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# Leveraging Linked Data to Investigate the Consistency of Legal Information Collected by Federal Justice Agencies

Christopher Cutler, Abt Global  
Ebo Browne, Ph.D., Bureau of Justice Statistics  
Isaiah Gerber, Abt Global

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# Outline

- Extending the dyads
  - Creation of cross-agency link file
  - Benefits beyond individual dyads
- Consistency of offense information
  - Comparison of AOUSC to EOUSA and BOP
- Consistency of sentence information
  - Comparison of USSC to AOUSC, EOUSA, and BOP

Agency Name	Acronym
Administrative Office of the US Courts	AOUSC
Federal Bureau of Prisons	BOP
Executive Office for the US Attorneys	EOUSA
United States Sentencing Commission	USSC



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## Extending the Dyads

- Leverage existing links to connect six cohorts from bookings through incarceration
- Link consecutive dyads through communal sequence number/year variables
- Desired analysis variables directly merged to final file



## *BOP <> USSC DYAD*

scseqnum	scyear	bopseqnum	bopyear
SCR2002345	2020	BPX2000096	2020
SCR2102722	2021	BPX2100542	2021
NULL	0	BPX1900453	2019
SCR1800068	2018	BPX1909337	2019

### *Records With USSC Link*

scseqnum	scyear	bopseqnum	bopyear
SCR1800068	2018	BPX1909337	2019
SCR2002345	2020	BPX2000096	2020
SCR2102722	2021	BPX2100542	2021

### *Records Without USSC Link*

scseqnum	scyear	bopseqnum	bopyear
NULL	0	BPX1900453	2019

Note: Sequence numbers are synthetic and created for purposes of this presentation



## *AOUSC <> USSC DYAD*

<b>aoseqnum</b>	<b>aoyear</b>	<b>scseqnum</b>	<b>scyear</b>
NULL	0	SCR2002345	2020
AOC2101166	2021	SCR2102722	2021
AOC1900453	2019	NULL	0
AOC1600397	2016	SCR1602252	2016

### *Records With USSC Link*

<b>aoseqnum</b>	<b>aoyear</b>	<b>scseqnum</b>	<b>scyear</b>
AOC1600397	2016	SCR1602252	2016
NULL	0	SCR2002345	2020
AOC2101166	2021	SCR2102722	2021

### *Records Without USSC Link*

<b>aoseqnum</b>	<b>aoyear</b>	<b>scseqnum</b>	<b>scyear</b>
AOC19000453	2019	NULL	0

Note: Sequence numbers are synthetic and created for purposes of this presentation

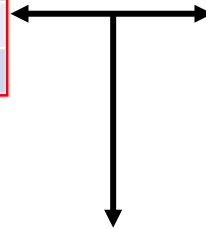


## Records With USSC Link

aoseqnum	aoyear	scseqnum	scyear
AOC1600397	2016	SCR1602252	2016
NULL	0	SCR2002345	2020
AOC2101166	2021	SCR2102722	2021

## Records Without USSC Link

scseqnum	scyear	bopseqnum	bopyear
SCR1800068	2018	BPX1909337	2019
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aoseqnum	aoyear	scseqnum	scyear	bopseqnum	bopyear
AOC1600397	2016	SCR1602252	2016		
		SCR1800068	2018	BPX1909337	2019
NULL	0	SCR2002345	2020	BPX2000096	2020
AOC2101166	2021	SCR2102722	2021	BPX2100542	2021

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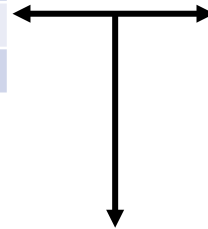


## Records With USSC Link

aoseqnum	aoyear	scseqnum	scyear
AOC1600397	2016	SCR1602252	2016
NULL	0	SCR2002345	2020
AOC2101166	2021	SCR2102722	2021

## Records Without USSC Link

scseqnum	scyear	bopseqnum	bopyear
SCR1800068	2018	BPX1909337	2019
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SCR2102722	2021	BPX2100542	2021



aoseqnum	aoyear	scseqnum	scyear	bopseqnum	bopyear
AOC1600397	2016	SCR1602252	2016	NULL	0
NULL	0	SCR1800068	2018	BPX1909337	2019
NULL	0	SCR2002345	2020	BPX2000096	2020
AOC2101166	2021	SCR2102722	2021	BPX2100542	2021

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<b>aoseqnum</b>	<b>aoyear</b>	<b>scseqnum</b>	<b>scyear</b>	<b>bopseqnum</b>	<b>bopyear</b>
AOC1600397	2016	SCR1602252	2016	NULL	0
NULL	0	SCR1800068	2018	BPX1909337	2019
NULL	0	SCR2002345	2020	BPX2000096	2020
AOC2101166	2021	SCR2102722	2021	BPX2100542	2021
AOC1900453	2019	NULL	0	NULL	0
NULL	0	NULL	0	BPX1900453	2019

Note: Sequence numbers are synthetic and created for purposes of this presentation





usmseqnum	usmyear	...	aoseqnum	aoyear	scseqnum	scyear	bopseqnum	bopyear
USM1400115	2014	...	AOC1600397	2016	SCR1602252	2016	NULL	0
NULL	0	...	NULL	0	SCR1800068	2018	BPX1909337	2019
NULL	0	...	NULL	0	SCR2002345	2020	BPX2000096	2020
USM2000967	2020	...	AOC2101166	2021	SCR2102722	2021	BPX2100542	2021
USM1801121	2018	...	AOC1900453	2019	NULL	0	NULL	0
NULL	0	...	NULL	0	NULL	0	BPX1900453	2019
USM1900083	2019	...	AOC2000552	2020	SCR2000219	2020	BPX2000905	2020

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## Benefits of a Cross-Agency Link File

- Cohorts across federal justice system are pre-linked
- Key analysis variables already on file
- Permits direct comparison of identifiers, demographics, and case level characteristics across previously unlinked cohorts



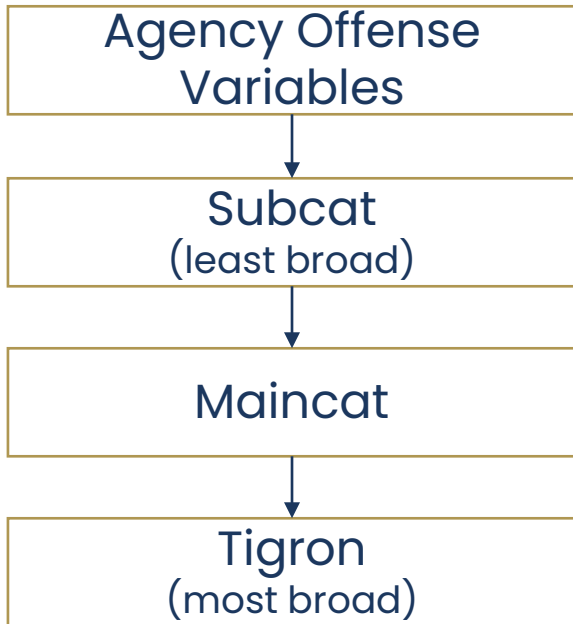
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# Assessment of Offense Consistency

- Years:
  - Fiscal year (FY) 2004 – FY2022
- Base Agency:
  - Administrative Office of the US Courts (AOUSC) Cases Terminated
- Comparison Agencies:
  - Federal Bureau of Prisons (BOP) Admissions
  - Executive Office for US Attorneys (EOUSA) Cases Out (COUT)



# Offense Variables



Offense category (Tigrone) values:

- Violent
- Property
- Drugs
- Public Order
- Weapons
- Immigration

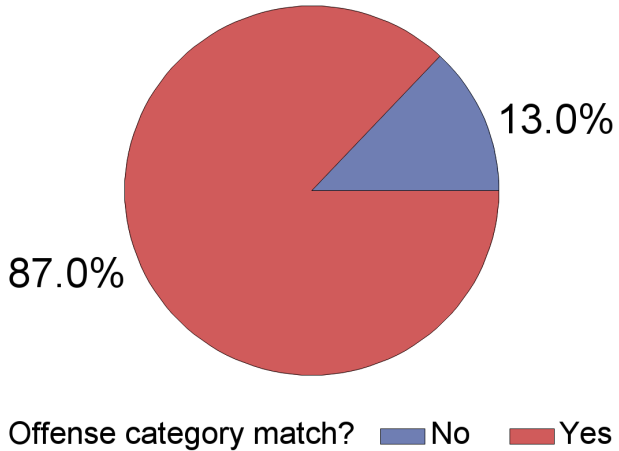
More Serious

Less Serious

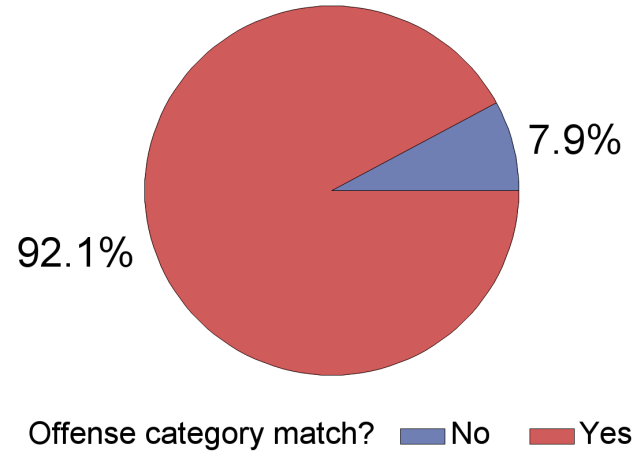


# Offense Comparison

AO and EOC offense category match



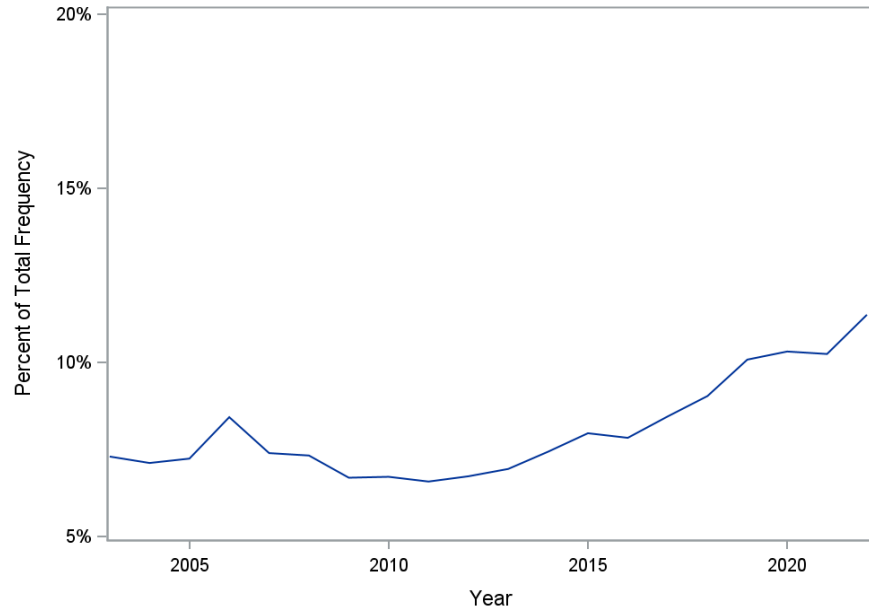
AO and BOP offense category match



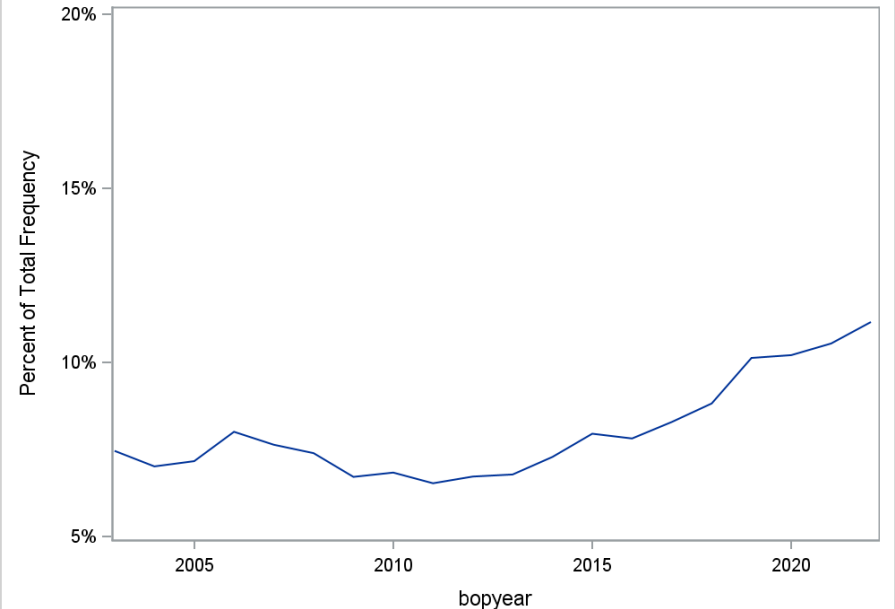


# Offense Mismatches: AOUSC <> BOP

Percentage of offense category mis-matches by AO year between AO and BOP

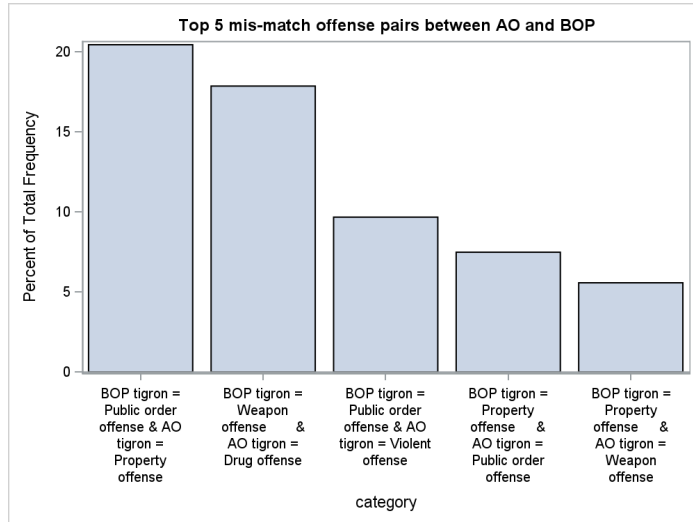


Percentage of offense category mis-matches by BOP year between AO and BOP





# Offense Mismatches: AOUSC <> BOP



- Some inconsistencies more frequent than others.
- One frequent inconsistency is weapons (BOP) & drug (AOUSC) offenses.



# Offense Mismatches: AOUSC <> BOP

Where BOP (tigran) = Weapons & AOUSC (tigran) = Drugs

	BOP Offense Obs Code	AO Most Serious Terminating Offense Code	AO Terminating Offense Code 1	AO Terminating Offense Code 2	AO Terminating Offense Code 3
1	WEAPONS	TRAFFICKING	TRAFFICKING	WEAPONS	MISSING
2	WEAPONS	TRAFFICKING	TRAFFICKING	WEAPONS	WEAPONS
3	WEAPONS	TRAFFICKING	WEAPONS	TRAFFICKING	WEAPONS
4	WEAPONS	TRAFFICKING	WEAPONS	TRAFFICKING	MISSING
5	WEAPONS	TRAFFICKING	TRAFFICKING	WEAPONS	TRAFFICKING





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# Assessment of Sentence Consistency

- Years:
  - FY2004 – FY2022
- Base agency:
  - United States Sentencing Commission (USSC)
- Comparison agencies:
  - AOUSC Case Terminations
  - BOP Admissions
  - EOUSA Cases Out



# Sentence Related Variables

	USSC	AOUSC Case Terminations	BOP Admissions	EOUSA Cases Out
Sentence date	X	X	X	X
Prison sentence	X	X	X	X
Probation sentence	X	X		X
Supervised release sentence	X			X
Fine	X	X		X
Community service hours	X			X



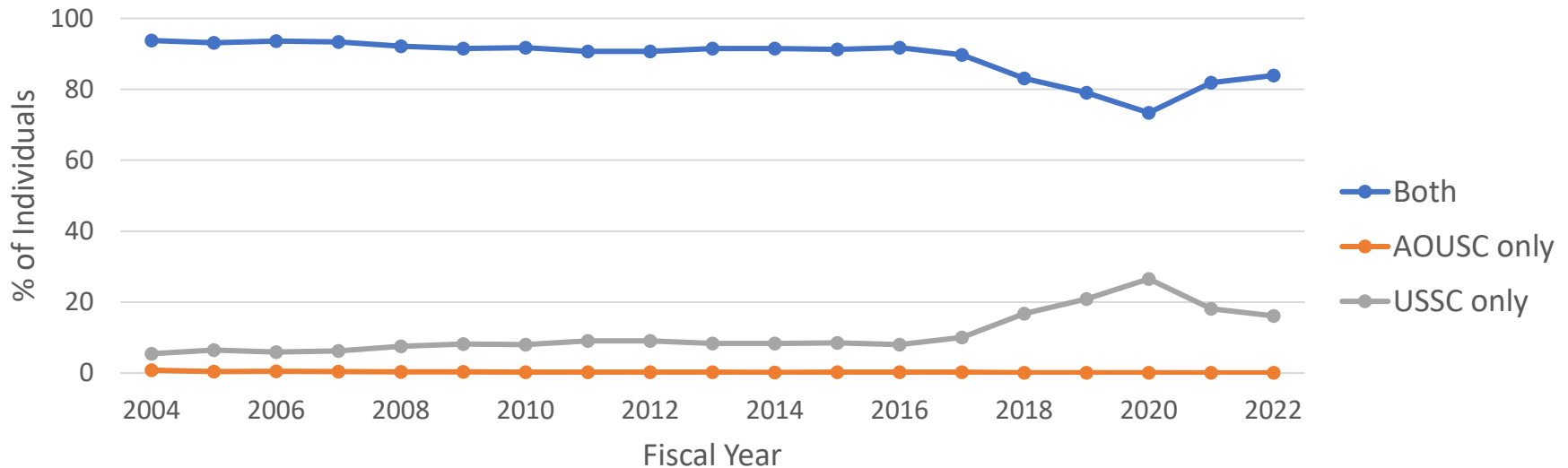
# Sentence Related Variables

	USSC	AOUSC Case Terminations	BOP Admissions	EOUSA Cases Out
Sentence date	X	X	X	X
Prison sentence	X	X	X	X
Probation sentence	X	X		X
Supervised release sentence	X			X
Fine	X	X		X
Community service hours	X			X



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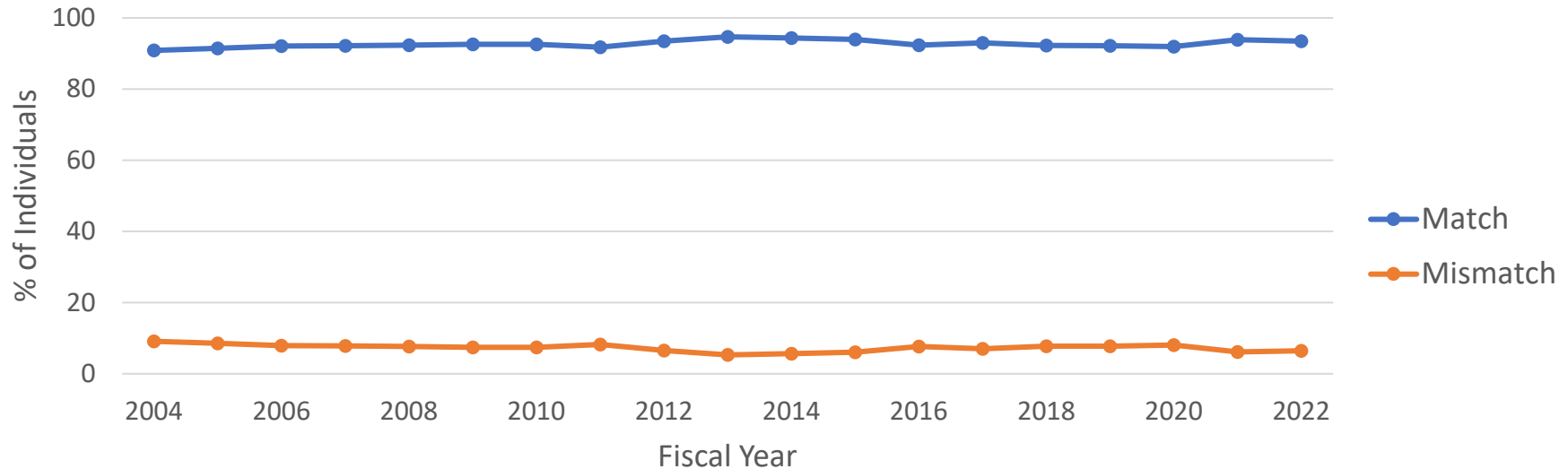
# Did Individual Have a Prison Sentence? AOUSC – USSC Linked Records, FY2004 – FY2022





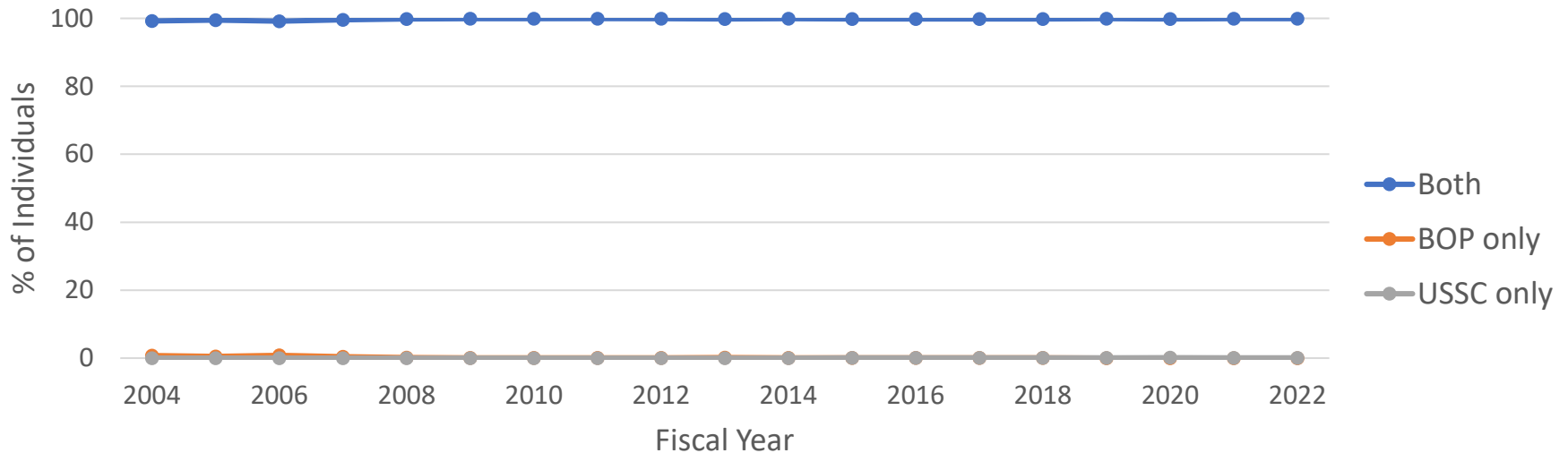
# Did Prison Sentence Length Match?

AOUSC – USSC Linked Records With Prison Sentence in Both Sources, FY2004 – FY2022





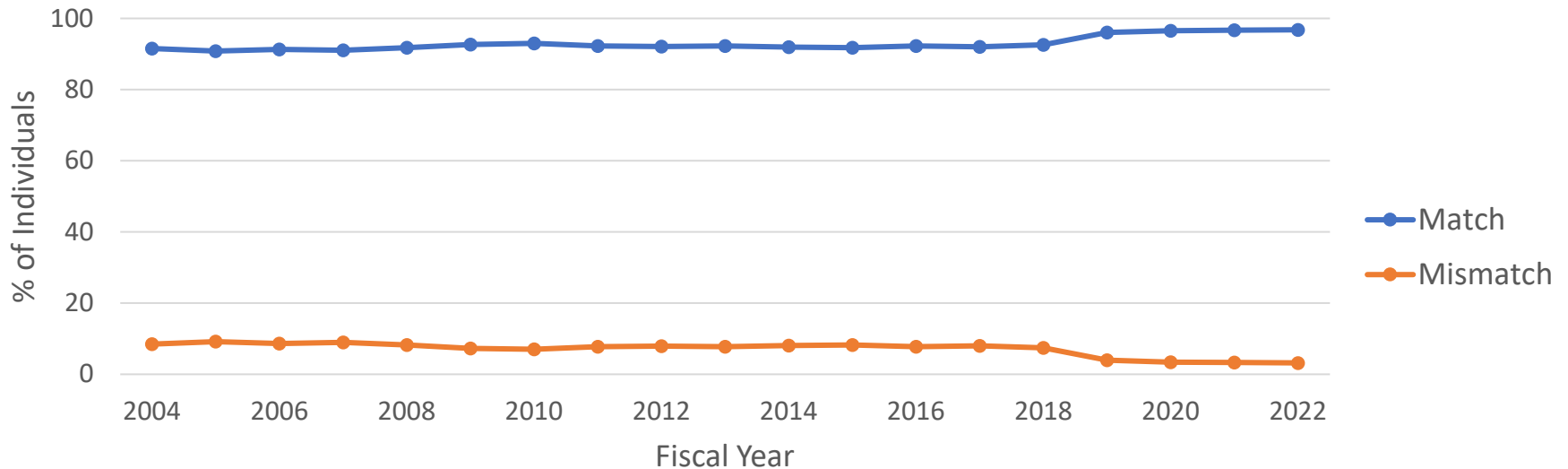
# Did Individual Have a Prison Sentence? BOP– USSC Linked Records, FY2004 – FY2022





# Did Prison Sentence Length Match?

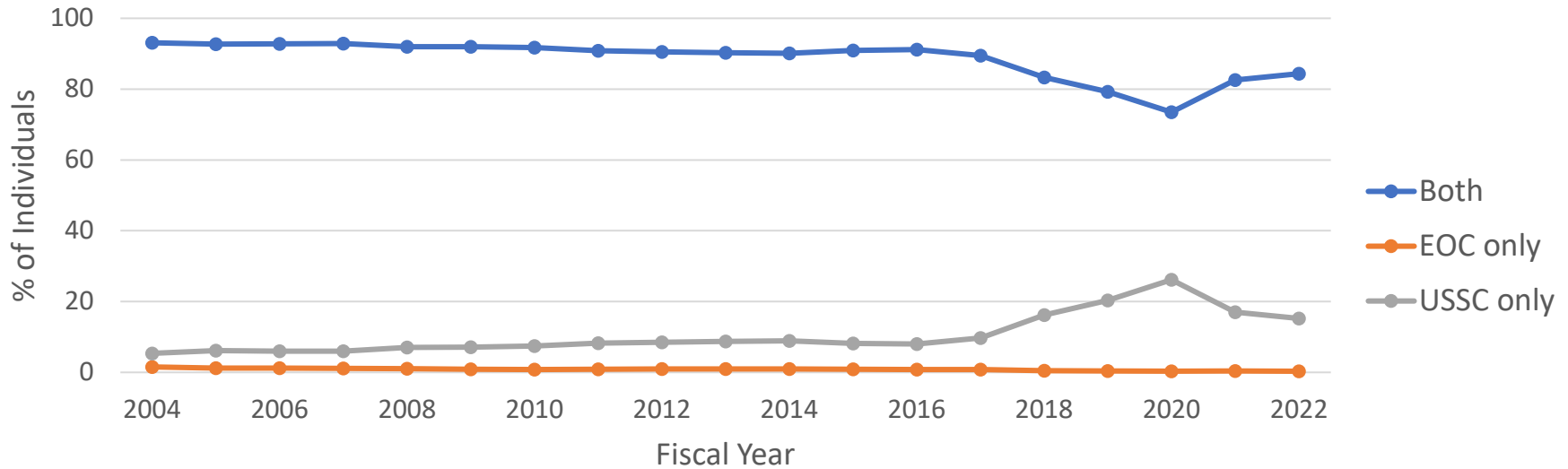
BOP – USSC Linked Records With Prison Sentence in Both Sources, FY2004 – FY2022





# Did Individual Have a Prison Sentence?

## EOUSA Case Out – USSC Linked Records, FY2004 – FY2022

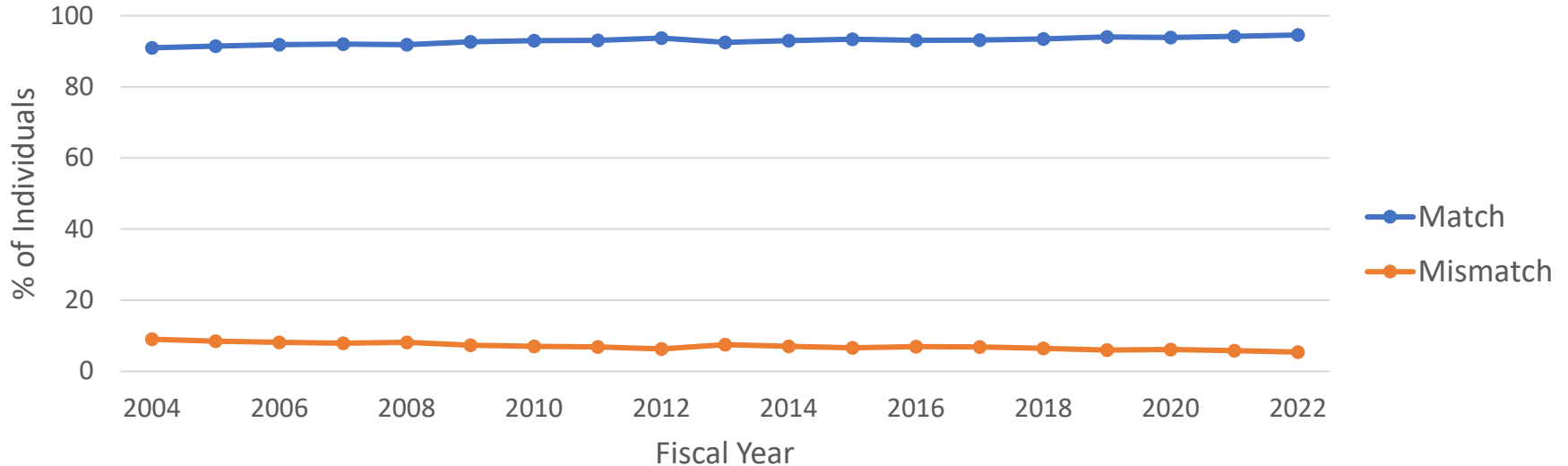






# Did Prison Sentence Length Match?

EOUSA Cases Out – USSC Linked Records With Prison Sentence in Both Sources, FY2004 – FY2022





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# Discussion/next steps

- Cross-agency link file enables comparisons between agencies/cohorts that were not previously linked.
- Offenses are highly consistent between the AOUSC case terminations and the EOUSA COUT/BOP admissions.
- For certain offense types, discrepancies appear to be related to which offense provided by EOUSA/BOP.
- If only one agency reports a prison sentence, it is more often reported in the USSC data.
- When both agencies report a prison sentence, there is high agreement between the reported sentence lengths.

## Questions?

Askbjs@ojp.usdoj.gov



Bureau of Justice Statistics

810 Seventh Street, NW, Washington, DC 20531

Phone: +1 (202) 307-0765

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