STATE OF CONNECTICUT Prison Population Projections Annual Report



March 1, 2007

OFFICE OF POLICY & MANAGEMENT Criminal Justice Policy and Planning Division

CONNECTICUT STATISTICAL
ANALYSIS CENTER
Central Connecticut State University

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FORECASTING WORK GROUP PARTICIPANTS

This report has been generated with the co-facilitation of the Office of Policy and Management, the Connecticut Statistical Analysis Center at Central Connecticut State University, and in cooperation with its key criminal justice service partners: the Department of Correction, the Board of Pardons and Paroles, the Court Support Services Division of the Judicial Branch, and Court Operations of the Judicial Branch.

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MESSAGE FROM THE OPM UNDER SECRETARY

The 2007 State of Connecticut Prison Population Projections Report was developed in response to the statutory requirements outlined in Public Act 05-249, An Act Concerning Criminal Justice Planning and Eligibility for Crime Victim Compensation. This legislation created the Criminal Justice Policy and Planning Division within the Office of Policy and Management (OPM) effective July 1, 2006, and tasked the Division with developing an annual report presenting projections of Connecticut's prison population. The inaugural edition of this report provides these projections along with a discussion of factors that influence changes in the prison population.

Our projections indicate that, based upon the previous five year trend, Connecticut's prison population over the next five years will remain stable if current practices remain in place.

The 2007 State of Connecticut Prison Population Projections Report was prepared by the Connecticut Statistical Analysis Center (SAC) in conjunction with the Criminal Justice Policy and Planning Division of OPM. The Connecticut SAC is a collaborative venture between OPM and the Department of Criminology and Criminal Justice at Central Connecticut State University (CCSU). The activities of Connecticut's SAC are directed by Dr. Stephen Cox, Chair of the Department of Criminology and Criminal Justice at CCSU. It is located within The Institute for the Study of Crime and Justice at CCSU. OPM serves as the primary funding source for the SAC through the procurement of federal Department of Justice funds from the State Justice Statistics Program for SACs grant. This is the first of what is hoped to be many fruitful and productive collaborations on current criminal justice policy and planning issues facing the State of Connecticut.

Further, the Division, in collaboration with the SAC, has established a Forecasting Working Group that meets regularly to share data and assist in the production of this report and the Division's monthly Correctional Population Indicators Report. A list of participants in the Forecasting Working Group is provided on page two of this report.

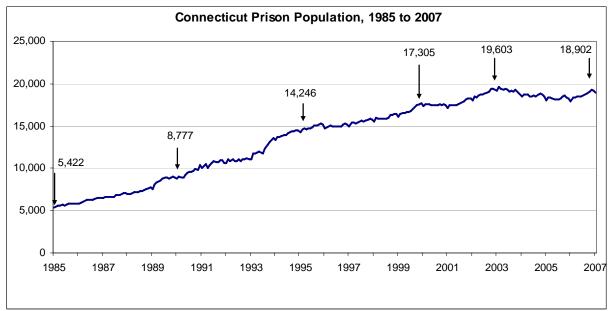
In addition, many other colleagues and staff members within OPM and the Criminal Justice Policy and Planning Division have contributed to this work. I am grateful for the hard work of all involved in this report.

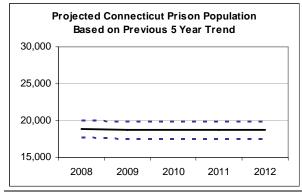
Brian Austin, Jr., Esq. Under Secretary Criminal Justice Policy and Planning Office of Policy and Management March 1, 2007

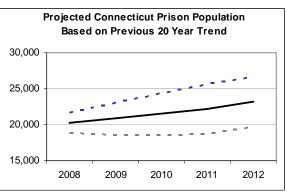
CONNECTICUT'S PRISON POPULATION PROJECTIONS THROUGH 2012

CONCLUSION: The previous 5 year trend suggests that the prison population will remain stable if current practices remain in place. Based on the 20 year trend, however, the prison population may increase well beyond current Department of Correction capacity.

The State of Connecticut's prison population steadily increased an average of 5% per year from 1985 to 2003 and remained relatively stable from 2004 to 2007¹. Assuming there will be no major changes in criminal justice policies, we provide two different prison population estimates². If we base the projections on the previous 5 years, the prison population will remain stable at 18,703 inmates. However, if the projections are based on the previous 20 year trend, the prison population will continue to steadily increase to 23,229 inmates by December 2012³.







	Projections Based on	5 Year Trend	Projections Based on	20 Year Trend
Year	Prison Population Projection	Yearly Rate Change	Prison Population Projection	Yearly Rate Change
2008	18,827	0.9%	20,230	7.0%
2009	18,706	0.6%	20,869	3.1%
2010	18,703	0%	21,507	3.0%
2011	18,703	0%	22,146	2.9%
2012	18,703	0%	23,229	4.8%

¹ The prison population is defined as all sentenced and accused offenders housed within Department of Correction facilities. This count does not include sentenced offenders under community supervision. See Appendix A for the yearly prison population. ² See the Appendix A for a description of the data and methods used in the projection.

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³ See the Appendix A for the upper and lower confidence intervals of the prison population projections.

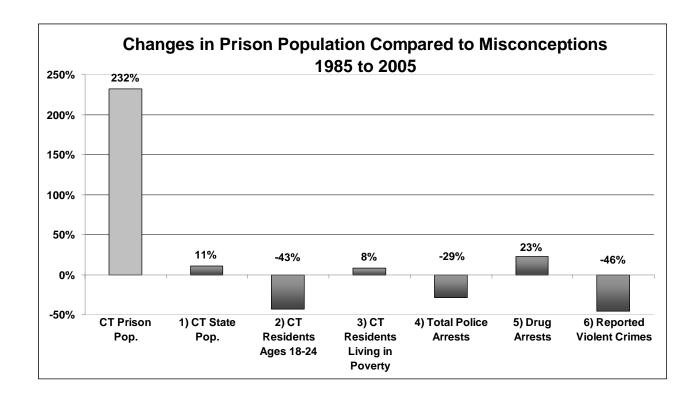
COMMON MISCONCEPTIONS FOR THE PRISON POPULATION INCREASE

CONCLUSION: We believe the prison population fluctuations have been caused by policy changes within the criminal justice system. Those factors commonly associated with increases in the prison population have had little or no direct effect in Connecticut.

The prison population in Connecticut has significantly increased from 1985 to 2007 and there are several misconceptions as to why this increase has occurred. These have generally involved beliefs that significant changes in Connecticut's population, demographics, and crime statistics have led to more offenders being sentenced to prison. While the Connecticut prison population increased 232% from 1985 to 2005, none of these factors had similar increases.

	Change from 1985 to 2005
Connecticut Prison Population	232% Increase
Misconception:	
More people live in Connecticut	11% Increase
2) More Connecticut residents are of prime crime committing	
age (18-24 yrs. old)	43% Decrease
3) More people live below the poverty line	8% Increase
4) More people are being arrested	29% Decrease
5) More people are being arrested for drug offenses	23% Increase
More violent crimes are being committed	46% Decrease

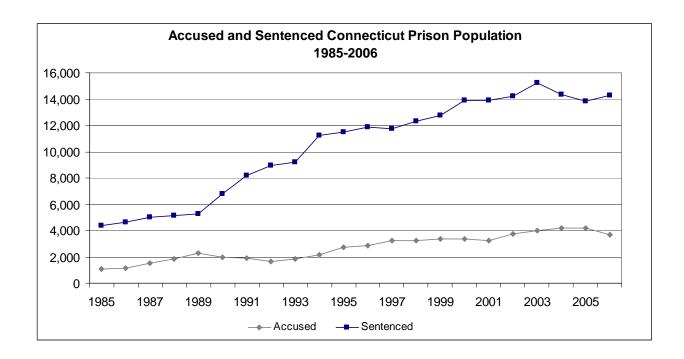
We believe that those factors commonly associated with increases in the prison population have had little or no direct effect in Connecticut. None of these factors have a twenty year trend that is similar to the steady increase in the prison population (see Appendix B for a more detailed presentation of these twenty year trends).



THE ACCUSED AND SENTENCED PRISON POPULATION

CONCLUSION: While the accused prison population has more immediate effects on the overall prison population, the significant increase in the prison population is primarily due to increases in the sentenced population.

The Department of Correction houses both accused offenders who have been arrested and are awaiting trial (also known as pretrial offenders) and sentenced offenders who have been convicted of their offenses and are serving their sentences in prison. There has been considerable discussion over whether an increase in the number of accused offenders has had a significant effect on the overall prison population. While the accused prison population has steadily increased from 1985 to 2006, the sentenced population has increased at a higher rate. It appears that temporary spikes and dips in the total prison population have been caused by sharp increases and decreases in the accused population. However, the steady growth in the total prison population is primarily due to increases in the sentenced population.

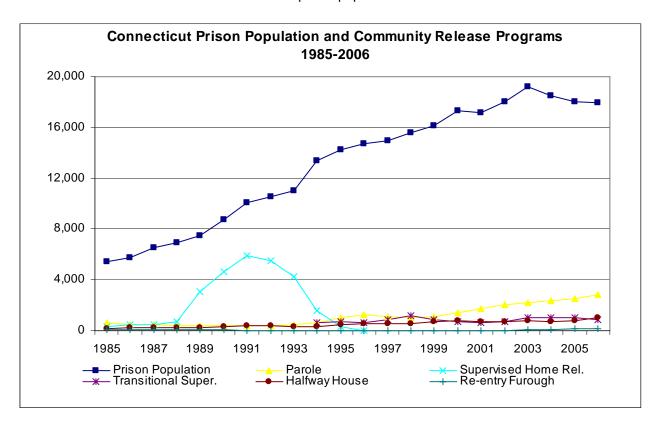


Year	Prison Population	Accused Population	% Accused of Prison Population	Rate Change	Year	Prison Population	Accused Population	% Accused of Prison Population	Rate Change
1985	5,422	1,052	19%		1996	14,744	2,868	20%	4.5%
1986	5,771	1,131	20%	7.5%	1997	14,996	3,263	22%	13.7%
1987	6,542	1,498	23%	32.4%	1998	15,558	3,227	21%	-1.0%
1988	6,923	1,821	26%	21.5%	1999	16,104	3,336	21%	3.4%
1989	7,516	2,270	30%	24.6%	2000	17,305	3,390	20%	1.6%
1990	8,777	1,998	23%	-12.0%	2001	17,137	3,233	19%	-4.6%
1991	10,101	1,884	19%	-5.7%	2002	17,997	3,771	21%	16.6%
1992	10,573	1,631	15%	-13.0%	2003	19,216	3,996	21%	5.9%
1993	11,055	1,851	17%	13.5%	2004	18,552	4,186	23%	4.7%
1994	13,384	2,176	16%	17.0%	2005	18,001	4,191	23%	0.1%
1995	14,246	2,743	19%	26.5%	2006	17,928	3,668	21%	-12.5%

EFFECTS OF POST-INCARCERATION RELEASE PROGRAMS

CONCLUSION: In the last ten years, there has been an increase in the number of inmates on parole, in halfway houses, and on re-entry furloughs. These increases appear to be related to the more recent stabilization of the prison population.

The Department of Correction utilizes several types of community release programs⁴ and processes that allow inmates to serve a portion of the end of their prison sentences in the community. These mainly consist of parole, transitional supervision, halfway houses, and re-entry furloughs.⁵ These programs also serve to decrease the number of inmates being housed by the Department of Correction. The number of offenders in these programs has significantly increased over the past ten years. These increases appear to be related to the more recent stabilization of the prison population.



Year	Parole	Super Home	Trans. Super.	Halfway House	Re- Entrv	Year	Parole	Super Home	Trans. Super.	Halfway House	Re- Entry
4005	0.47		Super.			4000	4.000				
1985	647	345	Ü	172	48	1996	1,239	27	659	544	9
1986	482	491	0	206	48	1997	1,065	0	876	561	7
1987	448	472	0	230	74	1998	1,049	0	1,165	588	35
1988	394	738	0	243	89	1999	1,099	0	896	712	34
1989	390	3,104	0	242	68	2000	1,381	0	717	749	25
1990	374	4,680	0	310	69	2001	1,722	0	633	738	27
1991	355	5,875	0	360	23	2002	2,019	0	705	735	26
1992	425	5,536	0	360	37	2003	2,199	0	1,012	759	44
1993	483	4,213	0	329	25	2004	2,343	0	1,060	680	47
1994	624	1,538	591	335	35	2005	2,552	0	1,005	798	137

⁴ See the Appendix A for a more detailed description of these programs.

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⁵ Supervised Home Release (SHR) was a community supervision program that was abolished by the Connecticut General Assembly in 1990 and phased out over the next four years.

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1995	997	280	714	509	29	2006	2,796	0	863	1,048	139

FACTORS ASSOCIATED WITH CHANGES IN THE PRISON POPULATION

CONCLUSION: Three factors that were found to have a significant effect on the prison population were the (1) number of people arraigned; (2) number of people arraigned with charges requiring them to serve 85% of their prison sentence if convicted; and, (3) number of people sentenced to prison.

A review of prison forecasting reports from other states suggest there are a variety of contributing factors to changes in prison populations. These include: increased sentence length, harsher penalties for convicted sex and drug offenders, decreased parole consideration, increase in violent crimes, demographic and population changes, probation and parole violations, higher levels of court intakes, limited alternatives to incarceration programs. The common thread across these reports is that more offenders are being sentenced to prison, for longer periods of time, with fewer being released on parole or early release. ⁶

We conducted an in-depth study to assess the effects of court processes and prison community release programs on the prison population. Of the processes and programs we assessed, only three of these factors were found to have a significant influence on the prison population. These were the:

- 1) number of people arraigned;
- number of people arraigned with charges requiring them to serve 85% of their prison sentence if convicted;
- 3) number of people sentenced to prison.

It is important to point out that we analyzed monthly changes in the prison population and these are time lagged effects. That is, the number of people arraigned by states' attorneys does not have an immediate effect on the prison population. There is a seven month lag to when the prison population is affected. In other words, once an offender is arrested, it takes an average of six-to-eight months for the case to be disposed (from arraignment to prison sentence). Therefore, the number of people arraigned in January will have a direct affect on the prison population in August.

A similar time lag was found for the number of people arraigned with charges that would require 85% of a prison sentence to be served. However, for this factor, the time lagged affect is eight months. A simple explanation is that these are more serious offenses and take longer to move through the court system.

The number of people sentenced to prison had a one month time lag. That is, the number of people receiving prison sentences in January will directly affect the prison population in February.

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⁶ See the Bibliography for a list of these state reports.

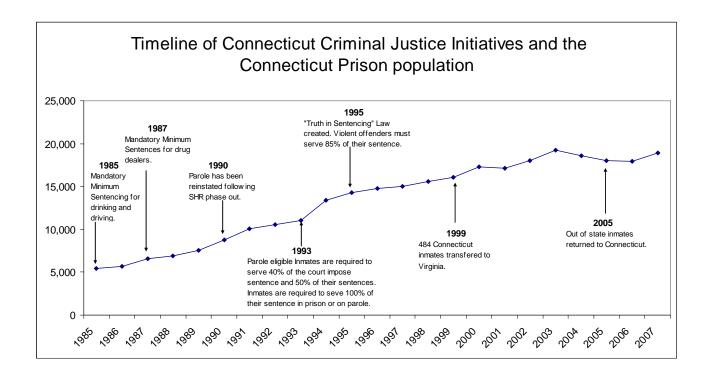
⁷ See the Appendix A for more detailed summary of the data and method used to conduct this study.

SUMMARY OF CONCLUSIONS

In developing a prison population projection model, a review of trends in the Connecticut prison population from 1985 through 2006 led us to the following conclusions:

- 1. The 5 year trend suggests that the prison population will remain stable if current practices remain in place. Based on the 20 year trend, however, the prison population may increase well beyond current Department of Correction capacity.
- 2. We believe the prison population increases have been caused by policy changes within the criminal justice system. Those factors commonly associated with increases in the prison population have had little or no direct effect in Connecticut (Connecticut's population, demographics, and crime statistics).
- 3. While the accused prison population has more immediate effects on the overall prison population, the significant increase in the prison population is primarily due to increases in the sentenced population.
- 4. In the last ten years, there has been an increase in the number of inmates on parole, in halfway houses, and on re-entry furloughs. These increases appear to be related to the more recent stabilization of the prison population.
- 5. Three factors that were found to have a significant effect on the prison population were the (1) number of people arraigned; (2) number of people arraigned with charges requiring them to serve 85% of their prison sentence if convicted; and, (3) number of people sentenced to prison.

There is no one specific cause of the significant increase in Connecticut's prison population. We believe that legislation passed by the Connecticut General Assembly from the late 1980s through the mid-1990s has led to a cumulative effect on it.



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APPENDIX A

Prison Population Forecasting Statistical Method and Data

The projection of the prison population was performed using an autoregressive integrated moving average model (ARIMA). This modeling technique was selected because it is extremely flexible with this type of time-based data and can provide straightforward and reliable forecasts.

Monthly prison population counts from January 1985 to December 2006 were obtained from the Department of Correction.

Prison Population Forecasting Model Assumptions

- 1. The Connecticut General Assembly will not pass legislation which will:
 - a. lengthen or shorten prison sentences;
 - b. limit the parole granting rate;
 - c. increase the penalties for non-violent offenses.
- 2. There will be no new construction or a significant increase in inmate beds.
- 3. Community supervision programs will not replace prison commitments.
- 4. All discretionary practices will remain constant among Connecticut's criminal justice agencies throughout the projection period.

Upper and Lower Confidence Intervals Of The Projection Models

Projected Connecticut Prison Population Using the 5 Year trend

Year	Projection	Lower Confidence	Upper Confidence
	•	Interval	Interval
2008	18,827	17,715	19,939
2009	18,706	17,560	19,852
2010	18,703	17,557	19,850
2011	18,703	17,557	19,850
2012	18,703	17,557	19,850

Projected Connecticut Prison Population Using the 20 Year trend

Year	Projection	Lower Confidence	Upper Confidence
		Interval	Interval
2008	20,230	18,818	21,642
2009	20,869	18,622	23,115
2010	21,507	18,618	24,396
2011	22,146	18,698	25,594
2012	23,229	19,774	26,683

Connecticut Prison Population, 1985 to 2007

Year	Prison Population	Yearly Rate Change	Year	Prison Population	Yearly Rate Change
1985	5,422		1997	14,996	1.7%
1986	5,771	5.3%	1998	15,558	3.7%
1987	6,542	12.9%	1999	16,104	3.5%
1988	6,923	5.8%	2000	17,305	7.5%
1989	7,516	8.5%	2001	17,137	-1%
1990	8,777	16.7%	2002	17,997	5%
1991	10,101	15%	2003	19,216	6.7%
1992	10,573	4.7%	2004	18,522	-3.4%
1993	11,055	4.5%	2005	18,001	-2.9%
1994	13,384	21%	2006	17,928	-4.0%
1995	14,246	6.4%	2007	18,902	5.5%
1996	14,744	3.5%		•	

Summary of Department of Correction Community Programs

Parole: The Board of Pardons and Paroles has the authority to release certain inmates serving sentences of greater than two years. By statute, offenders convicted of non-violent crimes are eligible for parole after serving 50 percent of their sentence. Those offenders convicted of violent crimes must serve 85 percent of their sentence.

Supervised Home Release (SHR): An early release program created in 1981. SHR gave the Department of Correction authority to release inmates prior to the end of the court-imposed sentence. Program was eliminated by the General Assembly in 1990, however, the DOC was maintained its authority to release inmates with sentences of two years or less.

Transitional Supervision (TS): Eligible inmates must serve at least 50 percent of a sentence of two years or less. The facility Warden is the designated release authority and the Department of Correction provides supervision and case management, through its Parole and Community Services Unit for offenders on Transitional Supervision status. Transitional supervision replaced supervised home release.

Halfway House: Utilized to provide assistance for those offenders who require greater support and supervision in the community. Offenders who are within eighteen months of release date or have been voted to parole may participate in these Department of Correction structured programs.

Re-Entry Furlough: The release of an inmate by the Department of Correction to an approved residence for up to 30 days in the final portion of their sentence for the purpose of re-entry support into the community.

Data and Statistical Method used to Study the Influences on the Prison Population

Several pieces of data were collected for this report. First, in assessing factors that have caused the increase in the prison population, data were collected from the Department of Correction and the Judicial Branch regarding the prison population, prison release programs, arraignments and court dispositions from January 1, 1998 to December 31, 2004. The time frame of 1998 to 2004 was selected because it provided the most recent and the most reliable court and prison data. These data were collected on individuals and individual cases and aggregated into monthly data for analysis. Specifically, data collected from the Department of Correction consisted of monthly counts of the facility population, accused facility population, re-entry furloughs, halfway house population, transitional supervisees, and parolees. Data collected from the Judicial Branches' CRMVS system were comprised of arraignment data (number of cases arraigned, number of people arraigned, number of felony arraignments, number of arraignments requiring 85% time served, and severity of the arraigned offenses), court disposition data (number and type of court dispositions, number of convictions, number of people convicted, number of felony convictions, number of convictions requiring 85% time served, severity of convicted offenses, number of violation of probation convictions, number of people sentenced to prison, number of people sentenced over and under two years in prison, and average prison sentence).

From January 1, 1998 to December 31, 2004, the Connecticut prison population increased from 15,558 to 18,001 (a 16% increase). While this increase was not as steep as other time periods, it is representative of how the population has increased from 1985 to 2006. A Time Series Multiple Regression approach was employed to determine what factors had the most influence in this increase in the prison population. For this analysis, the following variables were used:

Prosecutorial

- Number of people arraigned
- Number of people arraigned whose offense met the 85% mandatory minimum sentence
- Number of people sentenced to prison
- Number of cases arraigned
- Number of felony cases arraigned
- Number of nonfelons arraigned

- Number of cases arraigned meeting the 85% mandatory minimum sentence requirement
- Severity of the offenses arraigned

Judicial

- Number of cases disposed
- Number of people disposed
- Number of felons disposed
- Number of people sentenced to prison
- Number of felony cases receiving prison sentences
- Number of felons sentenced to prison
- Number of people sentenced to serve 85% of their court-imposed prison sentence
- Number of people sentenced to prison for over two years
- Number of probation violators sentenced to prison
- Severity of offenses for people sentenced to prison
- Total prison time sentenced
- · Average prison time sentenced

Department of Correction Community Release Programs

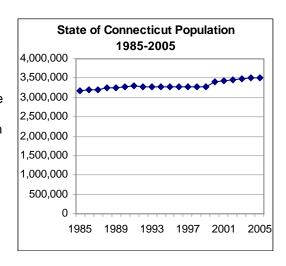
- Number of people on parole
- Number of people in transitional supervision
- Number of people on parole
- Number of people on re-entry furloughs
- Number of people in halfway houses

APPENDIX B

Detailed Comparison of Prison Population Increases and Misconceptions

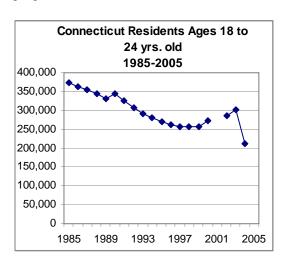
#1: More People Live in Connecticut

A commonly held belief is that the major cause of the increase in the prison population has been an increase in Connecticut's population (e.g., more people in the state leads to more arrests and convictions which leads to more people in prison). However, the 20 year trend in Connecticut's total population does not mirror the trend in the prison population. The total population has only increased 11% (significantly lower than the 232% increase in the prison population). Though there are more individuals living in Connecticut, the increase is nominal when compared to the prison population trend.



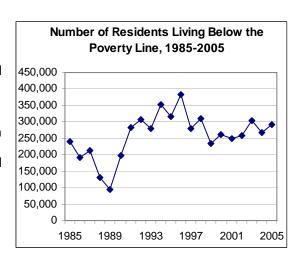
#2: More Connecticut Residents are of Prime Crime Committing Age

The increased prison population has also been attributed to the belief that more Connecticut residents are between the ages of 18 and 24 years old, and that this age group is responsible for a significant amount of crime (the more young people, the more crime and arrests, and more people in prison). On the contrary, the number of males and females between the ages of 18 and 24 has significantly declined from 1985 to 2005. The number of residents in the 18 to 24 year old age group has dropped 43% over the last 20 years.



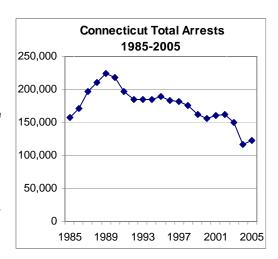
#3: More People Live Below the Poverty Line

Another commonly held belief is that the poverty rate affect the crime rate, which in turn affects the prison population (e.g., more poor people will commit more crime out of desperation and will subsequently be arrested and sentenced to prison). However, while the prison population has increased, the number and rate of Connecticut residents living below the poverty line has increased by 8% over the last 20 years. In particular, from 1996 to 2005 the prison population increased by 18%, whereas, residents living below the poverty line decreased by 29%. While Connecticut's prison population was growing, the poverty rate was decreasing.



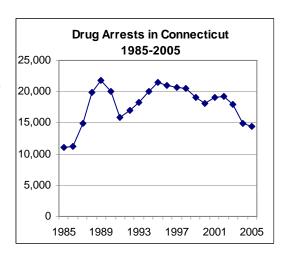
#4: More People are Being Arrested

Police officers represent an offender's entry into the criminal justice system and can have a significant affect on the prison population (the more people arrested, the more people convicted, and the more people sentenced to prison). This idea is especially true in Connecticut because the Department of Correction houses arrestees prior to their arraignments and trials. However, this has not been the case in Connecticut. Over the last 20 years there has been a 29% decrease in police arrests. The number of people arrested does not mirror the state's upward prison population trend. Lower arrest rates should suggest a decrease of new prison commitments, and therefore the increase of the state's prison population is not associated with more people being arrested.



#5: More Drug Offenders are Being Arrested

During the 1980s and early 1990s, the widespread use of cocaine and crack cocaine was believed to overburden all aspects of the criminal justice system, especially corrections. It appears that the increased prison population from 1985 through 1992 can be attributed to the increase in drug arrests and the arrest rate for drug offenses. However, from 1995 to 2005, there has been a noticeable decline in drug related arrests (32%). While drug arrests are steadily decreasing, the state's prison population had been rising every year.



#6: More Violent Crimes are Being Committed

Similar to the argument regarding drug arrests, a common perception is that more people are committing violent crimes and subsequently being sentenced to prison. However, Connecticut's violent crime rate has decreased by 46% over the last 20 years. From 1991 to 2005 the violent crime rate has been steadily declining, this trend does not mirror the state's prison population trend. It continues to steadily increase despite the drop in violent crime.

