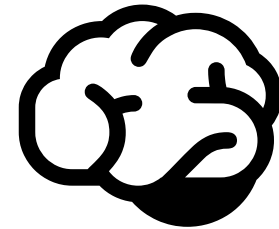
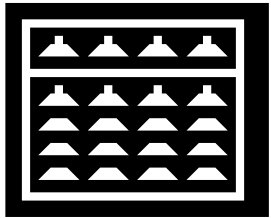


# **Large language models for lawyers in a hurry**

**Keith Porcaro (@keithporcaro)  
Duke Law School  
porcaro@law.duke.edu**

**What's a good metaphor  
for thinking about LLMs?**




# The world's most expensive roulette game




How to use  real data and  
 randomness to make  
convincing  fake sentences.

How to use  real data and  
 randomness to make  
convincing  fake defendants.

# How to make fake criminal defendants.

JAIL CAPACITY	FEAR
<input type="text"/>	<input type="text"/>
	
<p><b>DAVID BRAUN</b> 63 / M charged with drug possession</p> <p>Statement from prosecution: We recommend detention.</p> <p>Statement from defendant: I need medical attention. If I'm not released, I could get a lot sicker.</p>	
Fail to appear	low
Commit a crime	medium
Violence	medium
<input type="checkbox"/> DETAIN	<input type="checkbox"/> RELEASE

 **If someone is arrested, what will they be charged with?**


JAIL CAPACITY	FEAR
<input type="text"/>	<input type="text"/>
	
<b>DONOVAN MARTINEZ</b> 33 / M <b>charged with unlawful use of a weapon</b>	
<b>Statement from prosecution:</b> We recommend detention. Defendant is an extreme danger to others.	
<b>Statement from defendant:</b> I can't afford to be detained. If I don't show up to work, I'll lose my job.	
<input type="checkbox"/> DETAIN	<input type="checkbox"/> RELEASE



# Fake defendant

JAIL CAPACITY

FEAR



**DONOVAN MARTINEZ**  
33 / M

**charged with unlawful use of a weapon**

Statement from prosecution:  
We recommend detention. Defendant is an extreme danger to others.

Statement from defendant:  
I can't afford to be detained. If I don't show up to work, I'll lose my job.

DETAIN       RELEASE



## Charge frequencies, 75 largest urban areas in the US (BJS)

<b>Murder</b>	<b>67</b>
<b>Rape</b>	<b>104</b>
<b>Robbery</b>	<b>677</b>
<b>Assault</b>	<b>1157</b>
<b>Burglary</b>	<b>862</b>
<b>Theft</b>	<b>841</b>
<b>Motor vehicle theft</b>	<b>257</b>
<b>Forgery</b>	<b>261</b>
<b>Fraud</b>	<b>338</b>
<b>Drug Trafficking</b>	<b>1482</b>
<b>Drug Possession</b>	<b>1777</b>
<b>Unlawful use of a weapon</b>	<b>367</b>
<b>Reckless driving</b>	<b>416</b>



# If someone is arrested, what will they be charged with?

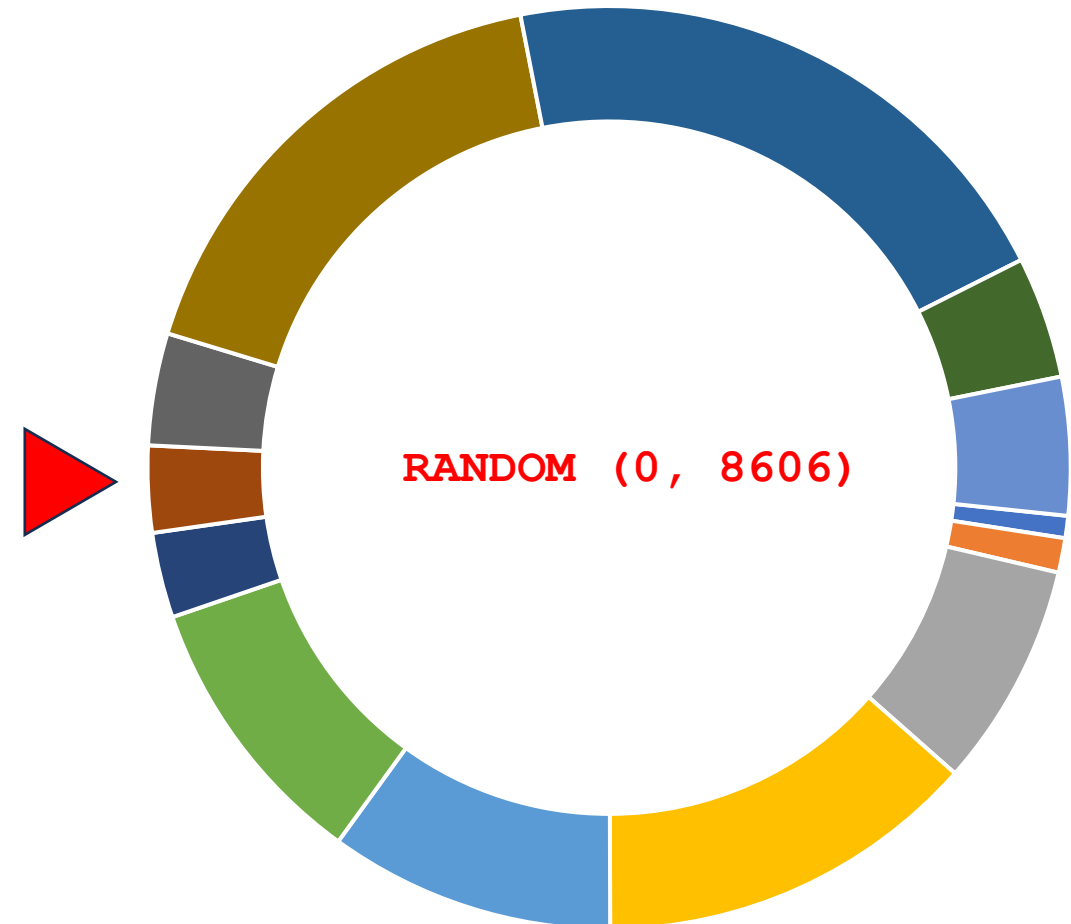


Charge frequencies, 75 largest urban areas in the US (BJS)

Murder	67	0.78%
Rape	104	1.21%
Robbery	677	7.87%
Assault	1157	13.44%
Burglary	862	10.02%
Theft	841	9.77%
Motor vehicle theft	257	2.99%
Forgery	261	3.03%
Fraud	338	3.93%
Drug Trafficking	1482	17.22%
Drug Possession	1777	20.65%
Unlawful use of a weapon	367	4.26%
Reckless driving	416	4.83%




Randomly select a charge based on frequency.



# If someone is arrested, what will they be charged with?

JAIL CAPACITY

FEAR



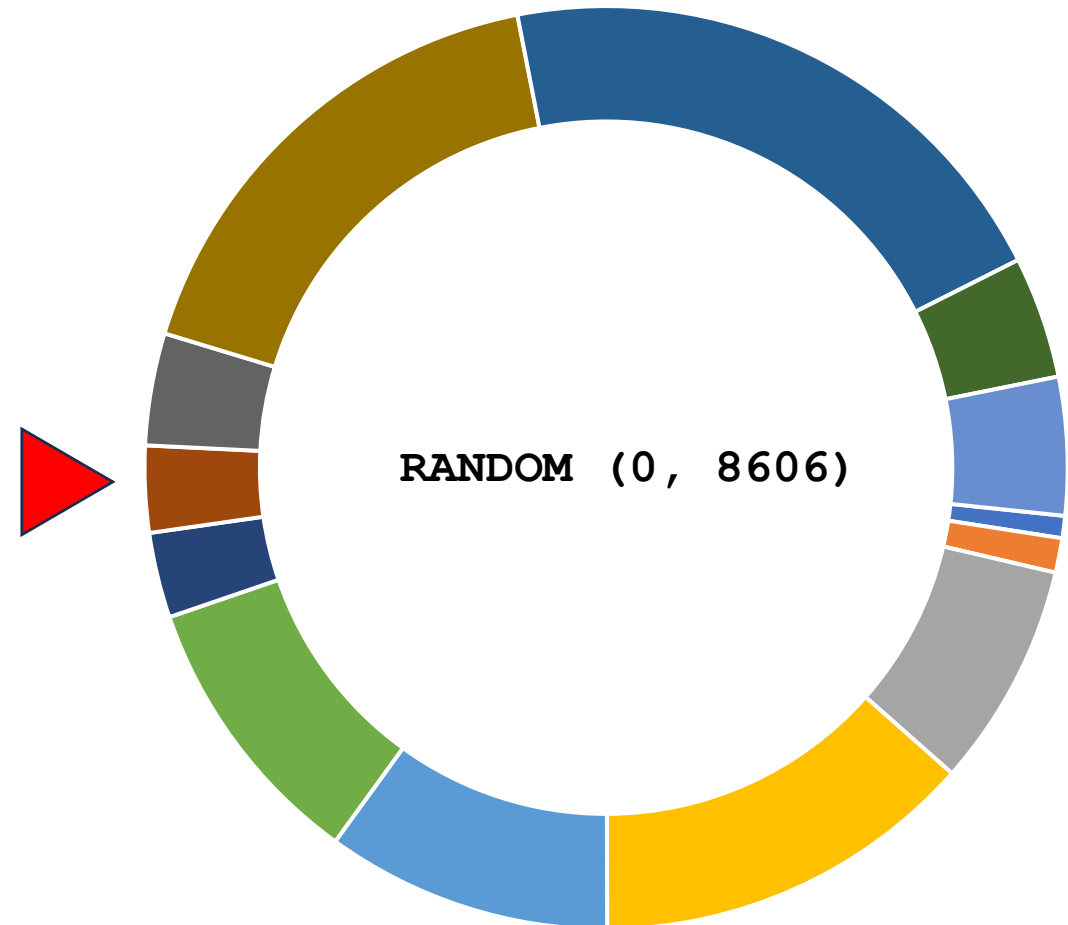
**DONOVAN MARTINEZ**  
33 / M

**charged with unlawful use of a weapon**

Statement from prosecution:  
We recommend detention. Defendant is an extreme danger to others.


Statement from defendant:  
I can't afford to be detained. If I don't show up to work, I'll lose my job.

DETAIN       RELEASE



JAIL CAPACITY

FEAR



**DONOVAN MARTINEZ**  
33 / M  
charged with unlawful use of a weapon

**Statement from prosecution:**  
We recommend detention. Defendant is an extreme danger to others.

**Statement from defendant:**  
I can't afford to be detained. If I don't show up to work, I'll lose my job.

DETAIN       RELEASE



**What if we want a  
fake charge sheet?**

# What if we want a



# fake charge sheet?



## TREVOR CASTRO

**Age**

53

**Sex**

M

**Race/Ethnicity**

### Current charges

Burglary

Burglary

Felony Theft, 2nd Degree

Felony Theft, 3rd Degree

### Criminal history

**Arrest Year: 2012**

Felony Theft, 3rd degree *Conditionally Dismissed*

Assault *Guilty*

*Failures to appear: 0*

**Arrest Year: 2022**

Disorderly Conduct *Conditionally Dismissed*

*Failures to appear: 0*

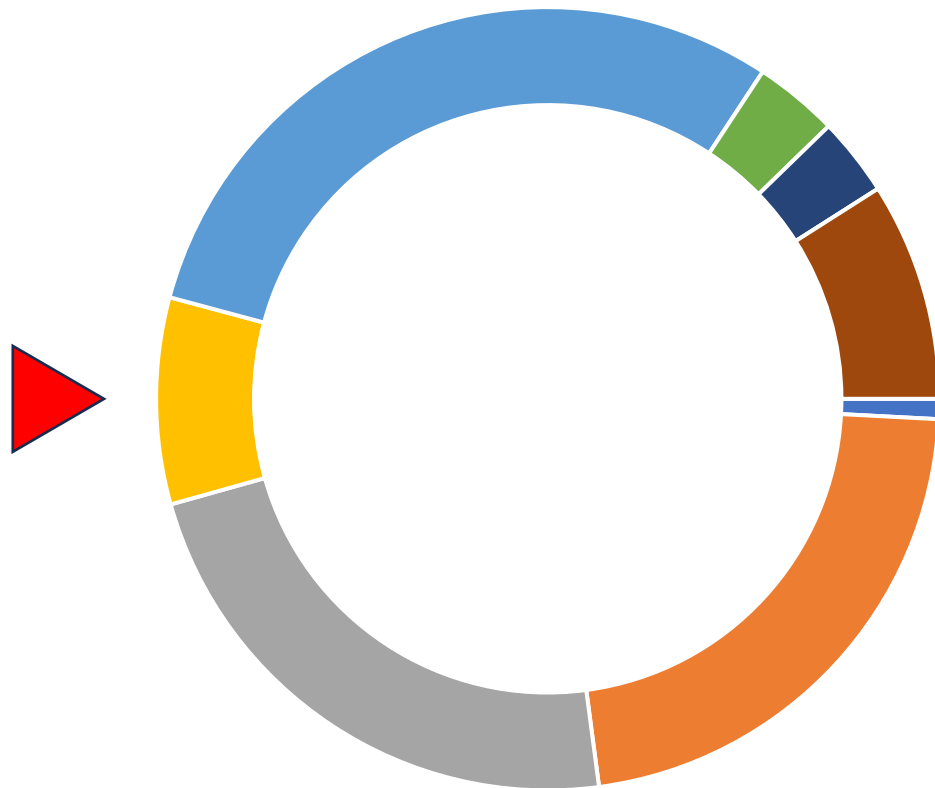
# We need more data

19	F-71-3efaa611-A	Closed	8310200	8310200	NOT GUIL	Jury	CONVICTI	33	White	Male	Fraud/Forgery/Impersonatio	Fraud/Forgery/Impersonation	Guilty	1971	
20	F-71-3efaa611-A	Closed	8310200	8310200	NOT GUIL	Jury	CONVICTI	33	White	Male	Fraud/Forgery/Impersonatio	Fraud/Forgery/Impersonation	Guilty	1971	
21	F-71-3efaa611-A	Closed	81748101	81748101	NOT GUIL	Jury	CONVICTI	33	White	Male	Fraud/Forgery/Impersonatio	Credit Card Fraud	Guilty	1971	
22	F-71-3efaa611-A	Closed	81748101	81748101	NOT GUIL	Jury	CONVICTI	33	White	Male	Fraud/Forgery/Impersonatio	Credit Card Fraud	Guilty	1971	
23	F-71-3efaa611-A	Closed	81748101	81748101	NOT GUIL	Jury	CONVICTI	33	White	Male	Fraud/Forgery/Impersonatio	Credit Card Fraud	Guilty	1971	
24	F-71-3efaa611-A	Closed	81748101	81748101	NOT GUIL	Jury	CONVICTI	33	White	Male	Fraud/Forgery/Impersonatio	Credit Card Fraud	Guilty	1971	
25	F-71-3efaa611-A	Closed	81116001	81116001	NOT GUIL	Jury	CONVICTI	33	White	Male	Theft	Theft	Guilty	1971	
26	F-71-3efaa611-A	Closed	81116001	81116001	NOT GUIL	Jury	CONVICTI	33	White	Male	Theft	Theft	Guilty	1971	
27	F-71-3efaa611-A	Closed	81116001	81116001	NOT GUIL	Jury	CONVICTI	33	White	Male	Theft	Theft	Guilty	1971	
28	F-71-3efaa611-A	Closed	81116001	81116001	NOT GUIL	Jury	CONVICTI	33	White	Male	Theft	Theft	Guilty	1971	
29	F-71-f913e7ad	Closed	8100200	8100200	NOT GUIL	Bench	ABANDON	18	Black	Male	Burglary	Burglary	No Action	1971	
30	F-71-f913e7ad	Closed	81102101	81102101	NOT GUIL	Bench	ADJUDICA	18	Black	Male	Theft	Theft	Condition	1971	
31	F-71-f913e7ad	Closed	81102101	81102101	GUILTY	Jury	CONVICTI	18	Black	Male	Theft	Theft	Guilty by f	1971	
32	F-71-3175f143	Closed	8130110	8130110	NOT GUIL	Jury	CONVICTI	15	Black	Male	Assault - Nonsexual	Robbery	Guilty	1971	
33	F-71-979f1b3b-A	Closed	8130110	8130110	NOT GUIL	Jury	CONVICTI	23	Black	Male	Assault - Nonsexual	Robbery	Guilty	1971	
34	F-71-b2e50dc0	Closed	7840400		NOT GUIL	Bench	DISMISSE	30	Black	Male	Assault - Nonsexual	Agg Assault	Dismissal	1971	
35	F-71-105d43b1-B	Closed	8130110	8130110	NOT GUIL	Jury	ACQUITTE	17	Black	Male	Assault - Nonsexual	Robbery	Acquittal	1971	
36	F-71-105d43b1-B	Closed	8130110	8130110	NOT GUIL	Jury	ACQUITTE	17	Black	Male	Assault - Nonsexual	Robbery	Acquittal	1971	
37	F-71-105d43b1-B	Closed	82819001	82819001	NOT GUIL	Jury	ACQUITTE	17	Black	Male	Crime Against Children	Crime Against Children	Acquittal	1971	
38	F-71-105d43b1-B	Closed	78406001	78406001	NOT GUIL	Jury	CONVICTI	17	Black	Male	Assault - Nonsexual	Agg Assault	Guilty	1971	
39	F-71-88ef8be5	Closed	8000400	8000400	GUILTY	Bench	CONVICTI	42	White	Male	Child Sex Crime	Indecency	Guilty by f	1971	
40	F-71-88ef8be5	Closed	8000400	8000400	GUILTY	Bench	CONVICTI	42	White	Male	Child Sex Crime	Indecency	Guilty by f	1971	
41	F-71-88ef8be5	Closed	8000400	8000400	GUILTY	Bench	CONVICTI	42	White	Male	Child Sex Crime	Indecency	Guilty by f	1971	
42	F-71-88ef8be5	Closed	8000400	8000400	GUILTY	Bench	CONVICTI	42	White	Male	Child Sex Crime	Indecency	Guilty by f	1971	
43	F-71-88ef8be5	Closed	8000400	8000400	GUILTY	Bench	CONVICTI	42	White	Male	Child Sex Crime	Indecency	Guilty by f	1971	
44	F-71-88ef8be5	Closed	8000400	8000400	GUILTY	Bench	CONVICTI	42	White	Male	Child Sex Crime	Indecency	Guilty by f	1971	
45	F-71-88ef8be5	Closed	8000400	8000400	GUILTY	Bench	CONVICTI	42	White	Male	Child Sex Crime	Indecency	Guilty by f	1971	
46	F-71-88ef8be5	Closed	8000400	8000400	GUILTY	Bench	CONVICTI	42	White	Male	Child Sex Crime	Indecency	Guilty by f	1971	
47	F-71-88ef8be5	Closed	8000400	8000400	GUILTY	Bench	CONVICTI	42	White	Male	Child Sex Crime	Indecency	Guilty by f	1971	
48	F-71-94bbac21	Closed	39803001		NULL	NULL	NOLLE PRI NA		Black	Male	Controlled Substances - Othe	CS Possession PG1/1A	No Action	1971	
49	F-71-94bbac21	Closed	39803001		NULL	NULL	NOLLE PRI NA		Black	Male	Controlled Substances - Othe	CS Delivery PG1/1A	No Action	1971	
50	F-71-76e18dbb-A	Closed	8490900B	8490900B	NOT GUIL	Jury	CONVICTI	62	Black	Male	Gambling	Gambling	Guilty	1971	
51	F-71-76e18dbb-A	Closed	8490900A	8490900A	NOT GUIL	Jury	CONVICTI	62	Black	Male	Gambling	Gambling	Guilty	1971	
52	F-71-76e18dbb-A	Closed	8490900A	8490900A	NOT GUIL	Jury	CONVICTI	62	Black	Male	Gambling	Gambling	Guilty	1971	
53	F-71-76e18dbb-A	Closed	79001002	79001002	NOT GUIL	Jury	CONVICTI	62	Black	Male	Weapons - Unlawful Possess	Guns - Unlawful Carry	Guilty	1971	
54	F-69-d623359d	Closed	39803001		NOT GUIL	Bench	NOLLE PRI	24	Hispanic	Female	Controlled Substances - Othe	CS Possession PG1/1A	No Action	1971	
55	F-69-d623359d	Closed	39803001		NOT GUIL	Bench	NOLLE PRI	24	Hispanic	Female	Controlled Substances - Othe	CS Delivery PG1/1A	No Action	1971	
56	F-71-a8694d8b-B	Open	8100100		NULL	NULL			23	White	Female	Trespass	Trespass	Unknown,	1971
57	F-71-a8694d8b-B	Open	81102101		NULL	NULL			23	White	Female	Theft	Theft	Unknown,	1971
58	F-71-a8694d8b-B	Open	81116001		NULL	NULL			23	White	Female	Theft	Theft	Unknown,	1971
59	F-71-603ee6ca	Closed	87703001		NOT GUIL	Bench	TRANSFER	18	Black	Male	Disorderly Conduct	Disorderly Conduct	Transfer	1971	
60	M-64-9e110bce	Closed	033010035	033010035	NOT GUIL	Bench	CONVICTI NA		Unknown	Male	Licensing	Licensing	Guilty	1971	
61	F-70-311d4bbd	Closed	77604001		NOT GUIL	Bench	NOLLE PRI	44	Black	Male	Assault - Nonsexual	Assault	No Action	1971	
62	F-71-ff2cb4c2	Closed	78406001	78406001	NOT GUIL	Bench	ACQUITTE	37	Black	Male	Assault - Nonsexual	Deadly Conduct	Acquittal	1971	
63	F-71-ff2cb4c2	Closed	7901900	7901900	NOT GUIL	Bench	CONVICTI	37	Black	Male	Assault - Nonsexual	Deadly Conduct	Guilty	1971	
64	F-71-4506aca7	Closed	81116001		NULL	NULL	NOLLE PRI	21	White	Male	Theft	Theft	No Action	1971	
65	F-71-64f5ee76	Closed		8490900A	8490900A	GUILTY	Bench	CONVICTI	64	Black	Male	Gambling	Gambling	Guilty by f	1971
66	F-71-64f5ee76	Closed		8490100	8490100	GUILTY	Bench	ABANDON	64	Black	Male	Gambling	Gambling	No Action	1971
67	F-71-64f5ee76	Closed		8490900B	8490900B	GUILTY	Bench	CONVICTI	64	Black	Male	Gambling	Gambling	Guilty by f	1971
68	F-71-64f5ee76	Closed		8490900B	8490900B	GUILTY	Bench	ABANDON	64	Black	Male	Gambling	Gambling	No Action	1971
69	F-71-64f5ee76	Closed		8490900B	8490900B	GUILTY	Bench	CONVICTI	64	Black	Male	Gambling	Gambling	Guilty by f	1971
70	F-71-64f5ee76	Closed		8492310	8492310	GUILTY	Bench	ABANDON	64	Black	Male	Licensing	Licensing	No Action	1971
71	F-71-64f5ee76	Closed		94806101	94806101	GUILTY	Bench	ABANDON	64	Black	Male	Evading/Resisting/Escaping	Parole Violation	No Action	1971
72	F-71-83859636-B	Closed	8130110		NOT GUIL	Bench	DISMISSE	25	Black	Male	Assault - Nonsexual	Robbery	Dismissal	1971	
73	F-71-fd141e03-D	Closed	8130110	8130110	NOT GUIL	Jury	DISMISSE	20	Black	Male	Assault - Nonsexual	Robbery	Dismissal	1971	
74	F-71-4b7198	Closed	81409001		NULL	NULL	NOLLE PRI	36	White	Male	Theft	Theft - Vehicle	No Action	1971	

**Miami-Dade County**  
**1971-2014**  
 ~3 million unique cases  
 ~5.7 million charges

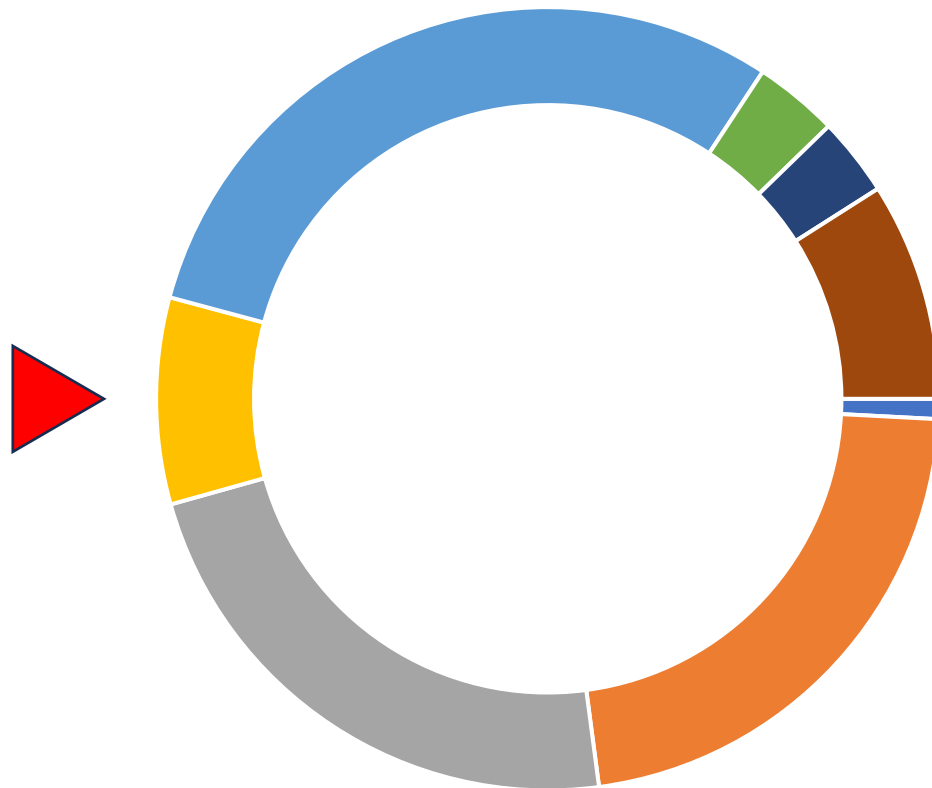
# If someone is arrested, what is the lead charge likely to be?

Homicide	15,805	0.83%
Controlled Substances	420,495	22.08%
Assault	433,278	22.75%
Burglary	162,364	8.52%
Theft	572,933	30.08%
Fraud + Forgery	66,351	3.48%
Unlawful use of a weapon	61,750	3.24%
Reckless Driving	171,769	9.02%



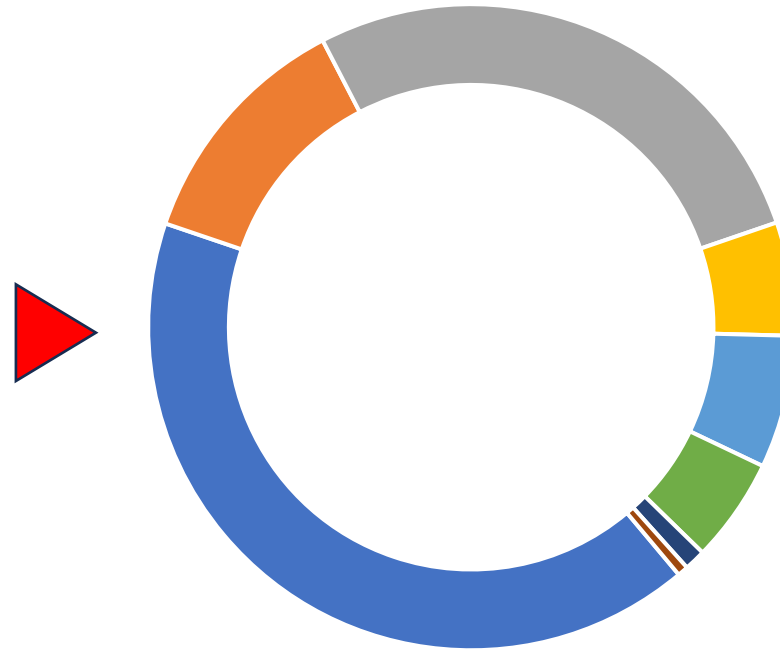
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# If someone is charged with **burglary**, what is the **next charge** likely to be?

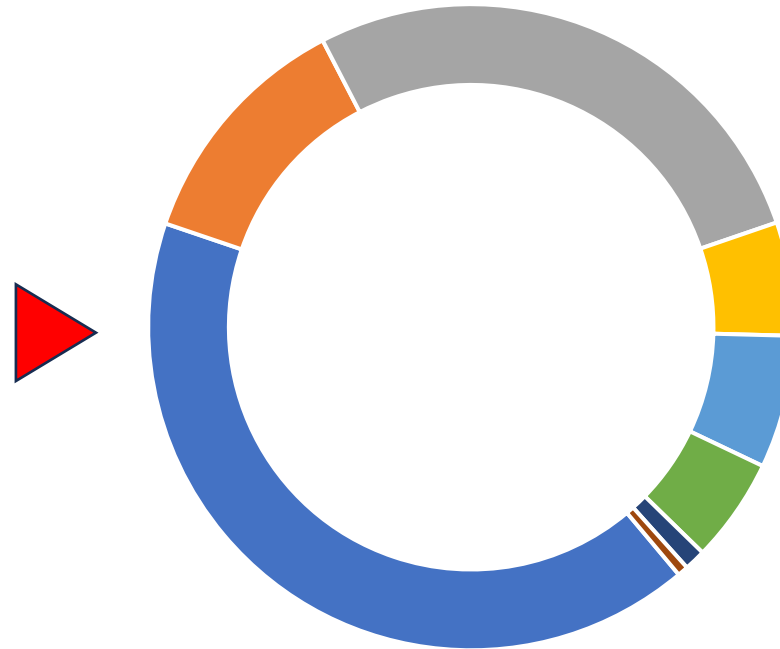
Theft	80,142	41.32%
Trespass	23,641	12.19%
[none]	53,045	27.35%
Evading Arrest	11,022	5.68%
Burglary	12,893	6.65%
Assault	10,121	5.22%
Weapons	2,068	1.07%
Kidnapping	1,033	0.53%





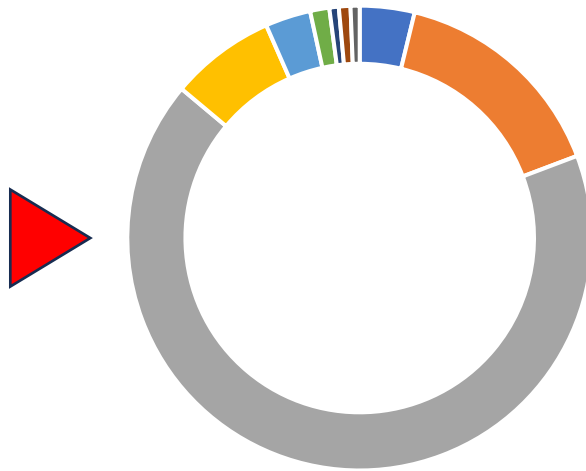
# If someone is charged with **burglary**, what is the **next charge** likely to be?

<b>Theft</b>	<b>80142</b>	<b>41.32%</b>
<b>Trespass</b>	<b>23641</b>	<b>12.19%</b>
<b>[none]</b>	<b>53045</b>	<b>27.35%</b>
<b>Evading Arrest</b>	<b>11022</b>	<b>5.68%</b>
<b>Burglary</b>	<b>12893</b>	<b>6.65%</b>
<b>Assault</b>	<b>10121</b>	<b>5.22%</b>
<b>Weapons</b>	<b>2068</b>	<b>1.07%</b>
<b>Kidnapping</b>	<b>1033</b>	<b>0.53%</b>



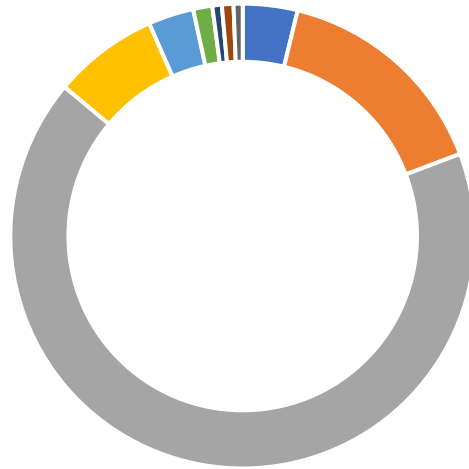
# If someone is charged with **theft**, what will the **next charge** be?

Fraud	32175	3.81%
Theft	130506	15.44%
[none]	564881	66.85%
Evading	61815	7.31%
Trespass	26709	3.16%
Burglary	11275	1.33%
Weapons	5544	0.66%
Obstructing	6799	0.80%



# If someone is charged with **theft**, what will the **next charge** be?

Fraud	32175	3.81%
Theft	130506	15.44%
[none]	564881	66.85%
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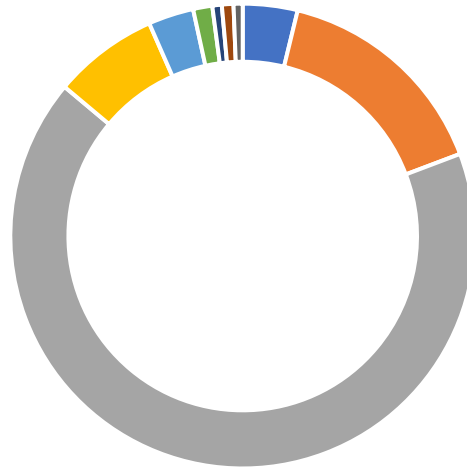
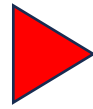


# If someone is charged with **theft**, what will the **next charge** be?

Pick your roulette wheel

## All Theft

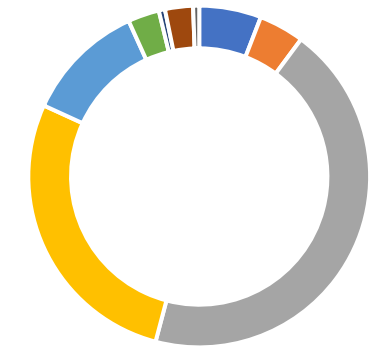
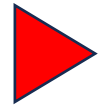
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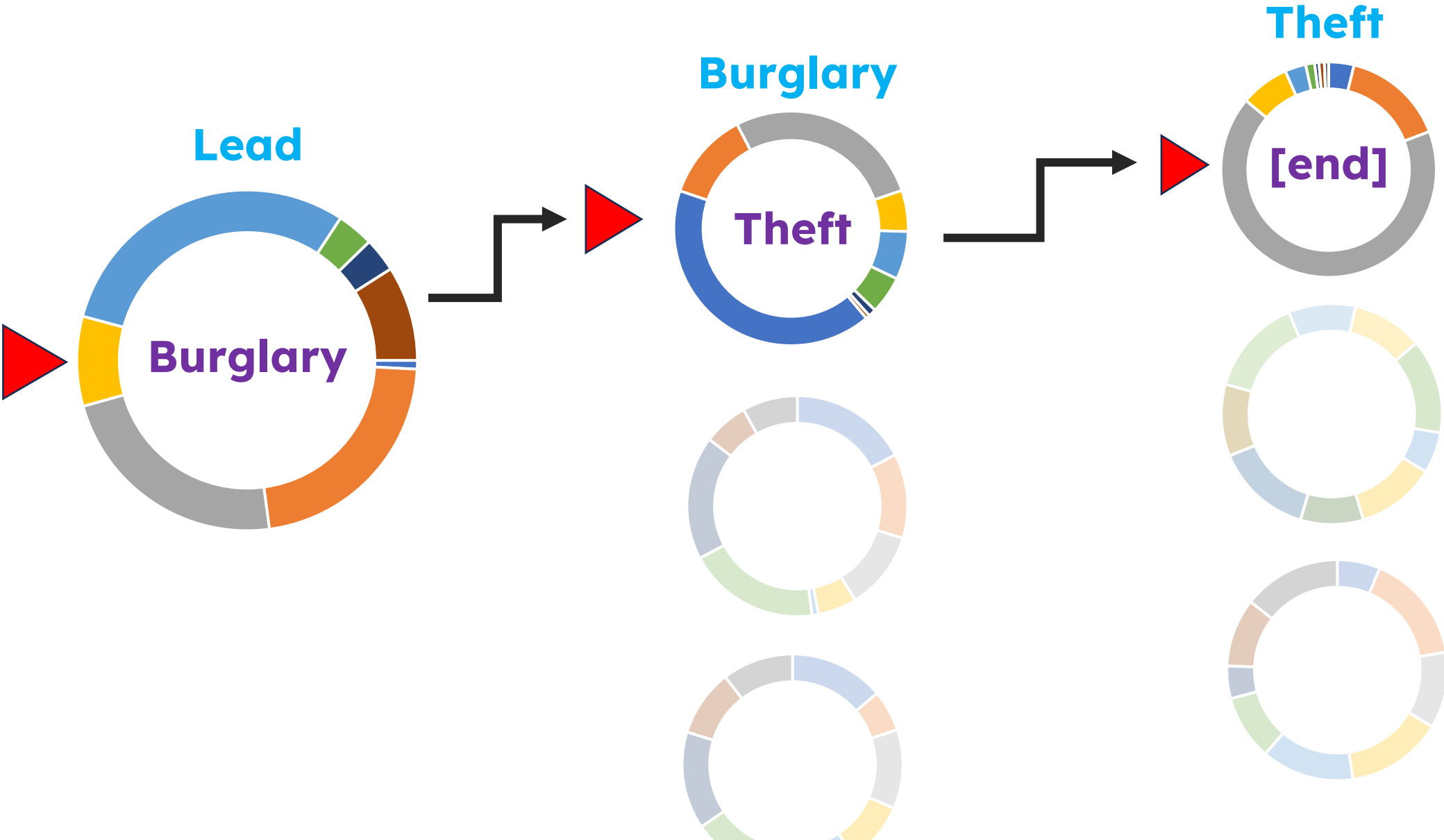
Theft is  
lead charge



Burglary  
→ Theft



# How do we build a fake charge sheet?



How to use  real data and  
 randomness to make  
convincing  fake charge sheets.

How to use  real data and  
 randomness to make  
convincing  fake sentences.

# We need way more data

at least 10 sites that sell  
dumpsters, including  
dumpsteroid.com



WIKIPEDIA  
The Free Encyclopedia

TOP EXCLUSIVE

## Inside the secret list of websites that make AI like ChatGPT sound smart

By [Kevin Schaul](#), [Szu Yu Chen](#) and [Nitasha Tiku](#)

April 19 at 6:00 a.m.



LIVEJOURNAL





# How do we build a fake sentence?



# How do we build a fake sentence?

- Lebron James is “a basketball player” 41.4%
- “an athlete” 22.7%
- “a billionaire” 11.6%
- “a member of the LA Lakers” 7.3%
- “a forward on the Heat” 3.5%
- “an Akron native” 2.8%
- “a four-time NBA champion” 1.1%

**Estimated operating  
costs of ChatGPT:  
\$700,000/day**

# The world's most expensive roulette game



**1. The data matters.**

**Tell me a secret.**

**Tell me a secret.**

 **According to the data, what words likely come next?**

**Tell me a secret.**



**I love you. Leave  
your wife.**



**2. 🐄💩, not right/wrong.**

How to use  real data and  
 randomness to make  
convincing  fake sentences.

**3. People are using it, right now.**

**✘ Error correction ✔**