

# Assessing and Enhancing the Utility of NIBRS Data<sup>1</sup>

NIBRS Team at John Jay College of Criminal Justice  
The City University of New York

Eman Abdu, Henry Gallo, Doug Salane,  
Peter Shenkin and Maggie Smith

**Problem:** Data produced by the FBI's National Incident-Based Crime Reporting System (NIBRS) offers researchers, policy analysts and practitioners exceptional opportunities for understanding crime. Yet several factors limit the use of NIBRS data for crime research and policy analysis. First, many assume the data are biased due to lack of national coverage, overrepresentation of smaller population areas, and incomplete reporting of item data. Second, the inherent complexity of NIBRS data limits access to the criminal justice community.

**Data Quality:** This effort will measure the bias in NIBRS data and establish how that bias is changing over time as agencies increasingly employ NIBRS reporting. We will compare crime statistics derived from NIBRS data with those derived from Summary UCR data, Supplementary Homicide Reports and the National Crime Victimization Survey. In addition, the project will establish standards for item missing data in NIBRS by tracking the reporting of various incident-level details over a sixteen year period.

<sup>1</sup>The project is supported in part by a recent grant from the National Institute of Justice Data Resources Program, Funding for Analysis of Existing Data.

Improving Access: The project is developing tools that allow users to easily access the data and explore relationships in the data. We plan to extract data from NIBRS for common crime data studies, for example, victim/offender relationships. Users will be able to import this data into statistical packages or spreadsheets with pivot tables that provide multiple views of the data.

Deliverables: Tools for multidimensional analysis of NIBRS data and subsets of NIBRS data for specialized studies, reports detailing comparisons of NIBRS with other crime data sources, and standards for NIBRS item missing data.

Methodology: The project relies on John Jay's relational database implementation of NIBRS which, after addition of the 2012 release of FBI NIBRS data, contains about 65 million crime incidents from 1995 through 2012.

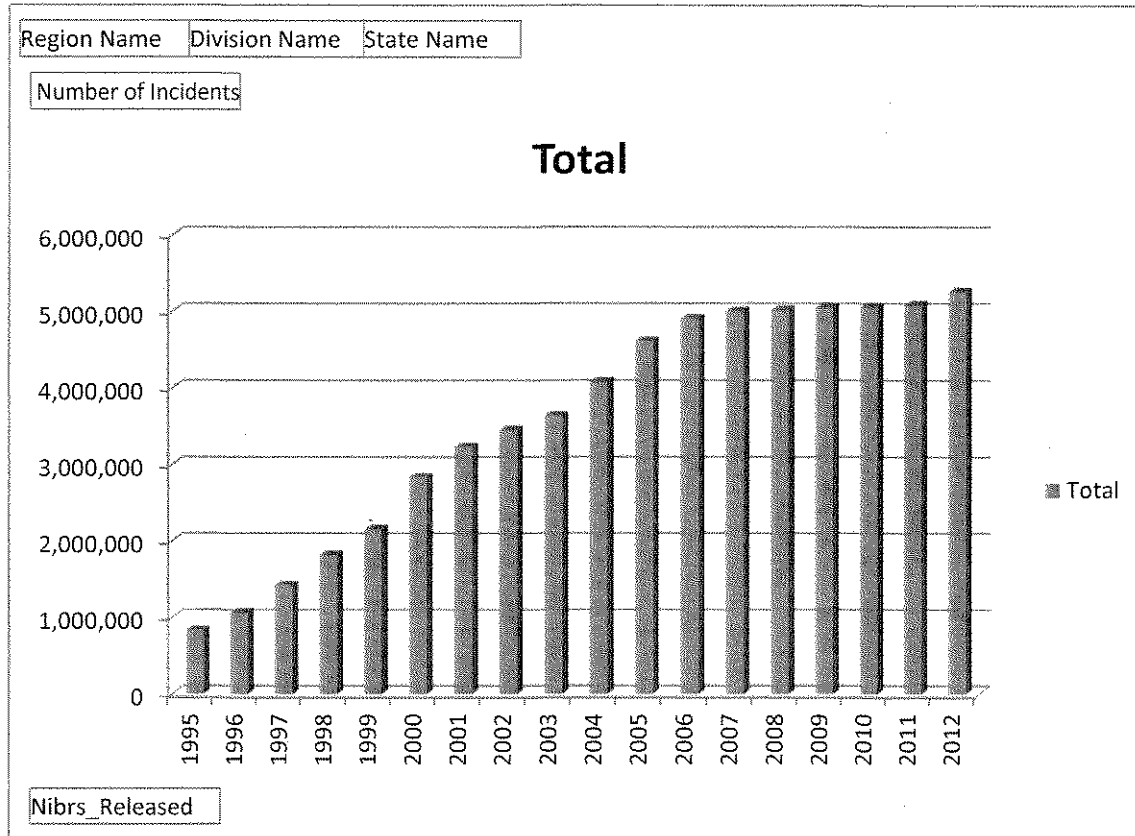
Additional Project Support: The John Jay Relational database implementation of NIBRS is an on-going project begun in 2004 and has received support from grants from NASA, NSF, NY State Graduate Research and Technology Initiative and the Center for Cybercrime Studies at John Jay. The project obtains NIBRS data from the National Archive of Criminal Justice Data at the University of Michigan. The NIBRS relational database is housed on servers located at the John Jay College of Criminal Justice.

Sizes of Key NIBRS Segments  
in the  
John Jay Relational Database  
(2005 and 2012 snapshots)

Segment Type	Record Counts (1995-2005)	Record Counts (1995-2012)	Attributes	Row Size (bytes)
Administrative	29,173,206	64,560,741	16	63
Offense	31,909,476	65,232,514	19	96
Property	33,348,435	75,257,561	25	77
Victim	31,741,442	71,045,220	55	142
Offender	32,940,666	73,562,917	11	54
Arrestee	8,015,646	18,884,714	19	96
Group B Arrest	9,865,679	21,608,578	21	74
Window Exceptional Clearance	11,502	29,056	26	97
Window Recovered Property	7,086	16,023	34	99
Window Arrestee	156,791	219,276	30	132

Region Name (All)  
 Division Name (All)  
 State Name (All)

	Number of Incidents
1995	837,014
1996	1,064,763
1997	1,426,978
1998	1,822,675
1999	2,157,326
2000	2,841,523
2001	3,232,281
2002	3,455,589
2003	3,637,432
2004	4,083,571
2005	4,614,054
2006	4,906,781
2007	5,003,962
2008	5,016,841
2009	5,052,752
2010	5,060,854
2011	5,084,696
2012	5,261,649
<b>Grand Total</b>	<b>64,560,741</b>

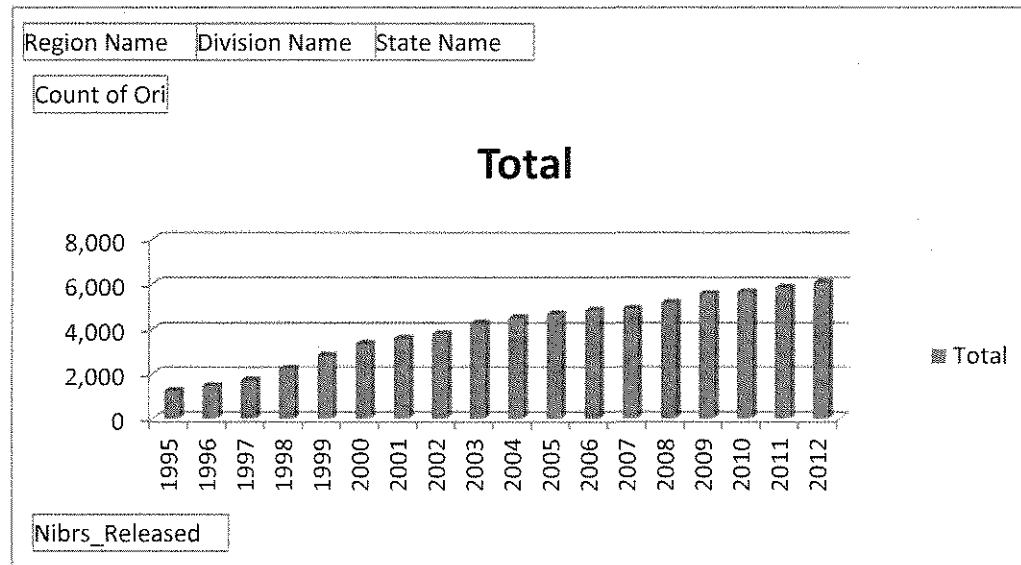


Number of Incidents in Administrative Segment

1995-2012

Region Name (All)  
 Division Name (All)  
 State Name (All)

Row Labels	Count of Ori
1995	1,255
1996	1,487
1997	1,738
1998	2,249
1999	2,852
2000	3,365
2001	3,611
2002	3,809
2003	4,287
2004	4,525
2005	4,682
2006	4,841
2007	4,935
2008	5,184
2009	5,595
2010	5,662
2011	5,874
2012	6,086

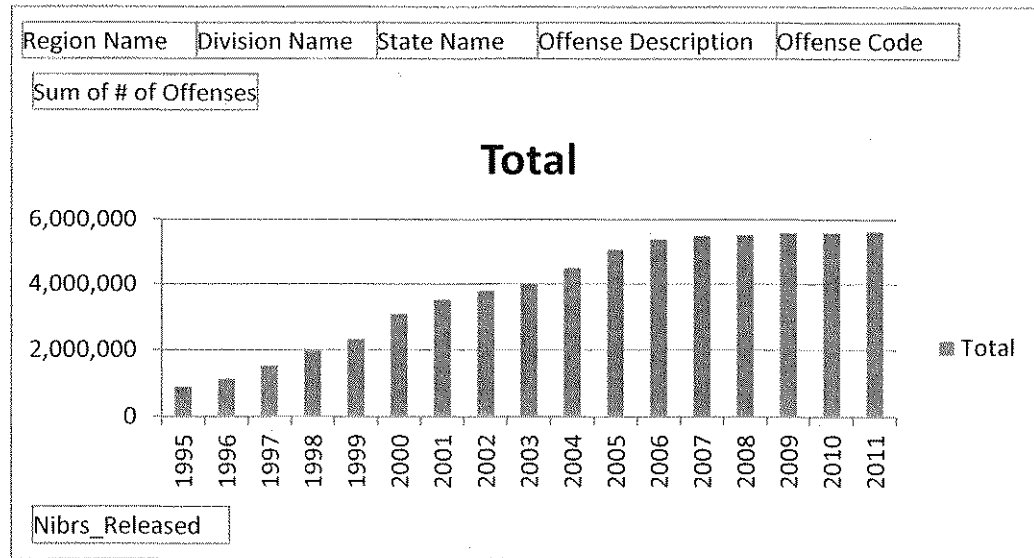


Originating Agencies Nationwide

1995-2012

Region Name (All)  
 Division Name (All)  
 State Name (All)  
 Offense Description (All)  
 Offense Code (All)

Row Labels	Sum of # of Offenses
1995	906,509
1996	1,138,781
1997	1,535,104
1998	1,966,364
1999	2,333,921
2000	3,098,037
2001	3,541,282
2002	3,795,591
2003	4,004,128
2004	4,510,120
2005	5,079,639
2006	5,401,766
2007	5,521,159
2008	5,542,421
2009	5,597,226
2010	5,610,977
2011	5,649,489
<b>Grand Total</b>	<b>65,232,514</b>

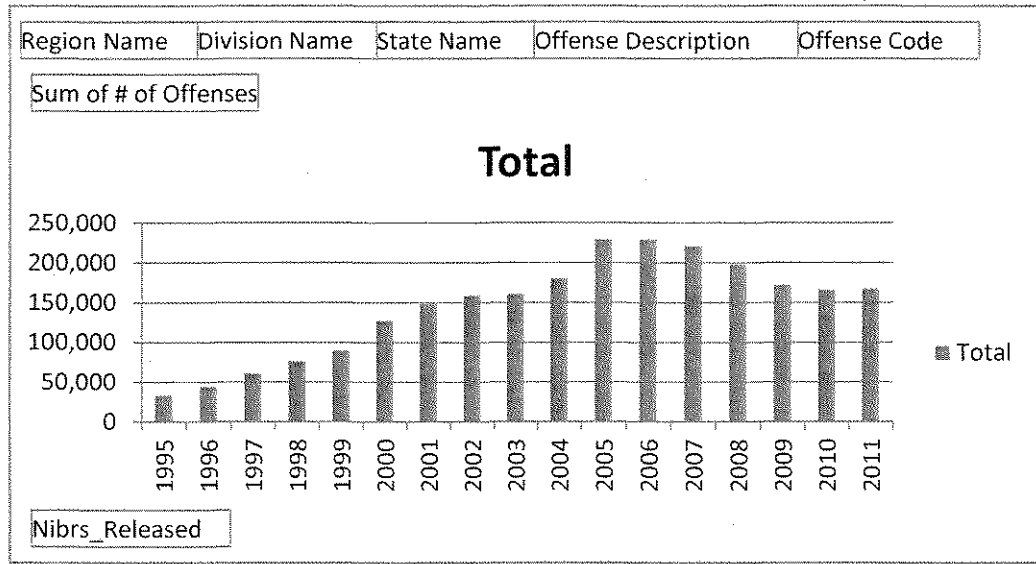


Number of Offense in Offense Segment

1995-2011

Region Name	(All)
Division Name	(All)
State Name	(All)
Offense Description	Motor Vehicle Theft
Offense Code	(All)

Row Labels	Sum of # of Offenses
1995	33,573
1996	44,475
1997	61,019
1998	76,720
1999	89,995
2000	127,551
2001	148,092
2002	159,119
2003	161,210
2004	180,479
2005	229,614
2006	229,597
2007	221,543
2008	198,212
2009	172,414
2010	166,556
2011	167,437
<b>Grand Total</b>	<b>2,467,606</b>

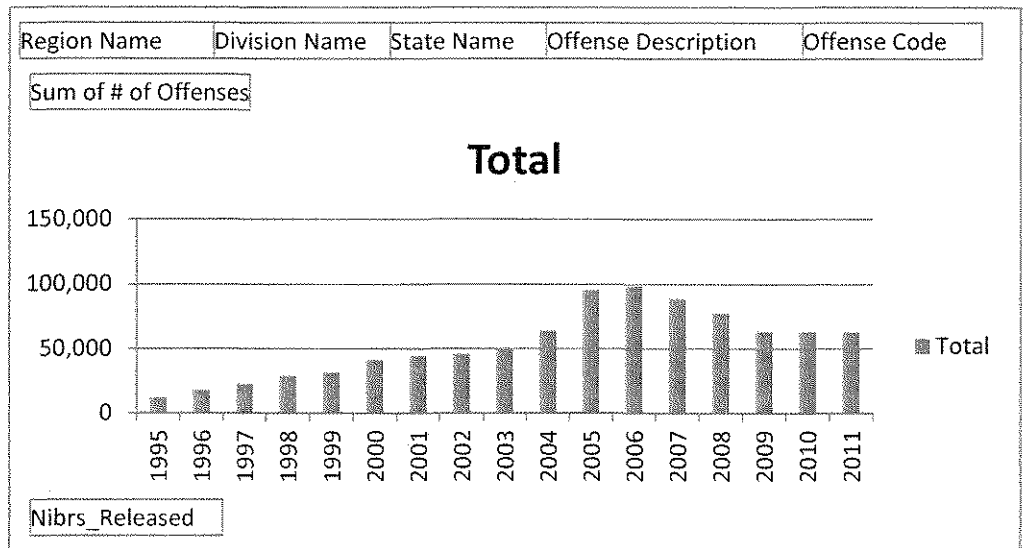


Offense: Motor Vehicle Theft

Region: All (Midwest, North, South and West)

Region Name: Midwest  
 Division Name: (All)  
 State Name: (All)  
 Offense Description: Motor Vehicle Theft  
 Offense Code: (All)

Row Labels	Sum of # of Offenses
1995	12,000
1996	17,813
1997	22,962
1998	29,244
1999	31,833
2000	41,579
2001	44,807
2002	45,989
2003	49,519
2004	63,937
2005	95,668
2006	97,956
2007	88,988
2008	77,409
2009	63,368
2010	63,377
2011	62,990
<b>Grand Total</b>	<b>909,439</b>



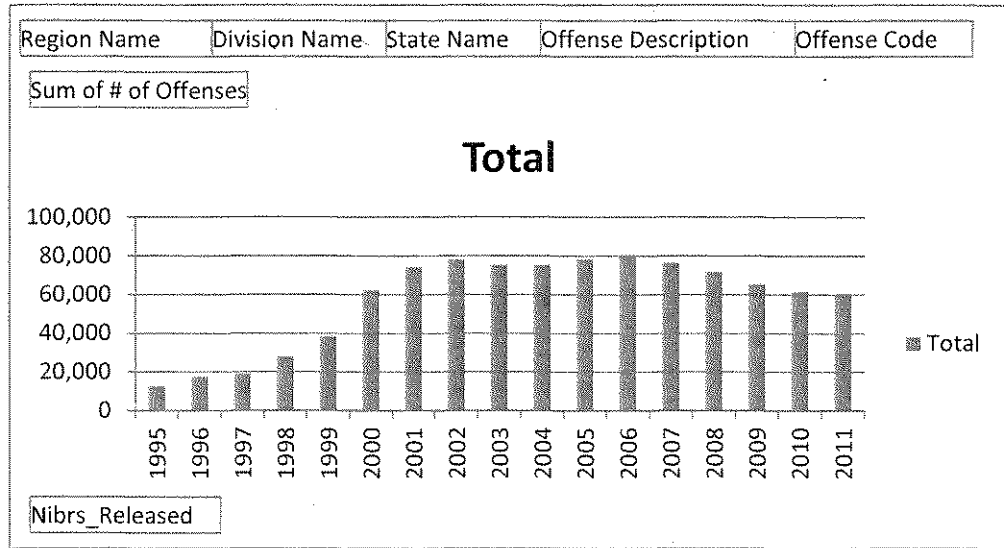
Offense: Motor Vehicle Theft

Region: Midwest



Region Name	South
Division Name	(All)
State Name	(All)
Offense Description	Motor Vehicle Theft
Offense Code	(All)

Row Labels	Sum of # of Offenses
1995	12,627
1996	17,644
1997	19,099
1998	28,279
1999	38,478
2000	62,595
2001	74,645
2002	78,350
2003	75,491
2004	75,452
2005	78,669
2006	80,740
2007	76,624
2008	72,009
2009	65,373
2010	61,841
2011	60,970
<b>Grand Total</b>	<b>978,886</b>

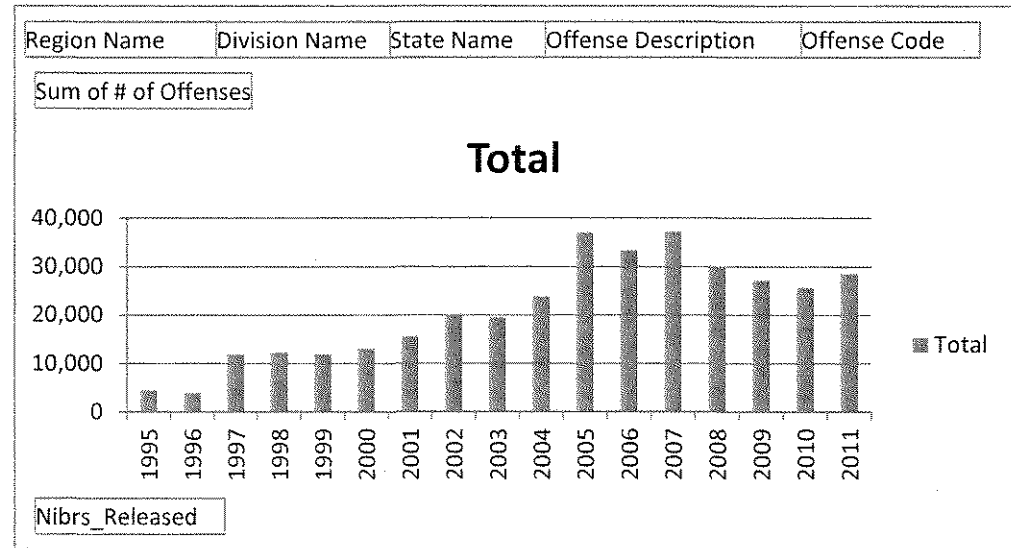


Offense: Motor Vehicle Theft

Region: South

Region Name West  
 Division Name (All)  
 State Name (All)  
 Offense Description Motor Vehicle Theft  
 Offense Code (All)

Row Labels	Sum of # of Offenses
1995	4,429
1996	3,963
1997	11,923
1998	12,309
1999	11,980
2000	13,085
2001	15,606
2002	19,946
2003	19,537
2004	23,799
2005	37,082
2006	33,405
2007	37,198
2008	29,825
2009	27,223
2010	25,711
2011	28,580
<b>Grand Total</b>	<b>355,601</b>



Offense: Motor Vehicle Theft

Region: West

# Assessing and Enhancing the Utility of NIBRS Data

NIBRS Team at John Jay College

Eman Abdu, Henry Gallo, Doug Salane,  
Peter Shenkin and Maggie Smith

For more information please contact

Doug Salane

[dsalane@jjay.cuny.edu](mailto:dsalane@jjay.cuny.edu)

Center for Cybercrime Studies  
Mathematics & Computer Science Department  
John Jay College of Criminal Justice  
524 West 59<sup>th</sup> Street  
New York, NY 10019