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## Use of CHRI Data to Generate Arrest Statistics

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## Background on CHRI Ad Hoc Database

- SAC partnership with Illinois State Police (state central CHRI repository)/copy of live production database refreshed daily
- All research requests referred to ICJIA
- Subject to user agreement

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## Background on CHRI Ad Hoc Database

- Oracle DB converted to SPSS files on arrestees, arrest charges, state's attorney charges, court charges/dispositions and sentences
- SAC creates SPSS arrest table with one record per arrest with all associated demographics and all charges

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## History of Illinois UCR

- Case-level offense and arrest reporting until 1992
- Failed NIBRS initiative results in summary reporting
- Agencies currently report index offenses and arrests, drug arrests, SHR, and selected case-level data pursuant to legislative mandates.

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## CHRI for Offense and Arrest Statistics

- SAC Statistical Reports
- News media requests following delays in release of 2007 I-UCR (No can do!)
- Research need for greater offense detail:
  - Offender demographics
  - Weapon Use
  - Drug Types

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## CHRI vs. UCR

- Data for two systems may be derived from different law enforcement operations, source documentation
- UCR is a generally static data set while CHRI is a live data base subject to updates and other changes

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## UCR Limitations

- Data cannot be disaggregated
- UCR reporting not mandatory
- UCR crime and arrest data can be more easily manipulated if not tied to offender processing operations
- How are warrant arrests reported?

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## Inflation of CHRI Arrests Centralized Booking

- Centralized booking by county sheriff can result in duplicate reporting and ORI misinformation
- Custodial bookings reported as arrest events to CHRI

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## Inflation of CHRI Arrests Warrant Arrests

- Failure-to-Appear Warrants: what arrest charge is reported to CHRI?
- If original offense was index crime, is CHRI arrest duplicated? (Same issue in UCR counts)

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## Inflation of CHRI Arrests Background Checks

- Proliferation of submissions for “Background check only”
- Audits have found many to be mistakenly submitted as arrests

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## Limits of CHRI for Arrest Statistics – Race/Ethnicity

- FBI does not require ethnicity from state CHRI
- Illinois arrest fingerprint card neither includes an ethnicity field nor allows Hispanic as a race category.

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## Limits of CHRI for Arrest Statistics – Race/Ethnicity

- Many juvenile arrests not reported to CHRI
- Audits show imbalance of adult vs. juvenile arrests in CHRI
- Determination of juvenile/adult status from CHRI data based on date fields that are subject to error

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## Reconciling CHRI with UCR: The Hierarchy Rule

- CHRI Ad Hoc DB has all charges, UCR the most serious
- 30-40% of CHRI arrests have >1 charge, some as many as 50
- Most serious charge is not necessarily the first charge

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## Reconciling CHRI with UCR: The Hierarchy Rule

- Requires CHRI hierarchy decision that mimics UCR hierarchy decision
- Hierarchy should account for both offense type and statutory offense class
- At least 100,000 charges per year have an unknown value for statute offense class code

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## CHRI – UCR Crosswalk

UCR Code	UCR Category	Description	ILCS	Class
260	Criminal Sexual Assault	Criminal Sexual Assault	720-5/12-13	1
261	Aggravated Criminal Sexual Assault	Criminal Sexual Assault	720-5/12-14	X
262	Forcible Sodomy	Criminal Sexual Assault	720-5/12-16	2
280	Predatory Criminal Sex Assault of Child	Criminal Sexual Assault	720-5/12-14.1	X
281	Criminal Sexual Assault with Object	Criminal Sexual Assault	720-5/12-14	X

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- ## CHRI Data Cleaning
- Errors discovered in correspondence of statute charges to UCR codes in crosswalk
  - Using Illinois Revised Statutes, corrections were made for all index offenses as well as for drug offenses
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## Recoding Offense Charges into Groups

- Legacy I-UCR system provides useful offense categories (29) to serve as foundation for consideration of offense seriousness
- Additional categories (8) were created by SAC to account for new laws and other analytical considerations
- Upon completion of code corrections, 37 offense categories collapsed into 8 super categories


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## Offense Type Super Categories

1. Homicide	5. Weapons Offenses
2. Sex Offenses	6. Drug Offenses
3. Violent Offenses	7. Other Offenses
4. Property Offenses	8. Status Offenses


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## Recoding Missing Offense Class Information

- Large number of offense classes were labeled as “Z” (unknown)
- Each statute corresponding to UCR codes was reexamined.
- If statute had multiple offense class possibilities, lowest class was chosen

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## Offense Class Hierarchy

1. Class M	7. Class A
2. Class X	8. Class B
3. Class 1	9. Class C
4. Class 2	10. Unknown
5. Class 3	11. Petty or local ordinance
6. Class 4	

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## Offense Class Hierarchy

Felony Class	Imprisonment	Extended Term	MSR
Murder	20 – 60 years	60 – 100 years	3 years
Class X	6 – 30 years	30 – 60 years	3 years
Class 1	4 – 15 years	15 – 30 years	2 years
Class 2	3 – 7 years	7 – 14 years	2 years
Class 3	2 – 5 years	5 – 10 years	1 year
Class 4	1 – 3 years	3 – 6 years	1 year


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## Combining Offense Category & Offense Class into 2-Part Hierarchy

- Homicide of any class will always be the most serious offense
- Remainder of hierarchy is driven primarily by offense class (integer in hierarchy code), and secondarily by offense category (decimal in hierarchy code)
- Lowest hierarchy values are most serious charges


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### CHRI Hierarchy Rubric

Hierarchy Number	Offense	Class	Hierarchy Variable Value
1	Homicide	Class M Felony	1.1
2	Homicide	Class X Felony	1.2
3	Homicide	Class 1 Felony	1.3
4	Homicide	Class 2 Felony	1.4
5	Homicide	Class 3 Felony	1.5
6	Homicide	Class 4 Felony	1.6

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### CHRI Hierarchy Rubric

Hierarchy Number	Offense	Class	Hierarchy Variable Value
7	Sex Offense	Class X Felony	2.2
8	Violent Offense	Class X Felony	2.3
9	Property Offense	Class X Felony	2.4
10	Weapons Offense	Class X Felony	2.5
11	Drug Offense	Class X Felony	2.6
12	Other Offense	Class X Felony	2.7

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## CHRI Hierarchy Rubric

Hierarchy Number	Offense	Class	Hierarchy Variable Value
42	Sex Offense	Class A Misdemeanor	7.2
43	Violent Offense	Class A Misdemeanor	7.3
44	Property Offense	Class A Misdemeanor	7.4
45	Weapons Offense	Class A Misdemeanor	7.5
46	Drug Offense	Class A Misdemeanor	7.6
47	Other Offense	Class A Misdemeanor	7.7

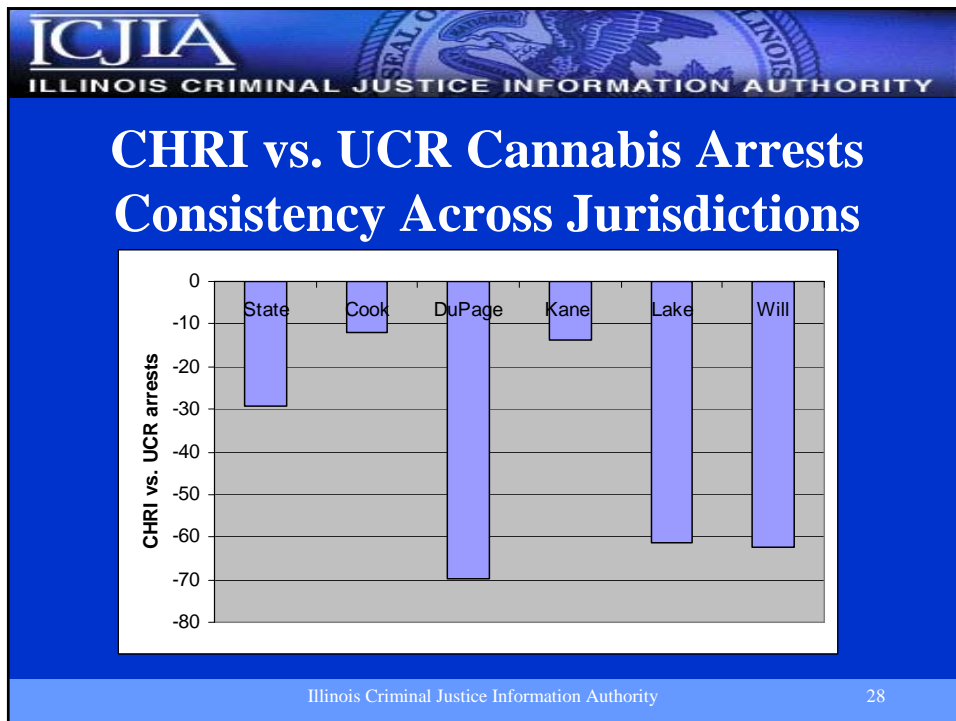
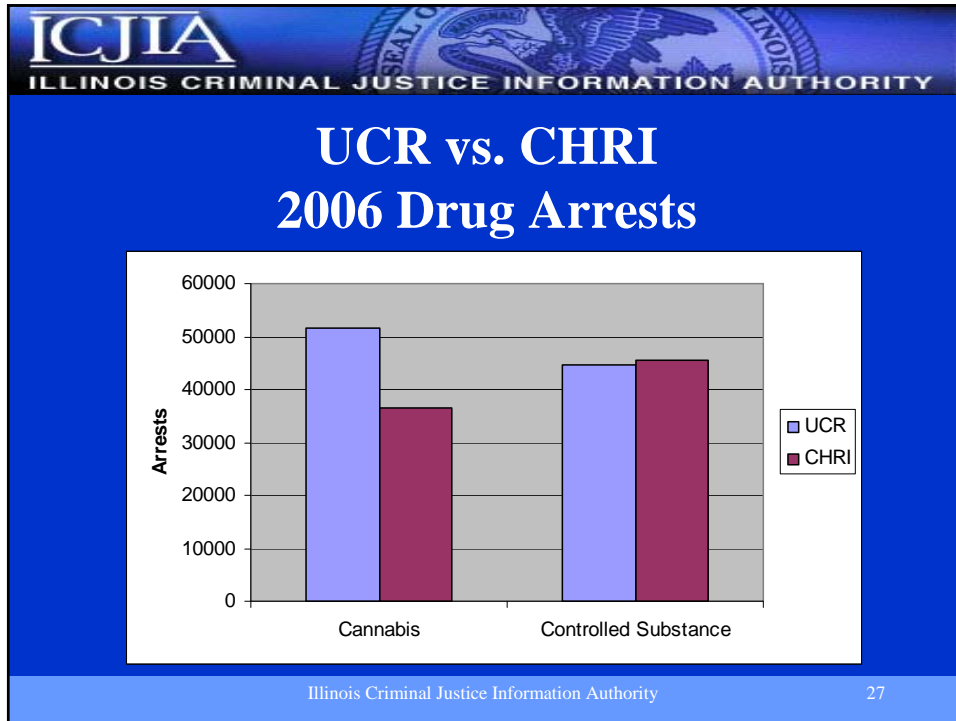
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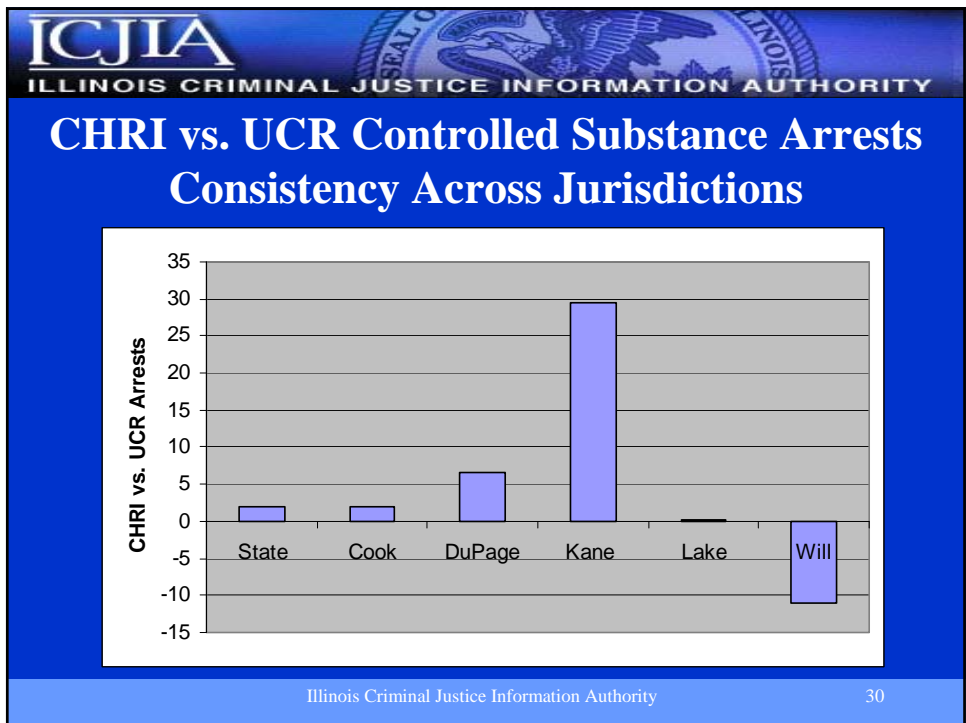
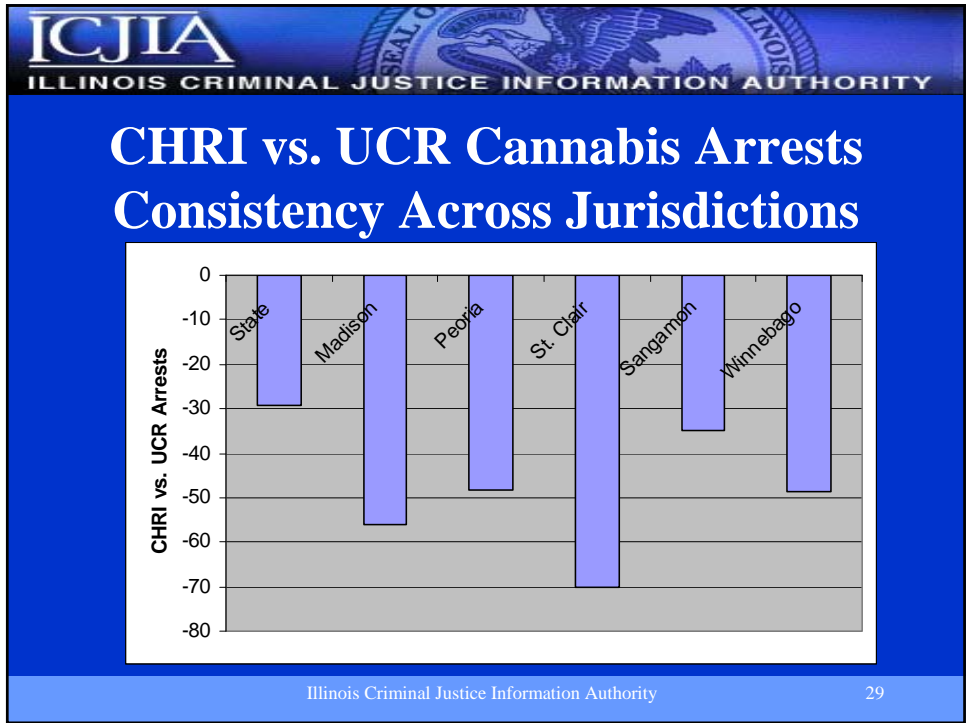


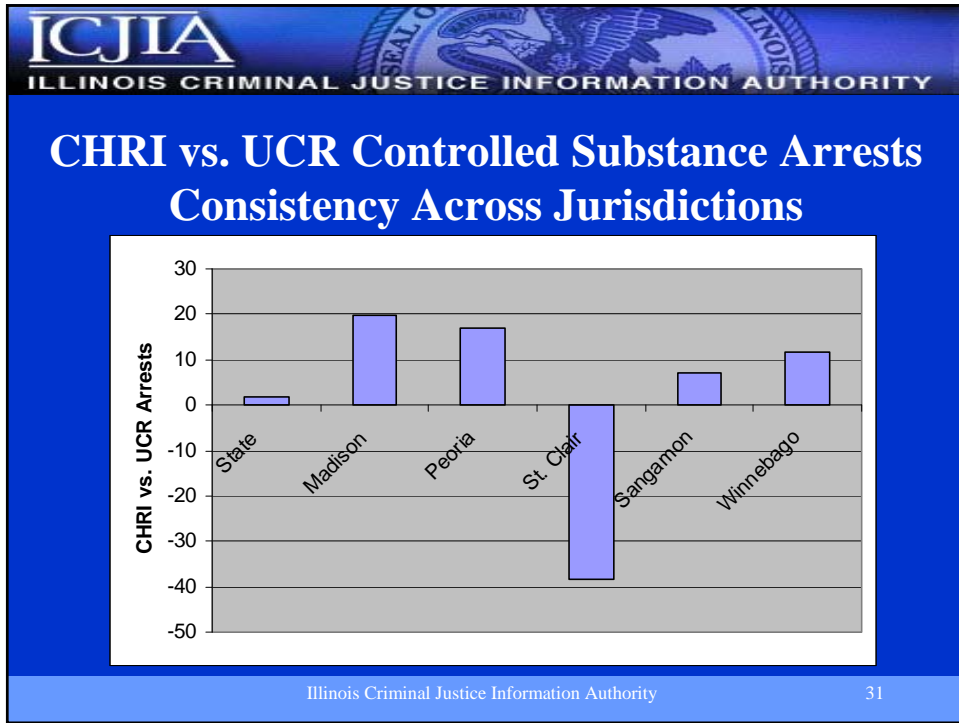
## Use of CHRI to Generate Detail on Drug Arrests

- Ability to capture arrest data at the incident level should allow for identification of offender demographics
- Ability to capture arrest data for specific statutory charges should allow for identification of at least some drug types and drug amounts

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**Profile of Persons Arrested for Controlled Substance Violations**

Gender	Frequency	Percent	Valid Percent
Female	8,078	17.7%	17.7%
Male	37,436	82.2%	82.2%
Unknown	11	0%	0%
Total	45,525	100%	100%

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## Profile of Persons Arrested for Controlled Substance Violations

Race	Frequency	Percent	Valid Percent
Asian	168	0.4%	0.4%
Black	30,958	68.0%	68.4%
American Indian	11	0%	0%
White	14,245	31.3%	31.3%
Unknown	143	0.3%	0.3%
Total	45,525	100%	100%

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## Profile of Persons Arrested for Controlled Substance Violations

Age	Frequency	Percent	Valid Percent
Age 10 – 16	2,584	5.7%	5.7%
Age 17 – 25	14,185	31.2%	31.2%
Age 26 – 46	22,291	49.0%	49.0%
Age 47 – 60	6,098	13.4%	13.4%
Age 61+	337	0.8%	0.8%
Unknown	30	0.1%	0.1%
Total	45,525	100%	100%

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## Determination of Drug Type and Amount – Framing Questions

- Statutory sufficiency: Do statutes allow identification of drug T & A?
- Software sufficiency: Does livescan software provide sufficient detail in statute tables? Updated regularly?
- Case timing: Do police have drug T & A information at the time of arrest booking?

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## Determination of Drug Type and Amount – Framing Questions

- Organizational support: Do departmental policies and procedures encourage the capture of drug T & A detail?
- Staff performance: If drug T & A information is known, do police personnel have the knowledge and will to enter it into CHRI?

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## Controlled Substance Arrest Charges – 2006

Drug Type	Amount Known	Amount Semi-known	Amount Unknown	Total for Drug Type
Heroin	560	760	0	1,320
Cocaine	4,216	817	0	5,033
Morphine	10	3	0	13
Ecstasy	163	0	0	163
PCP	40	0	0	40
Methamphetamine	293	0	313	606

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## Controlled Substance Arrest Charges – 2006

Drug Type	Amount Known	Amount Semi-known	Amount Unknown	Total for Drug Type
Meth Precursors	86	0	0	86
Amphetamine	17	0	0	17
Barbiturate	27	0	0	27
LSD	168	13	0	181
Peyote	7	0	0	7
Methaqualone	14	0	0	14

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## Controlled Substance Arrest Charges – 2006

Drug Type	Amount Known	Amount Semi-known	Amount Unknown	Total for Drug Type
Pentazocene	2	0	0	2
Anabolic Steroid	19	0	0	19
Nitrous Oxide	7	0	0	7
Look-alikes	329	0	0	329
Schedule I – V Drug Class	214	288	0	502
Unknown	1,097	41,367	3,786	46,250

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## Controlled Substance Arrest Charges – 2006 Summary

	Drug Amount Known	Drug Amount Semi-Known	Drug Amount Unknown	Total
Drug Type Completely Known	5,958 (10.9%)	1,593 (2.9%)	313 (0.6%)	7,864 (14.4%)
Drug Type Unknown	1,311 (2.4%)	41,655 (76.3%)	3,786 (6.9%)	46,752 (85.6%)
<b>Total</b>	<b>7,269 (13.3%)</b>	<b>43,248 (79.2%)</b>	<b>4,099 (7.5%)</b>	<b>54,616 (100%)</b>

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## Determination of Drug Type and Amount – Framing Questions

Statutory Sufficiency	Partial
Software Sufficiency	Yes
Case Timing	No
Organizational Support	?
Staff Performance	?

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## Use of CHRI for Arrest Trends over Time (livescan issues)

- Quality of arrest information is enhanced as a result of automated edit checks, but default codes compromise that benefit
- Apparent increase might be the result of increased livescan usage

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## Impact of Livescan – Case Study Peoria County 2001

Month	# Arrests Reported to CHRI	% Livescan Submissions	Month	# Arrests Reported to CHRI	% Livescan Submissions
Jan.	171	8%	July	1,379	89%
Feb.	182	11%	Aug.	1,504	97%
Mar.	412	8%	Sep.	1,394	97%
Apr.	615	2%	Oct.	1,445	99%
May	634	4%	Nov.	1,243	99%
June	705	22%	Dec.	1,048	99%

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## Impact of Livescan – Case Study Peoria County 2001

October 2000 Peoria County MIS List	October 2001 Peoria County MIS List
1,553 booking incidents	1,495 booking incidents
139 (9%) cases found in CHRI database	1,411 (94%) cases found in CHRI database
1,441 (91%) cases not found in CHRI database	84 (6%) cases not found in CHRI database

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# Thank you!

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