Future Felon Population of the State of Tennessee FY 2005-2006

2005-2017 Felon Population Projections



Tennessee Department of Correction

Presented before the Select Oversight Committee on Corrections

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

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> Population Projections · January 2006 Model Tennessee Department of Correction

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 2005 felon population projection model revealed that the model performed well (1.3% average monthly deviation from January 2005-November 2005). During a mid-year assessment in September 2005, it was determined that as of July 1, 2005, the projected population figures generated by the model deviated from the actual felon population in Tennessee by an average of only 0.98%. At this time it was decided that no mid-year recast was necessary as the model was performing well within the acceptable range of +/-2%. The model continued to perform well during the second half of the projection year (July-November 2005), never surpassing the +/-2% range that indicates a high level of accuracy.

Incarcerated Felon Population Projections

Total Population: During the past fiscal year, the incarcerated felon population (including TDOC backup and locally sentenced felons) grew from 25,865 in June 2004 to 26,209 in June 2005, an increase of 1.3%.

Over the past 15 years (1991-2005) the total incarcerated population has increased 87.5% (from 13,975 to 26,209), with a mean annual change of 4.3%.

Over the *next* 12 fiscal years (through June 2017), Tennessee's incarcerated population is projected to increase a total of 19.1% (from 26,800 to 31,910) with a mean annual change of 1.7%.

Projections by Gender

Males: The overall growth rate for male felons for the 12-year projection period is projected to be 18.9% (increasing from 24,725 in July 2005 to 29,400 in June 2017).

Females: The anticipated growth rate for female felons is higher, with a 21.0% increase expected during the 12-year projection period (from 2,075 in July 2005 to 2,510 in June 2017).

Unmet Bed Demand:

UNMET DEMAND = Projected Felon Population – Planned Capacity

Where

<u>Planned Capacity</u> = Number of TDOC beds available + (1,025 county jail beds for back-up felons + 4,125 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 bed*s*) is currently projected to be 2,812 by June 2008. If the planned Morgan County expansion of approximately 830 operational beds is completed by midyear 2008, the unmet bed demand will still be 4,718 in June 2013 and 6,261 in June 2017.

If the planned new construction is not completed, the unmet demand is projected to be 5547 by June 2013 and will reach 7,090 by June 2017.

Males: When broken down by gender, the unmet bed demand is projected to be 2,304 by June 2008. By June 2017, *assuming the Morgan expansion is online*, it is anticipated that unmet capacity for males will reach 5,467.

Females: There is currently no increase in bed capacity funded for female inmates. The unmet bed demand for females is projected to be 508 by June 2008 and 794 by 2017.

Admissions: Compared to FY 2003-2004, total TDOC felon admissions for FY 2004-2005 increased by 1.3%. This increase followed a 4.2% increase in admissions that was seen from FY 2003 to FY2004. In FY 04-05, new court commitments decreased by 1.4% as opposed to the 4.6% increase seen during the previous fiscal year. The number of probation and parole violators returned increased significantly (5.6%) during this period.

Projected Admissions: Continued growth in new court commitments is expected over the next twelve years, at a low rate of average annual percent change of about 1.5% per year, with an overall increase of 15.3% between 2006 and 2017. Growth in probation and parole violator returns is also expected over the next twelve years, with an average annual percent change of 1.6% during the projection period, for a total increase of 20.7% between fiscal years 2006 and 2017.

Releases: Releases increased 4.7% from the previous fiscal year (FY 2003-04), with releases to probation or community corrections increasing 2.5%, releases for expiration of sentence and other increasing 3.5%, and releases to parole showing an increase of 10.5%.

Projected Releases: Over the next twelve years, it is anticipated <u>that all releases</u> (parole, probation & community corrections, expiration of sentence, and other) will

increase by approximately 17.8%, with an average annual percent change of about 1.1% each year.

Probation and community corrections release rates are projected to increase about 11.9% between 2006 and 2017 while releases for expiration of sentence and other are expected to increase approximately 18.2% between 2006 and 2017. The growth rates projected for these two categories of release are significantly lower than their historic pattern of growth at 149.2% and 284.1% respectively.

Parole Grant Rate: During FY 2004-05, the average parole grant rate was 29.5%, up slightly from the prior year's grant rate of 27.5%.

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 27.4% over the next twelve years, with an average annual change in parole releases of 2.7%.

Inmate Age Projections

- The two offense groups with the largest average forecasted age increases over the next twelve (12) years are lifers with a projected increase of 7.3 years and aggravated robbery with a projected increase of 4.2 years.
- <u>Male inmates show a higher average age increase over the projected period</u> (from 35.6 year to 37.9 years) than female inmates (from 35.7 years to 37.2 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).

In September, the January 2005 model was assessed for accuracy. It was determined that the projected population figures generated by the model deviated from the actual incarcerated population by an monthly average of only 0.98% through mid-year (January-June 2006), thereby meeting the established standards of model accuracy (+/-2%). It should also be noted that in January 2005, the projected felon population differed from the actual population by 0.1%. Indeed, the numbers only differed by 27 inmates (26,136 projected and 26,163 actual).

During the next five (5) months (July 2005 – November 2005), the overall model still performed well with an average difference between projected and actual inmate population of approximately 1.4%.

Overall, the January 2005 projection model performed well within the acceptable standard of model accuracy, showing a 1.1% deviation between the number of projected felons and the actual felon population in CY 2005. However, eight out of eleven months showed a deviation greater than 1.0%. In fact, the difference reached 1.6% in July. The continued increases in deviations seen between June and November indicated a need to take a closer look at the models underlying assumptions prior to the 2006 projection model

Although the 2005 projection model performed well overall, it was determined that the assumptions for the <u>female felon</u> population needed to be adjusted once again to reflect the continued rate of population increases that Tennessee has experienced over the past few model years. While the growth in female felons nationwide has stabilized or reduced its rate of growth, Tennessee's female felon population has not performed similarly.

The model deviated from the actual female felon population by an average of 2.0% between January and October 2005. Further, the model underestimated the female felon population for seven (7) months during the same time period.

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 2005.

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 2005 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 <u>felons sentenced to incarceration for one year or more</u>. 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 2005 model was extracted from TOMIS for the period July 1, 2004 through June 30, 2005 in order to provide the most current patterns and trends of the

offender population. The data reflect characteristics of the stock population and admission and release patterns 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 especially key 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. <u>The most fundamental principle inherent to</u> this or any projection model is that current sentencing and release practices will remain <u>constant over the projection period</u>. The impact of unconfirmed future events such as the felon population implication resulting from Tennessee's adaptation to the recent Supreme Court ruling regarding sentence enhancements in jury trials were 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 2005 General Assembly. A review of the legislation enacted during the 2005 General Assembly sessions indicated that there were a number of Public Acts passed that could influence either sentencing structure or future felon populations. While no substantive changes were assumed in this model, TDOC will closely monitor statute changes regarding sex offenders, and methamphetamine users. Other changes that will be closely monitored include child abuse and neglect, stalking, sexual battery, spousal rape, drug-free zones, and any changes resulting from recent Blakely provisions. At present, these felony offense populations are not expected to have a significant effect on our felon population. However, due to the level of legislative interest in these populations, we will watch for any population effects and make necessary changes during the mid-year model assessment.
- 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 capacity. TDOC utilized an average capacity assumption of 4,000 for the January 2005 model bed demand determination. There has been a

great deal of growth in the size of this population over the past decade and as a result, the committee agreed to increase this assumption for the 2006 model, using 4,125 as the locally sentenced capacity for this model. Based on data from the past four (4) fiscal years, the locally sentenced felon population is estimated to be approximately 16.6% 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 8.8% of the total Tennessee felon population.
- 4. **Admissions.** Total admissions system-wide⁶ remained high during FY 2004-05 at 13,878. After seeing a decrease of 2.6% from FY 2002 to FY 2003, admissions then increased 4.2%, for FY 2003 and FY 2004, and 1.3% from FY 2004 to FY 2005. For a more detailed description of historic and projected admissions, please refer to Table 1.
 - New Commitments⁷. New commitments for FY 2004-05 decreased slightly (1.4%) compared to FY 2003-04. In fact, there were fewer new commitments system-wide in FY 2004-05 than in any year since FY 1998-99, with the exception of FY 2002-03. There were no adjustments to this key assumption in the January 2006 projection model.
 - **Parole and Probation Violators**⁸. With the exception of FY 2002-03, there has been a relatively consistent increase in violators returning to TDOC during the past five (5) fiscal years. In fact, there was a 5.6% increase during this past fiscal year (2004-05).

Changes were made to the 2006 projection model to reflect past trends in parole and probation violator returns as well as expected future increases. Recent implementation of electric monitoring of sex offenders by the Tennessee Board of Probation and Parole is expected to result in even higher return rates for parole and probation violators. Finally, changes to this assumption were needed to account for the 6.9% difference in projected and actual violator admissions for FY 2004-05.

Table 1. Historical and Projected Admissions, 1991-2017

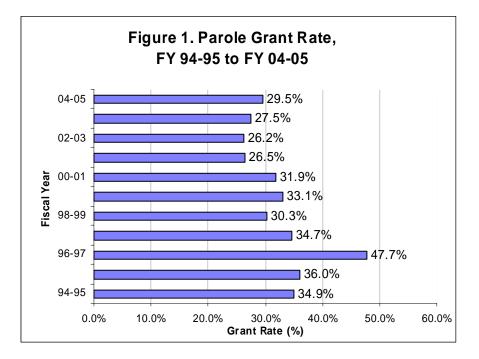
Fiscal year	New commitments	Violators returned	Total admissions
1990-91	6,438	2,471	8,909
1991-92	6,565	2,546	9,111
1992-93	6,842	3,209	10,051
1993-94	6,104	3,700	9,804
1994-95	6,358	3,907	10,265
1995-96	6,761	3,986	10,747
1996-97	7,642	4,762	12,404
1997-98	8,284	5,153	13,437
1998-99	8,107	4,954	13,061
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	8,320	5,558	13,878
Numeric change 1991-2005	1,882	3,087	4,969
Percent change 1991-2005	29.2%	124.9%	55.8%
Average annual % change	2.0%	6.3%	3.3%
	1		
2005-06	8,616	5,595	14,211
2006-07	8,728	5,760	14,488
2007-08	8,841	5,829	14,670
2008-09	8,956	5,925	14,881
2009-10	9,073	6,012	15,085
2010-11	9,190	6,119	15,309
2011-12	9,310	6,223	15,533
2012-13	9,431	6,303	15,734
2013-14	9,554	6,420	15,974
2014-15.	9,678	6,526	16,204
2015-16	9,804	6,636	16,440
2016-17	9,931	6,751	16,682
Numeric change 2006 - 2017	1,315	1,156	2,471
Percent change 2006-2017	15.3%	20.7%	17.4%
Average annual % change 2006-2017	1.5%	1.6%	1.6.%

* Does not include Interstate Compact or Escape returns

- Releases. Total releases increased by 4.7% between FY 2003-04 and FY 2004-05. For FY 2004-05, the difference between actual and projected total releases was 2.7%. 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 increased between FY 2003-04 and FY 2004-05, with probation and community correction releases increasing by 2.5% and expiration of sentence releases increasing by 3.5%. In FY 2004-05, actual probation and community corrections releases differed from projected releases by 4.9% and only 2.2% for expiration of sentences and other. Because the projections regarding these two categories of releases in the 2005 model were in line with the actual number of releases during the past fiscal year, no assumptions were modified for the January 2006 model.
 - Release to Parole. Releases to parole increased 10.5% between FY 2003-04 and FY 2004-05, marking two consecutive annual increases in this category. In FY 04-05, the average parole grant rate was 29.5%, up slightly from the prior year's grant rate of 27.5%, making it the highest grant rate in the past four years (for a graphic illustration of historical parole grant rate, please see Figure 1). Actual parole releases were 3.8% more than projected in FY 2004-05. Given the recent stabilization in this difference over the past two fiscal years, there were no changes to the assumptions for parole releases for the 2006 projection model.

Table 2. Historical and Projected Releases, 1991-2017

		Probation &		
Fiscal year	Parole	Community	Expiration and Others	Total Releases
		Corrections	Others	
1990-91	4,604	2,241	1,330	8,175
1991-92	5,263	2,538	1,345	9,146
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	3,702	4,897	4,387	12,986
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	4,695	12,893
2003-04	3,208	5,449	4,935	13,592
2004-05	3,544	5,584	5,109	14,237
			-	
Numeric change 1991-2005	-1,060	3,343	3,779	6,062
Percent change 1991-2005	-23.0%	149.2%	284.1%	74.2%
Average annual % change 1991-2005	-0.5%	7.1%	10.5%	4.3%
2005-06	3,940	4,218	5,550	13,708
2006-07	4,151	4,071	5,617	13,839
2007-08	4,281	4,222	5,780	14,283
2008-09	4,307	4,226	5,738	14,271
2009-10	4,434	4,187	5,940	14,561
2010-11	4,535	4,206	5,986	14,727
2011-12	4,584	4,237	6,158	14,979
2012-13	4,595	4,379	6,292	15,266
2013-14	4,707	4,482	6,303	15,492
2014-15	4,720	4,504	6,597	15,821
2015-16	4,896	4,626	6,504	16,026
2016-17	4,871	4,721	6,559	16,151
Numeric change 2006-2017	931	503	1,009	2,443
Percent change 2006-2017	23.6%	11.9%	18.2%	17.8%
Average annual % change 2006-2017	2.7%	-1.1%	2.1%	1.1%



In Table 3, parole grant rates for FY 2004-05 are broken down by offense group. Parole rates for all felon inmates in Tennessee were relatively low during the past fiscal year and were not equally distributed among offenses.

		ł	Hearing Nun	nber			Mean Wait			
Model Group	4		Ŭ		-	Overall	Time			
	1	2	3	4	5		(months)			
1.16	40.00/	44.00/	MALE		00.00/	00 50/	05.0			
Lifer	13.6%	44.6%	46.4%	23.5%	22.2%	28.5%	25.3			
85% Person										
85% Sex										
85% Agg Robbery										
Person A,B	10.0%	32.5%	32.9%	27.1%	31.0%	24.9%	24.5			
Person C	4.7%	27.1%	29.2%	20.0%	30.0%	14.8%	15.7			
Person D,E	13.8%	28.1%	18.2%	60.0%	100.0%	20.8%	10.0			
Sex A,B	5.1%	3.0%	2.9%	100.0%	12.5%	5.1%	41.8			
Sex C,D,E	1.0%	13.3%	33.3%			4.3%	17.4			
Agg Robbery A,B	5.3%	31.7%	40.8%	32.5%	31.7%	23.3%	18.0			
Agg Robbery C,D,E	7.8%	44.0%	20.0%	33.3%	33.3%	19.5%	11.4			
Drug A,B	15.0%	54.8%	52.9%	42.6%	38.3%	34.5%	15.6			
Drug C,D,E	21.7%	46.1%	37.7%	39.3%	47.8%	29.7%	10.0			
Prop A,B	15.4%	35.7%	36.4%	33.3%	20.0%	25.8%	13.1			
Prop C	14.0%	39.3%	36.6%	34.5%	31.1%	25.5%	13.5			
Prop D,E	18.3%	47.9%	32.3%	42.9%	38.7%	28.6%	11.9			
Other A,B	12.0%	48.5%	34.5%	37.5%	14.3%	30.1%	11.3			
Other C	16.5%	36.2%	25.0%	12.5%	25.0%	22.7%	11.2			
Other D,E	21.1%	39.4%	41.2%	36.8%	37.5%	28.0%	13.7			
	21.170		-	-	01.070	20.070	Mean Wait			
Model Group	Hearing Number					Overall	Time			
	1	2	3	4	5		(months)			
FEMALE										
Lifer										
85%										
Person A,B	12.5%	33.3%	14.3%	50.0%	42.9%	24.4%	29.8			
Person C,D,E	20.4%	36.4%	25.0%	100.0%	0.0%	25.9%	13.2			
Sex	0.0%					0.0%	59.8			
Agg Robbery	11.8%	48.1%	72.7%	0.0%	0.0%	33.3%	18.2			
Drug A,B	26.3%	71.4%	46.2%	83.3%	50.0%	43.2%	13.0			
Drug C,D,E	28.2%	59.4%	53.8%	50.0%		38.0%	11.4			
Prop A,B	20.0%	75.0%	100.0%			60.0%	18.0			
Prop C,D,E	22.1%	63.9%	46.0%	41.2%	66.7%	38.4%	11.6			
Other A,B	34.8%	71.4%	100.0%	0.0%	50.0%	44.4%	16.2			
Other C,D,E	26.7%	54.4%	60.0%	25.0%		35.5%	8.3			
Missing	16.3%	35.5%	30.0%	50.0%	100.0%	24.5%	14.8			
Total	14.1%	39.7%	36.6%	31.7%	30.6%	25.1%	15.7			

Table 3. Parole Grant Rates by Model Group, FY 2005

6. Capital Projects and Renovations. Projects and renovations that are currently funded and scheduled for completion through the projection period (June 2017) will produce a net operating gain of 830 new beds (838 increase in total institutional capacity) in Tennessee. TDOC's operating capacity as of December 2005 was approximately 19,670. TDOC's total operating capacity could increase to 20,500 during the projection period.⁹

Facility	Operating Capacity Increase*	Planned Completion
	(raw # of additional beds)	Date
Morgan County Expansion/New	830 (838)	Middle 2008
TOTAL	830 (838)	

Table 4. Funded TDOC Expansions

* Operating capacity is currently set at 99% of total beds available.

7. Female Population Considerations. Tennessee has seen a steady increase in the rate of growth for the female felon population over the past several years. This was first thought to be a short-term trend that would level out as it had in many states in the U.S. However, Tennessee has not seen this expected decrease in the female felon population growth. Changes were made for the 2005 projection model to account for 2003-04 model disparities and a steady increase in the female felon population on a slightly higher trajectory than was presented in the December 2002 model.

The female population continued to grow at a higher rate than projected in the 2005 model. Modifications were made in the 2006 projection model to reflect this continued growth. The female felon population has grown 217.9% since FY 1991 with a mean annual percent change of 8.3%. In fact, the female felon population has grown 22.5% in just the past four years. The 2005 model projected an annual growth of 2.1% between FY 2004 and FY 2005; the actual annual growth was 3.5%.

The 2005 model deviated from the actual female felon population by an average of 2.0% between January and November 2005. Further, the model underestimated the female felon population for all but three months during that same period. As a result, it was determined that the assumptions for the female felon population needed to be adjusted once again to reflect the continued rate of population increases.

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.¹⁰

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 projections of these offenders has been one of the most 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 2004 through June 2005. One of the basic assumptions of the projection process is that future admissions will be similar to these population characteristics.

Model Group	Frequency	Percent	Mean Sentence (MO)	Mean Jail Days	% to PED				
			MALE		,				
Lifer	101	0.7%	540.0	629.4	100%				
85% Person	126	0.9%	273.1	644.7	97%				
85% Sex	239	1.7%	173.0	323.6	75%				
85% Agg Robbery	12	0.1%	249.5	844.3	93%				
1-2 yr Person	313	2.2%	21.6	132.7	30%				
1-2 yr Sex	136	1.0%	19.3	101.2	30%				
1-2 yr Agg Robbery	9	0.1%	18.7	236.8	30%				
1-2 yr Drug	439	3.2%	19.8	81.8	30%				
1-2 yr Prop	1,451	10.4%	21.4	104.4	30%				
1-2 yr Other	783	5.6%	19.3	88.1	30%				
Person A,B	213	1.5%	236.9	449.7	32%				
Person C	877	6.3%	67.8	245.4	31%				
Person D,E	137	1.0%	54.8	187.2	32%				
Sex A,B	39	0.3%	161.3	236.4	40%				
Sex C,D,E	145	1.0%	73.1	200.2	33%				
Agg Robbery A,B	778	5.6%	150.9	356.3	29%				
Agg Robbery C,D,E	63	0.5%	73.9	202.6	30%				
Drug A,B	963	6.9%	128.7	177.7	30%				
Drug C,D,E	1,669	12.0%	61.5	128.3	61%				
Prop A,B	41	0.3%	154.0	240.0	31%				
Prop C	1,750	12.6%	73.4	175.4	31%				
Prop D,E	1,122	8.1%	58.4	142.2	32%				
Other A,B	94	0.7%	149.4	347.1	30%				
Other C	163	1.2%	66.4	151.5	30%				
Other D,E	371	2.7%	51.7	123.5	33%				
Lifer	5	0.0%	540.0	742.8	100%				
85%	18	0.1%	196.3	568.6	88%				
1-2 yr Person	49	0.4%	21.1	74.5	30%				
1-2 yr Sex	4	0.0%	21.0	69.0	30%				
1-2 yr Drug	83	0.6%	22.0	64.3	30%				
1-2 yr Prop	410	2.9%	21.4	63.7	30%				
1-2 yr Other	109	0.8%	21.0	81.2	30%				
Person A,B	16	0.1%	183.6	487.6	30%				
Person C,D,E	97	0.7%	55.4	127.0	31%				
Sex	2	0.0%	72.0	0.0	30%				
Agg Robbery	33	0.2%	154.8	263.5	28%				
Drug A,B	101	0.7%	112.4	114.3	30%				
Drug C,D,E	311	2.2%	53.1	88.6	30%				
Prop A,B	4	0.0%	130.5	18.5	30%				
Prop C,D,E	499	3.6%	64.0	103.7	31%				
Other A,B	23	0.2%	161.7	367.5	30%				
Other C,D,E	120	0.9%	56.2	112.2	32%				
Missing	7	0.1%	372.0	1182.7	100%				
TOTAL	13,925	100.0%	73.1	171.1	33%				

Table 5. Tennessee Br	nulation Brainstian	ADMISSION Statistics h	v Condor EV 2005
Table 5. Tennessee Po	opulation Projections	s ADMISSION Statistics b	y Gender, Fit 2005

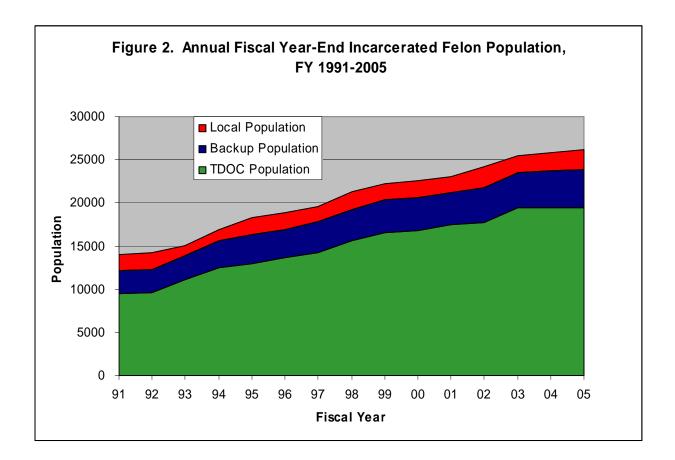
Model Group	Frequency	Percent	Mean Time				ease Type (m	months)								
model eleup	riequency	1 of oon	Served	Expire	Other	Parole	Probation	Community								
			(months)	_				Correction								
			MALE													
Lifer	59	0.4%	296.7	218.0	119.5	304.6										
85% Person	15	0.1%	78.3	81.6	24.0	83.4										
85% Sex	66	0.5%	80.2	84.7	27.2	99.6	50.5									
1-2 yr Person	323	2.3%	9.6	15.5	1.3		7.3	9.9								
1-2 yr Sex	133	1.0%	9.5	16.5	4.0	7.0	7.5	1.5								
1-2 yr Agg Robbery	25	0.2%	9.0	11.6			7.1									
1-2 yr Drug	392	2.8%	8.8	13.7	2.3	23.0	7.0	10.3								
1-2 yr Prop	1,351	9.7%	9.5	14.5	3.1	9.1	7.4	7.1								
1-2 yr Other	791	5.7%	8.7	14.1	3.0	10.3	6.9	10.0								
Person A,B	339	2.4%	157.3	145.0	77.8	166.7	141.0	90.0								
Person C	782	5.6%	43.3	46.7	14.4	50.4	22.0	26.1								
Person D,E	149	1.1%	32.3	35.8	25.0	33.5	22.4	14.6								
Sex A,B	131	0.9%	152.9	152.8	66.0	209.9	117.4	127.3								
Sex C,D,E	155	1.1%	43.1	48.4		35.2	21.4	13.1								
Agg Robbery A,B	814	5.8%	98.8	102.7	46.2	97.2	94.9	69.6								
Agg Robbery C,D,E	446	3.2%	43.1	47.5	19.7	49.0	21.2	20.4								
Drug A,B	1,008	7.2%	54.8	88.7	36.0	62.7	27.5	22.6								
Drug C,D,E	1,608	11.5%	28.6	38.4	14.6	30.9	18.2	15.5								
Prop A,B	21	0.2%	76.3	97.7		80.0	22.5									
Prop C	1,367	9.8%	43.6	51.7	17.4	50.0	23.7	15.9								
Prop D,E	1,295	9.3%	31.4	37.9	18.3	35.3	16.7	16.9								
Other A,B	103	0.7%	57.2	73.8	43.0	57.4	31.5	13.5								
Other C	163	1.2%	34.4	43.8	13.0	35.0	28.7	9.3								
Other D,E	451	3.2%	26.3	31.4	2.0	23.9	17.6	17.8								
Model Group	Frequency	Percent	Mean Time	Mea	n Time Se	rved by Rel	ease Type (m	nonths)								
			Served	Expire	Other	Parole	Probation	Community								
			(months)					Correction								
				_		FEMALE										
		0.00/	FEMAL	.E	I	0 4 0 -										
Lifer	2	0.0%	FEMAL 246.5			246.5										
85%	4	0.0%	FEMAL 246.5 81.5	 98.7		246.5 30.0										
85% 1-2 yr Person	4 48	0.0% 0.3%	FEMAL 246.5 81.5 9.9	 98.7 14.0			 9.0	 4.3								
85% 1-2 yr Person 1-2 yr Sex	4 48 3	0.0% 0.3% 0.0%	FEMAL 246.5 81.5 9.9 9.7	 98.7 14.0 19.0	 		5.0									
85% 1-2 yr Person 1-2 yr Sex 1-2 yr Drug	4 48 3 70	0.0% 0.3% 0.0% 0.5%	FEMAL 246.5 81.5 9.9 9.7 9.0	 98.7 14.0 19.0 16.1		30.0 	5.0 7.0	 2.2								
85% 1-2 yr Person 1-2 yr Sex 1-2 yr Drug 1-2 yr Prop	4 48 3 70 376	0.0% 0.3% 0.0% 0.5% 2.7%	FEMAL 246.5 81.5 9.9 9.7 9.0 7.9	 98.7 14.0 19.0 16.1 13.5	 2.0		5.0 7.0 6.5	 2.2 2.5								
85% 1-2 yr Person 1-2 yr Sex 1-2 yr Drug 1-2 yr Prop 1-2 yr Other	4 48 3 70 376 103	0.0% 0.3% 0.0% 0.5% 2.7% 0.7%	FEMAL 246.5 81.5 9.9 9.7 9.0 7.9 8.2	 98.7 14.0 19.0 16.1 13.5 14.1	 2.0 7.0	30.0 7.0 	5.0 7.0 6.5 6.2	 2.2								
85% 1-2 yr Person 1-2 yr Sex 1-2 yr Drug 1-2 yr Prop 1-2 yr Other Person A,B	4 48 3 70 376 103 20	0.0% 0.3% 0.0% 0.5% 2.7% 0.7% 0.1%	FEMAL 246.5 81.5 9.9 9.7 9.0 7.9 8.2 126.2	 98.7 14.0 19.0 16.1 13.5 14.1 144.0	 2.0 7.0 	30.0 7.0 127.3	5.0 7.0 6.5 6.2 7.0	 2.2 2.5 10.3 								
85% 1-2 yr Person 1-2 yr Sex 1-2 yr Drug 1-2 yr Prop 1-2 yr Other Person A,B Person C,D,E	4 48 3 70 376 103 20 121	0.0% 0.3% 0.0% 0.5% 2.7% 0.7% 0.1% 0.9%	FEMAL 246.5 81.5 9.9 9.7 9.7 9.0 7.9 8.2 126.2 31.6	 98.7 14.0 19.0 16.1 13.5 14.1 144.0 39.1	 2.0 7.0 	30.0 7.0 	5.0 7.0 6.5 6.2 7.0 30.9	 2.2 2.5 10.3 10.3								
85% 1-2 yr Person 1-2 yr Sex 1-2 yr Drug 1-2 yr Prop 1-2 yr Other Person A,B Person C,D,E Sex	4 48 3 70 376 103 20 121 1	0.0% 0.3% 0.5% 2.7% 0.7% 0.1% 0.9% 0.0%	FEMAL 246.5 81.5 9.9 9.7 9.0 7.9 8.2 126.2 31.6 64.0	 98.7 14.0 19.0 16.1 13.5 14.1 144.0 39.1 64.0	 2.0 7.0 	30.0 7.0 127.3 33.9 	5.0 7.0 6.5 6.2 7.0 30.9 	 2.2 2.5 10.3 10.3 								
85% 1-2 yr Person 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	4 48 3 70 376 103 20 121 1 1 70	0.0% 0.3% 0.5% 2.7% 0.7% 0.1% 0.9% 0.0% 0.5%	FEMAL 246.5 81.5 9.9 9.7 9.0 7.9 8.2 126.2 31.6 64.0 50.1	 98.7 14.0 19.0 16.1 13.5 14.1 144.0 39.1 64.0 56.9	 2.0 7.0 23.0	30.0 7.0 127.3 33.9 50.5	5.0 7.0 6.5 6.2 7.0 30.9 58.4	 2.2 2.5 10.3 10.3 16.8								
85% 1-2 yr Person 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	4 48 3 70 376 103 20 121 121 1 70 104	0.0% 0.3% 0.0% 0.5% 2.7% 0.7% 0.1% 0.9% 0.0% 0.5% 0.7%	FEMAL 246.5 81.5 9.9 9.7 9.0 7.9 8.2 126.2 31.6 64.0 50.1 45.0	 98.7 14.0 19.0 16.1 13.5 14.1 144.0 39.1 64.0 56.9 90.3	 2.0 7.0 23.0 31.0	30.0 7.0 127.3 33.9 50.5 50.0	5.0 7.0 6.5 6.2 7.0 30.9 58.4 30.5	 2.2 2.5 10.3 10.3 16.8 17.6								
85% 1-2 yr Person 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	4 48 3 70 376 103 20 121 121 1 70 104 303	0.0% 0.3% 0.5% 2.7% 0.7% 0.1% 0.9% 0.9% 0.0% 0.5% 0.7% 2.2%	FEMAL 246.5 81.5 9.9 9.7 9.0 7.9 8.2 126.2 31.6 64.0 50.1 45.0 24.5	 98.7 14.0 19.0 16.1 13.5 14.1 144.0 39.1 64.0 56.9	 2.0 7.0 23.0	30.0 7.0 127.3 33.9 50.5 50.0 29.4	5.0 7.0 6.5 6.2 7.0 30.9 58.4	2.2 2.5 10.3 10.3 16.8 17.6 13.7								
85% 1-2 yr Person 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	4 48 3 70 376 103 20 121 121 1 70 104 303 11	0.0% 0.3% 0.0% 0.5% 2.7% 0.7% 0.1% 0.9% 0.0% 0.5% 0.7% 2.2% 0.1%	FEMAL 246.5 81.5 9.9 9.7 9.0 7.9 8.2 126.2 31.6 64.0 50.1 45.0 24.5 53.1	 98.7 14.0 19.0 16.1 13.5 14.1 144.0 39.1 64.0 56.9 90.3 33.1 	 2.0 7.0 23.0 31.0 2.0 	30.0 7.0 127.3 33.9 50.5 50.0 29.4 58.2	5.0 7.0 6.5 6.2 7.0 30.9 58.4 30.5 15.8 	 2.2 2.5 10.3 10.3 16.8 17.6 13.7 7.0								
85% 1-2 yr Person 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	4 48 3 70 376 103 20 121 121 1 70 104 303 11 521	0.0% 0.3% 0.0% 0.5% 0.7% 0.1% 0.9% 0.0% 0.5% 0.7% 2.2% 0.1% 3.7%	FEMAL 246.5 81.5 9.9 9.7 9.0 7.9 8.2 126.2 31.6 64.0 50.1 45.0 24.5 53.1 29.9	 98.7 14.0 19.0 16.1 13.5 14.1 144.0 39.1 64.0 56.9 90.3 33.1 36.8	 2.0 7.0 23.0 31.0 2.0 19.0	30.0 7.0 127.3 33.9 50.5 50.0 29.4 58.2 32.5	5.0 7.0 6.5 6.2 7.0 30.9 58.4 30.5 15.8 16.8	 2.2 2.5 10.3 10.3 16.8 17.6 13.7 7.0								
85% 1-2 yr Person 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	4 48 3 70 376 103 20 121 1 70 104 303 11 521 19	0.0% 0.3% 0.0% 0.5% 0.7% 0.1% 0.9% 0.0% 0.5% 0.7% 2.2% 0.1% 3.7% 0.1%	FEMAL 246.5 81.5 9.9 9.7 9.0 7.9 8.2 126.2 31.6 64.0 50.1 45.0 24.5 53.1 29.9 46.5	 98.7 14.0 19.0 16.1 13.5 14.1 144.0 39.1 64.0 56.9 90.3 33.1 36.8 49.5	 2.0 7.0 23.0 31.0 2.0 19.0 	30.0 7.0 127.3 33.9 50.5 50.0 29.4 58.2 32.5 48.5	5.0 7.0 6.5 6.2 7.0 30.9 58.4 30.5 15.8 16.8 9.0	 2.2 2.5 10.3 10.3 16.8 17.6 13.7 7.0 21.5								
85% 1-2 yr Person 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 Other C,D,E	4 48 3 70 376 103 20 121 1 70 104 303 11 521 19 139	0.0% 0.3% 0.5% 2.7% 0.7% 0.1% 0.9% 0.0% 0.5% 0.7% 2.2% 0.1% 3.7% 0.1% 1.0%	FEMAL 246.5 81.5 9.9 9.7 9.0 7.9 8.2 126.2 31.6 64.0 50.1 45.0 24.5 53.1 29.9 46.5 24.4	 98.7 14.0 19.0 16.1 13.5 14.1 144.0 39.1 64.0 56.9 90.3 33.1 36.8 49.5 32.9	 2.0 7.0 23.0 31.0 2.0 19.0	30.0 7.0 127.3 33.9 50.5 50.0 29.4 58.2 32.5 48.5 23.6	5.0 7.0 6.5 6.2 7.0 30.9 58.4 30.5 15.8 16.8 9.0 16.8	 2.2 2.5 10.3 10.3 16.8 17.6 13.7 7.0								
85% 1-2 yr Person 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	4 48 3 70 376 103 20 121 1 70 104 303 11 521 19	0.0% 0.3% 0.0% 0.5% 0.7% 0.1% 0.9% 0.0% 0.5% 0.7% 2.2% 0.1% 3.7% 0.1%	FEMAL 246.5 81.5 9.9 9.7 9.0 7.9 8.2 126.2 31.6 64.0 50.1 45.0 24.5 53.1 29.9 46.5	 98.7 14.0 19.0 16.1 13.5 14.1 144.0 39.1 64.0 56.9 90.3 33.1 36.8 49.5	 2.0 7.0 23.0 31.0 2.0 19.0 	30.0 7.0 127.3 33.9 50.5 50.0 29.4 58.2 32.5 48.5	5.0 7.0 6.5 6.2 7.0 30.9 58.4 30.5 15.8 16.8 9.0 16.8 22.2	 2.2 2.5 10.3 10.3 16.8 17.6 13.7 7.0 21.5								

Table 6. Tennessee Population Projections RELEASE Statistics by Gender, FY 2005

RESULTS

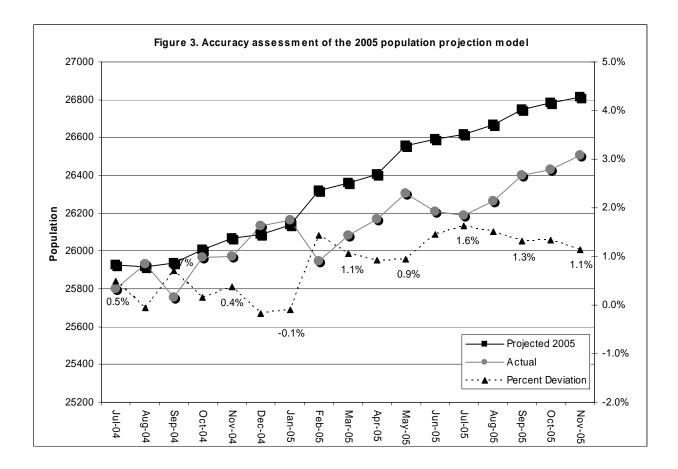
Historical Felon Population

Figure 2 demonstrates the growth of the incarcerated felon population in Tennessee from FY 1990-91 to FY 2004-05. During that period, the total incarcerated felon population (at fiscal year end) grew from 13,975 in FY 1990-91 to 26,209 in FY 2004-05, an increase of 87.5%. The population growth during the last fiscal year was 1.3%, which is *significantly less* than the average annual change of 4.3% over the last 15 years. The population incarcerated in a TDOC facility grew from 9,454 in FY 1990-91 to 19,432 in FY 2004-05, an increase of 105.5%. TDOC backup, although fluctuating over the last fifteen years, was 27.1% higher in FY 2004-2005 than in FY 1990-91, increasing from 1,826 to 2,321 by June 2005. Locally sentenced felons have increased 65.3% from 2,695 at the end of FY 1990-91 to 4,456 at the end of FY 2004-05.



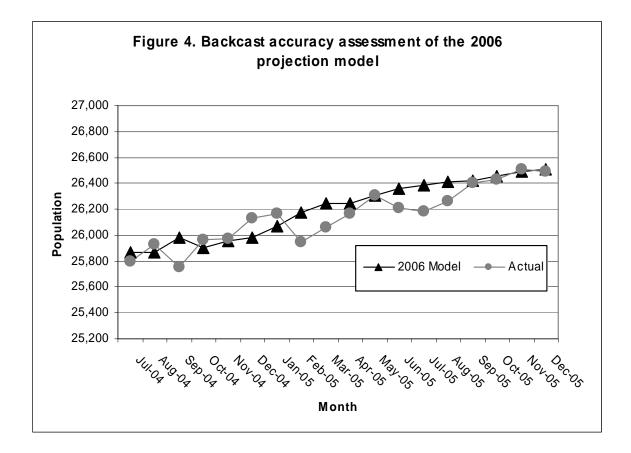
January 2005 Projection Model

The 2005 model performed well through FY 2004-05. Few modifications were needed to ensure the continued accuracy of the Tennessee population projection model. The average monthly error rate for the January 2005 model (from January 2005 through November 2005) was 1.1%. The overall average was well within the +/- 2.0% margin of error for an accurate model. In fact, the accuracy goal of +/-2.0% was never exceeded during the 2005 projection period. The dotted line in the figure (values reflected on the right hand axis) shows the margin of error between the actual and projected population for the January 2005 projection model.

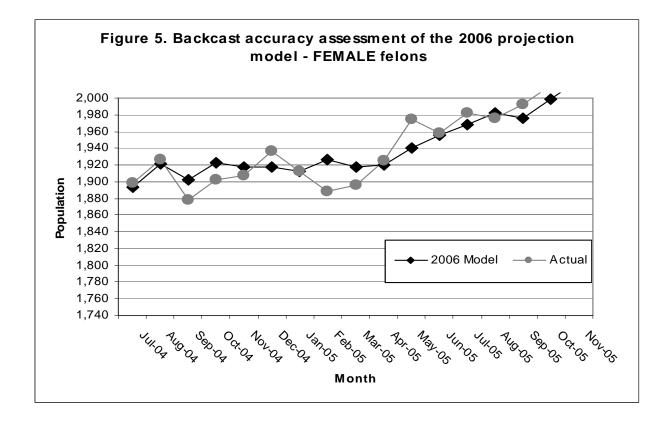


The January 2006 Projection Model

In contrast to the January 2005 model, Figure 4 presents an accuracy assessment of the <u>new January 2006 felon population projection model</u> when "backcast" against the prior year's population trends. The "backcast" uses the current model to retrospectively project data from the last fiscal year. These projections are compared to the actual population figures during this same time 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 margin of error of 0.2%.



As was mentioned in the discussion of model assumptions, the female felon inmate population is growing at a higher rate than projected in the last model. Modifications were made in the 2006 projection model to reflect the continued growth in the female felon population (see Figure 5). Similar to the backcast of the total population model, the overall fit of the January 2005 model to the prior fiscal year data has an average margin of error of 0.0%.



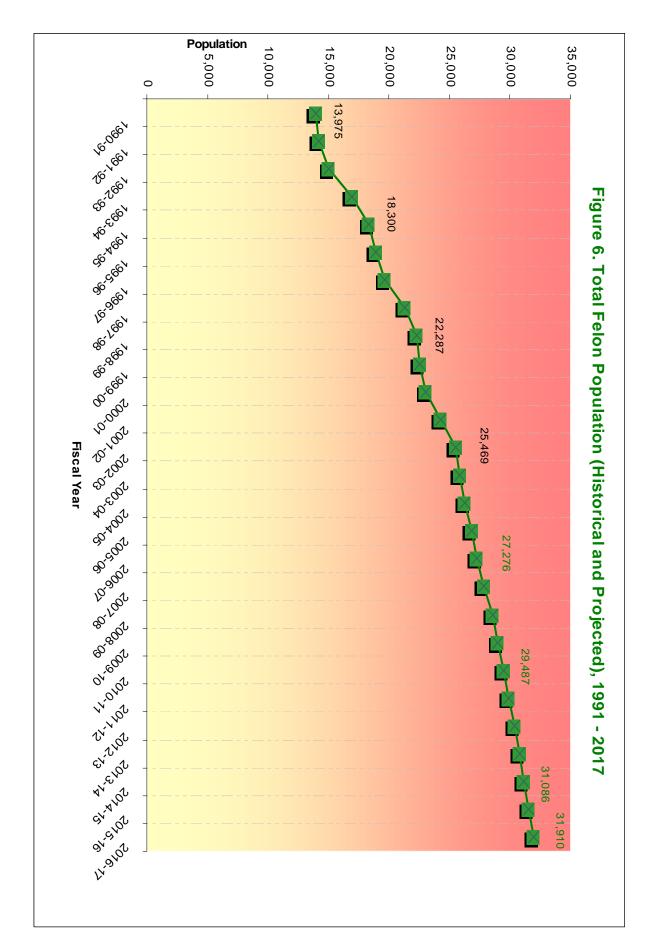
Population Trends

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 2006 projection model. The overall growth rate for the entire incarcerated population from June 2006 through June 2017 is projected to be 19.1% increasing from 26,800 in FY 2005-06 to 31,910 in FY 2016-17. The <u>average annual percent change of 1.7%</u> <u>over the projection period</u> is substantially lower than the 4.3% 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 felon population growth, this population <u>is still expected to grow or increase by 5,110 persons over the next 12 years.</u>

		Populat	ion and % chan	ge at fiscal y	ear-end	
Fiscal Year	Total	%	Male	%	Female	%
	Population	Change	Population	Change	Population	Change
1990-91	13,975		13,359		616	
1991-92	14,234	1.9%	13,565	1.5%	669	8.6%
1992-93	15,038	5.6%	14,240	5.0%	798	19.3%
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%
Numeric change						
FY 1991 -2005	12,234		10,892		1,342	
% change FY 19	991 - 2005	87.5%		81.5%		217.9%
	EAN annual % change			4.1%		8.3%
		4.3%	04.705		0.075	
2005-06	26,800	2.3%	24,725	2.0%	2,075	6.0%
2006-07	27,276	1.8%	25,128	1.6%	2,148	3.5%
2007-08	27,802	1.9%	25,578	1.8%	2,224	3.5%
2008-09	28,589	2.8%	26,261	2.7%	2,328	4.7%
2009-10	28,985	1.4%	26,643	1.5%	2,342	0.6%
2010-11	29,487	1.7%	27,123	1.8%	2,364	0.9%
2011-12	29,881	1.3%	27,462	1.2%	2,419	2.3%
2012-13	30,337	1.5%	27,848	1.4%	2,489	2.9%
2013-14	30,760	1.4%	28,278	1.5%	2,482	-0.3%
2014-15	31,086	1.1%	28,601	1.1%	2,485	0.1%
2015-16	31,517	1.4%	29,051	1.6%	2,466	-0.8%
2016-17	31,910	1.2%	29,400	1.2%	2,510	1.8%
Numeric change						
FY 2006 - 2017	5,110		4,675		435	
0/ observe EV/ 0/	005 0047	10 40/		10.00/		21.00/
% change FY 20	005 - 2017	19.1%		18.9%		21.0%
MEAN annual 9	% change	1.7%		1.6%		2.1%
MEAN annual	/o change	1.7 /0		1.070		2.1/0

Table 7. Historical and Projected Population Trends, FY 1991-2017



25 Population Projections · January 2006 Model Tennessee Department of Correction

Male Felons

According to the 2006 projection model, the male felon population is expected to increase 18.9% from 24,725 in FY 2005-06 to 29,400 in FY 2016-17. The average annual projected change of 1.6% is considerably lower than the male felon growth rate in the past decade.

Female Felons

This projection model forecasts a higher overall growth rate for female inmates as compared to the former forecasting model. The 2005 model projected a female felon population of 2,362 in FY 2016. The current model projects a population of 2,466 in 2016, a 4.4% increase from the previous model's projection. During the 12 year projection period, this population is expected to increase by 21.0% from 2,075 in FY 05-06 to 2,510 in FY 2016-17. As we have seen in previous forecasting models, the female felon population is projected to grow at a slightly higher rate than the male population, with a projected average annual change of 2.1%. This projected annual percent change is significantly smaller than the average annual percent change between FY 1990-91 and 2004-05.

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 217.9% over the 14-year period since FY 1990-91, with an average annual growth that is more than double that of male felons (8.3% vs. 4.1%, respectively). According to the January 2006 projection model however, this disparity in growth rates between the genders will subside.

January 2005 vs. January 2006

Figure 7 presents a comparison of the fiscal year-end average of the total incarcerated population presented in the January 2005 projection model and the new January 2006 population projection model. The dotted line graphically represents the difference between the models.

The models have very similar trajectories as they share most of the same assumptions about population growth. Both models project a continued increase in inmate population for males and females through 2016, however, the 2006 model projects a lower overall growth than did the 2005 model (for a more detailed comparison please refer to table 8).

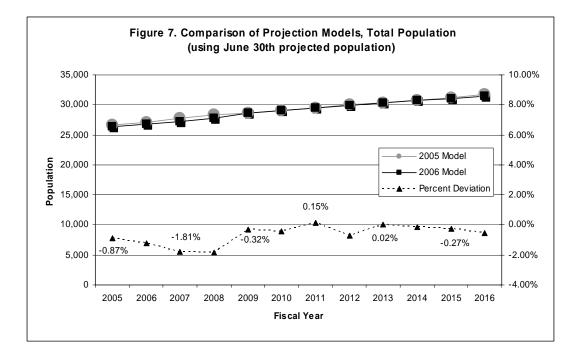


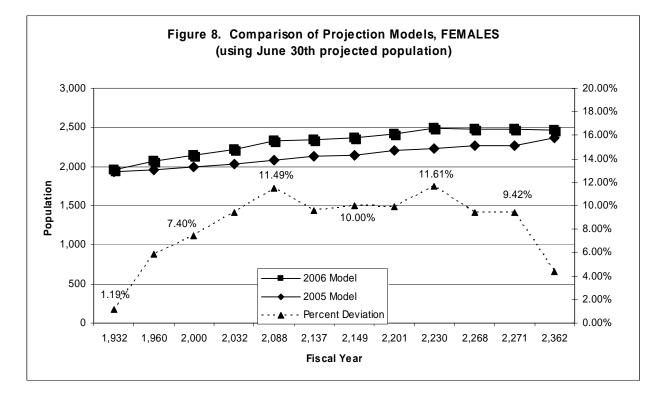
Table 8. Population Projection 2005 and 2006 Model using Fiscal Year-End Totals

		Ма	les			Fem	ales	
Fiscal Yr	2005	2006	Difference	% diff	2005	2006	Difference	% diff
2005	24,661	24,406	-255	-1.03%	1,932	1,955	23	1.19%
2006	25,175	24,725	-450	-1.79%	1,960	2,075	115	5.87%
2007	25,779	25,128	-651	-2.53%	2,000	2,148	148	7.40%
2008	26,291	25,578	-713	-2.71%	2,032	2,224	192	9.45%
2009	26,592	26,261	-331	-1.24%	2,088	2,328	240	11.49%
2010	26,981	26,643	-338	-1.25%	2,137	2,342	205	9.59%
2011	27,293	27,123	-170	-0.62%	2,149	2,364	215	10.00%
2012	27,889	27,462	-427	-1.53%	2,201	2,419	218	9.90%
2013	28,101	27,848	-253	-0.90%	2,230	2,489	259	11.61%
2014	28,532	28,278	-254	-0.89%	2,268	2,482	214	9.44%
2015	28,898	28,601	-297	-1.03%	2,271	2,485	214	9.42%
2016	29,326	29,051	-275	-0.94%	2,362	2,466	104	4.40%

		Total		
Fiscal Yr	2005	2006	Difference	% diff
2005	26,593	26,361	-232	-0.87%
2006	27,135	26,800	-335	-1.23%
2007	27,779	27,276	-503	-1.81%
2008	28,323	27,802	-521	-1.84%
2009	28,680	28,589	-91	-0.32%
2010	29,118	28,985	-133	-0.46%
2011	29,442	29,487	45	0.15%
2012	30,090	29,881	-209	-0.69%
2013	30,331	30,337	6	0.02%
2014	30,800	30,760	-40	-0.13%
2015	31,169	31,086	-83	-0.27%
2016	31,688	31,517	-171	-0.54%

27 Population Projections January 2006 Model Tennessee Department of Correction Table 8 shows that for the male population, the new projection population totals are consistently lower in the 2006 model. The 2006 model averages a difference, or decrease of 368 felons when compared to the 2005 model.

New projection estimates for the female felon population are consistently higher in than what was projected in the 2005 model (please see Figure 8). The 2006 model averages a difference, or increase, of 179 female felons as compared to the 2005 model.



CAPACITY

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

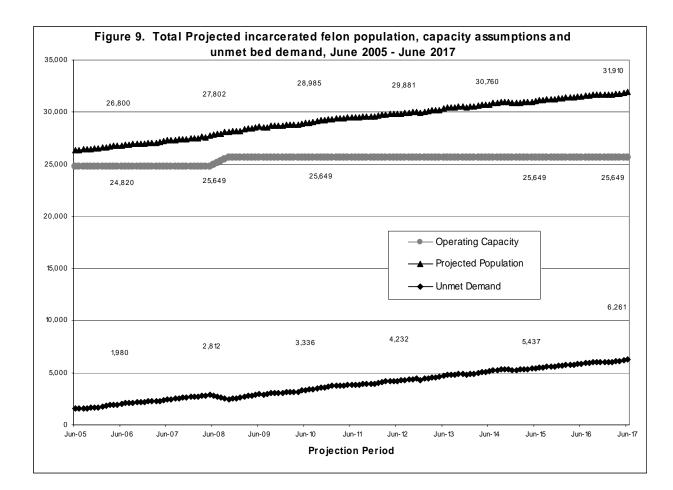
- 1. TDOC felons backed up in local jails with valid judgment orders and meeting the 14-day requirement are accounted for in capacity needs.
- 2. A capacity of 4,125 beds in jails throughout Tennessee for locally sentenced felons has also been added to the department's anticipated capacity.
- 3. All planned and *funded* TDOC building projects in the next 10 years are included in capacity assumptions unless stated otherwise.

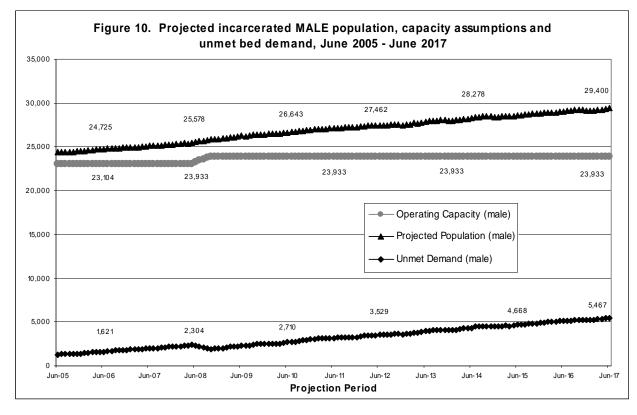
Based on these assumptions (see Table 9), the data show that the <u>unmet demand (or</u> <u>more persons than available beds) will reach 2,812 by June 2008 (2,304 males and 508</u> females). <u>Even if 830 operational beds in the Morgan County expansion are added as</u> <u>planned, unmet demand will still be significant, at 3,336 (2,710 males and 626 females)</u> by the end of FY 2010.

By June 2012, this unmet demand figure will increase to 4,232 (3,529 male and 703 female) even if the Morgan expansion is completed as planned. This figure increases to 6,261 (5,467 males and 794 females) by June 2017.

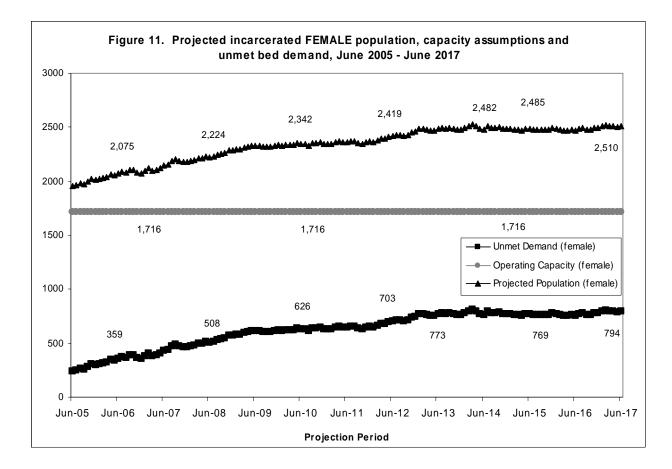
Figures 9-11 graphically represent the relationship among felon population, the Department of Correction's operating capacity (including estimated local jail capacity) with funded expansions (see Table 4) for the next decade (through June 2017). The unmet demand, or the difference between the projected population and the Department's operational capacity, is graphically represented at the bottom of the charts.

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. Given the population figures and the projected potential unmet bed demand, TDOC is once again challenged with a significant disparity. The Department is committed to exploring innovative, best-practice options that have resulted in positive outcomes in other states to supplement and even replace additional prison bed construction.





30 Population Projections · January 2006 Model Tennessee Department of Correction

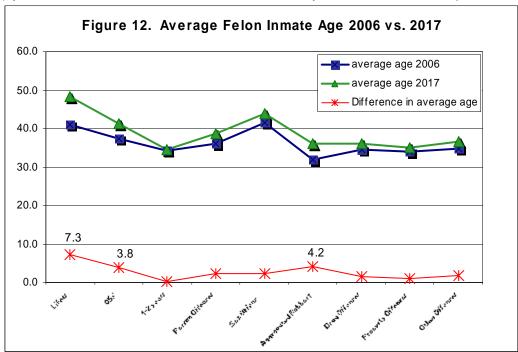


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Funded Projects #MALE beds added* FEMALE beds added* TOTAL beds added* Male projections Female Projections Total Projections Male projections Female projections Female projections Female projections Female projections Female projections Total 23,301 Male projections Female projections Total 23,104 I,716 24,820 -07 -07 -07 -07 -07 -07 23,104 1,716 24,920 -08 Morgan Expansion 830 -07 2,328 28,989 23,933 1,716 25,649 -10 Morgan Expansion -07 -07 2,7462 2,419 29,881 23,933													
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Funded Projects # MALE # FEMALE TOTAL beds beds added* Male beds beds added* Female Projections Total Projections Male OpCap** OpCap** OpCap** -05	21	1,6	24,820	1,716	23,104	26,800	2,075	24,725					Jun-06
Funded Projects # MALE # FEMALE TOTAL Male Female<													
# MALE # FEMALE TOTAL Male Female Total	02 2	1,3	24,820	1,716	23,104	26,361	1,955						Jun-05
	net Unmet Ile Female			Female OpCap**	Male OpCap**	Total Projections	Female Projections	Male Projections		# FEMALE beds added*	# MALE beds added*	Funded Projects	Date

Table 9. Unmet Demand and Projected Incarcerated Felon Population, Total – Male & Female, 2005-2017

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 in corrections and prison literature.



The two offense groups with the largest average forecasted age increases over the next twelve (12) years are lifers with a projected increase of 7.3 years and aggravated robbers with a projected increase of 4.2 years (see Figure 12). In 2006, sex offenders appear to have the highest average age but in 2016, this offense group falls second in average age to lifers (48.3 years and 44.0 years respectively). Turning to gender differences, male inmates show a higher average age increase over the projected period (from 35.6 year to 37.9 years) than female inmates (from 35.7 years to 37.2 years).

In terms of the actual increase in the number of persons 50 or older, it is anticipated that TDOC will have approximately 2023 *additional* elderly offenders by 2017. The majority of these older offenders will me male (1,862 additional males over 50 years of age and 161 additional females over 50 years of age). Although the inmate population 50 years and over is only 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.).

Table 10. Number of Forecasted Offenders Aged 50+

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
MALE	4,252	4,504	4,702	4,875	4,557	5,346	5,362	5,529	5,704	5,933	6,095	6,234	6,366
FEMALE	357	376	385	411	441	444	460	471	508	517	525	533	537
Total	4,609	4,880	5,087	5,286	5,475	5,790	5,822	6,000	6,212	6,450	6,620	6,767	6,903

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, Office of the Attorney General, 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.

¹TDOC expansion plans include the addition of 830 operational beds (at the Morgan County expansion Correctional Facility to be completed in mid 2008.

² The Mid-Year assessments that occur in July are dependent upon an average margin of error of the projections of $\pm 2\%$ from the actual population figures. If the average deviation over the period is greater than $\pm 2\%$, 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 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.

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.