	183.1				
Sex C,D,E	165	1.1%	42.2	48.7	1.0	45.3	14.9	13.4				
Agg Robbery												
A,B	773	5.0%	95.9	103.2	72.6	93.6	109.3	69.5				
Agg Robbery												
C,D,E	528	3.4%	43.2	50.8	25.3	42.4	30.2	29.7				
Drug A,B	1,191	7.7%	57.5	95.6	43.9	63.0	26.2	28.9				
Drug C,D,E	1,798	11.7%	30.1	38.0	24.8	31.8	17.6	23.6				
Prop A,B	23	0.1%	70.6	134.8	69.4	43.0	20.8	6.2				
Prop C	1,497	9.7%	42.9	49.3	26.9	48.0	22.3	17.9				
Prop D,E	1,269	8.2%	31.6	38.1	10.0	33.2	18.2	17.2				
Other A,B	85	0.6%	78.6	91.3	24.8	80.5	17.3	34.2				
Other C	200	1.3%	29.6	37.7	15.1	28.4	24.0	17.3				
Other D,E	501	3.3%	27.1	32.7	17.7	27.8	12.9	20.6				
			Mean	Mea	an Time S	Served by	Release Type	(months)				
Model Group	Frequency	Doroont	Time					· · · · · ·				
Woder Group	Frequency	Percent	Served	Expire	Other	Parole	Probation	Community				
			(months)					Correction				
				IALE								
Lifer	2	0.0%	244.7			245.6						
85%	8	0.1%										
1-2 yr Person		0.170	74.1	//.5		65.4						
ı-∠ yı ୮୯ISUII			74.1 9.8	77.5 15.1		65.4	6.7					
	51	0.3%	9.8	15.1			6.7	15.1 				
1-2 yr Person 1-2 yr Sex 1-2 yr Drug												
1-2 yr Sex 1-2 yr Drug	51 4 91	0.3% 0.0% 0.6%	9.8 9.2 8.8	15.1 20.6 13.3		 8.1	6.7 3.5 7.6	15.1 1.0				
1-2 yr Sex 1-2 yr Drug 1-2 yr Prop	51 4 91 418	0.3% 0.0% 0.6% 2.7%	9.8 9.2 8.8 9.2	15.1 20.6 13.3 16.1	 	8.1 10.5	6.7 3.5 7.6 6.9	15.1 1.0 6.3				
1-2 yr Sex 1-2 yr Drug 1-2 yr Prop 1-2 yr Other	51 4 91	0.3% 0.0% 0.6% 2.7% 0.9%	9.8 9.2 8.8 9.2 9.1	15.1 20.6 13.3 16.1 14.7		8.1 10.5 6.7	6.7 3.5 7.6	15.1 1.0				
1-2 yr Sex 1-2 yr Drug 1-2 yr Prop 1-2 yr Other Person A,B	51 4 91 418 131	0.3% 0.0% 0.6% 2.7% 0.9% 0.1%	9.8 9.2 8.8 9.2 9.1 116.7	15.1 20.6 13.3 16.1 14.7 93.1	 8.7	8.1 10.5 6.7 138.0	6.7 3.5 7.6 6.9 6.6 1.0	15.1 1.0 6.3 4.5				
1-2 yr Sex 1-2 yr Drug 1-2 yr Prop 1-2 yr Other	51 4 91 418 131	0.3% 0.0% 0.6% 2.7% 0.9%	9.8 9.2 8.8 9.2 9.1	15.1 20.6 13.3 16.1 14.7	 	8.1 10.5 6.7	6.7 3.5 7.6 6.9 6.6	15.1 1.0 6.3				
1-2 yr Sex 1-2 yr Drug 1-2 yr Prop 1-2 yr Other Person A,B Person C,D,E	51 4 91 418 131 17 111	0.3% 0.0% 0.6% 2.7% 0.9% 0.1%	9.8 9.2 8.8 9.2 9.1 116.7 29.5	15.1 20.6 13.3 16.1 14.7 93.1 34.5	8.7 16.0	8.1 10.5 6.7 138.0 33.7	6.7 3.5 7.6 6.9 6.6 1.0	15.1 1.0 6.3 4.5 14.3				
1-2 yr Sex 1-2 yr Drug 1-2 yr Prop 1-2 yr Other Person A,B Person C,D,E Sex	51 4 91 418 131 17 111	0.3% 0.0% 0.6% 2.7% 0.9% 0.1% 0.7%	9.8 9.2 8.8 9.2 9.1 116.7 29.5 18.9	15.1 20.6 13.3 16.1 14.7 93.1 34.5	8.7 16.0	8.1 10.5 6.7 138.0 33.7 37.7	6.7 3.5 7.6 6.9 6.6 1.0 18.3	15.1 1.0 6.3 4.5 14.3 0.3				
1-2 yr Sex 1-2 yr Drug 1-2 yr Prop 1-2 yr Other Person A,B Person C,D,E Sex Agg Robbery	51 4 91 418 131 17 111 4	0.3% 0.0% 0.6% 2.7% 0.9% 0.1% 0.7% 0.0%	9.8 9.2 8.8 9.2 9.1 116.7 29.5 18.9 48.3	15.1 20.6 13.3 16.1 14.7 93.1 34.5 60.9	8.7 16.0 84.3	8.1 10.5 6.7 138.0 33.7 37.7 49.4	6.7 3.5 7.6 6.9 6.6 1.0 18.3	15.1 1.0 6.3 4.5 14.3 0.3 15.0				
1-2 yr Sex 1-2 yr Drug 1-2 yr Prop 1-2 yr Other Person A,B Person C,D,E Sex Agg Robbery Drug A,B	51 4 91 418 131 17 111 4 101	0.3% 0.0% 0.6% 2.7% 0.9% 0.1% 0.7% 0.0% 0.7%	9.8 9.2 8.8 9.2 9.1 116.7 29.5 18.9 48.3 47.3	15.1 20.6 13.3 16.1 14.7 93.1 34.5 60.9 76.8	8.7 16.0 84.3 16.1	8.1 10.5 6.7 138.0 33.7 37.7 49.4 54.5	6.7 3.5 7.6 6.9 6.6 1.0 18.3 25.9 27.4	15.1 1.0 6.3 4.5 14.3 0.3 15.0				
1-2 yr Sex 1-2 yr Drug 1-2 yr Prop 1-2 yr Other Person A,B Person C,D,E Sex Agg Robbery Drug A,B Drug C,D,E	51 4 91 418 131 17 111 4 101 115 362	0.3% 0.0% 0.6% 2.7% 0.9% 0.1% 0.7% 0.0% 0.7% 2.4%	9.8 9.2 8.8 9.2 9.1 116.7 29.5 18.9 48.3 47.3 26.0	15.1 20.6 13.3 16.1 14.7 93.1 34.5 60.9 76.8 34.7	8.7 16.0 84.3 16.1	8.1 10.5 6.7 138.0 33.7 37.7 49.4 54.5 26.6	6.7 3.5 7.6 6.9 6.6 1.0 18.3 25.9 27.4	15.1 1.0 6.3 4.5 14.3 0.3 15.0 16.9 20.3				
1-2 yr Sex 1-2 yr Drug 1-2 yr Prop 1-2 yr Other Person A,B Person C,D,E Sex Agg Robbery Drug A,B Drug C,D,E Prop A,B	51 4 91 418 131 17 111 4 101 115 362 8	0.3% 0.0% 0.6% 2.7% 0.9% 0.1% 0.7% 0.0% 0.7% 0.7% 0.7% 0.1%	9.8 9.2 8.8 9.2 9.1 116.7 29.5 18.9 48.3 47.3 26.0 41.5	15.1 20.6 13.3 16.1 14.7 93.1 34.5 60.9 76.8 34.7 139.1	8.7 16.0 84.3 16.1 2.8	8.1 10.5 6.7 138.0 33.7 37.7 49.4 54.5 26.6	6.7 3.5 7.6 6.9 6.6 1.0 18.3 25.9 27.4 13.7	15.1 1.0 6.3 4.5 14.3 0.3 15.0 16.9 20.3 3.0 14.2				
1-2 yr Sex 1-2 yr Drug 1-2 yr Prop 1-2 yr Other Person A,B Person C,D,E Sex Agg Robbery Drug A,B Drug C,D,E Prop A,B Prop C,D,E	51 4 91 418 131 17 111 4 101 115 362 8 576	0.3% 0.0% 0.6% 2.7% 0.9% 0.1% 0.7% 0.0% 0.7% 0.7% 2.4% 0.1% 3.7%	9.8 9.2 8.8 9.2 9.1 116.7 29.5 18.9 48.3 47.3 26.0 41.5 28.9	15.1 20.6 13.3 16.1 14.7 93.1 34.5 60.9 76.8 34.7 139.1 37.0	8.7 16.0 84.3 16.1 2.8	 8.1 10.5 6.7 138.0 33.7 37.7 49.4 54.5 26.6 34.1 32.4	6.7 3.5 7.6 6.9 6.6 1.0 18.3 25.9 27.4 13.7 12.2 20.1	15.1 1.0 6.3 4.5 14.3 0.3 15.0 16.9 20.3 3.0				
1-2 yr Sex 1-2 yr Drug 1-2 yr Prop 1-2 yr Other Person A,B Person C,D,E Sex Agg Robbery Drug A,B Drug C,D,E Prop A,B Prop C,D,E Other A,B	51 4 91 418 131 17 111 4 101 115 362 8 576 16	0.3% 0.0% 0.6% 2.7% 0.9% 0.1% 0.7% 0.0% 0.7% 0.7% 0.1% 3.7% 0.1%	9.8 9.2 8.8 9.2 9.1 116.7 29.5 18.9 48.3 47.3 26.0 41.5 28.9 62.1	15.1 20.6 13.3 16.1 14.7 93.1 34.5 60.9 76.8 34.7 139.1 37.0 82.0	 8.7 16.0 84.3 16.1 2.8 23.4	 8.1 10.5 6.7 138.0 33.7 37.7 49.4 54.5 26.6 34.1 32.4 64.5	6.7 3.5 7.6 6.9 6.6 1.0 18.3 25.9 27.4 13.7 12.2 20.1 23.3	15.1 1.0 6.3 4.5 14.3 0.3 15.0 16.9 20.3 3.0 14.2 72.6				

RESULTS

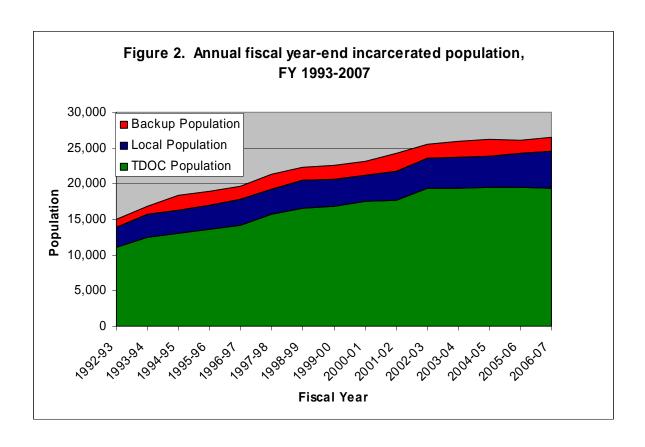
Historical Felon Population

Figure 2 demonstrates the growth of the incarcerated felon population in Tennessee from FY 1992-93 to FY 2006-07. During that period, the total incarcerated felon population (at fiscal year end) grew from 15,038 in FY 1992-93 to 26,551 in FY 2006-07, an increase of 76.6%. The average annual change over the last 15 years was 4.2%. While the population decreased during FY 2005-06, it increased 1.7% in FY 2006-07.

- The population incarcerated in a TDOC facility grew from 11,106 in FY 1992-93 to 19,341 in FY 2006-07, an increase of 74.1%. It should be noted that the population in TDOC facilities declined during FY 2006-07 for the second straight year and represents the lowest population since FY 2001-2002.
- TDOC backup, although fluctuating over the last fifteen years, was 80.1% higher in FY 2006-2007 than in FY 1992-93, increasing from 1,123 in June 1993 to 2,023 by June 2007.

After declining 19.3% during FY 2005-06, TDOC backup increased 8.0% during the past fiscal year (from 1,874 to 2,023).

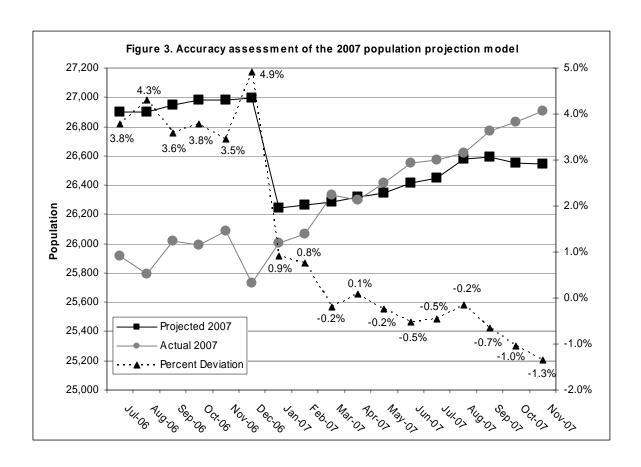
Locally sentenced felons have increased 84.7% from 2,809 at the end of FY 1992-93 to 5,187 at the end of FY 2006-07 and 7.9% (from 4,807 to 5,187) between FY 2005-06 and FY 2006-07.



The January 2007 Projection Model

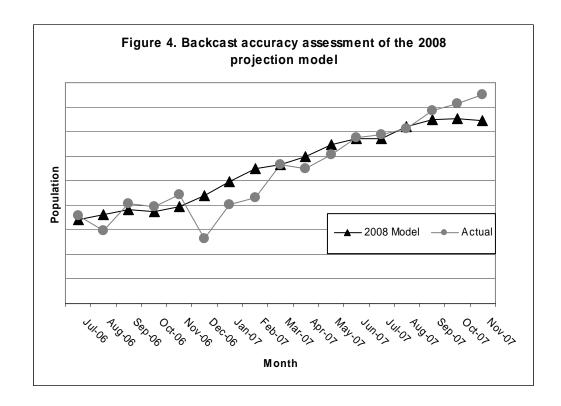
The 2007 model performed well within the Department's annual standard of model accuracy of +/-2% margin of error. Few modifications were needed to ensure the accuracy of the Tennessee population projection model in 2008. The average monthly error rate for the January 2007 model (from January 2007 through December 2007) was -0.1%. The generally desired range of monthly variation of +/-2.0% was not exceeded during CY 2007. The population was *more* than projected in 7 months during this period, indicating the model <u>underestimated</u> the expected population for the year. The actual population was an average of 37 persons higher per month than was projected.

The dotted line in the figure 3 (values reflected on the right hand axis) shows the margin of error between the actual and projected population for the January 2007 projection model.

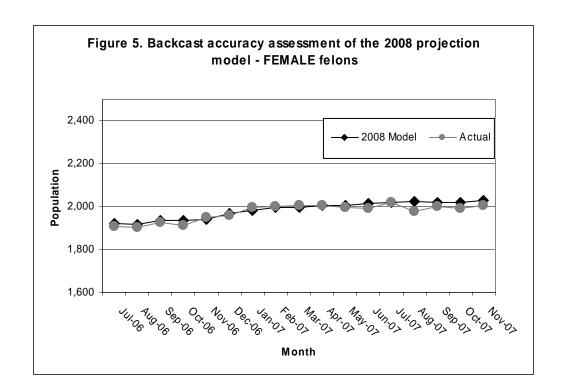


The January 2008 Projection Model

In contrast to the January 2007 model, Figure 4 presents an accuracy assessment of the <u>new January 2008 felon population projection model</u> when "backcast", or compared to the prior year's population figures. The "backcast" uses the current model to retrospectively project data from the last fiscal year to the actual population figures during the same period. This process acts as an accuracy check on the current model. The overall fit of the current model to the prior year data provides an average monthly margin of error of 0.1%.



As was mentioned in the discussion of model assumptions, the female felon inmate population increased 3.5% during FY 2006-07. However, modifications were not necessary for the 2008 projection model as the 2007 model performed well. The overall fit of the January 2007 model to the prior fiscal year data has an average monthly margin of error of 0.6% (see Figure 5).



Population Trends

Table 7 and the corresponding graphic representation, Figure 6, detail the historical and the 12-year projected growth in the Tennessee felon population using the new January 2008 projection model. The incarcerated population is expected to increase 11.7% from June 2008 through June 2019 (from 26,849 in FY 2007-08 to 29,983 in FY 2018-19). The average annual percent change of 1.0% over the projection period is substantially lower than the 4.2% annual percent change seen during the past 15 years.

Tennessee, like many other states across the nation, is clearly showing a lower growth rate than in past years. However, the reader is cautioned to note that while there is a projected decrease in the rate of growth, this population is still expected to grow or increase by 3,134 persons over the next 12 years.

Male Felons

According to the 2008 projection model, the male felon population is expected to increase 11.1% from FY 2007-08 to FY 2018-19 (from 24,786 to 27,541). The average annual projected change of 1.0% is considerably lower than the male felon growth rate in the past 15 years (4.0%).

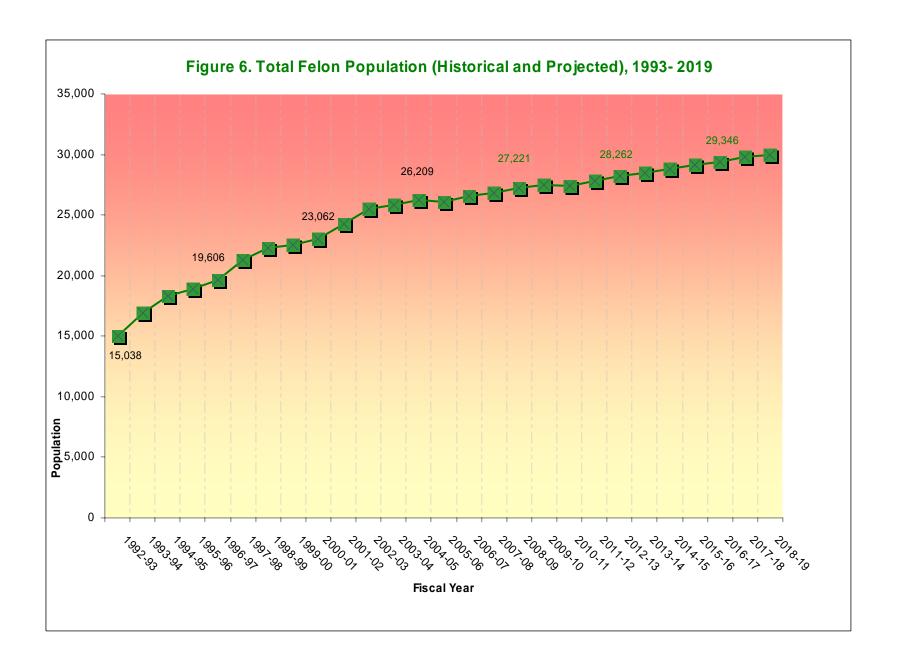
Female Felons

This projection model forecasts a slightly higher overall growth rate for female inmates as compared to the former forecasting model. The 2007 model projected a female felon population of 2,312 in FY 2018-19. During the 12 year projection period, this population is expected to increase by 18.4% (from 2,063 in FY 07-08 to 2,442 in FY 2018-19). As we have seen in previous forecasting models, the female felon population is projected to grow at a higher rate than the male population, with a projected average annual change of 1.7%. This projected annual percent change is significantly smaller than the average annual percent change between FY 1992-93 and 2006-07 (7.3%).

The female population has historically shown a considerably greater growth rate than the male population (see Table 7). The number of incarcerated female felons in Tennessee has increased 149.7% over the 15-year period since FY 1992-93, with an average annual growth that is almost double that of male felons (7.3% vs. 4.0%, respectively). According to the January 2008 projection model however, this disparity in growth rates between the genders will continue to narrow (1.0% vs. 1.7% respectively).

Table 7. Historical and Projected Population Trends, FY 1993-2019

		Populatio	n and % chang	ge at fiscal y	ear-end	Population and % change at fiscal year-end							
Fiscal Year	Total	%	Male	%	Female	%							
	Population	Change	Population	Change	Population	Change							
1992-93	15,038		14,240		798								
1993-94	16,884	12.3%	16,187	13.7%	697	-12.7%							
1994-95	18,300	8.4%	17,460	7.9%	840	20.5%							
1995-96	18,922	3.4%	18,107	3.7%	815	-3.0%							
1996-97	19,606	3.6%	18,506	2.2%	1,100	35.0%							
1997-98	21,286	8.6%	20,050	8.3%	1,236	12.4%							
1998-99	22,287	4.7%	20,980	4.6%	1,307	5.7%							
1999-00	22,539	1.1%	21,131	0.7%	1,408	7.7%							
2000-01	23,062	2.3%	21,591	2.2%	1,471	4.5%							
2001-02	24,235	5.1%	22,637	4.8%	1,598	8.6%							
2002-03	25,469	5.1%	23,673	4.6%	1,796	12.4%							
2003-04	25,865	1.6%	23,973	1.3%	1,892	5.3%							
2004-05	26,209	1.3%	24,251	1.2%	1,958	3.5%							
2005-06	26,110	-0.4%	24,184	-0.3%	1,926	-1.6%							
2006-07	26,551	1.7%	24,558	1.5%	1,993	3.5%							
Numeric change FY													
1992-93 to FY 2006-07	11,513		10,318		1,195								
Percent change FY 1992-9			10,010		1,100								
2006-07	00 10 1	76.6%		72.5%		149.7%							
MEAN annual percent cha	nge	4.2%		4.0%		7.3%							
2007-08	26,849	1.1%	24,786	0.9%	2,063	3.5%							
2008-09	27,221	1.4%	25,075	1.2%	2,146	4.0%							
2009-10	27,519	1.1%	25,320	1.0%	2,199	2.5%							
2010-11	27,388	-0.5%	25,169	-0.6%	2,219	0.9%							
2011-12	27,825	1.6%	25,607	1.7%	2,218	0.0%							
2012-13	28,262	1.6%	25,969	1.4%	2,293	3.4%							
2013-14	28,494	0.8%	26,215	0.9%	2,279	-0.6%							
2014-15	28,793	1.0%	26,523	1.2%	2,270	-0.4%							
2015-16	29,117	1.1%	26,801	1.0%	2,316	2.0%							
2016-17	29,346	0.8%	26,973	0.6%	2,373	2.5%							
2017-18	29,768	1.4%	27,383	1.5%	2,385	0.5%							
2018-19	29,983	0.7%	27,541	0.6%	2,442	2.4%							
Numeric change FY	20,000	J.1. 70	2.,011	0.070	_,								
2007-08 to FY 2018-19	3,134		2,755		379								
Percent change FY 2007-0			2,.00		0.0								
2018-19		11.7%		11.1%		18.4%							
MEAN annual percent cha	nge	1.0%		1.0%		1.7%							



January 2007 vs. January 2008

Figure 7 presents a comparison of the fiscal year-end average of the total incarcerated population presented in the January 2007 projection model and the new January 2008 population projection model. The dotted line graphically represents the difference between the models.

The models have similar trajectories throughout the projection period and it assumes a slightly higher rate of growth than the 2007 model. Both models project an increase in inmate population for males and females through 2019, however, the 2008 model projects a slightly higher overall growth for females and a slightly lower overall growth for males than did the 2007 model (for a more detailed comparison please refer to table 8).

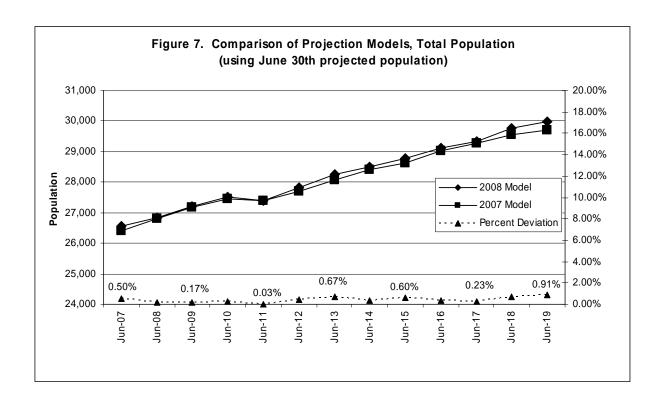


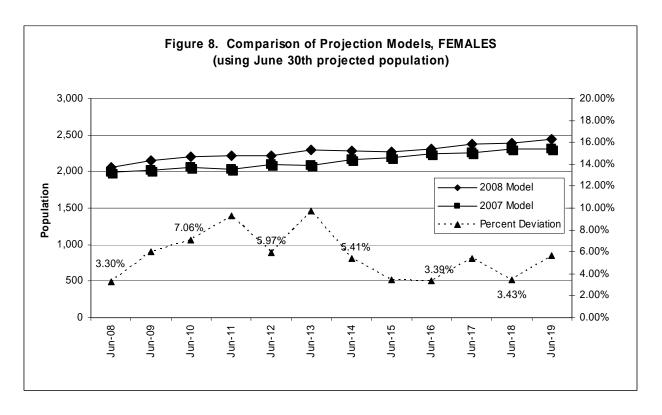
Table 8. Population Projection 2007 and 2008 Model using Fiscal Year-End Totals

	-	Ма	les		Females			
Fiscal Yr	2007	2008 Difference % diff		% diff	2007	2008	Difference	% diff
2008	24,796	24,786	-10	-0.04%	1,997	2,063	66	3.30%
2009	25,150	25,075	-75	-0.30%	2,024	2,146	122	6.03%
2010	25,395	25,320	-75	-0.30%	2,054	2,199	145	7.06%
2011	25,349	25,169	-180	-0.71%	2,031	2,219	188	9.26%
2012	25,617	25,607	-10	-0.04%	2,093	2,218	125	5.97%
2013	25,984	25,969	-15	-0.06%	2,089	2,293	204	9.77%
2014	26,241	26,215	-26	-0.10%	2,162	2,279	117	5.41%
2015	26,427	26,523	96	0.36%	2,194	2,270	76	3.46%
2016	26,774	26,801	27	0.10%	2,240	2,316	76	3.39%
2017	27,029	26,973	-56	-0.21%	2,251	2,373	122	5.42%
2018	27,260	27,383	123	0.45%	2,306	2,385	79	3.43%
2019	27,402	27,541	139	0.51%	2,312	2,442	130	5.62%

		Total				
Fiscal Yr	2007	2008	Difference	% diff		
2008	26,793	26,849	56	0.21%		
2009	27,174	27,221	47	0.17%		
2010	27,449	27,519	70	0.26%		
2011	27,380	27,388	8	0.03%		
2012	27,710	27,825	115	0.42%		
2013	28,073	28,262	189	0.67%		
2014	28,403	28,494	91	0.32%		
2015	28,621	28,793	172	0.60%		
2016	29,014	29,117	103	0.36%		
2017	29,280	29,346	66	0.23%		
2018	29,566	29,768	202	0.68%		
2019	29,714	29,983	269	0.91%		

Table 8 shows that for the male population, the new projected population totals are only slightly lower in the 2008 model. The 2008 model has an average annual difference, or decrease, of 5 felons when compared to the 2007 model.

New projection estimates for the female felon population are higher than what was projected in the 2007 model (please see Figure 8). The 2008 model reflects an average annual difference, or increase, of 121 female felons as compared to the 2007 model.



CAPACITY

The following assumptions must also be kept in mind when considering capacity and bed demand:

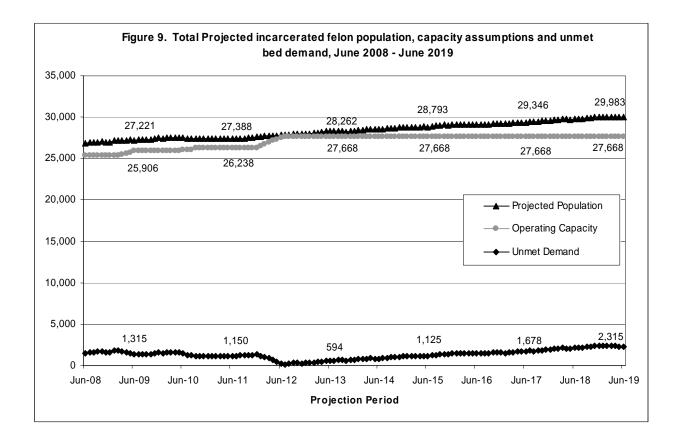
- 1. TDOC felons backed up in local jails with valid judgment orders and meeting the 14-day requirement are accounted for in capacity needs.
- 2. A capacity of 4,282 beds in jails throughout Tennessee for locally sentenced felons has also been added to the department's anticipated capacity.
- 3. All planned and *funded* TDOC building projects in the next 12 years are included in capacity assumptions unless stated otherwise.

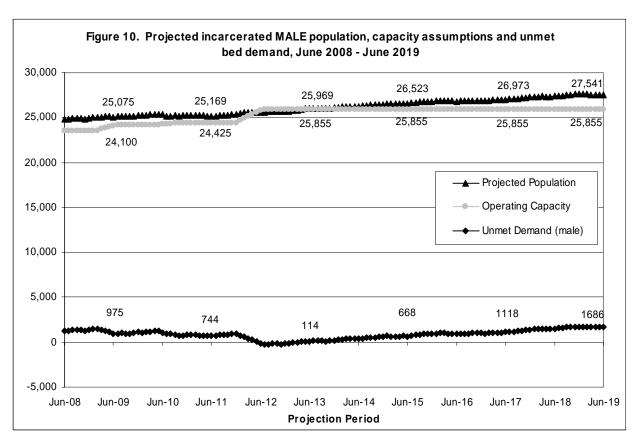
Based on these assumptions (see Table 9), the data show that the <u>unmet demand (or more persons than available beds) will reach 1,433 by June 2010 (1,040 males and 393 females)</u>. *Even if the additional 2,557* operational beds that are planned by mid 2012 are completed as planned, the unmet demand will still be 1,125 (668 males and 457 females) by the end of FY 2015.

By June 2017, this unmet demand figure will increase to 1,678 (1,118 male and 560 female) even if the planned expansions are completed as planned. This figure increases to 2,315 (1,686 males and 629 females) by June 2019.

Figures 9-11 graphically represent the relationship among the felon population and the Department of Correction's operating capacity (including estimated local jail capacity) with funded expansions (see Table 4) through June 2019. The unmet demand, or the difference between the projected population and the Department's operational capacity, is graphically represented at the bottom of the charts.

The population is expected to increase 11.7% over the next 12 years. Due to population growth expectations, the Department of Correction in cooperation with the Board of Probation and Parole is tasked with planning for the housing, programming, medical and psychological treatment, and community reentry of an increasing number of felon inmates. The Department is committed to exploring innovative, best-practice options that result in positive outcomes in other states to supplement and even replace additional prison bed construction.





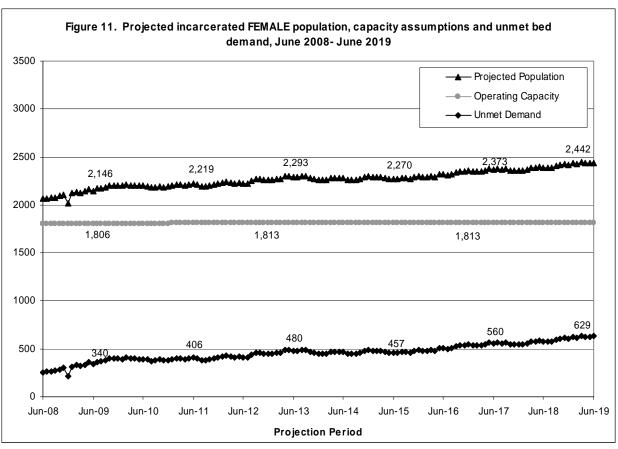
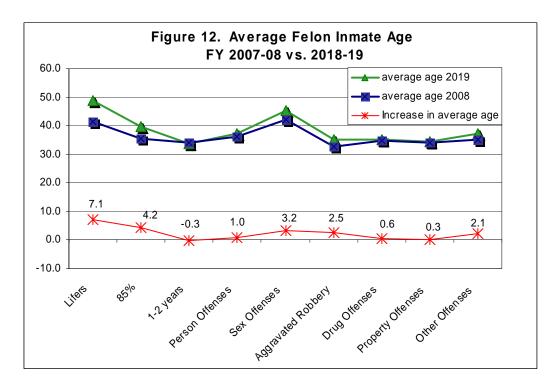


Table 9. Unmet Demand and Projected Incarcerated Felon Population, Total – Male & Female, 2008-2019

Date	Funded Projects	# MALE beds added*	# FEMALE beds added*	TOTAL beds added	Male Projections	Female Projections	Total Projections	Male OpCap	Female OpCap	Total OpCap	Unmet Male	Unmet Female	Unmet Total
Jun-08	Morgan County Minimum	238		238	24,786	2,063	26,849	23,543	1,806	25,349	1,243	257	1,500
Jun-09	Morgan County	591		591	25,075	2,146	27,221	24,100	1,806	25,906	975	340	1,315
Jun-10	West Tennessee Annex	146		146	25,320	2,199	27,519	24,280	1,806	26,086	1,040	393	1,433
Jun-11	Turney Center Annex, Tennessee Prison for Women Annex	145	7	152	25,169	2,219	27,388	24,425	1,813	26,238	744	406	1,150
Jun-12	STSRC	1,430		1,430	25,607	2,218	27,825	25,736	1,813	27,549	(129)	405	276
Jun-13					25,969	2,293	28,262	25,855	1,813	27,668	114	480	594
Jun-14					26,215	2,279	28,494	25,855	1,813	27,668	360	466	826
Jun-15					26,523	2,270	28,793	25,855	1,813	27,668	668	457	1,125
Jun-16					26,801	2,316	29,117	25,855	1,813	27,668	946	503	1,449
Jun-17					26,973	2,373	29,346	25,855	1,813	27,668	1,118	560	1,678
Jun-18					27,383	2,385	29,768	25,855	1,813	27,668	1,528	572	2,100
Jun-19					27,541	2,442	29,983	25,855	1,813	27,668	1,686	629	2,315
TOTAL	-	2,550	7	2,557									

AGE PROJECTIONS

Due to the general character of the criminal lifestyle and the behaviors associated with such a high-risk life-course, the life spans of felon inmates are significantly lower than the general population. As a result of the truncated life of felon inmates, inmates aged fifty (50) years and over are considered to be elderly by TDOC.



The two offense groups with the largest average forecasted age increases over the next thirteen (13) years are lifers with a projected increase of 7.1 years and the 85% offense group with a projected increase of 4.2 years (see Figure 12). In 2008 through 2019, lifers appear to have the highest average age (41.6 in 2008 and 48.7 in 2019). Turning to gender differences, male inmates show a higher average age increase over the projected period (from 36.3 year to 37.9 years) than female inmates (from 34.9 years to 35.9 years).

In terms of the actual increase in the number of persons 50 or older, it is anticipated that TDOC will have approximately 771 *additional* elderly offenders by 2019. The majority of these older offenders will be male (694 additional males over 50 years of age and 77 additional females over 50 years of age). Although the inmate population 50 years and over is increasing at a moderate rate (Table 10) any anticipated growth in this population requires appropriate planning due to the resources required to meet their additional needs (additional medical staff, pharmaceuticals, medical equipment and treatment, etc.).

By 2012, the 50+ aged inmate population is projected to comprise 11.0% of all incarcerated felons (11.2% males; 8.1% females). The rate of growth is expected to be gradual with 12.3% of the total population achieving 50+ age status in 2019 (12.5% males; 9.6% females).

Table 10. Number of Forecasted Offenders Aged 50+

	2007- 08	2008- 09	2009- 10	2010- 11	2011- 12	2012- 13	2013- 14	2014- 15	2015- 16	2016- 17	2017- 18	2018- 19
MALE	2,755	2,769	2,771	2,842	2,870	3,014	3,115	3,152	3,316	3,329	3,385	3,449
FEMALE	158	166	172	176	179	180	189	197	206	217	231	235
Total	2,913	2,935	2,943	3,018	3,049	3,194	3,304	3,349	3,522	3,546	3,616	3,684

¹TDOC expansion plans include the addition of 2,557 operational beds (Morgan County Correctional Facility expansion to be completed in mid 2009, and annex expansions at West Tennessee State Penitentiary and Turney Center, replacement of the annex at the Tennessee Prison for Women, and the new facility in Bledsoe County).

² The Mid-Year assessments are dependent upon an average margin of error of the projections of ±2% from the actual population figures. If the average deviation over the period is greater than ±2%, the projection assumptions are reviewed and the models are recast.

³ The National Council on Crime and Delinquency (NCCD) prepared inmate population forecasts for the

³ The National Council on Crime and Delinquency (NCCD) prepared inmate population forecasts for the Tennessee Department of Correction (TDOC) from 1986 through 2000. Between the spring of 2000 and 2004, the <u>Institute on Crime, Justice and Corrections (ICJC)</u> at George Washington University held the contract to conduct the forecasts. In 2004 the primary members of the ICJC created JFA Associates and this agency held the accepted bid for TDOC's felon population projection services contract.

⁴ The Wizard 2000 Simulation model is a stochastic entity simulation model. The model simulates the movement of individual cases entering and exiting the Tennessee prison system. The Monte Carlo statistical technique is used to incorporate randomness into the projection model in the form of offender group composition and lengths of stay. The individual cases are simulated through the system based on probability matrices developed by the consultant(s) and TDOC's Policy, Planning, and Research Unit. Essentially, the model mimics the flow of offenders through the Tennessee Criminal Justice System (JFA Associates, Technical Proposal for Population Projection Services, 2004).

⁵ The Assumptions Committee is made up of representatives from the Office of Criminal Justice Programs, Board of Probation and Parole, Governor's Office, Tennessee Bureau of Statistics, Administrative Office of the Courts, and relevant TDOC leadership.

⁶Systemwide refers to felons incarcerated in TDOC facilities, those sentenced to TDOC facilities and temporarily housed in local facilities, and those sentenced to and incarcerated in local facilities.

⁷ New admissions (or new court commitments) are felons sentenced to incarceration based on a new conviction. New admissions may include felons who have expired their sentence or supervision conditions (i.e., they are not under community supervision, e.g., parole).

⁸ Violators returned are felons who have been under community supervision but have been reincarcerated because of new offenses or technical violations of the terms of their supervision.

⁹TDOC Operating Capacity is based on the number of total beds available and the designated use of certain beds. The operating capacity indicates the population that should be assigned to the institution on a regular basis. The underlying logic is to exclude from capacity beds for special purposes, e.g., medical or mental health reasons, disciplinary segregation, or protective custody. The Department's operating capacity is currently set at 98% of total beds available.

¹⁰ The TBI and the FBI have worked together to categorize Tennessee's legal code according to the NIBRS system of offense classification. Further detail can be obtained through either the TDOC or TBI web-sites.