



STATE OF DELAWARE  
EXECUTIVE DEPARTMENT  
OFFICE OF MANAGEMENT AND BUDGET  
May 8, 2009

Delaware Major Crimes  
2005 Thru the First Quarter of 2009

This report provides a summary of changing monthly major reported crime between calendar year 2005 and March 2009. The purpose of this report is to provide a timely means of tracking recent crime trends. While this analysis is helpful, it should not be viewed as the state's official crime report. The official data is based on the State Bureau of Identifications National Incident Based Reporting System (NIBRS), which is much more comprehensive, but not as timely. This report focuses on the major crimes listed in the table below because they represent the greatest risk to public safety and because they are the most likely to result in pre-trial detention and subsequent sentences to jail or prison – and therefore they are most likely to have a significant impact on costs and operations.

**Types of Reported Crimes Included in the Report**

**Homicide:** Title 11 Sections 631 thru 636, excluding unintentional vehicular homicide

**Felony Sex Crimes:** Title 11 Sections 768 thru 776 and 778 that consists of Rape 1<sup>st</sup> thru 4<sup>th</sup>, Unlawful Sexual Contact 1<sup>st</sup> and 2<sup>nd</sup>, and Sexual Extortion and Continuous Sexual Abuse of a Child

**Robbery** Title 11 Sections 831, 832, 835 and 836 that consists of Robbery 1<sup>st</sup> and 2<sup>nd</sup>, Carjacking 1<sup>st</sup> and 2<sup>nd</sup>

**Felony Assault:** Title 11 Sections 612 and 613 that consists of Assault 1<sup>st</sup> and 2<sup>nd</sup> and Attempted Murder.

**Burglary:** Title 11 Sections 824 thru 826 that consists of Burglary 1<sup>st</sup> thru 3<sup>rd</sup>

**Drug Dealing:** Title 16 Sections 4751, 4752 and 4753A that consists of Possession with the Intent to Deliver (PWITD) and Drug Trafficking



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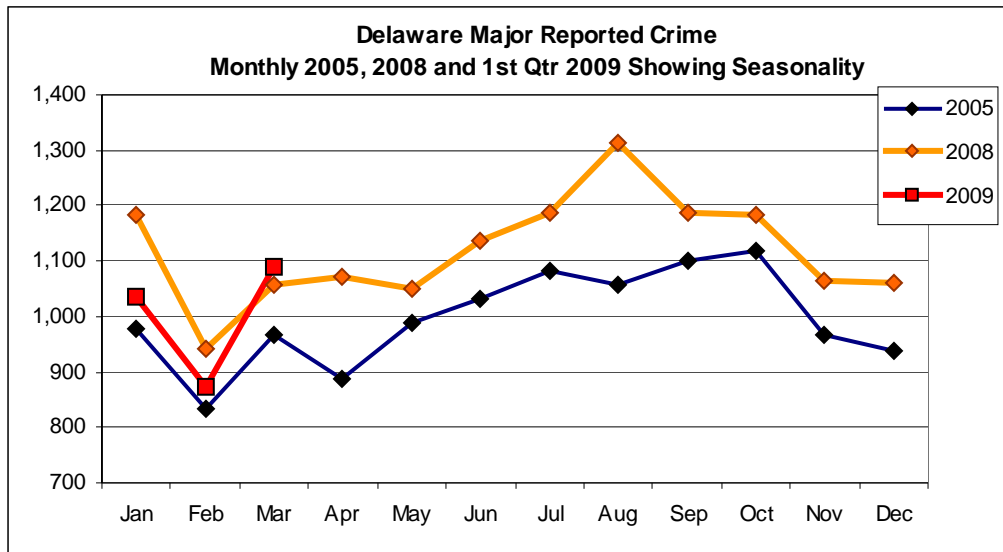
## What have the Most Recent Crime Trends Been?

Between 2005 and 2008, major crimes reported have increased 12.4 percent from 11,945 to 13,431. With the current economic downturn, conventional wisdom indicates that crime could be on the up tick. So it is with some excitement that the early returns in the first quarter of 2009 are being discussed. In the first quarter of 2009 versus the first quarter of 2008, reported major crimes have decreased 5.8 percent. It does not take detailed analysis to notice the reduced number of newspaper headlines reporting homicides and shootings. As Table 1 below shows, so far in 2009, homicide, robbery and assault, the crimes most related to illegal use of firearms, are down double digits in the first quarter of 2009. While the first quarter decrease in crime is noticeable in day-to-day criminal justice operations, Chart 1 suggests caution as it appears that the significant reduction appears to be limited to only January and February of 2009 as the major crime volume in March 2009 actually exceeds March of 2008.

Table 1: Reported Major Crime is Down in Early 2009

	2009 1st Qtr	2008 1st Qtr	Percent Change
Homicide	7	19	-63.2%
Sex	143	176	-18.8%
Robbery	344	428	-19.6%
Assault	279	335	-16.7%
Burglary	1,548	1,505	2.9%
Drugs	677	720	-6.0%
<b>Total</b>	<b>2,998</b>	<b>3,183</b>	<b>-5.8%</b>

Chart 1

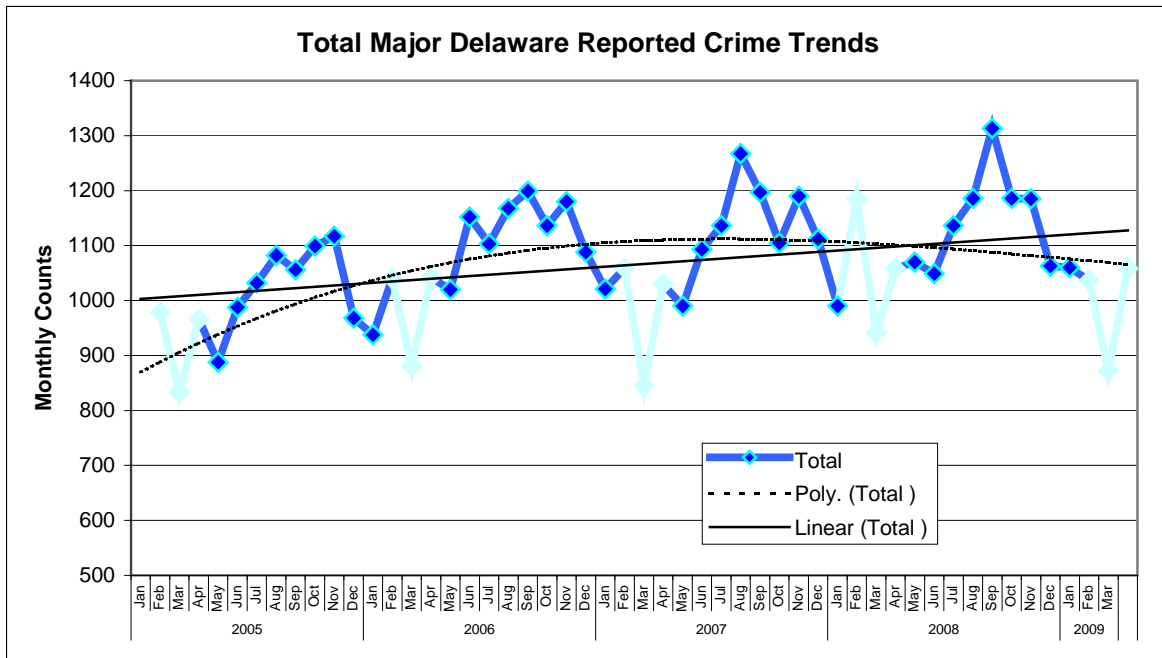


## What is the Long-term Crime Trend?

Chart 2 below shows the monthly reported major crimes in Delaware since January of 2005. The solid straight line (linear trend) shows an approximate 12 percent increase in major crime between January 2005 and March of 2009. The linear trend indicates that between 2005 and the first quarter of 2009 reported major crime has been increasing. Interestingly, however, the “polynomial fit,” which is a method of curve fitting that is more sensitive to changes over time, indicates that after 2007 we experienced a decrease in crime. Which representation is more accurate? At this point it is not possible to really know, except to say polynomial fit (3<sup>rd</sup> order) has at least indicated a flattening of the overall increasing linear trend in crime.

Another important finding seen in Chart 2, is that there is a strong seasonal down turn in reported major crime in the first quarter of most years. The aberration was in 2008. In the first quarter 2008 the seasonal decrease in reported major crime was not as extensive as in other years. This means the 2009 versus 2008 decrease in major crimes is in part an aberration too. The down turn in first quarter major crime in 2009 is not that exceptional when it is compared to 2007, 2006 or 2005 (light blue).

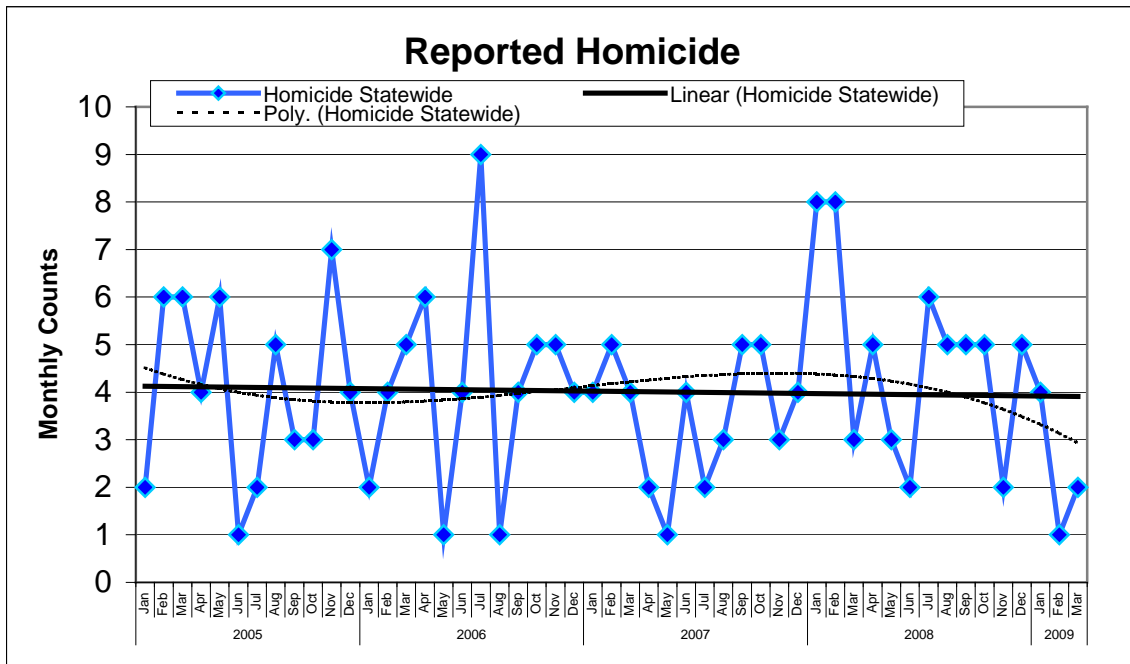
Chart 2



## Crime Trends by Type of Crime

Chart 3 crime trends for reported homicide between 2005 and the first quarter of 2009. On average the linear trend shows that there are 4 reported homicides per month in Delaware. The homicide linear trend line does not indicate a significant increase or decrease. Following a record number of reported homicides in 2008 as indicated by the annual average and the polynomial curve (3<sup>rd</sup> order), the pattern in late 2008 and early 2009 tentatively appears to have stabilized.

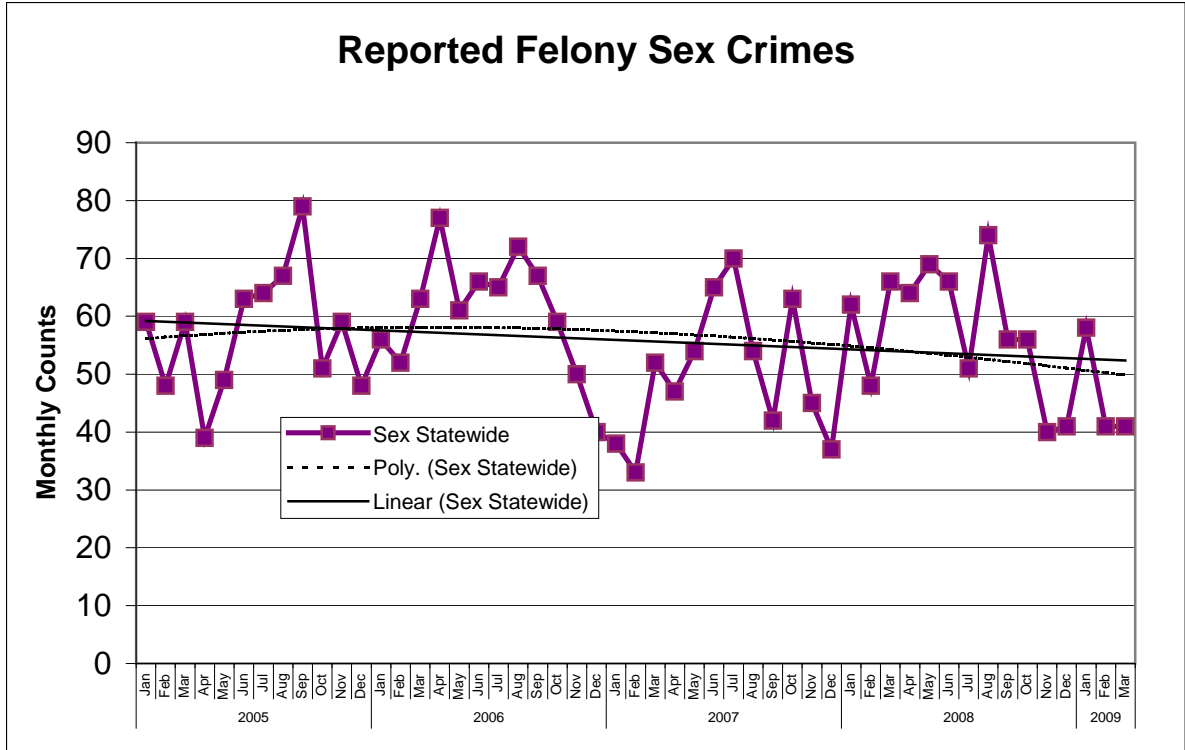
Chart 3



	Statewide Reported Homicide												Percent
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Change
2005	2	6	6	4	6	1	2	5	3	3	7	4	<b>49</b>
2006	2	4	5	6	1	4	9	1	4	5	5	4	<b>50</b> <b>2.0%</b>
2007	4	5	4	2	1	4	2	3	5	5	3	4	<b>42</b> <b>-16.0%</b>
2008	8	8	3	5	3	2	6	5	5	5	2	5	<b>57</b> <b>35.7%</b>
2009	4	1	2										

Chart 4 shows that on average, as indicated by both the linear and polynomial curve fitting (3<sup>rd</sup> order), that the monthly number of felony sex crimes has decreased from about 60 per month to about 50 per month in the first quarter of 2009.

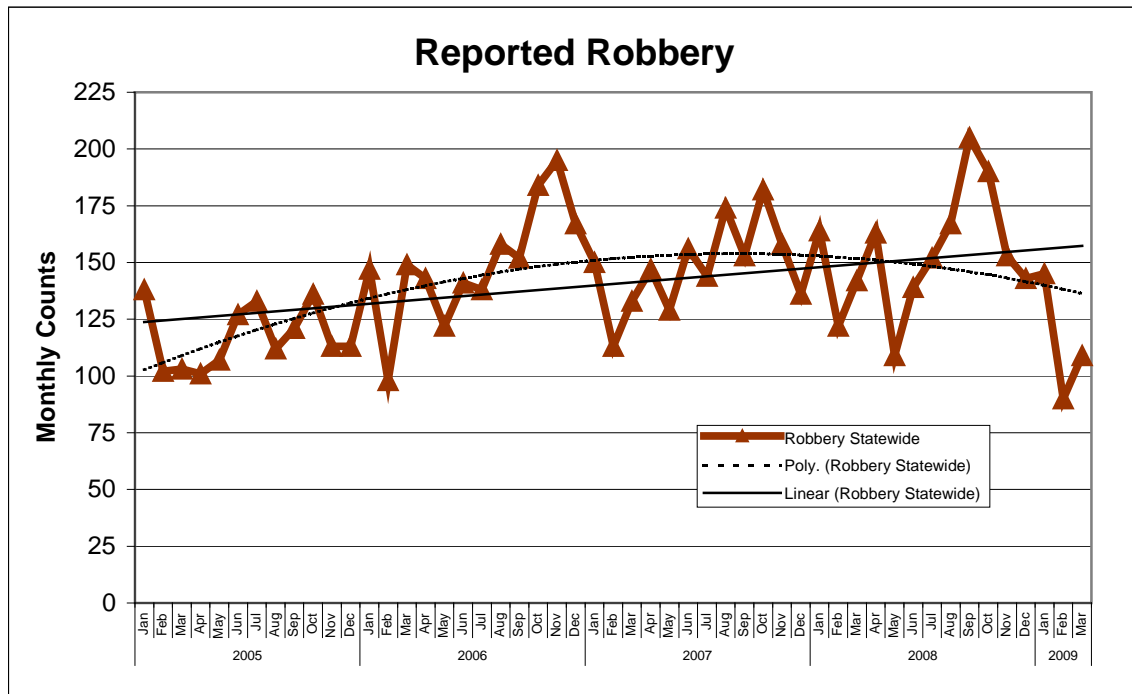
Chart 4



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	Percent Change
2005	59	48	59	39	49	63	64	67	79	51	59	48	<b>685</b>	
2006	56	52	63	77	61	66	65	72	67	59	50	40	<b>728</b>	<b>6.3%</b>
2007	38	33	52	47	54	65	70	54	42	63	45	37	<b>600</b>	<b>-17.6%</b>
2008	62	48	66	64	69	66	51	74	56	56	40	41	<b>693</b>	<b>15.5%</b>
2009	58	41	41											

The polynomial fit (2<sup>nd</sup> order) for robbery in Chart 5 shows that we experienced an increase in robbery between 2005 and 2007, but since then we have experienced a decrease. Per the polynomial fit, the average number of monthly robberies increased from about 100 in 2005 to just over 150 in the summer of 2007. Since then there has been a small decrease back to about 140 per month. However, the linear trend however shows a steadily increasing trend. At this point the projections are mixed, however the low number of reported robbery counts in first quarter 2009 may be a positive future indicator.

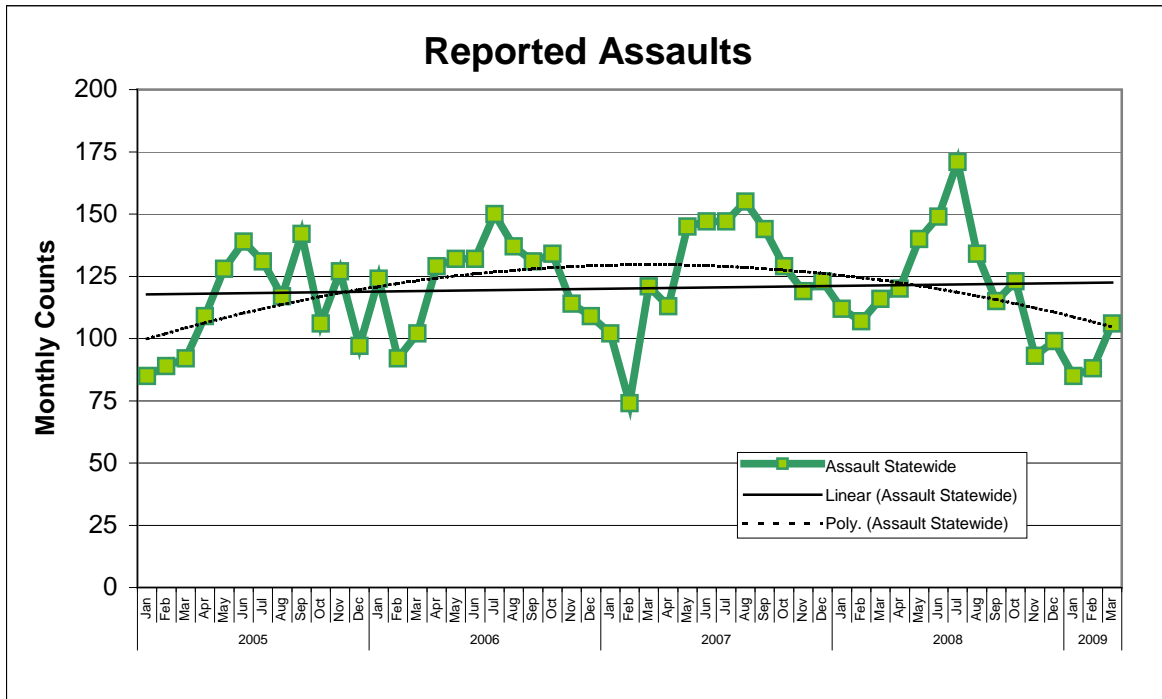
Chart 5



	Statewide Reported Robbery												Percent	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	Change
2005	138	102	103	101	107	127	133	112	121	136	113	113	<b>1,406</b>	
2006	147	98	149	143	122	141	138	158	152	184	195	167	<b>1,794</b>	<b>27.6%</b>
2007	150	113	133	147	129	156	144	174	153	182	158	136	<b>1,775</b>	<b>-1.1%</b>
2008	164	122	142	163	109	139	152	167	205	190	153	143	<b>1,849</b>	<b>4.2%</b>
2009	145	90	109											

Reported assaults, like reported robbery, present a slightly mixed picture. The linear trend shown in Chart 6 shows a very slow increase since 2005, while the polynomial fit (2<sup>nd</sup> Order) shows an increase from about 100 reported assaults in 2005 to as high as 130 per month in 2007 with a decreasing trend since then. By 2009, we may have experienced a decrease to as low as 100 per month again.

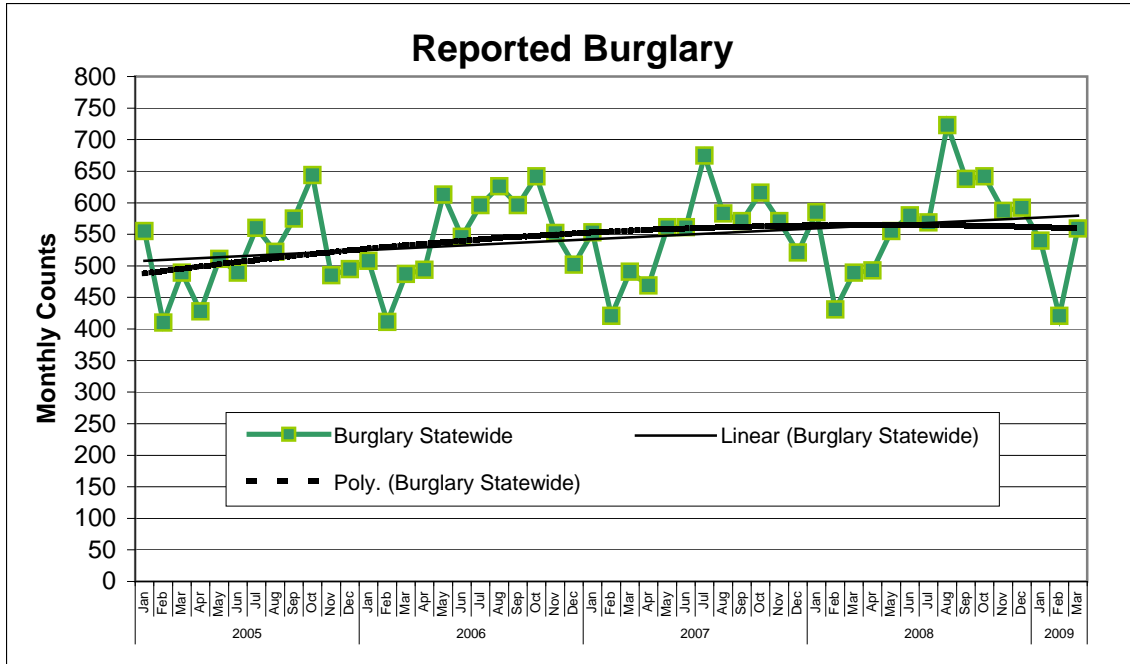
Chart 6



	Statewide Reported Assault												Percent
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Change
2005	85	89	92	109	128	139	131	117	142	106	127	97	<b>1,362</b>
2006	124	92	102	129	132	132	150	137	131	134	114	109	<b>1,486</b> <b>9.1%</b>
2007	102	74	121	113	145	147	147	155	144	129	119	123	<b>1,519</b> <b>2.2%</b>
2008	112	107	116	120	140	149	171	134	115	123	93	99	<b>1,479</b> <b>-2.6%</b>
2009	85	88	106										

Both the linear and the polynomial fits (3<sup>rd</sup> order) in Chart 7 show that we have been experiencing and will most likely continue to experience an increase in the number of reported burglaries. In 2005 we experienced, on average, about 500 burglaries per month and by 2009 we could be experiencing nearly 560 per month.

Chart 7

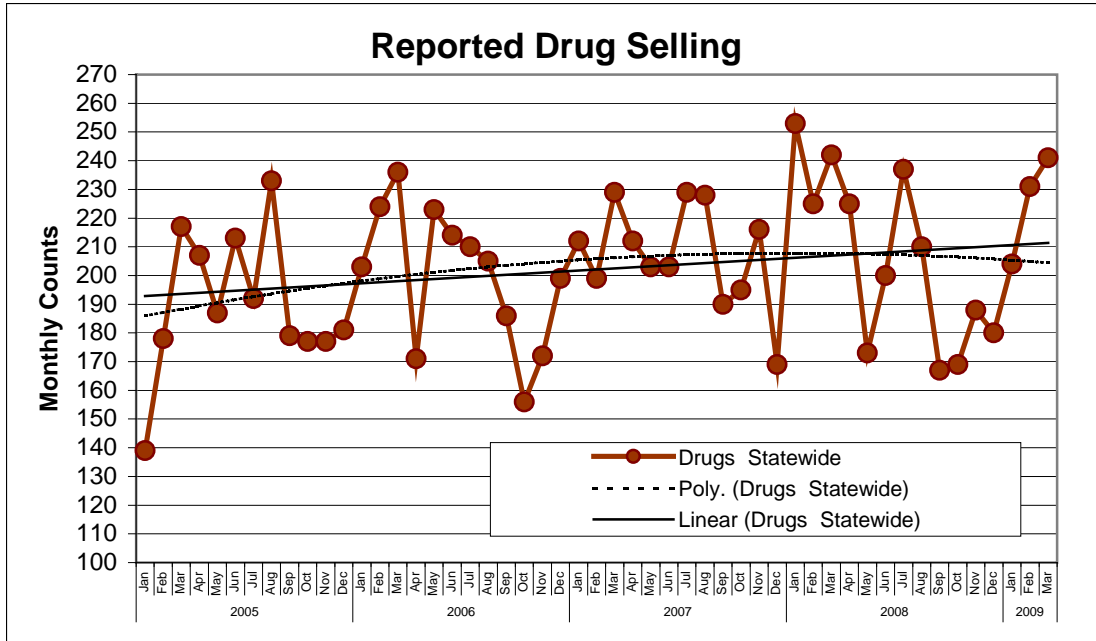


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	Percent Change
2005	555	410	489	428	511	489	560	522	575	644	485	495	6,163	
2006	508	411	487	494	613	546	596	626	596	642	552	502	6,573	6.7%
2007	553	421	491	469	561	561	675	583	571	616	571	521	6,593	0.3%
2008	585	431	489	493	555	580	569	723	638	642	587	592	6,884	4.4%
2009	540	421	559											



The polynomial fit (2<sup>nd</sup> order) in Chart 8 indicates that there might be a small decreasing trend starting in 2008 reported drug selling. However, the linear trend indicates that a small increasing trend will continue. In 2005 we experienced, on average, 190 drug selling reports per month. By 2009, on average, we are experiencing about 210.

Chart 8

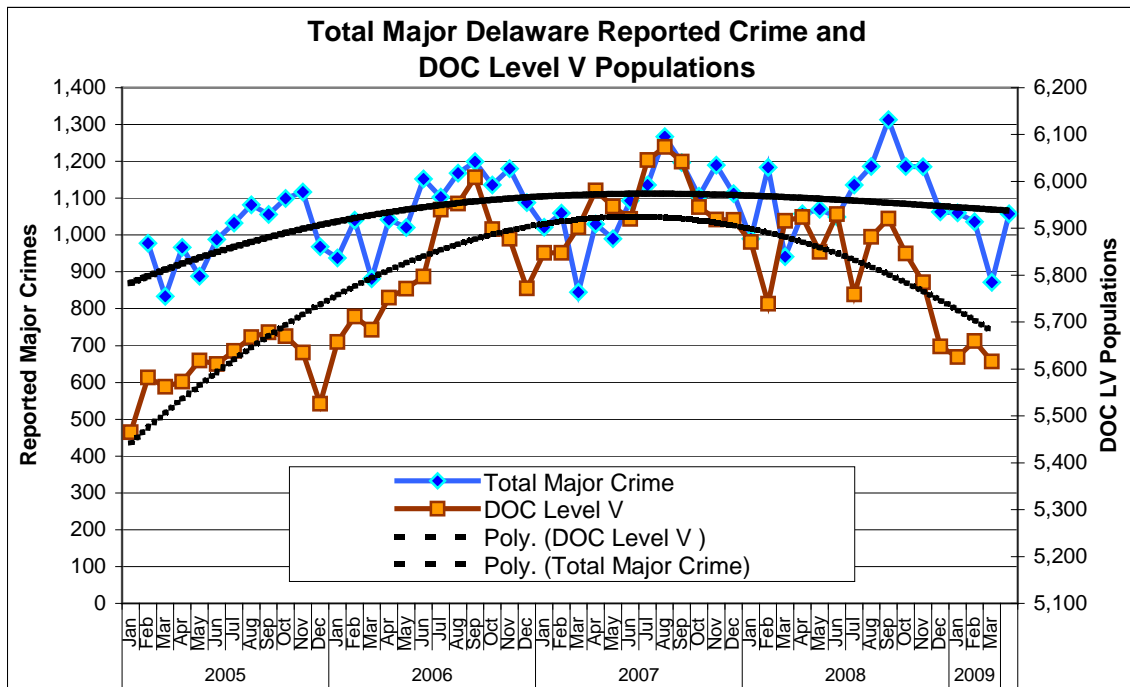


	Statewide Reported Drug Selling												Percent	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	Change
2005	139	178	217	207	187	213	192	233	179	177	177	181	<b>2,280</b>	
2006	203	224	236	171	223	214	210	205	186	156	172	199	<b>2,399</b>	5.2%
2007	212	199	229	212	203	203	229	228	190	195	216	169	<b>2,485</b>	3.6%
2008	253	225	242	225	173	200	237	210	167	169	188	180	<b>2,469</b>	-0.6%
2009	204	231	241											

## What is the Relationship between Reported Major Crime and Department of Correction Level V populations?

Reported major crimes included in this analysis (homicide, felony sexual assault, robbery, assault, burglary and drug selling) are one of predicates related to the size of the DOC Level V populations. The DOC Level V populations include offenders housed in a DOC facility as pre-trial detainees, sentenced offenders (ranging from a short jail term to life without the possibility of release), or a Level IV offender housed at a Level V facility awaiting space at Level IV. Chart 9 provides a comparison showing the relative relationship of reported major crimes and the DOC Level V populations. In a very general sense, as expected, they are related. That is as reported crime increased the DOC Level V population increased, and as reported crime decreased so did the DOC Level V population. While the direction changes makes sense the degree of change does not. The DOC Level V population varies to a much greater degree than the reported crime. This indicates that there are intervening actions that have as much, and maybe even more, independent influence on the DOC Level V population as changes in reported crime. For instance, the Probation Reform Act Study (DeLSAC January 2005) showed how significantly offenders violating at Levels IV quasi incarceration and Level III intensive probation supervision influences Level V and Level IV admissions rates. In addition, the HB 210 study (DeLSAC January 2008) showed how increased prosecutorial filings, increased conviction rates and longer terms for violent offenders results in increased DOC Level V population. In fact, this study was able to show that a significant proportion of the increased DOC population in 2006 and 2007 was related to these changes. Lastly, the level of incarceration via incapacitation may be a predicate to reported crime.

Chart 9



## **Crime Measures and Caveats**

With the exception of homicide, crimes are counted as single events based on one or more occurrence within a complaint number. Homicide complaint counts are increased to the number of victims in complaints with multiple victims. This is a simpler method and is markedly different from official NIBRS reporting where all crimes against persons are counted by the number of victims. Multiple crimes in a single complaint may be counted in more than one of the selected crime groups (that is, there is no hierarchical filtering of crime counts). Statutes referenced in the most recent crime supplement for each incident report identify the crimes. All groups include attempted crimes except for homicide; attempted homicide is included in the felony assault group.

A practicality related to providing timely crime reporting is that it takes time for the information to be put into the system and even longer in some cases to be finalized. This is most noticeable in the area of homicides that tend to get immediate detailed media coverage, but take some time for the investigation to result in entry into the computer files. For instance, in the first half of 2008, there were 29 media references to homicide of which 26 are posted on the crime computer files. Interestingly, there are four other cases that had been posted as homicides earlier, but in the most recent “police supplements” these cases had flawed information that took them off the homicide list, at least temporarily reducing the count from 26 to 22. When the “dust settles” it is expected that most of these cases “under review” will be listed as part of the homicide counts. To take into account the “fluidity” of crime information, updates to this report include updating reported crimes and arrests going back to the most recent calendar year. Therefore, while the system reflects actual crimes near real time, the most recent months of this report should be read to some degree as being preliminary. Complex cases may take more time to investigate.

This information is extracted from the Delaware Criminal Justice Information System’s (DelJISs) crime complaint files. The methodology for this report was prepared in consultation with DelJIS, the Delaware State Police’s State Bureau of Identification (SBI) and the Attorney Generals Office. It is important to know that this is unofficial crime information based on the most recent and accurate interpretation of active files that are frequently updated. The official Delaware crime data is provided annually through SBI’s National Incident Based Crime Reporting System, which includes a process that meets national standards of measurement using scores of edits, verifications and corrections.