

Socioeconomic impact of adverse childhood experiences in young adulthood

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The findings and conclusions in this report are those of the authors and do not necessarily represent the official positions of the Centers for Disease Control and Prevention or the Census Bureau. All results were approved for release by the Census Bureau Disclosure Review Board (Data Management System number P-7500378 and DRB approval number CBDRB-FY23-0527).

What is an adverse childhood experience?

Adverse childhood experiences (ACEs) represent a variety of negative events a person is exposed to in childhood (0-17) including:

- Experiencing abuse/neglect
- Exposure to familial or community violence
- Death of an immediate family member
- Parental substance (ab)use issues
- Physical and/or mental disabilities/limitations
- Parental separation/divorce
- Parental incarceration

Centers for Disease Control and Prevention estimate that 64% of individuals experience at least 1 ACE before turning 18 (Swedo et al. 2023)

How and why do ACEs matter?

ACEs have a negative impact on many health-related outcomes (Gilbert et al. 2015; Felitti 2009)

- Some evidence for socio-economic outcomes but much more limited (Font and Maguire-Jack 2016; Metzler et al. 2017)

Why do ACEs have such a negative impact?

- Stress disrupts cognitive ability (Yates et al. 2003)
- Loss of a parent reduces resources/supervision (Cookston 1999)
- Severe maltreatment may have long-term mental health consequences (Leeb, Lewis, and Zolotor 2011)



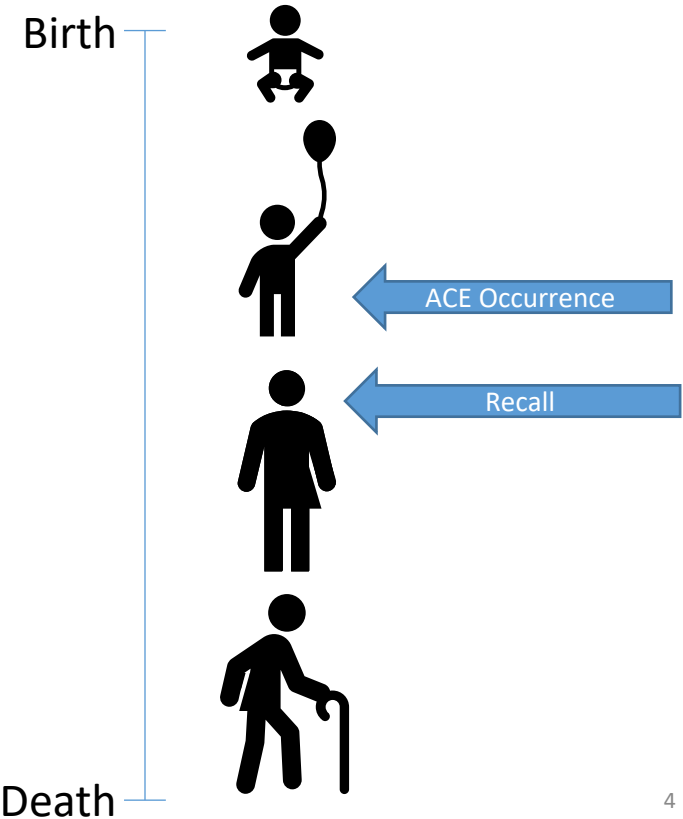
Measuring ACEs: Recall Bias and Accuracy

Research on ACEs frequently relies on survey measures

- Further from an event, more likely to recall it inaccurately (Sheikh 2018; Van de Mheen et al. 1997)

Self-reports are subject to recall bias in two ways:

- Individuals forgetting the event(s) occurred (Clark et al. 2010)
- Current contexts may influence perception (Widom et al. 2004; Hardt and Rutter 2004)



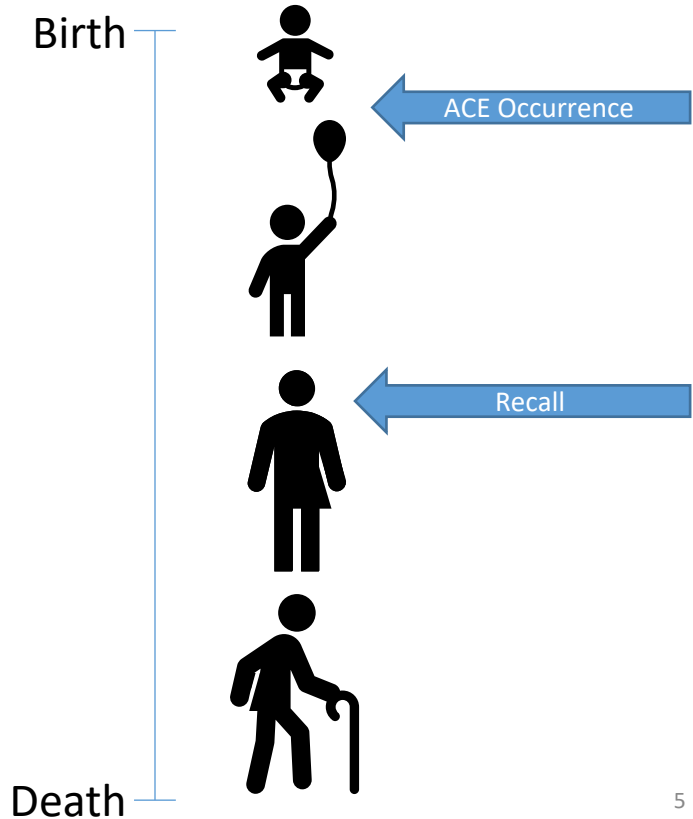
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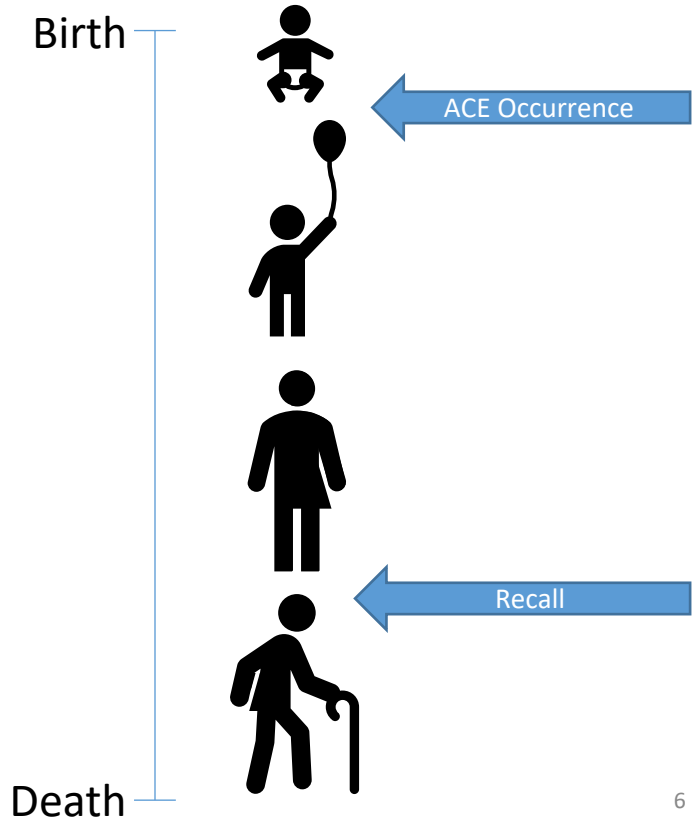
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Novelty: ACEs measured in population data

ACEs typically measured as cumulative scale (No ACEs, 1 ACE, 2 ACEs, etc.)

- Scales limit ability to make specific intervention recommendations (Reidy et al. 2021)

Administrative data limits recall & sensitivity bias (Patten et al. 2015; Colman et al. 2016)

- Studies generally rely on self-reported, retrospective measures (Breton et al. 2022; Danese 2020)
- Administrative data has been done but very limited in scope (Currie and Tekin 2012)

Larger sample size increases national representability and examination of rare outcomes (e.g., teen birth)

- Measures are temporally ordered
- Capture ACEs during childhood (0-17) and outcomes in young adulthood (18-22)

Data linkages

The U.S. Census Bureau has assigned protected identification keys (PIKs) to many files available within their data infrastructure

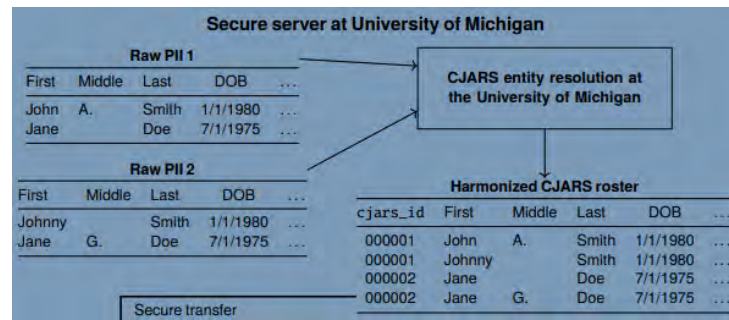
(Wagner and Lane 2014)

- PIKs allow linkage of individuals across time and space

The **Census Household Composition Key (CHCK)** allows us to identify legal/biological parents identified on SS-5 applications

(Genadek, Sanders, and Stevenson 2022)

- Parent had to be on SS-5 application *and* resided with the child



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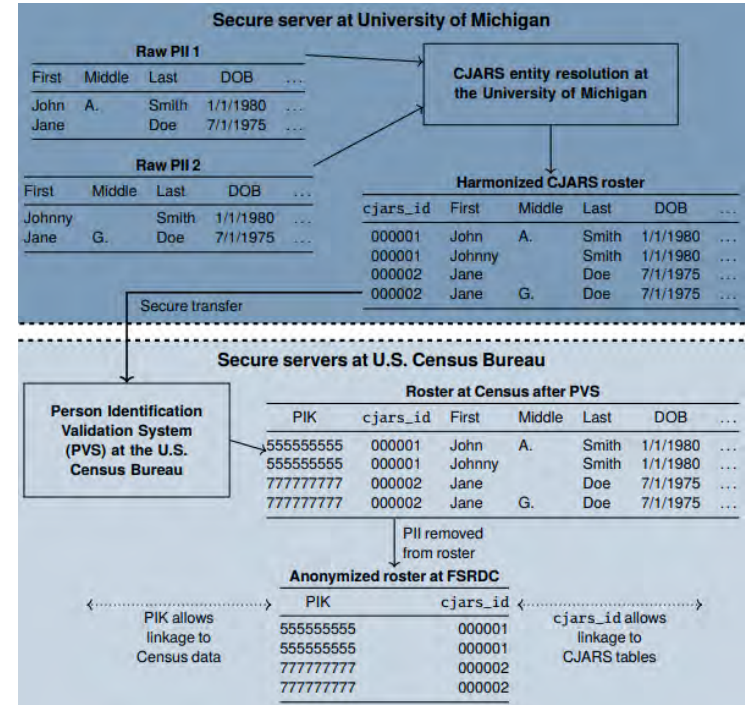
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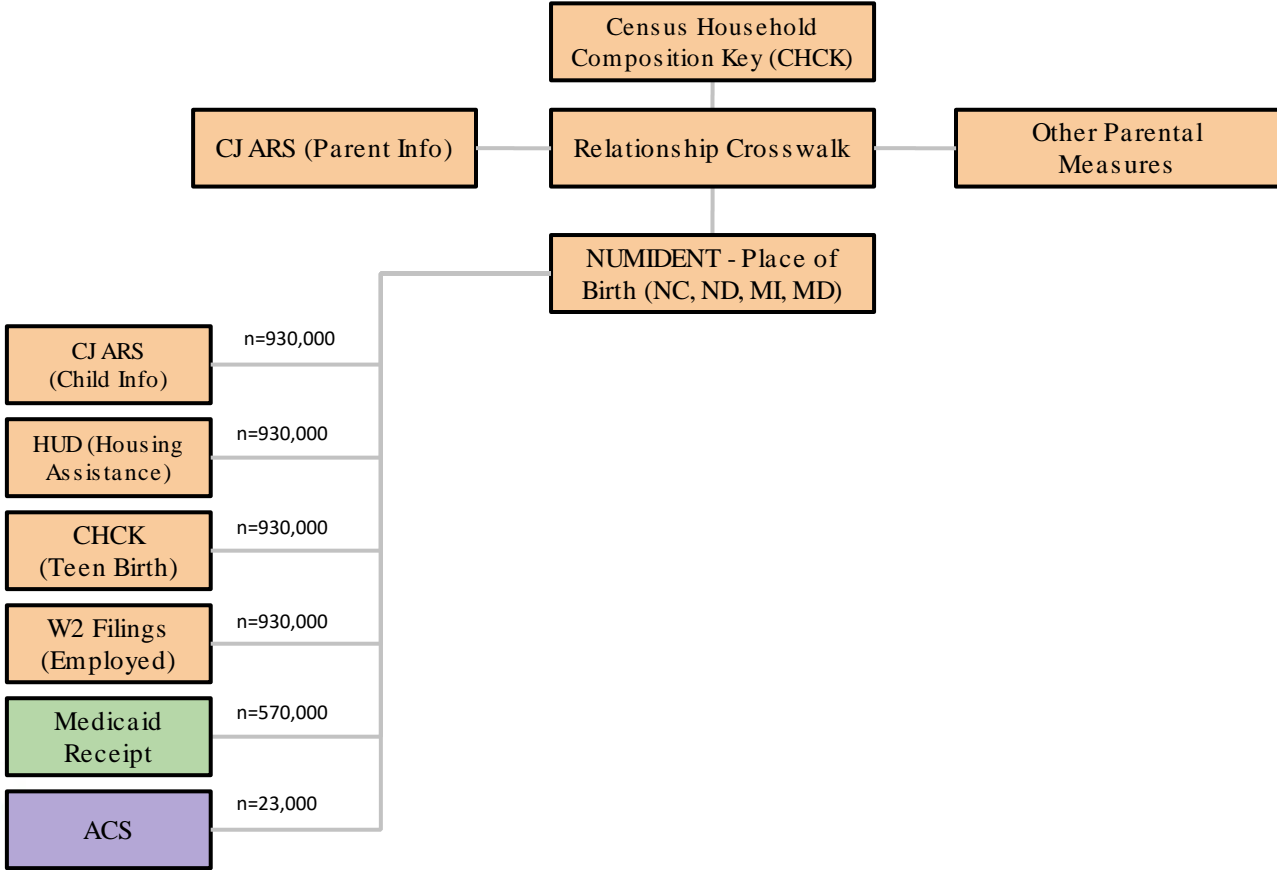
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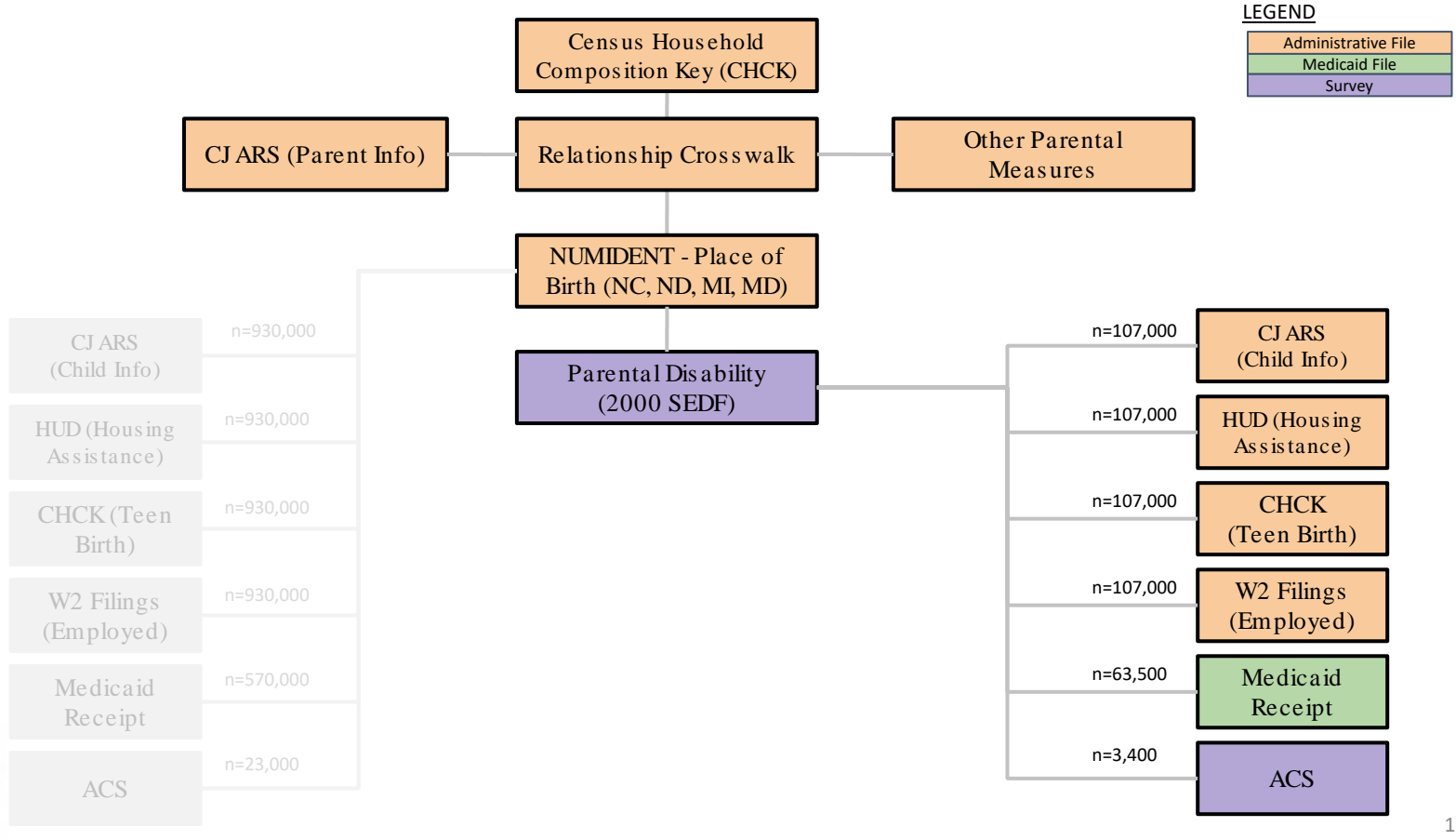
Sample Construction

LEGEND

- Administrative File
- Medicaid File
- Survey



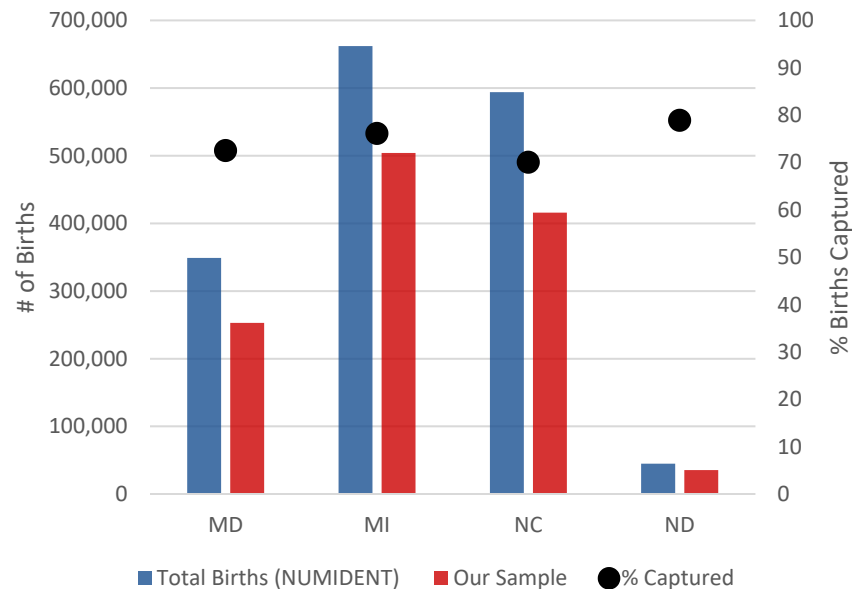
Sample Construction



Sample Representation

Our sample captures ~75% of all births

- Compared to NUMIDENT birth records



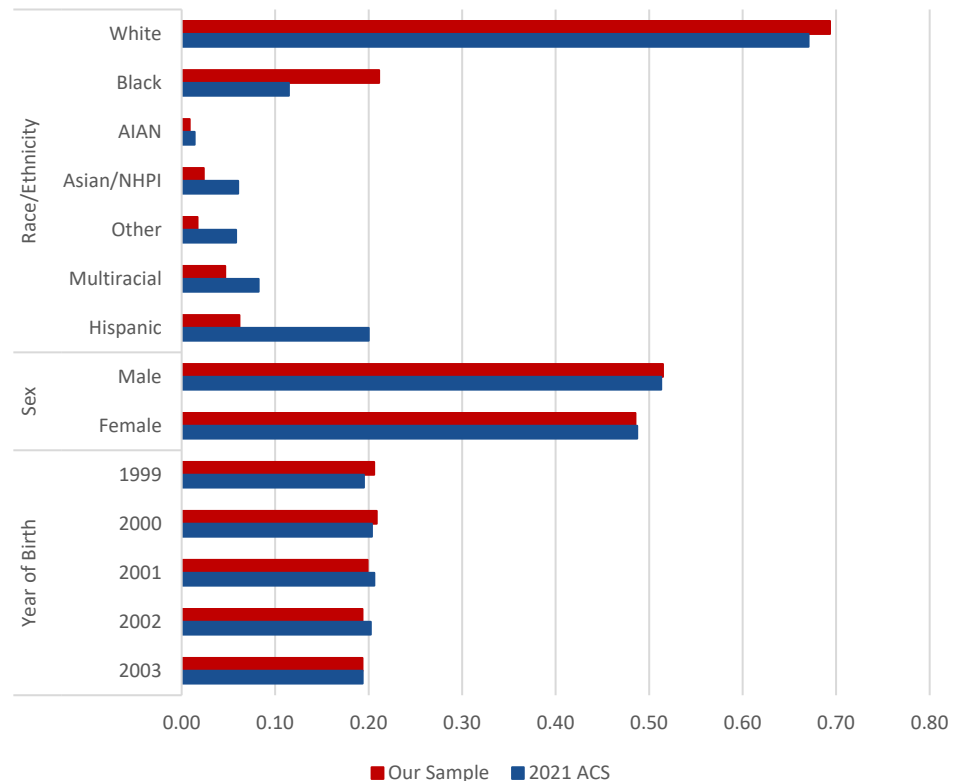
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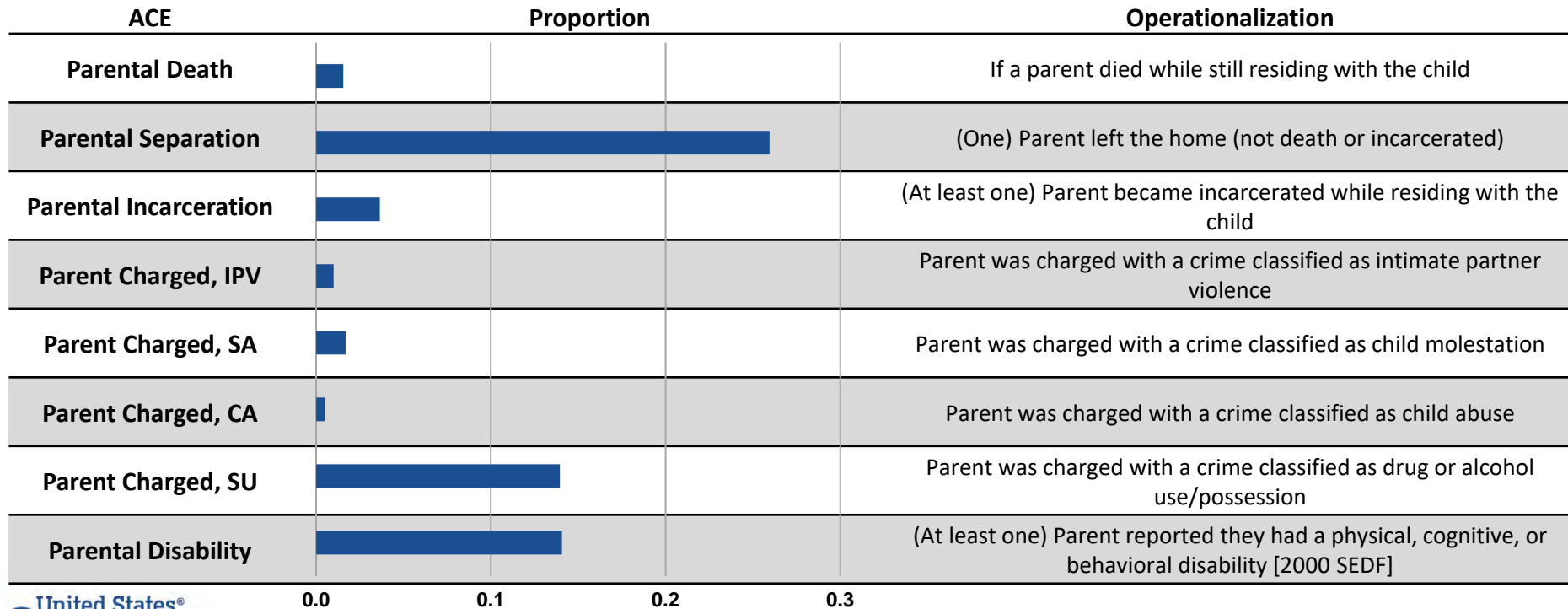
- Compared to NUMIDENT birth records

Our sample reflects the demographic make-up of the 18-22 population

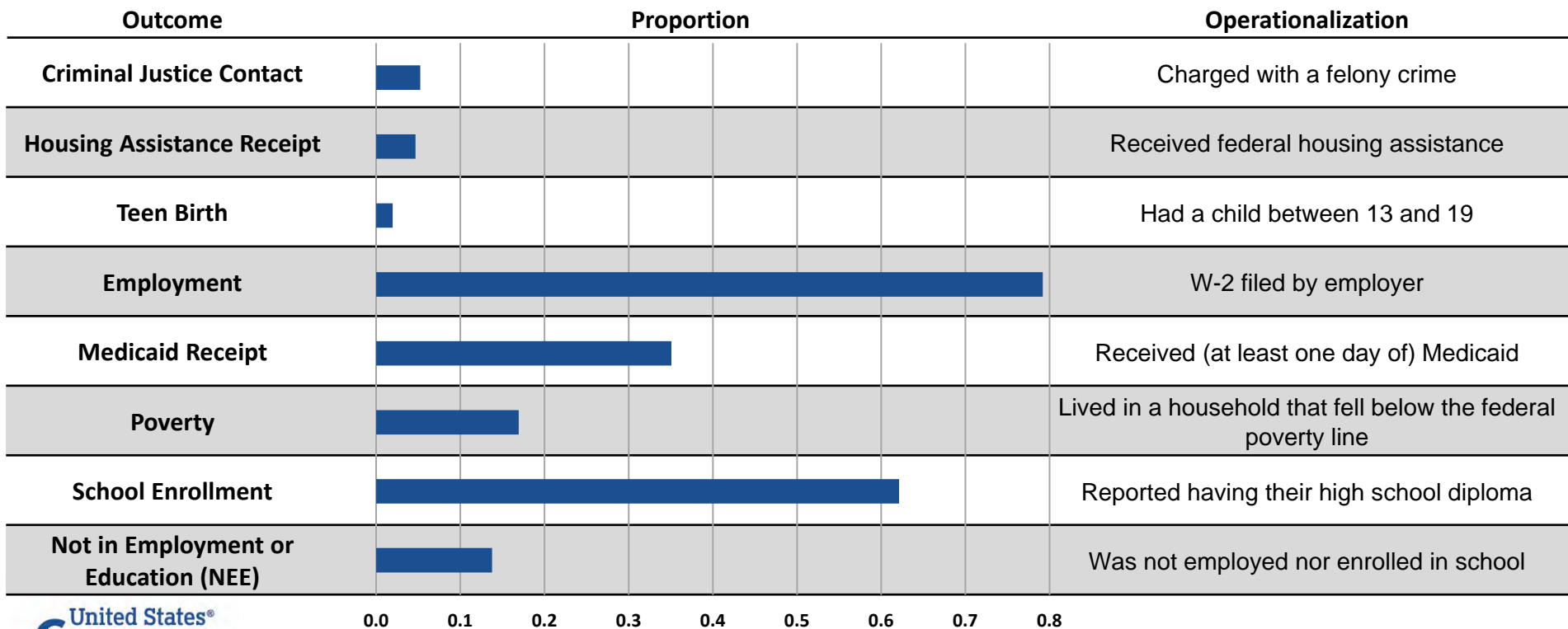
- 2021 ACS=Full Population
- Our Sample=Four States



Focal Adverse Childhood Experiences (ACEs)



Focal Outcomes (Young Adulthood)

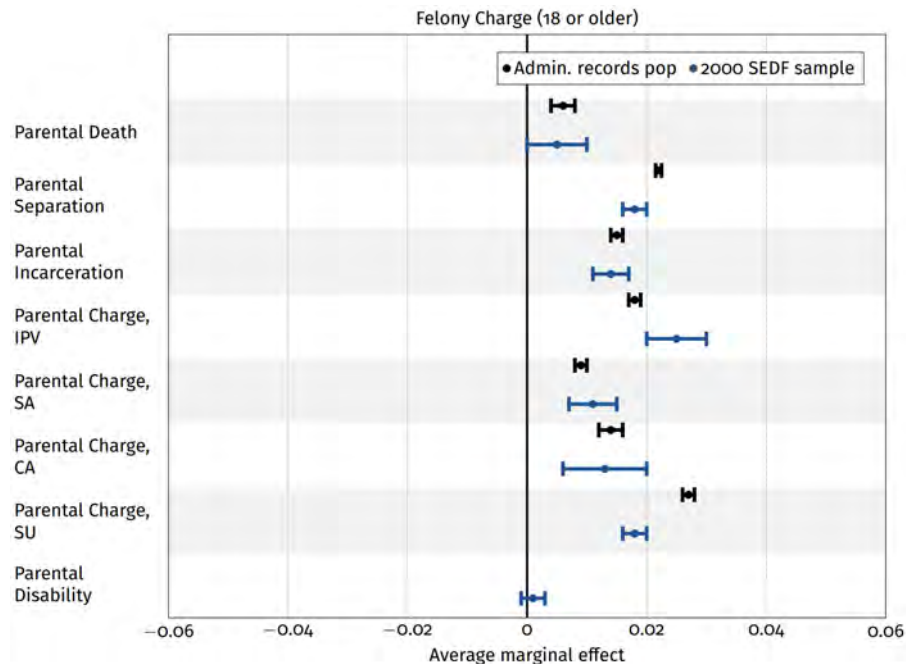


ACEs Increase CJ Contact in Young Adulthood

Nearly every ACE increases odds an individual is charged with a crime

Biggest effect observed for:

- Parental Separation
- Parent Incarceration
- Parent Charged, IPV
- Parent Charged, SU



ACEs Impact Social Safety Program Usage

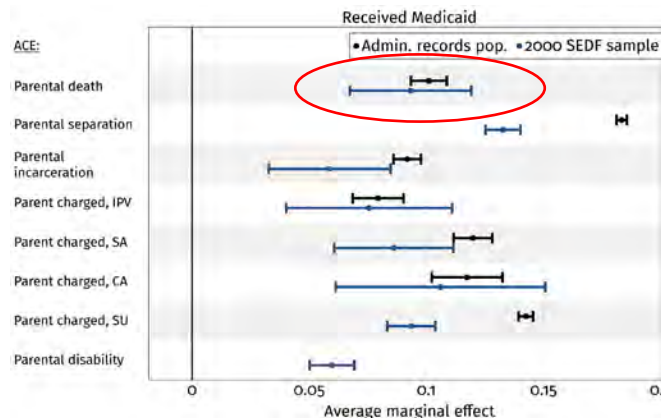
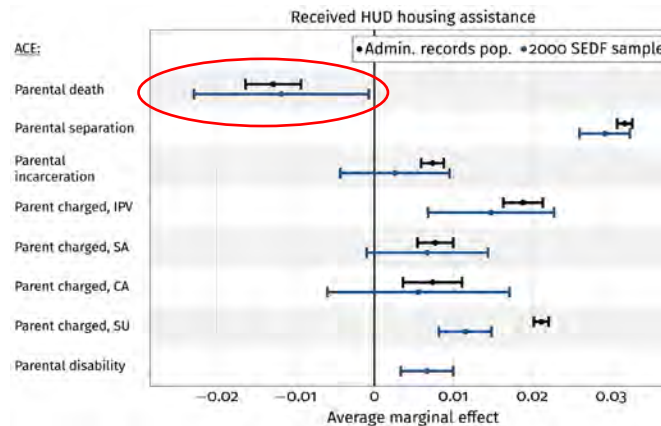
Biggest positive effects observed for:

- Parental Separation
- Parent Charged, IPV
- Parent Charged, Substance Use

Parental death has differential effects

This may be partially explained by age (18-22) and still residing with one's parents

- Same is true for poverty



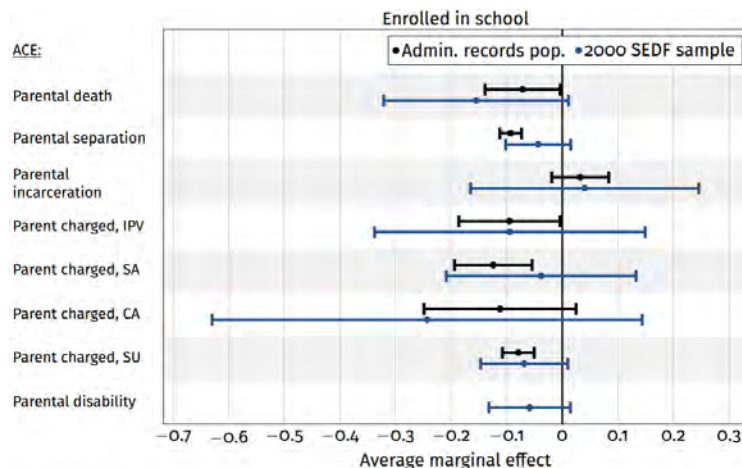
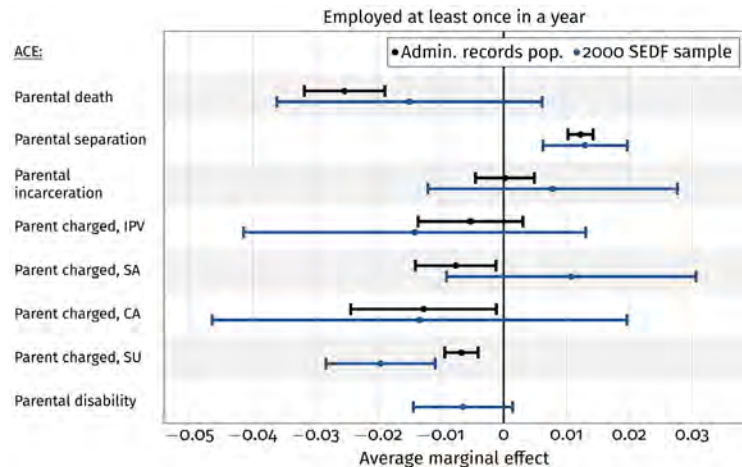
Employed but Not in School

Exposure to ACEs has little to no effect on employment

ACEs reduce being enrolled in school during prime college years (18-22)

Early employment at the cost of longer-term career returns on education?

- This requires follow-up as this population comes to prime working age (25 and older)



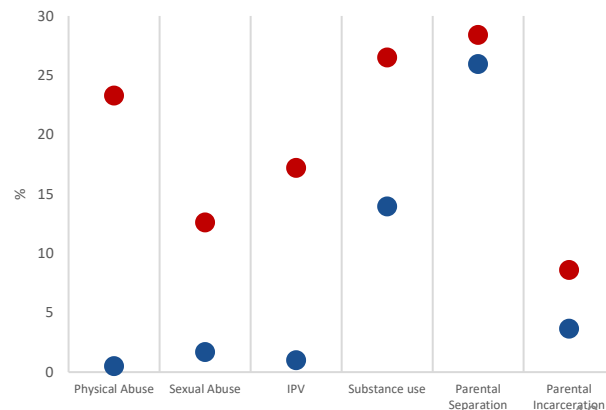
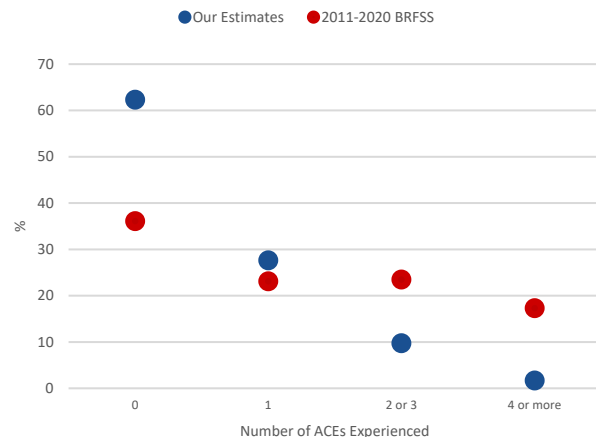
Source of Data Matters

Our measures of ACEs are generally lower than survey self-reports

- Parental separation and incarceration are the most similar
- Differences likely a confluence of issues and limitations

Likely that the “true” number falls between

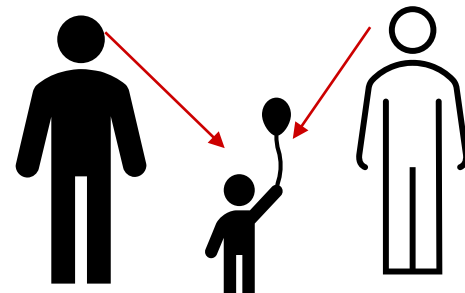
- Recall of ACEs may be shaped by current contexts and timing sense event
- Felony charges reflect ACEs that were charged and prosecutable



The Impact and Mechanisms of ACEs

Experiencing ACEs at any point in childhood has impacts

- In nearly every case, ACEs decrease socio-economic outcomes
- Future work to disentangle if when the ACE occurs in childhood matters (Dube et al. 2001; Schlinkin et al. 2016)



Being charged with a (felony) crime has ramification on one's finances and earning potential (e.g., court costs)

- Creates barriers for the parent to provide to the child (Murray, Farrington, and Sekol 2012; Pager 2003)
 - Can also remove time with and supervision of the child that span days/weeks/months

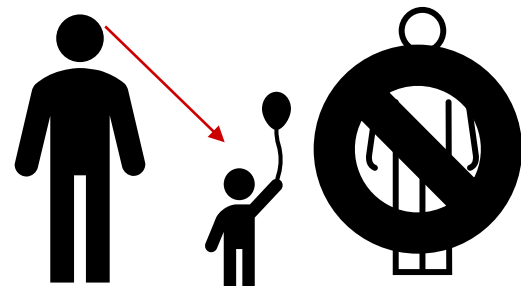
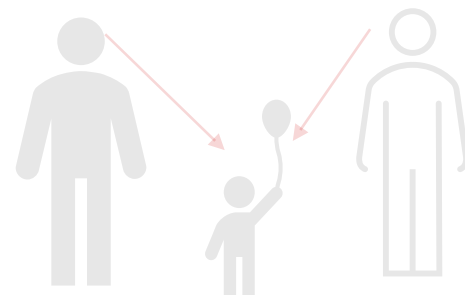
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Specific ACEs Have Larger Impacts Than Others

IPV and parental separation have a large impact on young adult socio-economic outcomes

- IPV may increase instability within the household (e.g., new partners, family members) (Pavao et al. 2007; Adams et al. 2021)
- Parental separation may also reduce supervision and financial resources (Robertson 2016; Antecol and Bedard 2007)

Substance use may also capture a mix of household dysfunction and financial limitations

- The cost of substances may limit/reduce the financial resources allocated towards the child (Mullahy and Sindelar 1993; Farrell, Manning, and Finch 2003)
- Substance (ab)use may co-occur with neglect and parental absence – even if informally (i.e., parent in home but not available)

Major Takeaways

Measuring ACEs with administrative data often reflects more serious cases

- Cons: Only reflects serious cases which are much lower in their occurrence compared to survey estimates
- Pros: Removes any potential recall or sensitivity bias in responses and allows for larger, more diverse samples

ACEs exposure has little effect on employment but reduces school enrollment between 18-22

- What does it mean to be working but not in school during prime college age? Likely limits overall earning potential over the life course

ACEs have negative consequences in young adulthood outcomes

- Large effects observed for IPV and parental separation likely via household dysfunction

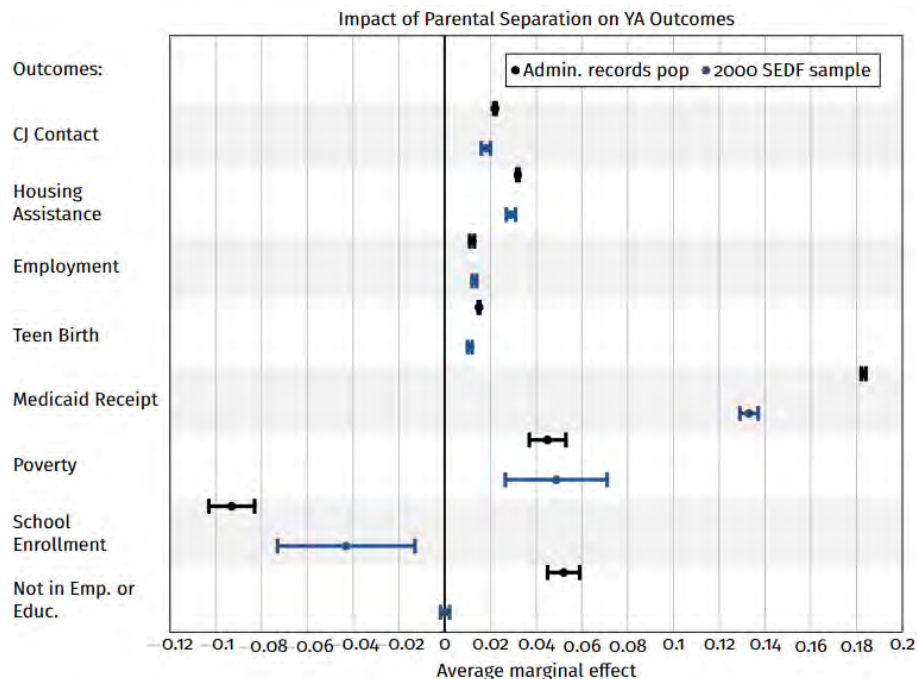
Questions?

Parental Separation Negatively Impacts YA Outcomes

A child experiencing a parent exiting the household negatively impacts socio-economic outcomes

A parent exiting the home frequently reduces supervision and access to additional resources

Although parental separation increases employment, may be because the individual must enter the work force earlier rather than pursuing higher education

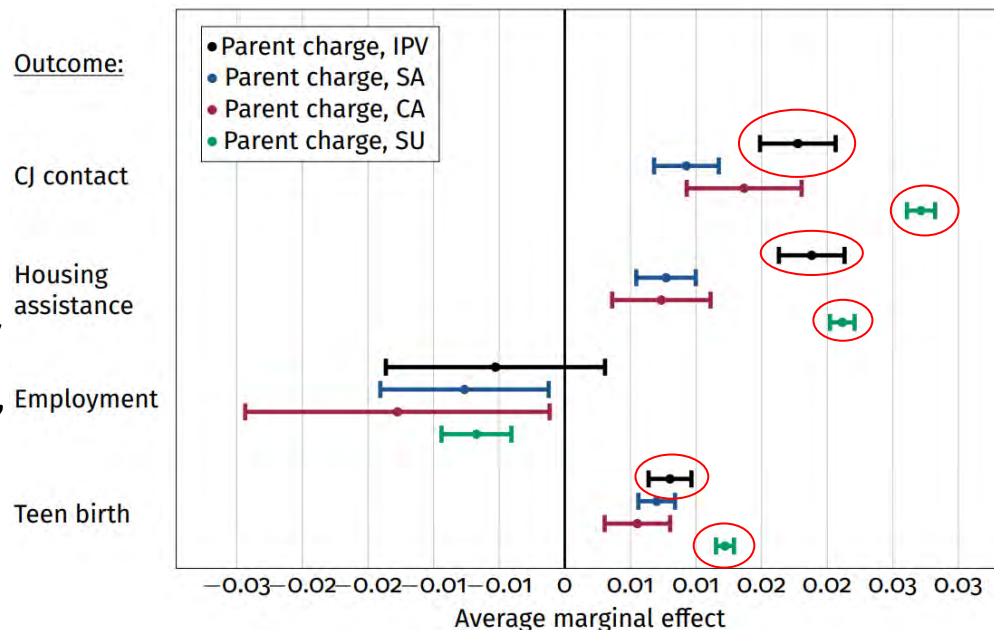


Type of Crime Parent Arrested for Matters

Generally, a parent being found guilty of a crime has a negative impact on YA outcomes

While effect size varies due to rarity of some outcomes (e.g., teen birth), two ACEs have a consistently larger effects:

- Intimate Partner Violence
- Substance (Ab)Use



Additional Controls/Confounders

Control	Operationalization	Data Source(s)
Race	White (ref.), Black, AIAN, Asian/NHPI, Other, Multiracial	Census Best Race File
Ethnicity	Hispanic, Not Hispanic/Latino (ref.)	Census Best Race File
Sex	Male (ref.), Female	Numident
Year of Birth	1999 (ref.), 2000, 2001, 2002, 2003	Numident
State of Birth	Maryland (ref.), Michigan, North Carolina, North Dakota	Numident
Household Type	Dual Parent (ref.), Single Mom, Single Dad	CHCK
Parental Income	Highest income of a parent in 2000	CHCK, IRS 1040 Filings
Parental Poverty	Whether (at least) one parent was in poverty in 2000	CHCK, 2000 Census
Parental HS Diploma	Whether (at least) one parent had a HS diploma in 2000	CHCK, 2000 Census
Parental Citizenship	Whether (at least) one parent was not a citizen in 2000	CHCK, 2000 Census

Ref=Reference Category in regressions, AIAN=American Indian or Alaska Native, HS=High School, CHCK=Census Household Composition Key