

Using Data Analytics to Improve New Mexico's Criminal Justice Outcomes

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What Do We Want From The CJ System?

Most generally, the public, politicians, and other stakeholders want (and expect) 3 things from the Criminal Justice System:

- 1. Effectiveness**
- 2. Efficiency**
- 3. Equity**

How do we get there??

Traditional Government and Criminal Justice Analysis

- Government and other researchers traditionally measure and analyze data from census tracts, cities, counties, zip codes or neighborhoods

Traditional Criminal Justice Analysis

- Police agencies routinely deploy their officers in: precincts, districts, zones, sectors or beats
- Court, Prosecution and Correctional systems are: city, county, state, regionally or nationally based

Traditional Criminal Justice Analysis

- All of these measurement areas are geographically large and therefore more difficult to precisely analyze
- Makes identifying the specific underlying causative factors of increased criminal justice system activity far more challenging

Involvement in “The System”

Crime is not randomly distributed:

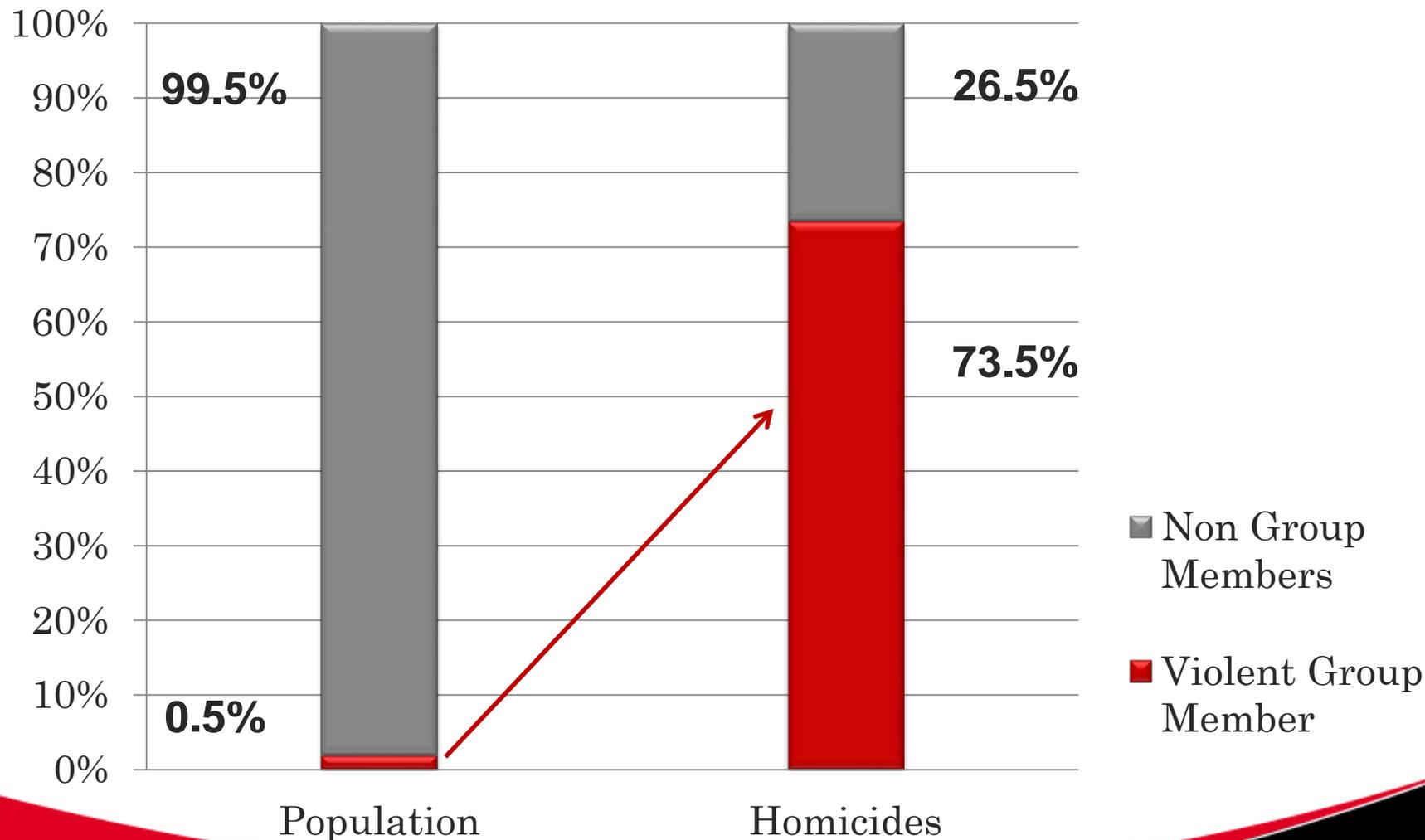
- Hot spot study in Minneapolis – *3% of city addresses generated 50% of crime calls for service*
- Small number of serious chronic offenders
 - Account for an overwhelming majority of crime and violence
- Repeats: repeat offenders, repeat victims, repeat crimes, repeat addresses, repeat mental health consumers, repeat substance abusers populate the CJ system

Identify Those Chronic Offenders Most Likely to Engage in Criminal Activities

- The most crime-involved 10% of US males account for nearly 66% of all the crime committed by males.
- 10% of the most crime-involved US females account for 59% of crime committed by females.

Source: Martinez, Lee, Eck and Oh 2017

Gang Members Disproportionately Involved in Cincinnati Homicides: June 06 - June 07



Criminal History of Identified Violent Gang Members

	Average #	1 or more	5 or more	10 or more
1. Misdemeanor arrest charges	14.4	89.7%	72.3%	56.8%
2. Misdemeanor charge convictions	10.1	86.2%	66.0%	42.1%
3. Felony arrest charges	7.4	84.4%	59.4%	32.3%
4. Felony charge convictions	3.0	74.5%	27.1%	3.0%
5. Delinquent arrest charges	12.7	81.5%	68.3%	52.7%
6. Delinquent charge adjudications	8.5	80.3%	60.6%	37.8%
7. Approach w/ caution	71.0%			
8. Violent arrest	91.0%			
9. Drug arrest	91.0%			

US Shooting Victims /Suspects

Characteristics:

- Low education
- Poor social skills
- No significant job, credit, banking history
- Inferior housing
- Fractured family / Poor parenting
- Prior Criminal history

Effects of street life compound over time for both individuals and their offspring

Violent Places

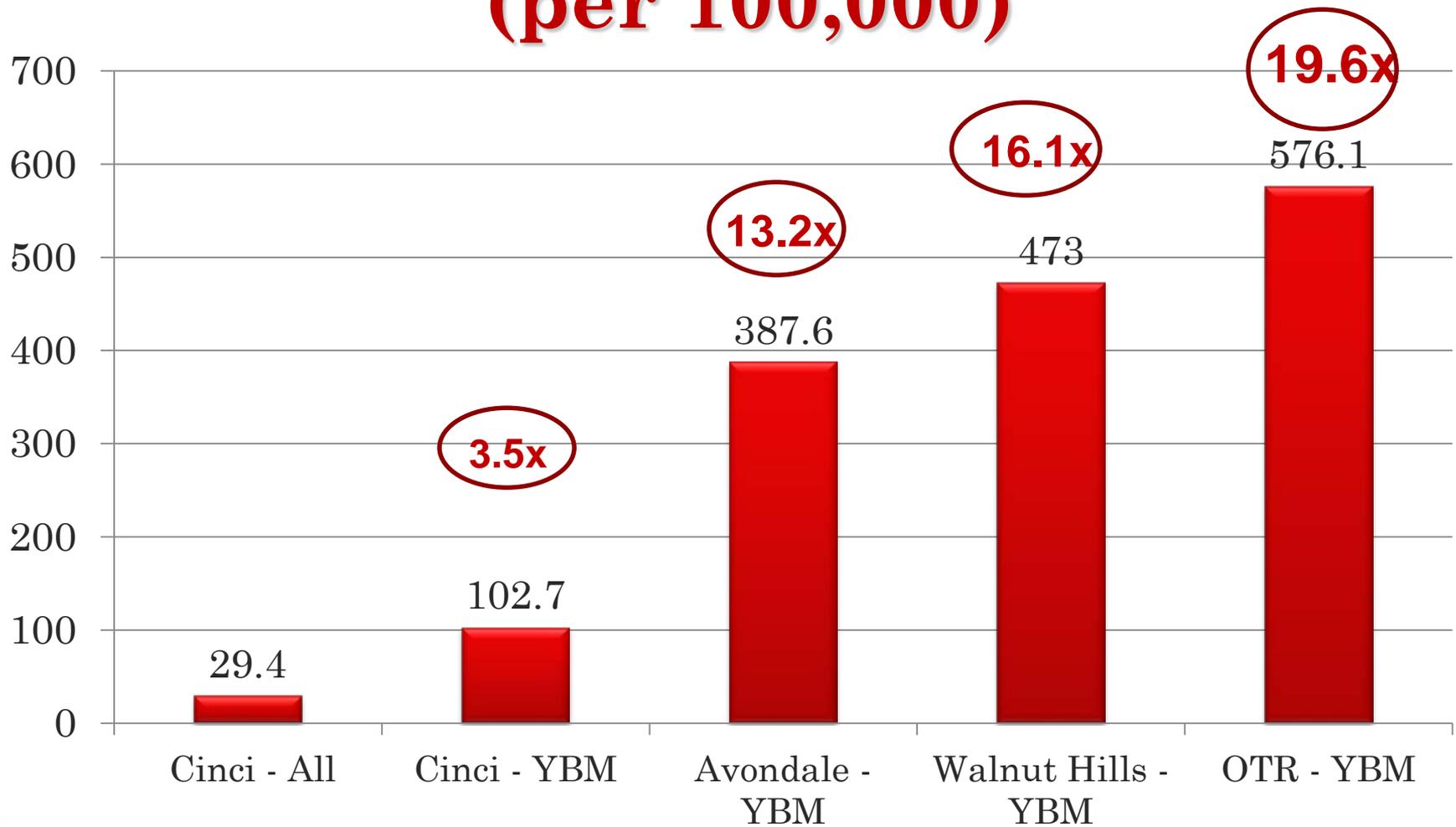
In 2015, 50% of the gun homicides in the United States occurred in just 127 cities and towns, even though they collectively contain less than 25% of the US population

Violent Places

The individual neighborhoods where these homicides occurred make up an area only 42 miles wide by 42 miles long

The contiguous United States in total is 2802 miles wide by 1650 miles long

Cincinnati 2006 Homicide Rates (per 100,000)



- A narrow, offender focused, place-based methodology, that *focuses on smaller geographic units of analysis, such as: particular people or places* that serve as the primary criminal justice system drivers for an entire area.

A smaller analytical focus allows for:

- Easier measurement of criminal/behavioral activity patterns
- Timely identification of underlying criminal causative factors so either criminal justice or social service interventions can occur

- Easier measurement and more timely identification of underlying causative factors allows for quicker action plan development and strategy implementation
- Also faster modification of the plan if evaluation shows it is needed

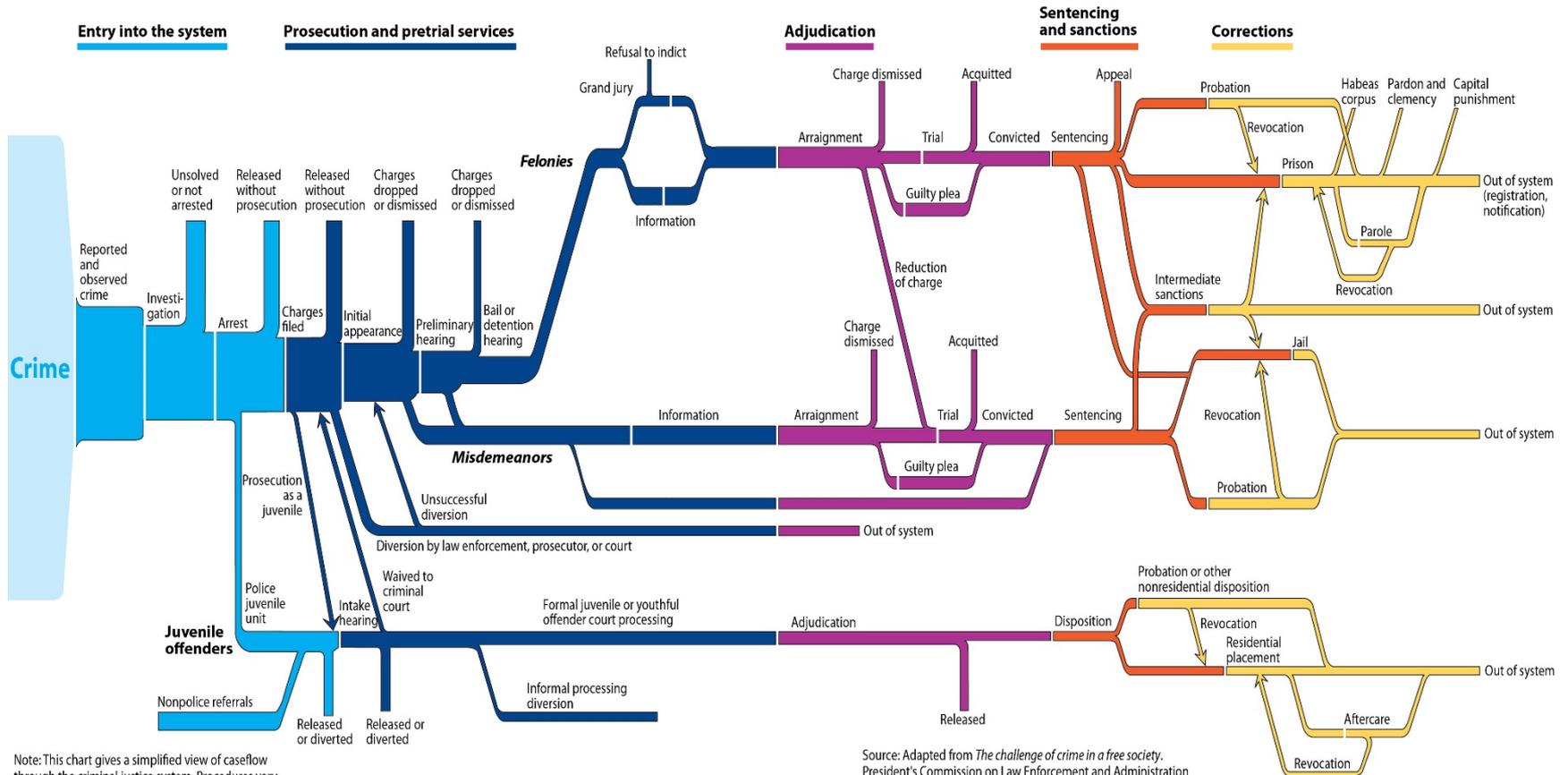
Turning Criminal Justice Data into Actionable Intelligence

Data

- Data collected from different sources is raw and only exists in agency computers or in official documents.
- Often, these various sources are not linked which means the information on offenders is neither complete nor actionable.

Criminal Justice Data Points

What is the sequence of events in the criminal justice system?



Note: This chart gives a simplified view of caseload through the criminal justice system. Procedures vary among jurisdictions. The weights of the lines are not intended to show actual size of caseloads.

Source: Adapted from *The challenge of crime in a free society*. President's Commission on Law Enforcement and Administration of Justice, 1967. This revision, a result of the Symposium on the 30th Anniversary of the President's Commission, was prepared by the Bureau of Justice Statistics in 1997.

Individual Entity Data Examples

Police

- Criminal Offense Data
- Arrest Data
- Traffic Stop Data
- Field Interview Data

Prosecutors

- File charges or petitions for adjudication
- Seek indictments
- Drop cases
- Reduce charges

Individual Entity Data Examples

Judges or Magistrates

- Set bail or conditions for release
- Accept pleas
- Determine delinquency
- Dismiss charges
- Impose sentence
- Revoke probation

Individual Entity Data Examples

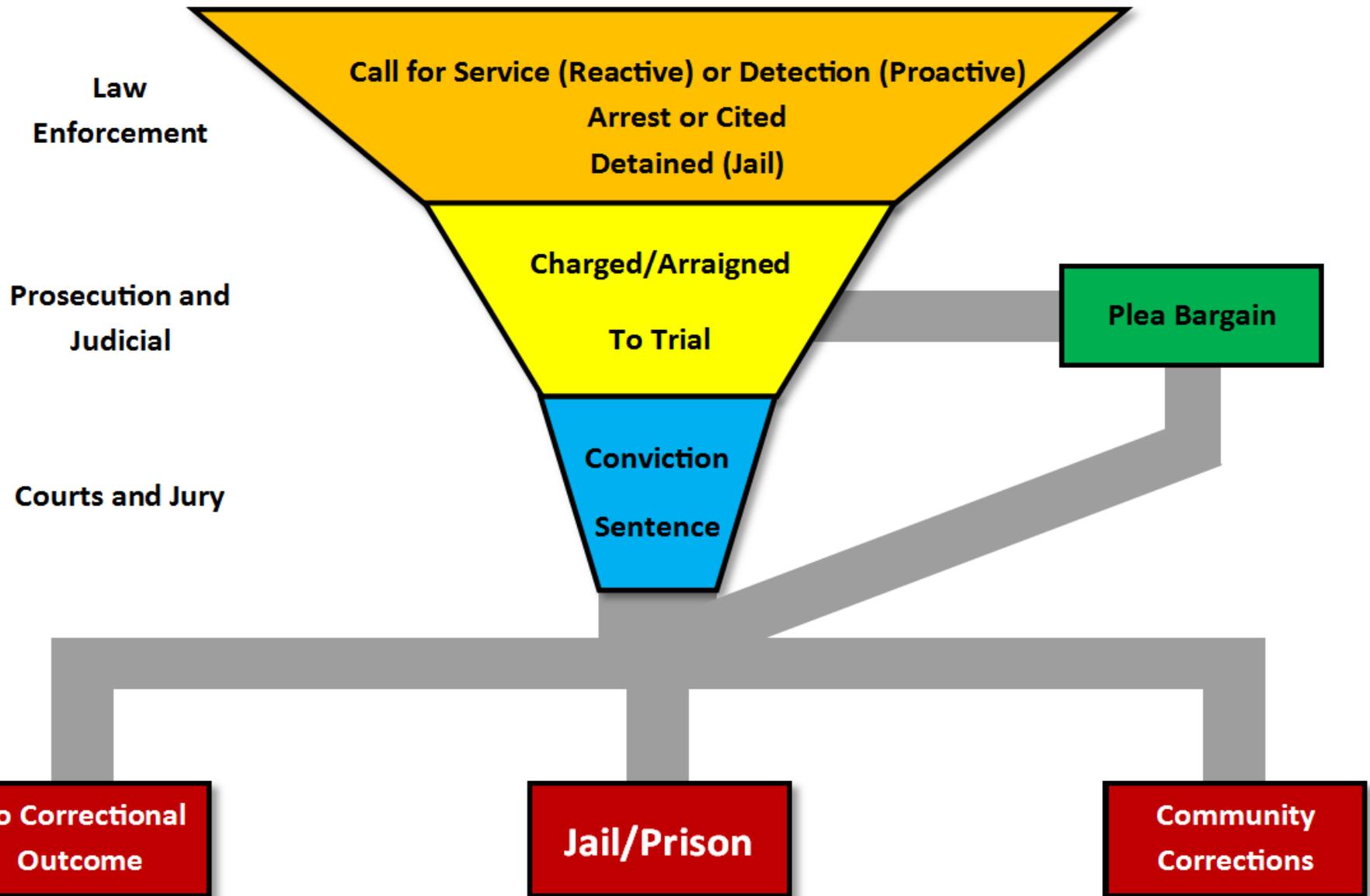
Correctional Officials

- Assign Inmate Classifications/Risk
- Assign to type of correctional facility
- Record all individual activity within the institution

Post Release Authorities

- Determine date and conditions of release and Revoke parole

Shafer's CJ Funnel



Current CJ Data Visualization

- Government data is traditionally housed in many individual databases
- Often requires purchase of a bridging software to link them
- Limits ability of users to access and use their data both internally and across agencies

ICS/UCCI Data Visualization

- Builds upon the work UC School of Criminal Justice has done with police departments, courts and correctional systems across the world
- Started with database development and Co-offending network analysis
- Now incorporates those features in one comprehensive analytics and visualization package

ICS/UCCI Data Visualization

- Has the ability to link people and places using information from a variety of sources
- Clearly displays analyzed information in an easily actionable format
- Can process an unlimited amount of records

Agency Items Needed

- Data
- Data Access/MOU
- Process for UC ICS and UCCI to remotely acquire agency data at regular intervals

ICS/UCCI Analytics Demonstration

Questions?

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