Appendix

A: Creating the analytic sample

Data linkage requirements

This study was conducted using the Census Bureau Data Linkage Infrastructure, which holds a wealth of anonymized demographic and business administrative and survey data. Demographic data can be linked at the person level using Protected Identification Keys (PIKs), which are assigned using the Person Identification Validation System (PVS), a probabilistic record linkage system that replaces personally identifiable information (PII) with anonymous PIKs. PIKs can be found on all data sources used for this study and these allow the linkage we describe below. Links at the address level can also be created using Master Address File Identifiers (MAFIDs), which are anonymous address references for each residential address in the U.S.

To study the adverse childhood experiences (ACEs), we start by identifying a cohort of children born between 1999 and 2003 using the Census Numident, which is based on the Social Security Administration (SSA) Numident and captures nearly all births in the United States (Genadek, Sanders, and Stevenson 2022).

The ACEs we study all involve parent events. To identify those events, we link children to parents using the Census Household Composition Key (CHCK). The CHCK is a child-parent crosswalk file based on data from SSA SS-5 applications for Social Security numbers. Since 1989, these forms have been provided at birth by hospitals and state vital statistics offices so that SS-5 records are analogous to birth certificate data (Scott 1999). The Census Bureau uses parent names and probabilistic record linkage to build a child-level file with PIKs for the child, the first parent listed on the SS-5 (often the mother), and the second parent (if listed; often the father). In addition to the parent being listed on the SS-5 forms, the Census Bureau also requires that the parent have resided with the child at least once for the parent to be linked as the child [18].. Determination of coresidence is based on a variety of survey and administrative sources that link individuals to their addresses (e.g., IRS 1040 forms, Master Address File, Decennial Census). Since identification of ACEs requires that all children in scope are linked to parents, our baseline population must appear in the CHCK file. Exhibit A1 shows how this linkage and others described below are used to create the analytic samples for the study.

Our definitions of ACEs require that the child be living with a parent during an ACE-identifying parent event. We use relationship and residential history crosswalks developed by Mueller-Smith, Finlay, and Street (2023) to identify periods of child-parent coresidence. This crosswalk links children born each year to individuals that they have *ever* resided with, as well as the year this co-residential relationship was first observed and the last time it was observed. The crosswalk was synthesized from a variety of survey and administrative data, including IRS 1040 individual tax returns, 2000 and 2010 Census responses, American Community Survey responses, and federal program participation data. Of the cohort of children identified in the Numident and the CHCK, 95% matched to the relation and residential history crosswalks. We use the range of coresidential years (first year to last year) to determine whether an ACE occurred while the child was living with the parent.

Exhibit A1: Data linkage used to construct the analytic sample
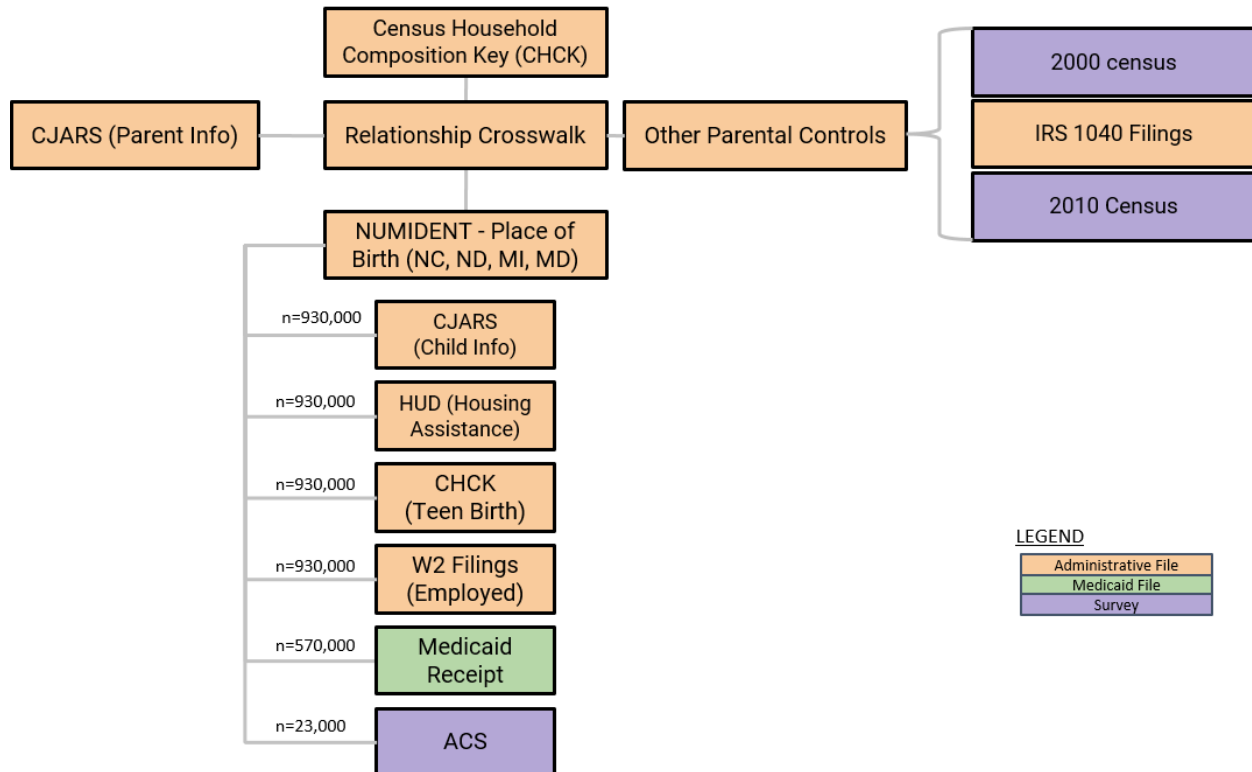
Source: Authors' analysis of listed datasets linked by Census Bureau-assigned Protected Identification Key (PIK).
Note: U.S. Census Bureau, Project P-7500378, Approval CBDRB-FY23-0527, CBDRB-FY24-SEHSD013-006.

We use several datasets to measure the events that identify 7 distinct ACEs. Five ACEs are based on parent events from the Criminal Justice Administrative Records System (CJARS). CJARS data are collected from state and local criminal justice agencies and harmonized into a single data product that allows researchers to follow a single person and event through the criminal justice system: arrest, adjudication, incarceration, probation, and parole (Mueller-Smith and Finlay 2023). CJARS is a growing data system but does not cover all stages of the justice system across all agencies over all time periods. In the 2022Q4 vintage of CJARS used for this project, only four states have sufficiently long longitudinal coverage of court/adjudication events to cover the entire childhoods of our study cohorts and their early adulthoods to examine child outcomes. We restrict our study to children born in those four states (parentheses note each state's percent of the total 2022 U.S. population): Maryland (1.9%), Michigan (3.5%), North Carolina (2.9%), and North Dakota (0.2%). State of birth is identified from the Census Numident.

Two more data linkage requirements are used to identify the primary analytic sample. We identify one ACE, parent separation, based on coresidence in the Census 2010. This requires that children were enumerated in the 2010 census. And we have one important population-level socioeconomic control variable: parental income identified from IRS 1040 individual tax returns from tax year 2000. We require that at least one parent is found on an IRS 1040 tax return in tax year 2000.

Combining data linkage requirements from the Census Numident, CHCK, CJARS relationship and residential history crosswalks, CJARS, 2010 census, and 2000 IRS 1040 returns, we get an analytic sample of 930,000 children born in Maryland, Michigan, North Carolina, or North Dakota between 1999 and 2003 for which all study ACEs can be identified. Exhibit A2 shows the total number of children born in each state in each year (as identified in the Numident), and how many of those children are in the analytic sample after imposing the data

linkage requirements. Our analytic sample represents about 50% of the children born overall in the four states between 1999 and 2003.

Exhibit A2: Sample construction and impact of data constraints
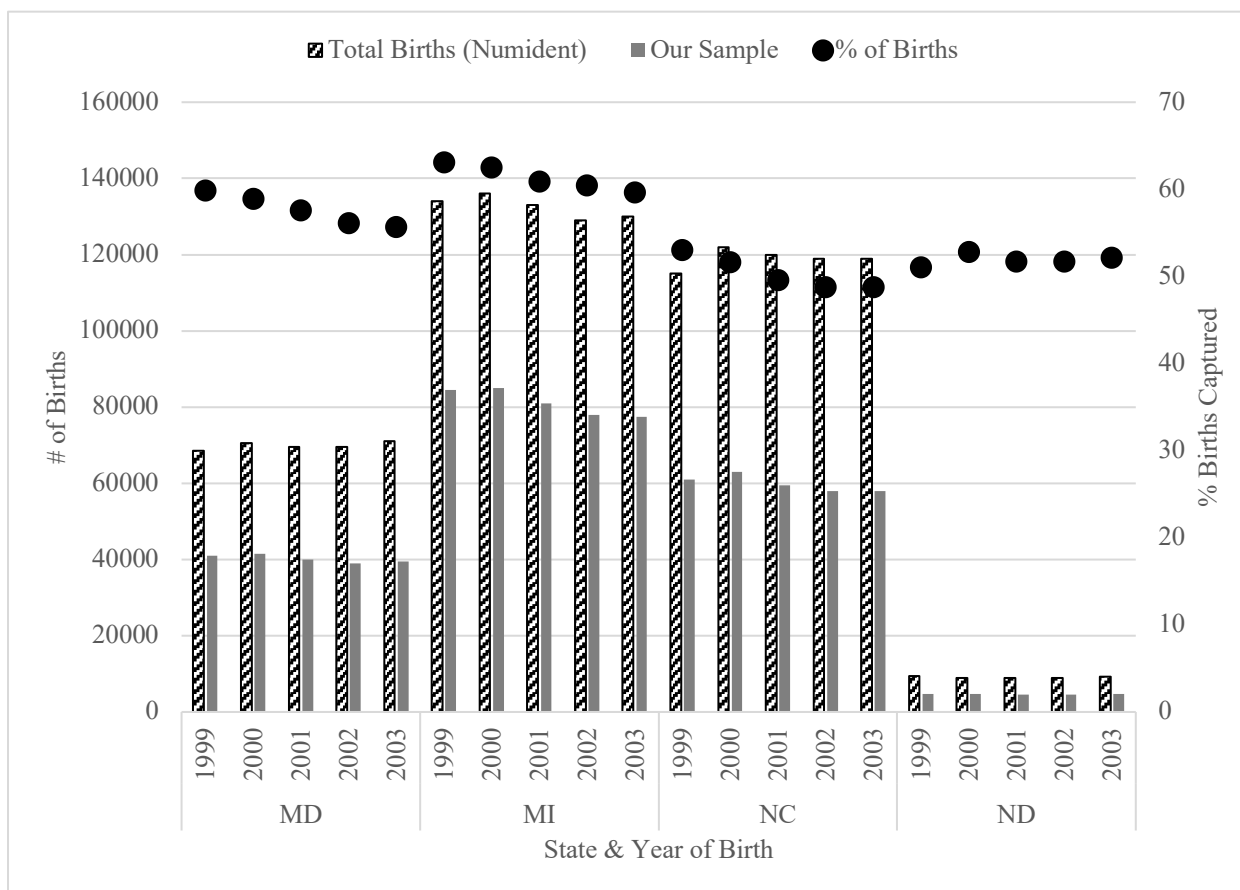
Source: Authors' estimates from Census Numident, CHCK, CJARS relationship and residential history crosswalks, Census 2010, and 2000 IRS 1040 individual tax returns linked by Census Bureau-assigned Protected Identification Key (PIK).
Note: U.S. Census Bureau, Project P-7500378, Approval CBDRB-FY23-0527, CBDRB-FY24-SEHSD013-006.
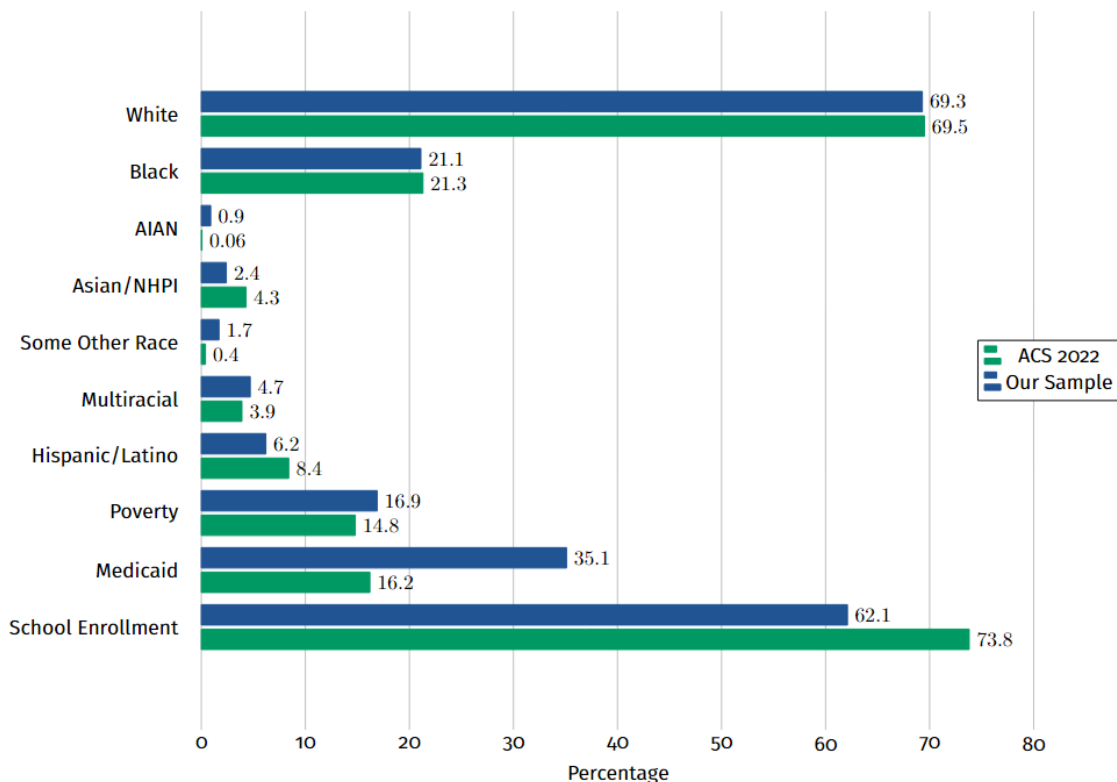
PIK assignment and limitations

The Census Bureau Data Linkage Infrastructure relies on probabilistic record linkage to generate anonymous identifiers, PIKs, that can be used to link survey and administrative data. The PVS process that assigns PIKs is accurate and well tested, but there is some known bias in the likelihood that PIKs are assigned to any particular record.

Data from the SSA Numident are combined with additional residential information to serve as the reference files against which PII are compared to assign PIKs. Because not all U.S. residents are in the SSA data, not all people will be able to be linked to a PIK—namely undocumented immigrants. As other inputs into the reference files may overrepresent some parts of the population, we might expect bias along other dimensions. Bond, Brown, Luque, and O'Hara (2014) find that Hispanics, people from "Other" racial groups, non-U.S. citizens, individuals with poorer spoken English skills, people in poverty, people with less than a high school education, the uninsured, and individuals who rent their home are less likely to be assigned PIKs. Conversely, PIK assignment rates are often higher among those who have been a part of any federal programs, such as federal housing assistance or Social Security receipt (Bond et al. 2014).

These trends in PIK assignment rates explain some variation in our sample (see Exhibit A3).

Exhibit A3: Demographic composition of analytic sample compared to 2022 ACS 5-year estimates

First, there are minimal differences in the racial make-up of our sample and the racial make-up of the United States in 2022 (2022 ACS 5-year estimates). Our sample has a comparable percentage of White and Black people compared to the ACS estimates.

Second, our sample has substantial underrepresentation of Hispanics relative to the ACS sample. Hispanics broadly and Hispanic undocumented immigrants are less likely to show up in the PVS reference files and to have record linkage challenges like compound family names (Bond et al. 2014; Meyer and George 2011; Mulrow et al. 2011). Our data construction also requires that parents be identified in the CHCK and in 2000 IRS 1040 filings. We may be able to find children of undocumented immigrants in the Numident, but finding their parents is more challenging and likely limits our ability to include Hispanic children in the analytic sample.

Along other dimensions, the analytic sample is relatively similar as it relates to the percentage of individuals that fall below the poverty line. We do observe a higher rate of Medicaid enrollment; however, this may be a byproduct of using PIKs paired with 3 (of the 4) states having passed Medicaid expansion. As record linkage reference files and techniques improve at the Census Bureau, there will be opportunities to further improve the representativeness of the linked data used for studies like this.

B: Operationalizing ACEs variables with administrative and census data

Parent death

Parent death is measured for any CHCK-linked parent using the Census Numident, which provides high-quality all-cause mortality for people in the Numident if the death occurred since the late 1990s (Finlay and Genadek 2021). Parents identified from the CHCK file are linked with the Numident using the parent PIK to determine whether the parent died before the child turned age 18. A death was only coded as a parent death ACE if the parent was residing with the child in the year of the death. Exhibit A4 provides an illustration of the linkage and coding process. We also retain all parent dates of death to use as an endpoint for measuring ACEs events associated with that parent (particularly to avoid coding post-death years as parent separation).

Exhibit A4: CHCK, Numident, and relationship crosswalk linkage example to identify parent death

Numident

Parent_PIK	Parent_DOD
000000004	
000000005	01/01/2017
000000006	01/03/2003
000000007	

CHCK

Child_PIK	Child_DOB	Parent1_PIK	Parent2_PIK
000000000	01/01/1999	000000004	000000008
000000001	01/02/1999	000000005	
000000002	01/03/1999	000000006	000000009
000000003	01/04/1999	000000007	000000010

Final

Child_PIK	ParentDeath
000000000	0
000000001	0
000000002	1
000000003	0

Relationship Crosswalk

Child_PIK	Parent_PIK	Parent_First	Parent_Last
000000000	000000004	1999	
000000001	000000005	1999	2012
000000002	000000006	2000	2003
000000003	000000007	2006	2009

Source: Authors' example using fabricated data not protected by 13 U.S.C. § 9a.
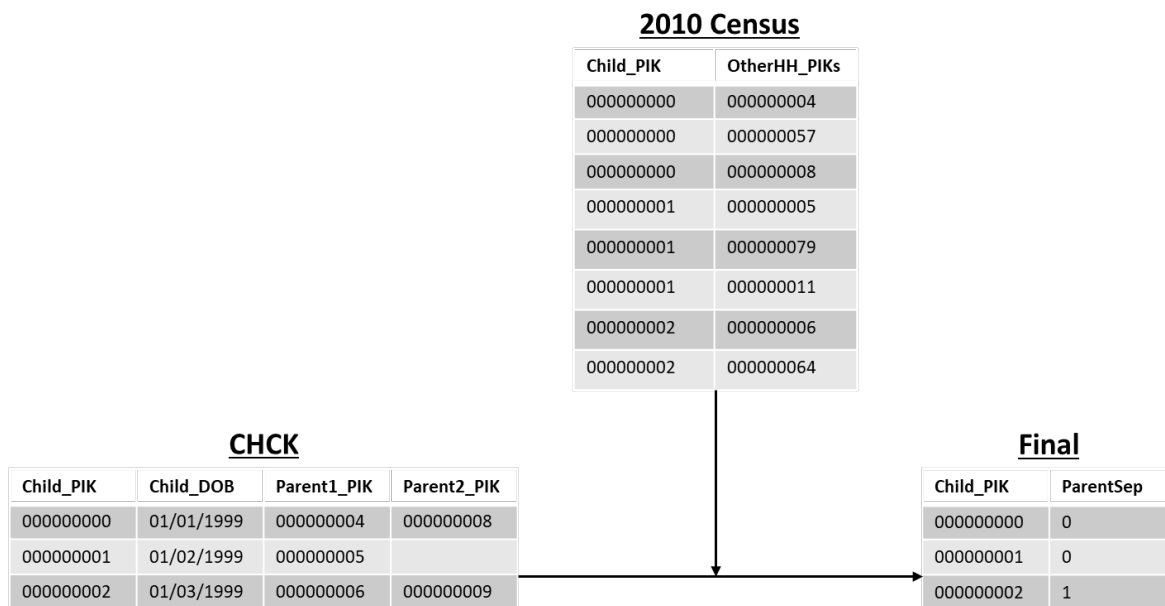
Parent separation

Identifying legal divorce or separation in administrative records would require legal records not available at the Census Bureau. Identifying the same in survey records would require repeated observations of the household, and that one of the parents responded as the head of household in both responses because family structure in decennial censuses and the ACS is only recorded with respect to the household head/responding individual. As an alternative, we leverage the CHCK and 2010 Census to identify if any identified parent no longer lived in the same enumerated household with the child in 2010.

Although parental separation typically implies the separation of two parents, our measure is broader because it measures whether parent-child dyads were no longer coresident in 2010. If any identified parent from the CHCK, which requires the parent and child to have co-resided at some point, was not coresident in 2010, the child was coded as having a parent separation ACE. We chose this approach because we have children in the analytic sample who are only linked to one parent in the CHCK. These children may still experience parent

separation, and our approach provides a mechanism for that to be measured for all children in the sample. Exhibit A5 demonstrates how linkage and coding works for this ACE.

There are a few limitations of the measurement approach for parent separation. First, older study children will have a longer period over which parents can stop being coresident (between the year of birth and 2010). Second, not all children are observed in the 2010 Census, either because of non-enumeration or record linkage error. For this reason, we required that all children in the analytic sample were in the 2010 Census data. Third, if a parent died before April 1, 2010, then the parent will not be observed living with the child in 2010 but not because of the separation we seek to capture with this measure. To avoid potential miscoding of parent separation as resulting from parent death, we restrict the coding of parental separation only to parents who did not have a date of death prior to April 1, 2010.

Exhibit A5: CHCK and 2010 Census linkage example to identify parent separation

2010 Census

Child_PIK	OtherHH_PIKs
000000000	000000004
000000000	000000057
000000000	000000008
000000001	000000005
000000001	000000079
000000001	000000011
000000002	000000006
000000002	000000064

CHCK

Child_PIK	Child_DOB	Parent1_PIK	Parent2_PIK
000000000	01/01/1999	000000004	000000008
000000001	01/02/1999	000000005	
000000002	01/03/1999	000000006	000000009

Final

Child_PIK	ParentSep
000000000	0
000000001	0
000000002	1

Source: Authors' example using fabricated data not protected by 13 U.S.C. § 9a.

ACEs based on parent criminal justice events

Five study ACEs are derived from CJARS adjudication (court) data: parent incarceration, parent substance use disorder, witnessing intimate partner violence (IPV), child physical or emotional abuse, and child sexual abuse. The CJARS adjudication data provide crime dates, dates of key adjudication events (filing, disposition, sentencing), offense type, and disposition and sentencing outcomes.

Parent incarceration is identified from sentencing outcome data from state courts. We code a parent as sentenced to incarceration if they received any incarceration sentence for any type of crime. This operationalization may include jail or prison incarceration. In general, people convicted and sentenced may have already spent some time in jail before and during their court cases. These periods are usually credited against the incarceration sentence. If the sentence is long enough, often more than a year, the person will be transferred to a department of corrections to serve the sentence in a state prison. Not all these individuals may serve an incarceration sentence in a state prison, but all people who received an incarceration sentence will have been separated from their families for some period.

Parent substance use disorder, child physical or emotional abuse, and child sexual abuse are identified from offense classification codes used in the CJARS data—the Uniform Crime Classification Standard (UCCS) offense classification scheme (Choi, Kilmer, Mueller-Smith, and Taheri 2023). These codes are assigned using a machine learning algorithm developed by the CJARS team that classifies raw descriptions of criminal offenses recorded in administrative criminal justice records. The codes cover hundreds of detailed crime types across six major categories: violent, property, drug, DUI offense, public order, and other/unspecified/missing (Mueller-Smith and Finlay 2023). We use specific three-digit UCCS codes to identify offenses associated with substance use disorder, child physical or emotional abuse, and child sexual abuse. IPV, however, is identified from a separate flag on the adjudication table that records whether an offense description mentioned IPV.

If a parent was charged with one of the identified offenses, we code the child linked to that parent as having had an ACE associated with the linked offense. We require that the offense occur while the parent was living with the child and that the charge was at the felony level, which excludes misdemeanor and civil offenses.

Parent substance abuse disorder is identified from parent charges associated with 12 drug- and alcohol-related UCCS codes: 301, 302, 303, 304, 305, 306, 307, 308, 309, 401, 402, and 403. These crimes vary by drug type and level of severity. They cover offenses related to distribution, possession, and driving while intoxicated/under the influence; and drugs such as alcohol, marijuana, heroin, methamphetamines, opioids, and prescription drugs.

Witnessing IPV is identified from parent charges associated with IPV. IPV charges are coded separately because although IPV can be a crime in and of itself, it is frequently a modifier or enhancement associated with another charge such as aggravated assault. Charges in the CJARS data receive a distinct IPV flag when IPV modifiers are found in the raw offense description text (Choi, Kilmer, Mueller-Smith, and Taheri 2023). IPV offenses are flagged using a multi-layer perceptron classifier that was trained using 5,523 domestic-violence related offense descriptors coded by Measures for Justice (Mueller-Smith and Finlay 2023).

Child physical or emotional abuse is identified from parent charges associated with UCCS code 122, child abuse.

Child sexual abuse is identified from parent charges associated with UCCS code 109, child molestation.

Measured incidences of ACEs from administrative and census data versus survey data

ACEs incidence for parent death (1.6% of the study sample) and parent separation (26.0%) using this study's administrative and census data source measures were comparable in magnitude to the most recent nationwide self-reported BRFSS and parent-reported NSCH incidence estimates (Exhibit A6). This study's parent SUD incidence estimate (14.0%) was lower than the comparable measure in BRFSS but higher than NSCH. This study's estimated incidences of parent incarceration (3.7%), IPV exposure during childhood (1.0%), and physical or emotional child abuse (0.5%), and sexual abuse (1.7%) based on parent felony charges were lower than comparable estimates in BRFSS and NSCH, which both used broader definitions of exposure.

Exhibit A6: Comparison of ACE measures and incidence estimates

Adverse childhood experience	Behavioral Risk Factor Surveillance System (n=820,673 respondents)		National Survey of Children's Health question (n=50,212 respondents)		This study (n=930,000 study subjects)	
	Survey question	Nationwide incidence	Survey question to parents ("Has this child ever experienced…")	Nationwide incidence	Administrative or census measure	MD, MI, NC, ND combined incidence
Household member mental illness	Did you live with anyone who was depressed, mentally ill, or suicidal?	18.7% (18.5-18.9)	Lived with anyone who was mentally ill or suicidal, or severely depressed for more than a couple of weeks.	8%	Not assessed.	-
Household member substance use disorder	Did you live with anyone who • Was a problem drinker or alcoholic? • Used illegal street drugs or who abused prescription medications?	26.3% (26.1-26.5)	Lived with anyone who had a problem with alcohol or drugs.	9%	Parent had felony charge for drug possession, drug trafficking, or driving under the influence.	14.0%
Household member incarceration	Did you live with anyone who served time or was sentenced to serve time in a prison, jail, or other correctional facility?	10.6% (10.4-10.8)	Lived with a parent or guardian who served time in jail or prison.	9%	Parent received an incarceration sentence.	3.7%
Parent separation	Were your parents separated or divorced?	29.4% (29.2-29.7)	Lived with a parent or guardian who became divorced or separated.	25%	Parent was not a member of the child's household at ages 7-11.	26.0%
Witnessing intimate partner violence	How often did your parents or adults in your home ever slap, hit, kick, punch or beat each other up?	18.1% (17.9-18.3)	Witnessed a parent, guardian, or other adult in the household behaving violently toward another (e.g., slapping, hitting, kicking, punching, or beating each other up).	6%	Parent had felony charge for intimate partner violence.	1.0%
Experiencing physical abuse	Not including spanking, how often did a parent or adult in your home ever hit, beat, kick, or physically hurt you in any way?	25.2% (24.9-25.4)	Not assessed.	-	Parent had felony charge for child abuse.	0.5%
Experiencing emotional abuse	How often did a parent or adult in your home ever swear at you, insult you, or put you down?	34.5% (34.3-34.8)	Not assessed.	-		
Experiencing sexual abuse	How often did anyone at least 5 years older than you or an adult, • Ever touch you sexually? • Try to make you touch sexually? • Force you to have sex?	14.1% (13.9-14.2)	Not assessed.	-	Parent had felony charge for child sexual abuse.	1.7%
Experiencing community violence	Not assessed.	-	Been the victim of violence or witnessed any violence in his or her neighborhood.	4%	Not assessed.	-
Experiencing economic hardship	Not assessed.	-	Experienced economic hardship "somewhat often" or "very often" (i.e., the family found it hard to cover costs of food and housing)	25%	Not assessed.	
Parent death	Not assessed.	-	Lived with a parent or guardian who died.	3%	Parent died.	1.6%

Notes. Sources: Aslam MV, Swedo E, Niolon PH, Peterson C, Bacon S, Florence C. Adverse Childhood Experiences among U.S. Adults: National and State Estimates by Adversity Type, 2019-2020. Am J Prev Med. 2024;67(1):55-66; Sacks V, Murphey D. The Prevalence of Adverse Childhood Experiences, Nationally, by State, and by Race/Ethnicity Bethesda, MD: Child Trends; 2018 [cited October 8, 2024]. Available from: https://www.childtrends.org/publications/prevalence-adverse-childhood-experiences-nationally-state-race-ethnicity; U.S. Census Bureau, Project P-7500378, Approval CBDRB-FY23-0527, CBDRB-FY24-SEHSD013-00.

C: Operationalizing young adult socioeconomic variables

Here we describe the creation of several socioeconomic outcomes from either administrative data or sampled survey responses. Although many of these variables are measured using multiple years of data during the transition to adulthood, each child receives a single binary measure for each outcome summarizing the measured period.

Felony charge

To measure criminal justice contact in young adulthood, we rely on the same CJARS felony charge data used to measure ACEs. Children in the analytic sample were linked to CJARS to identify felony charges that occurred at age 18 or older. The period over which a study child "at risk" of being charged with a felony offense varies based on the year a person was born.

Teen birth

Teen birth is a risk behavior of the transition to adulthood. It is traditionally measured from about ages 13-19. So, whereas the other socioeconomic outcomes are measures from ages 18-22, teen birth is measured over the earlier age range. Teen birth or parenthood is measured from the CHCK and Census Numident files. Child PIKs from our analytic sample are linked to PIKs of parents identified in the CHCK file, which represents birth records. Of those linked records, the children PIKs from the CHCK are linked to the Numident to determine if the birth occurred while the child from our analytic sample was between ages 13 and 19.

Poverty

Household poverty is measured by linking PIKs of children from the analytic sample to the PIKs of household members from 2017-2021 ACS responses. Household poverty is calculated variable created by the Census Bureau using the federal poverty thresholds and household response data about household size, composition, and income.

Housing assistance

Housing assistance is identified from Department of Housing and Urban Development (HUD) Longitudinal Public and Indian Housing Information Center/Tenant Rental Assistance Certification System (PIC/TRACS) data. These data capture HUD-sponsored subsidized and public housing assistance programs (Meyer and Wu 2018) but exclude housing programs sponsored by the Department of Agriculture and rent caps for low-income tenants associated with the Low-Income Housing Tax Credit (Scally and Lipsetz 2017). The PIC/TRACS data contain a roster of members of the household registered with the local housing authority. Children from the analytic sample as coded as having housing assistance if they are including in any enrolled households between 2017 and 2021.

Medicaid enrollment

Medicaid enrollment is measured using Center for Medicaid Studies (CMS) Transformed Medicaid Statistical Information System (T-MSIS) data. T-MSIS records the number of days an individual was enrolled in Medicaid coverage. These data are only available at the Census Bureau for enrollment years 2017-2019. As a result, we can only measure this outcome for the sample during young adulthood if they were born between 1999 and 2001.

Employment

Employment is measured from IRS W-2 information returns. Employers are required to file a W-2 form if an employee has earnings of at least $600 in a year. A person is defined as employed in a year if at least one W-2 return was issued in their name. This concept of employment in a year differs from the measure collected in the Current Population Survey and the American Community Survey that asks whether respondents are employed at the time of the survey. Measuring employment using W-2s excludes earnings from sources other than employer-based jobs, including contractor and self-employment income.

Early adult employment can be a substitute for schooling. In the long-term, choosing employment over further education is associated with lower lifetime earnings. Because of this transition concern, we chose to measure the latest possible year of employment we could with available W-2 data. Thus, our employment measure is only from tax year 2021.

Education enrollment

Education enrollment is measured from 2017-2021 ACS responses and includes enrollment in high school or college.

Temporal overlap between child cohorts and socioeconomic outcomes

Three of the socioeconomic outcomes are measured when the study children are ages 18 to 22 and from 2017-2021, there are some exceptions mentioned above. Exhibit A7 shows when outcomes are available for each birth cohort by year of birth. HUD housing assistance, household poverty, and education enrollment are all measured from ages 18 to 22 and from 2017-2021. Felony charge is measured from 2017-2022. Teen birth is measured at earlier ages (13-19 years old) and from 2012-2021. Medicaid enrollment is only available from 2017-2019. Employment is only measured in 2021.

The figure shows that for most of the socioeconomic outcomes, older cohorts will have more years when outcomes can be measured. To account for this, all regression models include year-of-birth fixed effects. Also note that housing assistance, Medicaid enrollment, and household poverty all measure household contexts and will reflect parent resources if the sample member still lives with the parents into young adulthood. In 2021 ACS estimates, 72% of individuals aged 18-22 years were recorded as a child (biological, adopted, step, foster) of the household head, so the variables are mostly capturing shared family experiences. In the future, measuring these household-level socioeconomic variables at later ages will allow us to better isolate the associations between ACEs and later socioeconomic outcomes.

Exhibit A7: Temporal overlap between birth cohorts and outcome measures

Domain	Outcome	Birth Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Risk Taking Behaviors	Felony Charge	1999						█	█	█	█	█	
		2000							█	█	█	█	█
		2001								█	█	█	█
		2002									█	█	█
		2003										█	█
	Teen Birth	1999	█	█	█	█	█			█			
		2000		█	█	█	█			█	█		
		2001			█	█	█			█	█	█	
		2002				█	█			█	█	█	
		2003					█			█	█	█	
Household Economic Contexts	Housing Assistance	1999						█	█	█	█		
		2000							█	█	█	█	
		2001								█	█	█	█
		2002									█	█	█
		2003										█	█
	Medicaid Enrollment	1999						█	█	█			
		2000							█	█			
		2001								█			
		2002											
		2003											
	Poverty	1999						█	█	█	█	█	█
		2000							█	█	█	█	█
		2001								█	█	█	█
		2002									█	█	█
		2003										█	█
Transition to Adulthood	Employment	1999						█	█	█	█	█	
		2000							█	█	█	█	█
		2001								█	█	█	█
		2002									█	█	█
		2003										█	█
	School Enrollment	1999						█	█	█	█		
		2000							█	█	█	█	
		2001								█	█	█	█
		2002									█	█	█
		2003										█	█

Source: Authors' determination based on data metadata and availability.

D: Operationalizing parent and child control variables

Parent income near time of birth

Parent income near the time of birth is identified from IRS 1040 individual tax returns. All identified parents from the analytic sample are linked to the universe of tax year 2000 1040 returns. We used the adjusted gross income (AGI) from the household return. If the parents associated with a child were identified on multiple tax year 2000 1040 returns, we chose the highest AGI of linked 1040 returns. We required that all members of the analytic sample had at least one parent linked to a tax year 2000 1040 return.

This income measure can be zero or negative and is highly skewed. In our models, to account for the skewness, we use the inverse hyperbolic sine which is similar to a log transformation but allows for non-positive values [38].

Parent socioeconomic status near time of birth

For some models, we use several sample survey-derived measures of parent socioeconomic status near the time of birth.

Parent disability, household poverty, high school completion, and U.S. citizenship are identified from the Census 2000 Sampled Edited Data File (SEDF), often known as the "long form". If a child is linked to multiple parents with SEDF responses, we choose the maximum of the parent socioeconomic flags we describe further below.

Parental disability near the time of birth is identified from SEDF questions about whether respondents had any difficulty with certain cognitive or physical tasks due to a disability. The type of disability is not further identified. We code a child as having a parent with a disability if either parent responded yes to the disability question.

household poverty near the time of birth is identified from the SEDF, as calculated by the Census Bureau as described above (in the ACS). We code a child as having a parent who lived in poverty either parent is coded as living in poverty.

Parent high school completion near the time of birth is identified from the SEDF if the parent responded that they had completed at least a high school education, which can include receiving a high school diploma or completing a general equivalency diploma (GED). We code a child as having a parent who completed high school if either parent is coded as having completed high school.

Parent U.S. citizenship near the time of birth is identified from the SEDF if the parent responded that they were a U.S. citizen. We code a child as having a parent who is a U.S. citizen if either parent is coded as being a U.S. citizen.

A limitation of these parent socioeconomic status variables is that they are not measured at the same relative time for each child's parents. For younger members of the analytic sample, these responses represent data a few years before their birth. Another limitation of these variables is that they are from sampled survey data and greatly reduce our analytic sample size (using these variables with our largest analytic sample reduces the number of available observations from 930,000 to 103,000—about 12%).

Household Status at time of birth

Household status at the time of birth is measured from the CHCK. We identify whether two parents, only a father, or only a mother had a PIK on the CHCK file. A child being linked to one parent only on the CHCK could reflect that the actual SS-5 form submitted for the child only had one parent listed, or it could reflect a record linkage error for one parent on the SS-5 (Genadek, Sanders, and Stevenson 2022). This record linkage error could be because a good match was not discovered in the PVS reference files, because a parent was not in the reference files (e.g., an undocumented immigrant), or because the parent could not be found to be coresident with the child at some point (a CHCK requirement). All models include fixed effects for family structure at time of birth (two parents [reference], mother only, father only).

Child demographics

The race and ethnicity of the child is identified from Census Bureau Best Race file, which incorporates data from many administrative and survey sources to determine the "best" race and ethnicity for an individual based on the recorded race and ethnicity in these data. Race includes six categories: White, Black, American Indian and Alaskan Native (AIAN), Asian/Native Hawaiian or Pacific Islander (NHPI), Some Other Race, or Multiracial. Ethnicity includes Hispanic ethnicity or not of Hispanic ethnicity. All models include fixed effects

for race and ethnicity (White is the reference group for race and not Hispanic is the reference group for ethnicity).

The sex of the child is identified from the Census Numident. Sex is usually recorded when an SS-5 is first filed at birth, but it can be updated at any time by filing a new SS-5 and a small proportion of individuals do have changed sex identification (Harris 2015). All models include fixed effects for the sex of the child (male [reference], female).

Birth year and state of birth are also identified from the Census Numident. All models include fixed effects for year of birth (1999 [reference], 2000, 2001, 2002, or 2003) and state of birth (Maryland [reference], Michigan, North Carolina, or North Dakota).

E: Regression models and weighting

We use logistic/logit regression because all the young adult socioeconomic outcomes are binary. The general model can be expressed as:

$$\Pr(Y_i = 1) = F(\beta_0 + ACE_i\beta_{ACE} + X_i\beta_x), \qquad (E.1)$$

where $F(z) = e^z/(1 + e^z)$ is the cumulative logistic distribution, Y_i is the outcome of the child in young adulthood (e.g., felony charge), ACE_i is a vector of ACEs measures (binary exposure to any ACE, number of ACEs, and individual ACEs), and X_i is a vector of child or parent characteristics (e.g., race, sex, state of birth, year of birth, family structure at birth, parent IRS 1040 income from 2000). Estimated parameters from logistic/logit models were used to estimate the average marginal effects (AMEs) of each independent variable. The delta method was used to estimate AME variances.

This paper includes both population-level census and administrative data, as well as sampled survey data. In models that use only population-level census and administrative records, sample weights are not included. In models that use either Census 2000 Sample Edited Detail File (SEDF) or American Community Survey (ACS) responses but not both, person weights from those surveys are used. In cases where two parents were both 2000 SEDF respondents, we select the larger parent person weight to represent the parent-child observation—thereby overweighting underrepresented populations.

In models where SEDF samples are linked at the person level to ACS samples, we construct a composite weight for linked records that accounts for both SEDF and ACS survey person weights. In the composite weight for linked parent p and child i, individual parent person weights from the 2000 SEDF are divided by the sum of all parent person weights from the SEDF and then multiplied by the person weight from the ACS record associated with the linked child when they are a young adult:

$$(\frac{SEDFWeight_{p,i}}{\sum SEDFWeight_p}) * ACSWeight_i \, .$$

Reweighting with this composite weight will make our sample more representative of the overall population of parents linked to their children as young adults, with the caveats described above about the possible biases associated with probabilistic record linkage.

F: Full model results

Full model results are included after the References section in this appendix. The tables are divided by the type of ACE being examined (binary ACEs exposure, categorical ACEs measure, and individual ACEs) and by

whether the models include control for parental income (IRS 1040) (Model 1), no parental socioeconomic status controls (Model 2), and controls for parental income and additional parent SEDF controls (Model 3). A summary results table (Exhibit A17) reports all AMEs and corresponding proportional changes. Below is a list of exhibit names:

1. Exhibit A8: Any ACEs (Model 1)
2. Exhibit A9: Any ACEs (Model 2)
3. Exhibit A10: Any ACEs (Model 3)
4. Exhibit A11: ACEs count (Model 1)
5. Exhibit A12: ACEs count (Model 2)
6. Exhibit A13: ACEs count (Model 3)
7. Exhibit A14: ACEs type (Model 1)
8. Exhibit A15: ACEs type (Model 2)
9. Exhibit A16: ACEs type (Model 3)
10. Exhibit A17: Summary model results

H: Online Appendix References

Aslam MV, Swedo E, Niolon PH, Peterson C, Bacon S, Florence C. Adverse Childhood Experiences among U.S. Adults: National and State Estimates by Adversity Type, 2019-2020. Am J Prev Med. 2024;67(1):55-66.

Bellemare, Marc F., Casey J. Wichman, Jeff Bloem, Dave Giles, Seema Jayachandran, Jason Kerwin, David Mckenzie, Steve Miller, and Joseph Ritter. 2019. "Elasticities and the Inverse Hyperbolic Sine Transformation." Oxford Bulletin of Economics and Statistics 82(1):50-61.

Bond, Brittany, J. David Brown, Adela Luque, and Amy O'Hara. 2014. The Nature of the Bias When Studying Only Linkable Person Records: Evidence from the American Community Survey.

Choi, Jay, David Kilmer, Michael Mueller-Smith, and Sema A. Taheri. 2023. "Hierarchical Approaches to Text-Based Offense Classification." Science Advances 9(9). doi: 10.1126/sciadv.abq8123.

Finlay, Keith, and Katie R. Genadek. 2021. "Measuring All-Cause Mortality with the Census Numident File." American Journal of Public Health 111(S2):S141-S148.

Finlay, Keith, Michael Mueller-Smith, and Brittany Street. 2023. "Children's Indirect Exposure to the U.S. Justice System: Evidence From Longitudinal Links between Survey and Administrative Data." Quarterly Journal of Economics 138(4):2181-2224.

Finlay, Keith, and Michael Mueller-Smith. 2023. Criminal Justice Administrative Records System(CJARS).

Genadek, Katie, Joshua Sanders, and Amanda Stevenson. 2022. "Measuring US Fertility Using Administrative Data from the Census Bureau." DEMOGRAPHIC RESEARCH 47(2). doi: 10.4054/DemRes.2022.47.2.

Harris, Benjamin Cerf. 2015. Likely Transgender Individuals in U.S. Federal Administrative Records and the 2010 Census.

Meyer, Bruce D., and Derek Wu. 2018. "The Poverty Reduction of Social Security and Means-Tested Transfers." 71(5):1106-1153.

Meyer, Bruce D., and Robert George. 2011. Errors in Survey Reporting and Imputation and Their Effects on Estimates of Food Stamp Program Participation.

Mulrow, Edward, Ali Mushtaq, Santanu Pramanik, and Angela Fontes. 2011. Final Report: Assessment of the U.S. Census Bureau's Person Identification Validation System.

Sacks V, Murphey D. The Prevalence of Adverse Childhood Experiences, Nationally, by State, and by Race/Ethnicity Bethesda, MD: Child Trends; 2018 [cited October 8, 2024]. Available from: https://www.childtrends.org/publications/prevalence-adverse-childhood-experiences-nationally-state-race-ethnicity.

Scally, Corianne Payton, and David Lipsetz. 2017. "New Public Data Available on USDA Rural Housing Service's Single-Family and Multifamily Programs." Cityscape 19(1):294–304.

Scott, Charles G. 1999. "Identifying the Race or Ethnicity of SSI Recipients." Social Security Bulletin 62(4):9–20.

Exhibit A8: Any ACEs (Model 1)

	Felony Charge			Teen Birth			Poverty			Housing Assistance			Medicaid			Employment			Education Enrollment		
Measure	b/se	AME/se		b/se	AME/se		b/se	AME/se		b/se	AME/se		b/se	AME/se		b/se	AME/se		b/se	AME/se	
Any ACE	0.743	0.035	*	1.039	0.020	*	0.377	0.053	*	0.916	0.035	*	1.315	0.245	*	0.035	0.006	*	-0.490	-0.112	*
	0.010	0.000		0.016	0.000		0.054	0.008		0.011	0.000		0.007	0.001		0.006	0.001		0.042	0.010	
Childhood SES																					
Parent Income	-0.060	-0.003	*	-0.107	-0.002	*	0.004	0.001		-0.138	-0.005	*	-0.394	-0.066	*	0.013	0.002	*	0.139	0.031	*
	0.003	0.000		0.004	0.000		0.021	0.003		0.003	0.000		0.004	0.001		0.002	0.000		0.027	0.006	
Additional Controls																					
Household Status at Birth																					
Dual Parent	Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.	
Single Mom	0.689	0.036	*	1.008	0.023	*	0.576	0.089	*	1.292	0.057	*	1.769	0.351	*	-0.036	-0.006	*	-0.578	-0.134	*
	0.012	0.001		0.017	0.000		0.071	0.012		0.012	0.001		0.009	0.002		0.007	0.001		0.060	0.014	
Single Dad	0.344	0.016	*	0.651	0.012	*	0.416	0.061		0.205	0.006	*	1.077	0.208	*	-0.068	-0.011	*	-0.093	-0.021	
	0.050	0.003		0.070	0.002		0.233	0.038		0.063	0.002		0.031	0.006		0.028	0.005		0.208	0.047	
Race																					
White	Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.	
Black	0.661	0.033	*	0.400	0.008	*	0.311	0.045	*	2.214	0.093	*	0.693	0.127	*	0.126	0.020	*	-0.086	-0.019	
	0.012	0.001		0.019	0.000		0.074	0.011		0.015	0.001		0.008	0.002		0.007	0.001		0.062	0.014	
AIAN	0.595	0.029	*	0.722	0.016	*	0.464	0.070	*	1.301	0.034	*	0.848	0.157	*	-0.400	-0.072	*	-0.151	-0.034	
	0.041	0.002		0.056	0.002		0.227	0.039		0.047	0.002		0.033	0.007		0.026	0.005		0.184	0.042	
Asian/NHPI	-0.708	-0.021	*	-1.235	-0.012	*	0.039	0.005		0.083	0.001		0.060	0.010	*	-0.596	-0.113	*	0.919	0.177	*
	0.056	0.001		0.119	0.001		0.160	0.021		0.067	0.001		0.023	0.004		0.015	0.003		0.154	0.024	
Some Other Race	0.186	0.008	*	0.277	0.005	*	0.516	0.079	*	0.216	0.003	*	0.628	0.114	*	0.001	0.000		0.398	0.084	*
	0.042	0.002		0.051	0.001		0.257	0.045		0.055	0.001		0.027	0.005		0.022	0.004		0.195	0.039	
Multiracial	0.348	0.015	*	0.342	0.006	*	-0.048	-0.006		1.327	0.035	*	0.375	0.067	*	-0.045	-0.007	*	-0.022	-0.005	
Ethnicity																					
Hispanic	0.017	0.001		-0.374	-0.008	*	-0.017	-0.002		-0.219	-0.009	*	-0.449	-0.079	*	-0.015	-0.002		0.229	0.052	*
	0.023	0.001		0.030	0.001		0.115	0.016		0.025	0.001		0.014	0.003		0.012	0.002		0.089	0.020	
Female	-0.022	-0.001	*	-0.010	0.000		-0.064	-0.009		0.020	0.001		-0.013	-0.002	*	0.002	0.000		-0.012	-0.003	
	0.010	0.000		0.015	0.000		0.053	0.007		0.011	0.000		0.006	0.001		0.005	0.001		0.039	0.009	
Year of Birth																					
1999	Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.	
2000	-0.477	-0.039	*	-0.083	-0.002		-0.064	-0.009		-0.041	-0.002	*	-0.078	-0.013	*	-0.076	-0.011	*	0.187	0.043	*
	0.011	0.001		0.019	0.001		0.066	0.009		0.016	0.001		0.008	0.001		0.009	0.001		0.049	0.011	
2001	-1.056	-0.070	*	-0.259	-0.006	*	-0.197	-0.027	*	-0.127	-0.005	*	-0.209	-0.035	*	-0.153	-0.022	*	0.404	0.091	*
	0.013	0.001		0.021	0.001		0.073	0.010		0.016	0.001		0.008	0.001		0.009	0.001		0.055	0.012	
2002	-2.366	-0.103	*	-1.072	-0.019	*	-0.253	-0.034	*	-0.201	-0.008	*	-	-		-0.343	-0.053	*	0.672	0.147	*
	0.022	0.001		0.027	0.000		0.094	0.012		0.017	0.001		-	-		0.008	0.001		0.067	0.014	
2003	-7.740	-0.116	*	-1.851	-0.025	*	-0.340	-0.045	*	-0.292	-0.011	*	-	-		-0.755	-0.131	*	0.698	0.152	*
	0.302	0.001		0.037	0.000		0.139	0.017		0.017	0.001		-	-		0.008	0.001		0.103	0.020	

State of Birth	Coef.	AME		Coef.	AME		Coef.	AME		Coef.	AME		Coef.	AME		Coef.	AME		Coef.	AME	
MD	Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.	
MI	0.941	0.035	*	0.150	0.003	*	0.223	0.029	*	-0.352	-0.015	*	0.136	0.023	*	0.078	0.013	*	-0.234	-0.051	*
	0.016	0.001		0.022	0.000		0.073	0.009		0.014	0.001		0.009	0.001		0.007	0.001		0.052	0.011	
NC	0.772	0.027	*	0.192	0.003	*	0.251	0.033	*	-0.434	-0.018	*	-0.107	-0.018	*	0.015	0.003	*	-0.202	-0.044	*
	0.017	0.001		0.023	0.000		0.080	0.010		0.014	0.001		0.009	0.002		0.007	0.001		0.059	0.013	
ND	1.134	0.046	*	0.068	0.001		0.247	0.032		0.159	0.008	*	-0.703	-0.108	*	0.608	0.085	*	-0.068	-0.015	
	0.033	0.002		0.058	0.001		0.157	0.022		0.044	0.002		0.025	0.004		0.020	0.002		0.121	0.026	
Constant	-2.799		*	-3.035		*	-2.042		*	-2.948		*	3.234		*	1.417		*	-1.066		*
	0.046			0.056			0.274			0.045			0.048			0.028			0.330		
N	930000			930000			23000			930000			570000			930000			23000		
PR2	0.178			0.107			0.027			0.244			0.214			0.016			0.042		
AIC	314400			160600			1679000			265500			580800			935800			2412000		
BIC	314600			160800			1679000			265700			581000			936000			2412000		

Notes: Authors' analysis of multiple data sources in the Census Bureau Data Linkage Infrastructure. Abbreviations: ACE, adverse childhood experience; AGI, adjusted gross income; AME, average marginal effect; IPV, intimate partner violence; ND, included in model but not disclosed due to small cell size; SES childhood socioeconomic status; SUD, substance use disorder. U.S. Census Bureau, Project P-7500378, Approval CBDRB-FY23-0527, CBDRB-FY24-SEHSD013-006.
* $p<0.05$
Model 1 independent variables: Birth year, state of birth, sex, race, ethnicity, family structure at birth, inverse hyperbolic sine-transformed year 2000 parent AGI.
Model 2 independent variables: Primary model without year 2000 parent AGI.
Model 3 independent variables: Primary model plus parent disability, poverty, high school degree, and US citizenship.

Exhibit A9: Any ACEs (Model 2)

	Felony Charge b/se	Felony Charge AME/se	Teen Birth b/se	Teen Birth AME/se	Poverty b/se	Poverty AME/se	Housing Assistance b/se	Housing Assistance AME/se	Medicaid b/se	Medicaid AME/se	Employment b/se	Employment AME/se	Education Enrollment b/se	Education Enrollment AME/se
Measure	b/se	AME/se	b/se	AME/se	b/se	AME/se	b/se	AME/se	b/se	AME/se	b/se	AME/se	b/se	AME/se
Any ACE	0.757	0.036 *	1.059	0.020 *	0.376	0.053 *	0.933	0.036 *	1.399	0.269 *	0.031	0.005 *	-0.525	-0.121 *
	0.010	0.000	0.016	0.000	0.054	0.008	0.011	0.000	0.007	0.001	0.006	0.001	0.041	0.010
Additional Controls														
Household Status at Birth														
Dual Parent	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Single Mom	0.665	0.035 *	0.956	0.022 *	0.578	0.089 *	1.217	0.054 *	1.670	0.339 *	-0.032	-0.005 *	-0.541	-0.126 *
	0.012	0.001	0.017	0.000	0.070	0.012	0.011	0.001	0.009	0.002	0.007	0.001	0.060	0.014
Single Dad	0.317	0.014 *	0.593	0.011 *	0.418	0.061	0.119	0.003	0.939	0.185 *	-0.064	-0.010 *	-0.045	-0.010
	0.050	0.003	0.070	0.002	0.233	0.038	0.063	0.002	0.031	0.007	0.028	0.005	0.207	0.046
Race														
White	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Black	0.680	0.034 *	0.429	0.008 *	0.310	0.045 *	2.247	0.096 *	0.821	0.156 *	0.122	0.019 *	-0.135	-0.031 *
	0.012	0.001	0.019	0.000	0.073	0.011	0.015	0.001	0.008	0.002	0.007	0.001	0.060	0.014
AIAN	0.611	0.030 *	0.744	0.017 *	0.463	0.070	1.324	0.035 *	0.950	0.182 *	-0.404	-0.073 *	-0.183	-0.042
	0.041	0.002	0.056	0.002	0.227	0.039	0.047	0.002	0.033	0.007	0.026	0.005	0.183	0.043
Asian/NHPI	-0.695	-0.020 *	-1.209	-0.011 *	0.037	0.005	0.121	0.002	0.152	0.027 *	-0.599	-0.113 *	0.854	0.167 *
	0.056	0.001	0.119	0.001	0.159	0.021	0.067	0.001	0.022	0.004	0.015	0.003	0.150	0.024
Some Other Race	0.200	0.008 *	0.298	0.005 *	0.515	0.079	0.246	0.004 *	0.720	0.136 *	-0.003	0.000	0.362	0.077 *
	0.042	0.002	0.051	0.001	0.257	0.045	0.054	0.001	0.027	0.005	0.022	0.004	0.196	0.039
Multiracial	0.360	0.016 *	0.359	0.007 *	-0.048	-0.006	1.344	0.036 *	0.444	0.081 *	-0.048	-0.008 *	-0.046	-0.010
	0.022	0.001	0.032	0.001	0.125	0.016	0.024	0.001	0.015	0.003	0.012	0.002	0.103	0.023
Ethnicity														
Hispanic	-0.008	0.000	-0.387	0.008 *	-0.016	0.002	-0.228	0.009 *	-0.511	0.093 *	-0.012	0.002	0.253	-0.058 *
	0.023	0.001	0.030	0.001	0.115	0.016	0.025	0.001	0.014	0.003	0.012	0.002	0.089	0.021
Female	-0.023	-0.001 *	-0.011	0.000	-0.064	-0.009	0.020	0.001	-0.018	-0.003 *	0.002	0.000	-0.011	-0.002
	0.010	0.000	0.015	0.000	0.053	0.007	0.011	0.000	0.006	0.001	0.005	0.001	0.039	0.009
Year of Birth														
1999	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
2000	-0.478	-0.039 *	-0.085	-0.002 *	-0.064	-0.009	-0.041	-0.002 *	-0.080	-0.014 *	-0.075	-0.011 *	0.184	0.043 *
	0.011	0.001	0.019	0.001	0.066	0.009	0.016	0.001	0.008	0.001	0.009	0.001	0.049	0.011
2001	-1.057	-0.071 *	-0.261	-0.007 *	-0.197	-0.027 *	-0.129	-0.005 *	-0.209	-0.036 *	-0.152	-0.022 *	0.401	0.091 *
	0.013	0.001	0.021	0.001	0.073	0.010	0.016	0.001	0.008	0.001	0.009	0.001	0.055	0.012
2002	-2.366	-0.103 *	-1.073	-0.019 *	-0.253	-0.034 *	-0.202	-0.008 *	-	-	-0.343	-0.053 *	0.665	0.146 *
	0.022	0.001	0.027	0.000	0.094	0.012	0.017	0.001	-	-	0.008	0.001	0.067	0.014
2003	-7.740	-0.116 *	-1.852	-0.025 *	-0.340	-0.045 *	-0.293	-0.011 *	-	-	-0.755	-0.131 *	0.685	0.150 *
	0.302	0.001	0.037	0.000	0.139	0.017	0.017	0.001	-	-	0.008	0.001	0.102	0.020

17

State of Birth	M1 coef	M1 AME		M2 coef	M2 AME		M3 coef	M3 AME		coef	AME		coef	AME		coef	AME		coef	AME	
MD	Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.	
MI	0.945	0.035	*	0.157	0.003	*	0.222	0.029	*	-0.344	-0.014	*	0.168	0.029	*	0.076	0.012	*	-0.244	-0.054	*
	0.016	0.001		0.022	0.000		0.073	0.009		0.014	0.001		0.009	0.001		0.007	0.001		0.052	0.011	
NC	0.781	0.027	*	0.208	0.004	*	0.250	0.033	*	-0.416	-0.017	*	-0.039	-0.007	*	0.013	0.002		-0.223	-0.049	*
	0.017	0.001		0.023	0.000		0.080	0.010		0.014	0.001		0.009	0.002		0.007	0.001		0.058	0.013	
ND	1.161	0.048	*	0.125	0.002	*	0.246	0.032		0.229	0.011	*	-0.522	-0.083	*	0.602	0.084	*	-0.114	-0.025	
	0.033	0.002		0.058	0.001		0.156	0.022		0.044	0.002		0.025	0.004		0.020	0.002		0.121	0.027	
Constant	-3.477			-4.236			-1.993			-4.486			-1.250			1.569			0.525		
	0.028			0.038			0.135			0.030			0.017			0.014			0.103		
N	930000			930000			23000			930000			570000			930000			23000		
PR2	0.177			0.104			0.027			0.24			0.196			0.016			0.038		
AIC	314700			161100			1679000			266700			594300			935800			2422000		
BIC	314900			161000			1679000			266900			594500			936000			2422000		

Notes: Authors' analysis of multiple data sources in the Census Bureau Data Linkage Infrastructure. Abbreviations: ACE, adverse childhood experience; AGI, adjusted gross income; AME, average marginal effect; IPV, intimate partner violence; ND, included in model but not disclosed due to small cell size; SES childhood socioeconomic status; SUD, substance use disorder. U.S. Census Bureau, Project P-7500378, Approval CBDRB-FY23-0527, CBDRB-FY24-SEHSD013-006.
* $p < 0.05$
Model 1 independent variables: Birth year, state of birth, sex, race, ethnicity, family structure at birth, inverse hyperbolic sine-transformed year 2000 parent AGI.
Model 2 independent variables: Primary model without year 2000 parent AGI.
Model 3 independent variables: Primary model plus parent disability, poverty, high school degree, and US citizenship.

Exhibit A10: Any ACEs (Model 3)

	Felony Charge		Teen Birth		Poverty		Housing Assistance		Medicaid		Employment		Education Enrollment	
Measure	b/se	AME/se	b/se	AME/se	b/se	AME/se	b/se	AME/se	b/se	AME/se	b/se	AME/se	b/se	AME/se
Any ACE	0.590	0.025 *	0.917	0.014 *	0.422	0.055 *	0.757	0.026 *	1.012	0.172 *	0.012	0.002	-0.323	-0.070 *
	0.036	0.002	0.063	0.001	0.163	0.022	0.043	0.001	0.024	0.004	0.019	0.003	0.129	0.028
Childhood SES														
Parent Income	-0.048	-0.002 *	-0.061	-0.001 *	0.059	0.007	-0.118	-0.004 *	-0.192	-0.030 *	0.020	0.003 *	0.058	0.012
	0.010	0.000	0.010	0.000	0.131	0.016	0.009	0.000	0.019	0.003	0.007	0.001	0.049	0.010
Parent Poverty	0.306	0.013 *	0.557	0.009 *	0.717	0.090 *	0.624	0.022 *	0.772	0.121 *	-0.127	-0.020 *	-0.179	-0.038
	0.039	0.002	0.061	0.001	0.212	0.027	0.042	0.001	0.029	0.004	0.023	0.004	0.161	0.034
Parent Education	-0.406	-0.017 *	-1.247	-0.020 *	0.433	0.054 *	-1.555	-0.054 *	-1.278	-0.200 *	-0.066	-0.011 *	0.723	0.154 *
	0.043	0.002	0.101	0.002	0.189	0.024	0.086	0.003	0.028	0.004	0.020	0.003	0.135	0.028
Parent Disability	0.041	0.002	0.517	0.008 *	-0.939	-0.118 *	0.342	0.012 *	-0.352	-0.055 *	0.215	0.035 *	0.384	0.082
	0.139	0.006	0.219	0.004	0.426	0.053	0.140	0.005	0.078	0.012	0.054	0.009	0.452	0.096
Parent Citizenship	0.017	0.001	0.128	0.002	-0.153	-0.019	0.186	0.006 *	0.391	0.061 *	-0.042	-0.007	-0.288	-0.061
	0.046	0.002	0.070	0.001	0.226	0.028	0.049	0.002	0.031	0.005	0.025	0.004	0.177	0.038
Additional Controls														
Household Status at Birth														
Dual Parent	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Single Mom	0.570	0.028 *	0.671	0.013 *	1.341	0.227 *	0.955	0.038 *	1.221	0.214 *	-0.097	-0.016 *	-0.466	-0.103 *
	0.045	0.003	0.069	0.002	0.236	0.048	0.045	0.002	0.036	0.007	0.029	0.005	0.204	0.046
Single Dad	0.363	0.016	0.399	0.007		ND	-0.159	-0.004	0.609	0.103 *	0.049	0.008		ND
	0.179	0.009	0.331	0.007		ND	0.252	0.006	0.121	0.021	0.112	0.017		ND
Race														
White	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Black	0.622	0.029 *	0.148	0.002 *	-0.108	-0.014	1.950	0.075 *	0.525	0.087 *	0.044	0.007	0.240	0.051
	0.044	0.002	0.071	0.001	0.234	0.029	0.049	0.002	0.032	0.005	0.027	0.004	0.196	0.040
AIAN	0.631	0.030 *	0.558	0.011 *	1.302	0.231	0.946	0.022 *	0.409	0.067 *	-0.555	-0.103 *	-0.423	-0.094
	0.128	0.008	0.174	0.004	0.860	0.187	0.175	0.006	0.113	0.019	0.084	0.017	0.890	0.200
Asian/NHPI	-0.540	-0.016 *	-1.176	-0.011 *	-0.153	-0.019	0.553	0.011	0.062	0.010	-0.503	-0.092 *	1.484	0.253 *
	0.198	0.005	0.456	0.002	0.509	0.060	0.234	0.006	0.095	0.015	0.058	0.012	0.686	0.081
Some Other Race	0.352	0.015	0.355	0.006		ND	0.341	0.006	0.466	0.077 *	-0.069	-0.011		ND
	0.164	0.008	0.206	0.004		ND	0.205	0.004	0.111	0.019	0.086	0.014		ND
Multiracial	0.310	0.013 *	0.396	0.007 *	-0.888	-0.088 *	1.087	0.028 *	0.355	0.058 *	-0.016	-0.003	0.635	0.127 *
	0.077	0.004	0.109	0.002	0.407	0.031	0.084	0.003	0.053	0.009	0.041	0.007	0.311	0.057
Ethnicity														
Hispanic	-0.051	-0.002	-0.282	0.005 *	-0.117	0.015	-0.305	0.012 *	-0.193	0.031 *	-0.012	0.002	0.355	-0.078
	0.083	0.003	0.106	0.002	0.356	0.047	0.091	0.004	0.052	0.008	0.042	0.007	0.278	0.062
Female	-0.038	-0.002	0.023	0.000	-0.191	-0.024	0.061	0.002	-0.010	-0.002	-0.006	-0.001	-0.020	-0.004
	0.034	0.001	0.056	0.001	0.169	0.021	0.040	0.001	0.023	0.004	0.017	0.003	0.122	0.026

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7	
Year of Birth														
1999	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
2000	-0.448	-0.035 *	0.000	0.000	-0.304	-0.040	-0.024	-0.001	-0.078	-0.012 *	-0.027	-0.004	0.255	0.057
	0.040	0.003	0.070	0.002	0.200	0.026	0.060	0.002	0.028	0.004	0.029	0.004	0.155	0.034
2001	-1.146	-0.070 *	-0.383	-0.008 *	-0.598	-0.073 *	-0.152	-0.005 *	-0.177	-0.028 *	-0.158	-0.023 *	0.804	0.169 *
	0.047	0.003	0.076	0.002	0.217	0.026	0.061	0.002	0.028	0.004	0.029	0.004	0.156	0.032
2002	-2.156	-0.094 *	-1.141	-0.018 *	-0.253	-0.034	-0.223	-0.008 *	-	-	-0.296	-0.045 *	0.415	0.091 *
	0.068	0.003	0.099	0.001	0.307	0.039	0.061	0.002	-	-	0.028	0.004	0.208	0.045
2003	-9.256	-0.109 *	-2.059	-0.023 *	-0.857	-0.096 *	-0.340	-0.012 *	-	-	-0.698	-0.120 *	0.992	0.202 *
	1.000	0.002	0.149	0.001	0.417	0.038	0.064	0.002	-	-	0.027	0.004	0.304	0.054
State of Birth														
MD	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
MI	0.810	0.030 *	0.027	0.000	-0.059	-0.007	-0.544	-0.020 *	0.074	0.012 *	0.082	0.013 *	-0.287	-0.061 *
	0.049	0.002	0.069	0.001	0.197	0.025	0.044	0.002	0.026	0.004	0.020	0.003	0.143	0.030
NC	0.166	0.005	0.022	0.000	1.643	0.307 *	-0.583	-0.021 *	-0.222	-0.034 *	0.014	0.002	0.589	0.109
	0.154	0.004	0.221	0.004	0.566	0.126	0.154	0.005	0.095	0.014	0.058	0.010	0.499	0.083
ND	1.133	0.047 *	-0.021	0.000	-0.543	-0.059	0.080	0.004	-0.730	-0.105 *	0.600	0.084 *	0.086	0.017
	0.089	0.005	0.146	0.002	0.428	0.042	0.129	0.006	0.071	0.010	0.051	0.006	0.314	0.063
Constant	-2.733		-3.815		-1.581		-2.959		1.522		1.200		-1.097	
	0.203		0.269		1.558		0.188		0.229		0.107		0.790	
N	107000		107000		3400		107000		63500		107000		3400	
PR2	0.184		0.137		0.076		0.271		0.256		0.015		0.073	
AIC	252000		117200		50		204000		455000		793500		46.01	
BIC	252000		117400		186.9		204200		455000		793800		186.9	

Notes: Authors' analysis of multiple data sources in the Census Bureau Data Linkage Infrastructure. Abbreviations: ACE, adverse childhood experience; AGI, adjusted gross income; AME, average marginal effect; IPV, intimate partner violence; ND, included in model but not disclosed due to small cell size; SES childhood socioeconomic status; SUD, substance use disorder. U.S. Census Bureau, Project P-7500378, Approval CBDRB-FY23-0527, CBDRB-FY24-SEHSD013-006.
* p<0.05
Model 1 independent variables: Birth year, state of birth, sex, race, ethnicity, family structure at birth, inverse hyperbolic sine-transformed year 2000 parent AGI.
Model 2 independent variables: Primary model without year 2000 parent AGI.
Model 3 independent variables: Primary model plus parent disability, poverty, high school degree, and US citizenship.

Exhibit A11: ACEs count (Model 1)

	Felony Charge			Teen Birth			Poverty			Housing Assistance			Medicaid			Employment			Education Enrollment		
Measure	b/se	AME/se		b/se	AME/se		b/se	AME/se		b/se	AME/se		b/se	AME/se		b/se	AME/se		b/se	AME/se	
Number of ACEs																					
No ACEs	Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.	
1 ACE	0.584	0.026	*	0.883	0.015	*	0.330	0.046	*	0.796	0.029	*	1.118	0.205	*	0.049	0.008	*	-0.398	-0.090	*
	0.011	0.001		0.018	0.000		0.061	0.009		0.012	0.000		0.007	0.001		0.006	0.001		0.046	0.011	
2-3 ACEs	1.065	0.057	*	1.359	0.030	*	0.506	0.074	*	1.187	0.050	*	1.890	0.367	*	-0.003	-0.001		-0.757	-0.176	*
	0.014	0.001		0.021	0.001		0.085	0.014		0.015	0.001		0.011	0.002		0.009	0.002		0.071	0.017	
4+ ACEs	1.499	0.095	*	1.839	0.053	*	0.429	0.062		1.505	0.072	*	2.788	0.531	*	-0.021	-0.003		-0.633	-0.146	
	0.056	0.006		0.076	0.004		0.363	0.059		0.064	0.005		0.070	0.011		0.049	0.008		0.333	0.080	
Childhood SES																					
Parent Income	-0.055	-0.002	*	-0.105	-0.002	*	0.006	0.001		-0.136	-0.005	*	-0.378	-0.062	*	0.013	0.002	*	0.135	0.030	*
	0.003	0.000		0.004	0.000		0.021	0.003		0.003	0.000		0.004	0.001		0.002	0.000		0.027	0.006	
Additional Controls																					
Household Status at Birth																					
Dual Parent	Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.	
Single Mom	0.698	0.036	*	1.014	0.023	*	0.575	0.088	*	1.302	0.058	*	1.778	0.351	*	-0.036	-0.006	*	-0.575	-0.133	*
	0.012	0.001		0.017	0.000		0.071	0.012		0.012	0.001		0.009	0.002		0.007	0.001		0.060	0.014	
Single Dad	0.346	0.016	*	0.656	0.013	*	0.422	0.062		0.206	0.006	*	1.081	0.207	*	-0.068	-0.011	*	-0.103	-0.023	
	0.051	0.003		0.070	0.002		0.234	0.039		0.063	0.002		0.031	0.006		0.028	0.005		0.208	0.047	
Race																					
White	Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.	
Black	0.628	0.031	*	0.365	0.007	*	0.302	0.043	*	2.194	0.091	*	0.663	0.120	*	0.129	0.020	*	-0.067	-0.015	
	0.012	0.001		0.019	0.000		0.074	0.011		0.015	0.001		0.008	0.002		0.007	0.001		0.062	0.014	
AIAN	0.547	0.026	*	0.671	0.015	*	0.447	0.067		1.263	0.033	*	0.799	0.146	*	-0.396	-0.072	*	-0.118	-0.027	
	0.041	0.002		0.056	0.002		0.229	0.039		0.047	0.002		0.034	0.007		0.026	0.005		0.186	0.043	
Asian/NHPI	-0.700	-0.021	*	-1.226	-0.012	*	0.037	0.005		0.086	0.001		0.071	0.012	*	-0.596	-0.113	*	0.920	0.177	*
	0.056	0.001		0.119	0.001		0.159	0.021		0.067	0.001		0.023	0.004		0.015	0.003		0.154	0.024	
Some Other Race	0.192	0.008	*	0.286	0.005	*	0.516	0.079		0.222	0.003	*	0.632	0.114	*	0.000	0.000		0.397	0.084	*
	0.042	0.002		0.051	0.001		0.258	0.045		0.054	0.001		0.027	0.005		0.022	0.004		0.192	0.038	
Multiracial	0.327	0.014	*	0.319	0.006	*	-0.054	-0.007		1.311	0.035	*	0.357	0.062	*	-0.044	-0.007	*	-0.010	-0.002	
	0.022	0.001		0.032	0.001		0.125	0.016		0.024	0.001		0.015	0.003		0.012	0.002		0.103	0.023	
Ethnicity																					
Hispanic	-0.016	-0.001		0.378	0.008	*	0.019	0.003		0.222	0.009	*	0.455	0.079	*	0.015	0.002		-0.232	-0.053	*
	0.023	0.001		0.030	0.001		0.115	0.016		0.025	0.001		0.014	0.003		0.012	0.002		0.089	0.020	
Female	-0.009	0.000		0.005	0.000		-0.060	-0.008		0.033	0.001	*	0.000	0.000		0.001	0.000		-0.019	-0.004	
	0.010	0.000		0.015	0.000		0.053	0.007		0.011	0.000		0.007	0.001		0.005	0.001		0.039	0.009	

	M1	M1 AME		M2	M2 AME		M3	M3 AME		M4	M4 AME		M5	M5 AME		M6	M6 AME		M7	M7 AME	
Year of Birth																					
1999	Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.	
2000	-0.479	-0.039	*	-0.082	-0.002	*	-0.063	-0.009		-0.040	-0.002	*	-0.079	-0.013	*	-0.076	-0.011	*	0.186	0.043	*
	0.011	0.001		0.020	0.001		0.066	0.009		0.016	0.001		0.008	0.001		0.009	0.001		0.049	0.011	
2001	-1.059	-0.070	*	-0.257	-0.006	*	-0.197	-0.027	*	-0.125	-0.005	*	-0.211	-0.035	*	-0.153	-0.022	*	0.406	0.092	*
	0.013	0.001		0.021	0.001		0.073	0.010		0.016	0.001		0.008	0.001		0.009	0.001		0.055	0.012	
2002	-2.372	-0.103	*	-1.071	-0.019	*	-0.249	-0.034	*	-0.199	-0.008	*	-	-		-0.343	-0.053	*	0.666	0.145	*
	0.022	0.001		0.027	0.000		0.094	0.012		0.017	0.001		-	-		0.008	0.001		0.067	0.014	
2003	-7.745	-0.116	*	-1.849	-0.025	*	-0.342	-0.045	*	-0.288	-0.011	*	-	-		-0.755	-0.131	*	0.700	0.152	*
	0.302	0.001		0.037	0.000		0.138	0.017		0.017	0.001		-	-		0.008	0.001		0.103	0.020	
State of Birth																					
MD	Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.	
MI	0.884	0.034	*	0.084	0.002	*	0.208	0.027	*	-0.403	-0.017	*	0.068	0.011	*	0.081	0.013	*	-0.207	-0.046	*
	0.017	0.001		0.023	0.000		0.074	0.009		0.014	0.001		0.009	0.001		0.007	0.001		0.053	0.011	
NC	0.707	0.025	*	0.116	0.002	*	0.239	0.032	*	-0.501	-0.020	*	-0.173	-0.028	*	0.019	0.003	*	-0.181	-0.040	*
	0.017	0.001		0.023	0.000		0.081	0.011		0.014	0.001		0.009	0.002		0.007	0.001		0.059	0.013	
ND	1.095	0.046	*	0.022	0.000		0.239	0.032		0.124	0.006	*	-0.747	-0.114	*	0.610	0.085	*	-0.054	-0.012	
	0.033	0.002		0.058	0.001		0.157	0.022		0.044	0.002		0.025	0.004		0.020	0.002		0.122	0.026	
Constant	-2.796			-3.001			-2.051			-2.927			3.104			1.419			-1.039		
	0.047			0.057			0.277			0.046			0.048			0.028			0.320		
N	930000			930000			23000			930000			570000			930000			23000		
PR2	0.181			0.11			0.028			0.246			0.221			0.016			0.043		
AIC	313000			159900			1678000			264700			575500			935800			2408000		
BIC	313300			160200			1678000			264900			575700			936000			2408000		

Notes: Authors' analysis of multiple data sources in the Census Bureau Data Linkage Infrastructure. Abbreviations: ACE, adverse childhood experience; AGI, adjusted gross income; AME, average marginal effect; IPV, intimate partner violence; ND, included in model but not disclosed due to small cell size; SES childhood socioeconomic status; SUD, substance use disorder. U.S. Census Bureau, Project P-7500378, Approval CBDRB-FY23-0527, CBDRB-FY24-SEHSD013-006.
* $p < 0.05$
Model 1 independent variables: Birth year, state of birth, sex, race, ethnicity, family structure at birth, inverse hyperbolic sine-transformed year 2000 parent AGI.
Model 2 independent variables: Primary model without year 2000 parent AGI.
Model 3 independent variables: Primary model plus parent disability, poverty, high school degree, and US citizenship.

Exhibit A12: ACEs count (Model 2)

Measure	Felony Charge b/se	AME/se	Teen Birth b/se	AME/se	Poverty b/se	AME/se	Housing Assistance b/se	AME/se	Medicaid b/se	AME/se	Employment b/se	AME/se	Education Enrollment b/se	AME/se
Number of ACEs														
No ACEs	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
1 ACE	0.595	0.026 *	0.899	0.016 *	0.328	0.046 *	0.809	0.030 *	1.185	0.223 *	0.046	0.007 *	-0.428	-0.098 *
	0.011	0.001	0.018	0.000	0.060	0.009	0.012	0.000	0.007	0.001	0.006	0.001	0.046	0.011
2-3 ACEs	1.085	0.058 *	1.389	0.031 *	0.504	0.074 *	1.214	0.052 *	2.019	0.402 *	-0.008	-0.001	-0.806	-0.189 *
	0.014	0.001	0.021	0.001	0.084	0.014	0.015	0.001	0.011	0.002	0.009	0.002	0.070	0.017
4+ ACEs	1.523	0.097 *	1.873	0.055 *	0.426	0.061	1.541	0.074 *	2.939	0.566 *	-0.027	-0.004	-0.705	-0.164 *
	0.056	0.006	0.076	0.004	0.362	0.059	0.064	0.005	0.069	0.010	0.049	0.008	0.329	0.080
Additional Controls														
Household Status at Birth														
Dual Parent	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Single Mom	0.676	0.035 *	0.963	0.022 *	0.576	0.088 *	1.228	0.054 *	1.687	0.340 *	-0.032	-0.005 *	-0.539	-0.125 *
	0.012	0.001	0.017	0.000	0.070	0.012	0.011	0.001	0.009	0.002	0.007	0.001	0.060	0.014
Single Dad	0.321	0.014 *	0.598	0.011 *	0.424	0.062	0.121	0.003	0.951	0.185 *	-0.064	-0.011 *	-0.057	-0.013
	0.051	0.003	0.070	0.002	0.233	0.039	0.063	0.002	0.031	0.007	0.028	0.005	0.208	0.046
Race														
White	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Black	0.645	0.032 *	0.392	0.008 *	0.300	0.043 *	2.226	0.094 *	0.782	0.146 *	0.124	0.019 *	-0.114	-0.026
	0.012	0.001	0.019	0.000	0.073	0.011	0.015	0.001	0.008	0.002	0.007	0.001	0.061	0.014
AIAN	0.561	0.027 *	0.692	0.015 *	0.445	0.067	1.286	0.033 *	0.891	0.168 *	-0.400	-0.072 *	-0.147	-0.033
	0.041	0.002	0.056	0.002	0.228	0.039	0.047	0.002	0.034	0.007	0.026	0.005	0.186	0.043
Asian/NHPI	-0.688	-0.020 *	-1.200	-0.012 *	0.036	0.005	0.123	0.002	0.160	0.028 *	-0.599	-0.114 *	0.858	0.167 *
	0.056	0.001	0.119	0.001	0.159	0.021	0.067	0.001	0.022	0.004	0.015	0.003	0.150	0.024
Some Other Race	0.204	0.009 *	0.307	0.006 *	0.515	0.079	0.252	0.004 *	0.721	0.134 *	-0.003	0.000	0.362	0.077 *
	0.042	0.002	0.051	0.001	0.258	0.045	0.054	0.001	0.027	0.005	0.022	0.004	0.192	0.039
Multiracial	0.337	0.015 *	0.336	0.006 *	-0.055	-0.007	1.328	0.035 *	0.420	0.076 *	-0.046	-0.008 *	-0.034	-0.008
	0.022	0.001	0.032	0.001	0.125	0.016	0.024	0.001	0.015	0.003	0.012	0.002	0.103	0.023
Ethnicity														
Hispanic	-0.008	0.000	0.391	0.008 *	0.018	0.002	0.231	0.009 *	0.515	0.092 *	0.012	0.002	-0.255	-0.058 *
	0.023	0.001	0.029	0.001	0.115	0.016	0.025	0.001	0.014	0.003	0.012	0.002	0.089	0.021
Female	-0.009	0.000	0.005	0.000	-0.060	-0.008	0.033	0.001 *	-0.003	0.000	0.001	0.000	-0.019	-0.004
	0.010	0.000	0.015	0.000	0.053	0.007	0.011	0.000	0.006	0.001	0.005	0.001	0.039	0.009
Year of Birth														
1999	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
2000	-0.480	-0.039 *	-0.083	-0.002 *	-0.063	-0.009	-0.041	-0.002 *	-0.082	-0.014 *	-0.075	-0.011 *	0.183	0.042 *
	0.011	0.001	0.019	0.001	0.066	0.009	0.016	0.001	0.008	0.001	0.009	0.001	0.049	0.011
2001	-1.060	-0.070 *	-0.259	-0.006 *	-0.197	-0.027 *	-0.127	-0.005 *	-0.212	-0.036 *	-0.152	-0.022 *	0.402	0.091 *
	0.013	0.001	0.021	0.001	0.073	0.010	0.016	0.001	0.008	0.001	0.009	0.001	0.055	0.012

	Coef.	AME		Coef.	AME		Coef.	AME		Coef.	AME		Coef.	AME		Coef.	AME		Coef.	AME	
2002	-2.372	-0.103	*	-1.072	-0.019	*	-0.249	-0.034	*	-0.200	-0.008	*	-	-		-0.343	-0.053	*	0.659	0.144	*
	0.022	0.001		0.027	0.000		0.094	0.012		0.017	0.001		-	-		0.008	0.001		0.067	0.014	
2003	-7.745	-0.116	*	-1.849	-0.025	*	-0.342	-0.045	*	-0.289	-0.011	*	-	-		-0.756	-0.131	*	0.687	0.150	*
	0.302	0.001		0.037	0.000		0.138	0.017		0.017	0.001		-	-		0.008	0.001		0.103	0.020	
State of Birth																				
MD	Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.	
MI	0.887	0.034	*	0.090	0.002	*	0.208	0.027	*	-0.396	-0.017	*	0.093	0.016	*	0.080	0.013	*	-0.216	-0.048	*
	0.017	0.001		0.023	0.000		0.074	0.009		0.014	0.001		0.009	0.001		0.007	0.001		0.052	0.011	
NC	0.714	0.025	*	0.130	0.002	*	0.238	0.031	*	-0.486	-0.020	*	-0.114	-0.019	*	0.017	0.003	*	-0.200	-0.044	*
	0.017	0.001		0.023	0.000		0.081	0.011		0.014	0.001		0.009	0.002		0.007	0.001		0.058	0.013	
ND	1.119	0.047	*	0.077	0.001		0.237	0.031		0.191	0.010	*	-0.576	-0.091	*	0.604	0.084	*	-0.098	-0.021	
	0.033	0.002		0.058	0.001		0.157	0.022		0.044	0.002		0.025	0.004		0.020	0.002		0.121	0.027	
Constant	-3.423			-4.176			-1.980			-4.445			-1.192			1.567			0.503		
	0.028			0.038			0.135			0.030			0.017			0.014			0.103		
N	930000			930000			23000			930000			570000			930000			23000		
PR2	0.181			0.107			0.028			0.243			0.205			0.016			0.04		
AIC	313300			160400			1678000			265900			588000			935800			2417000		
BIC	313500			161000			1678000			266100			588200			936000			2417000		

Notes: Authors' analysis of multiple data sources in the Census Bureau Data Linkage Infrastructure. Abbreviations: ACE, adverse childhood experience; AGI, adjusted gross income; AME, average marginal effect; IPV, intimate partner violence; ND, included in model but not disclosed due to small cell size; SES childhood socioeconomic status; SUD, substance use disorder. U.S. Census Bureau, Project P-7500378, Approval CBDRB-FY23-0527, CBDRB-FY24-SEHSD013-006.
* $p<0.05$
Model 1 independent variables: Birth year, state of birth, sex, race, ethnicity, family structure at birth, inverse hyperbolic sine-transformed year 2000 parent AGI.
Model 2 independent variables: Primary model without year 2000 parent AGI.
Model 3 independent variables: Primary model plus parent disability, poverty, high school degree, and US citizenship.

Exhibit A13: ACEs count (Model 3)

Measure	Felony Charge b/se	Felony Charge AME/se	Teen Birth b/se	Teen Birth AME/se	Poverty b/se	Poverty AME/se	Housing Assistance b/se	Housing Assistance AME/se	Medicaid b/se	Medicaid AME/se	Employment b/se	Employment AME/se	Education Enrollment b/se	Education Enrollment AME/se
Number of ACEs														
No ACEs	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
1 ACE	0.445	0.018 *	0.803	0.012 *	0.377	0.048 *	0.679	0.022 *	0.874	0.147 *	0.026	0.004	-0.243	-0.052
	0.040	0.002	0.068	0.001	0.180	0.024	0.046	0.002	0.026	0.004	0.021	0.003	0.140	0.031
2-3 ACEs	0.920	0.045 *	1.154	0.020 *	0.592	0.080 *	0.973	0.035 *	1.433	0.252 *	-0.035	-0.006	-0.601	-0.133 *
	0.049	0.003	0.081	0.002	0.266	0.041	0.059	0.003	0.038	0.007	0.031	0.005	0.221	0.050
4+ ACEs	1.444	0.086 *	2.258	0.070 *		ND	1.624	0.074 *	2.290	0.411 *	0.035	0.006		ND
	0.215	0.020	0.258	0.017		ND	0.276	0.019	0.296	0.052	0.172	0.027		ND
Childhood SES														
Parent Income	-0.045	-0.002 *	-0.059	-0.001 *	0.062	0.008	-0.117	-0.004 *	-0.186	-0.029 *	0.019	0.003 *	0.055	0.012
	0.011	0.000	0.011	0.000	0.133	0.017	0.009	0.000	0.018	0.003	0.007	0.001	0.049	0.010
Parent Poverty	0.281	0.012 *	0.536	0.009 *	0.704	0.088 *	0.613	0.021 *	0.755	0.117 *	-0.125	-0.020 *	-0.154	-0.033
	0.039	0.002	0.061	0.001	0.214	0.027	0.043	0.001	0.029	0.004	0.023	0.004	0.162	0.034
Parent Education	-0.382	-0.016 *	-1.226	-0.020 *	0.440	0.055 *	-1.543	-0.053 *	-1.263	-0.196 *	-0.068	-0.011 *	0.715	0.152 *
	0.044	0.002	0.101	0.002	0.191	0.024	0.086	0.003	0.028	0.004	0.020	0.003	0.136	0.028
Parent Disability	0.013	0.001	0.129	0.002	-0.151	-0.019	0.187	0.006 *	0.386	0.060 *	-0.041	-0.007	-0.288	-0.061
	0.046	0.002	0.070	0.001	0.225	0.028	0.049	0.002	0.031	0.005	0.025	0.004	0.178	0.038
Parent Citizenship	0.018	0.001	0.494	0.008 *	-0.962	-0.120 *	0.335	0.012 *	-0.365	-0.057 *	0.217	0.035 *	0.418	0.089
	0.139	0.006	0.219	0.004	0.427	0.053	0.140	0.005	0.077	0.012	0.054	0.009	0.450	0.095
Additional Controls														
Household Status at Birth														
Dual Parent	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Single Mom	0.605	0.029 *	0.702	0.013 *	1.354	0.229 *	0.978	0.039 *	1.237	0.216 *	-0.098	-0.016 *	-0.485	-0.107 *
	0.045	0.003	0.069	0.002	0.236	0.048	0.045	0.002	0.036	0.007	0.029	0.005	0.207	0.047
Single Dad	0.365	0.016	0.378	0.006		ND	-0.166	-0.004	0.611	0.103 *	0.049	0.008		ND
	0.180	0.009	0.333	0.006		ND	0.252	0.006	0.121	0.021	0.112	0.017		ND
Race														
White	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Black	0.604	0.028 *	0.132	0.002	-0.118	-0.015	1.940	0.074 *	0.511	0.084 *	0.045	0.007	0.256	0.054
	0.044	0.002	0.071	0.001	0.232	0.028	0.049	0.002	0.032	0.005	0.027	0.004	0.196	0.040
AIAN	0.565	0.026 *	0.497	0.009 *	1.269	0.224	0.900	0.021 *	0.339	0.055 *	-0.549	-0.101 *	-0.348	-0.077
	0.130	0.007	0.176	0.004	0.883	0.191	0.175	0.006	0.116	0.019	0.084	0.017	0.933	0.209
Asian/NHPI	-0.548	-0.016 *	-1.178	-0.011 *	-0.159	-0.020	0.553	0.011	0.060	0.009	-0.502	-0.092 *	1.484	0.253 *
	0.199	0.005	0.455	0.002	0.507	0.060	0.235	0.006	0.094	0.015	0.058	0.012	0.679	0.080
Some Other Race	0.367	0.016 *	0.377	0.007		ND	0.352	0.006	0.471	0.077 *	-0.070	-0.011		ND
	0.163	0.008	0.206	0.004		ND	0.205	0.004	0.110	0.019	0.086	0.014		ND
Multiracial	0.290	0.012 *	0.376	0.007 *	-0.920	-0.090 *	1.075	0.027 *	0.344	0.056 *	-0.015	-0.002	0.673	0.134 *
	0.077	0.003	0.109	0.002	0.407	0.030	0.084	0.003	0.054	0.009	0.041	0.007	0.315	0.056

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7	
Ethnicity														
Hispanic	-0.061	-0.003	0.265	0.005 *	0.117	0.015	0.296	0.011 *	0.188	0.030 *	0.013	0.002	-0.362	-0.079
	0.084	0.003	0.107	0.002	0.357	0.048	0.091	0.004	0.052	0.008	0.042	0.007	0.283	0.063
Female	-0.025	-0.001	0.039	0.001	-0.186	-0.023	0.071	0.002	0.000	0.000	-0.006	-0.001	-0.027	-0.006
	0.034	0.001	0.056	0.001	0.168	0.021	0.040	0.001	0.023	0.004	0.017	0.003	0.122	0.026
Year of Birth														
1999	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
2000	-0.453	-0.035 *	-0.003	0.000	-0.306	-0.041	-0.026	-0.001	-0.082	-0.013 *	-0.027	-0.004	0.261	0.058
	0.040	0.003	0.070	0.002	0.201	0.026	0.060	0.002	0.028	0.004	0.029	0.004	0.155	0.034
2001	-1.153	-0.070 *	-0.384	-0.008 *	-0.604	-0.073 *	-0.152	-0.006 *	-0.180	-0.028 *	-0.157	-0.023 *	0.816	0.171 *
	0.047	0.003	0.076	0.002	0.218	0.026	0.061	0.002	0.028	0.004	0.029	0.004	0.156	0.031
2002	-2.164	-0.094 *	-1.145	-0.018 *	-0.246	-0.033	-0.224	-0.008 *	-	-	-0.296	-0.045 *	0.402	0.088 *
	0.068	0.003	0.099	0.001	0.307	0.040	0.061	0.002	-	-	0.028	0.004	0.208	0.045
2003	-9.266	-0.110 *	-2.063	-0.023 *	-0.848	-0.096 *	-0.340	-0.012 *	-	-	-0.698	-0.120 *	0.985	0.201 *
	1.000	0.002	0.149	0.001	0.420	0.038	0.064	0.002	-	-	0.027	0.004	0.306	0.054
State of Birth														
MD	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
MI	0.746	0.027 *	-0.046	-0.001	-0.078	-0.010	-0.599	-0.022 *	0.018	0.003	0.086	0.014 *	-0.253	-0.054
	0.049	0.002	0.070	0.001	0.197	0.025	0.045	0.002	0.026	0.004	0.020	0.003	0.142	0.030
NC	0.125	0.004	-0.034	-0.001	1.643	0.308 *	-0.638	-0.023 *	-0.254	-0.039 *	0.016	0.003	0.588	0.110
	0.154	0.005	0.221	0.004	0.566	0.126	0.156	0.005	0.095	0.014	0.058	0.010	0.504	0.085
ND	1.100	0.047 *	-0.054	-0.001	-0.541	-0.059	0.058	0.003	-0.761	-0.109 *	0.602	0.084 *	0.091	0.019
	0.089	0.005	0.146	0.002	0.426	0.042	0.129	0.006	0.071	0.009	0.051	0.006	0.310	0.062
Constant	-2.715		-3.791		-1.593		-2.952		1.504		1.199		-1.127	
	0.206		0.270		1.576		0.189		0.223		0.108		0.788	
N	107000		107000		3400		107000		63500		107000		3400	
PR2	0.188		0.14		0.076		0.272		0.259		0.015		0.075	
AIC	251000		116800		50		203600		452600		793500		50.01	
BIC	251200		117000		203.1		204000		452800		793800		203.1	

Notes: Authors' analysis of multiple data sources in the Census Bureau Data Linkage Infrastructure. Abbreviations: ACE, adverse childhood experience; AGI, adjusted gross income; AME, average marginal effect; IPV, intimate partner violence; ND, included in model but not disclosed due to small cell size; SES childhood socioeconomic status; SUD, substance use disorder. U.S. Census Bureau, Project P-7500378, Approval CBDRB-FY23-0527, CBDRB-FY24-SEHSD013-006.
* p<0.05
Model 1 independent variables: Birth year, state of birth, sex, race, ethnicity, family structure at birth, inverse hyperbolic sine-transformed year 2000 parent AGI.
Model 2 independent variables: Primary model without year 2000 parent AGI.
Model 3 independent variables: Primary model plus parent disability, poverty, high school degree, and US citizenship.

Measure	Felony Charge b/se	AME/se	sig	Teen Birth b/se	AME/se	sig	Poverty b/se	AME/se	sig	Housing Assistance b/se	AME/se	sig	Medicaid b/se	AME/se	sig	Employment b/se	AME/se	sig	Education Enrollment b/se	AME/se	sig
ACE type																					
Parent Death	0.125	0.006	*	-0.012	0.000		0.195	0.027		-0.334	-0.013	*	0.612	0.101	*	-0.157	-0.025	*	-0.322	-0.071	*
	0.036	0.002		0.058	0.001		0.215	0.029		0.047	0.002		0.024	0.004		0.020	0.003		0.156	0.034	
Parent Separation	0.483	0.022	*	0.784	0.015	*	0.328	0.045	*	0.827	0.032	*	1.111	0.183	*	0.076	0.012	*	-0.418	-0.093	*
	0.011	0.000		0.017	0.000		0.060	0.008		0.013	0.000		0.007	0.001		0.006	0.001		0.046	0.010	
Parent Incarceration	0.344	0.015	*	0.269	0.005	*	0.139	0.019		0.192	0.007	*	0.557	0.092	*	0.001	0.000		0.146	0.032	
	0.019	0.001		0.027	0.001		0.134	0.018		0.019	0.001		0.018	0.003		0.015	0.002		0.118	0.026	
Witnessing IPV	0.395	0.018	*	0.431	0.008	*	0.061	0.008		0.491	0.019	*	0.481	0.079	*	-0.033	-0.005		-0.429	-0.095	*
	0.033	0.001		0.045	0.001		0.230	0.032		0.033	0.001		0.034	0.006		0.026	0.004		0.210	0.046	
Parent SUD	0.603	0.027	*	0.655	0.012	*	0.141	0.019		0.552	0.021	*	0.863	0.143	*	-0.042	-0.007	*	-0.356	-0.079	*
	0.012	0.001		0.018	0.000		0.079	0.011		0.012	0.000		0.010	0.002		0.008	0.001		0.066	0.015	
Phys/emotional abuse	0.304	0.014	*	0.297	0.006	*	ND			0.192	0.007	*	0.711	0.117	*	-0.079	-0.013	*	ND		
	0.050	0.002		0.068	0.001		ND			0.050	0.002		0.047	0.008		0.037	0.006		ND		
Sexual abuse	0.206	0.009	*	0.376	0.007	*	0.528	0.072	*	0.201	0.008	*	0.727	0.120	*	-0.047	-0.008	*	-0.560	-0.124	*
	0.028	0.001		0.038	0.001		0.180	0.025		0.030	0.001		0.026	0.004		0.020	0.003		0.161	0.036	
Childhood SES																					
Parent Income	-0.055	-0.002	*	-0.104	-0.002	*	0.007	0.001		-0.136	-0.005	*	-0.377	-0.062	*	0.013	0.002	*	0.132	0.029	*
	0.003	0.000		0.004	0.000		0.021	0.003		0.003	0.000		0.004	0.001		0.002	0.000		0.026	0.006	
Additional Controls																					
Household Status at Birth																					
Dual Parent	Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.	
Single Mom	0.698	0.036	*	1.103	0.026	*	0.614	0.095	*	1.438	0.064	*	1.837	0.364	*	-0.012	-0.002		-0.610	-0.141	*
	0.013	0.001		0.019	0.001		0.072	0.012		0.013	0.001		0.009	0.002		0.008	0.001		0.062	0.015	
Single Dad	0.346	0.016	*	0.684	0.013	*	ND			0.247	0.007	*	1.103	0.212	*	-0.062	-0.010	*	ND		
	0.051	0.003		0.070	0.002		0.235	0.039		0.064	0.002		0.031	0.006		0.028	0.005		0.208	0.047	
Race																					
White	Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.	
Black	0.619	0.031	*	0.369	0.007	*	0.309	0.045	*	2.188	0.091	*	0.665	0.120	*	0.128	0.020	*	-0.076	-0.017	
	0.012	0.001		0.019	0.000		0.074	0.011		0.015	0.001		0.008	0.002		0.007	0.001		0.062	0.014	
AIAN	0.540	0.026	*	0.655	0.014	*	0.435	0.065		1.230	0.031	*	0.799	0.146	*	-0.396	-0.072	*	-0.096	-0.022	
	0.041	0.002		0.056	0.002		0.226	0.038		0.047	0.002		0.034	0.007		0.026	0.005		0.188	0.043	
Asian/NHPI	-0.707	-0.021	*	-1.233	-0.012	*	0.038	0.005		0.094	0.001		0.073	0.012	*	-0.595	-0.113	*	0.912	0.175	*
	0.056	0.001		0.119	0.001		0.159	0.021		0.067	0.001		0.023	0.004		0.015	0.003		0.153	0.024	
Some Other Race	0.196	0.008	*	0.277	0.005	*	0.532	0.082	*	0.196	0.003	*	0.629	0.113	*	-0.003	0.000		0.405	0.085	*
	0.042	0.002		0.051	0.001		0.258	0.046		0.055	0.001		0.027	0.005		0.022	0.004		0.190	0.038	
Multiracial	0.321	0.014	*	0.318	0.006	*	-0.047	-0.006		1.303	0.034	*	0.357	0.062	*	-0.044	-0.007	*	-0.011	-0.002	
	0.022	0.001		0.032	0.001		0.125	0.016		0.024	0.001		0.015	0.003		0.012	0.002		0.102	0.023	

Ethnicity														
Hispanic	-0.017	-0.001	0.369	0.008 *	0.014	0.002	0.206	0.008 *	0.453	0.078 *	0.012	0.002	-0.228	-0.052 *
	0.023	0.001	0.030	0.001	0.115	0.016	0.025	0.001	0.014	0.003	0.012	0.002	0.089	0.020
Female	-0.006	0.000	0.003	0.000	-0.058	-0.008	0.026	0.001 *	-0.002	0.000	0.000	0.000	-0.019	-0.004
	0.010	0.000	0.015	0.000	0.053	0.007	0.011	0.000	0.007	0.001	0.005	0.001	0.039	0.009
Year of Birth														
1999	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
2000	-0.482	-0.039 *	-0.083	-0.002 *	-0.062	-0.009	-0.042	-0.002 *	-0.080	-0.013 *	-0.075	-0.011 *	0.187	0.043 *
	0.011	0.001	0.020	0.001	0.066	0.009	0.016	0.001	0.008	0.001	0.009	0.001	0.049	0.011
2001	-1.062	-0.070 *	-0.258	-0.006 *	-0.194	-0.027 *	-0.126	-0.005 *	-0.210	-0.035 *	-0.152	-0.022 *	0.406	0.091 *
	0.014	0.001	0.021	0.001	0.073	0.010	0.016	0.001	0.008	0.001	0.009	0.001	0.055	0.012
2002	-2.378	-0.103 *	-1.075	-0.019 *	-0.250	-0.034 *	-0.203	-0.008 *	-	-	-0.343	-0.053 *	0.667	0.145 *
	0.022	0.001	0.027	0.000	0.093	0.012	0.017	0.001	-	-	0.008	0.001	0.067	0.014
2003	-7.752	-0.117 *	-1.853	-0.025 *	-0.345	-0.045 *	-0.291	-0.011 *	-	-	-0.754	-0.131 *	0.707	0.153 *
	0.302	0.001	0.037	0.000	0.138	0.016	0.017	0.001	-	-	0.008	0.001	0.103	0.020
State of Birth														
MD	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
MI	0.864	0.033 *	0.091	0.002 *	0.220	0.029 *	-0.373	-0.016 *	0.083	0.014 *	0.088	0.014 *	-0.212	-0.046 *
	0.017	0.001	0.023	0.000	0.074	0.009	0.014	0.001	0.009	0.001	0.007	0.001	0.053	0.012
NC	0.687	0.024 *	0.126	0.002 *	0.248	0.033 *	-0.468	-0.019 *	-0.164	-0.027 *	0.021	0.004 *	-0.204	-0.045 *
	0.017	0.001	0.023	0.000	0.082	0.011	0.015	0.001	0.009	0.002	0.007	0.001	0.059	0.013
ND	1.072	0.045 *	0.027	0.000	0.264	0.035	0.152	0.007 *	-0.735	-0.112 *	0.617	0.086 *	-0.059	-0.013
	0.033	0.002	0.059	0.001	0.157	0.022	0.045	0.002	0.026	0.004	0.020	0.002	0.122	0.026
Constant	-2.754	*	-2.980	*	-2.072	*	-2.986	*	3.094	*	1.407	*	-0.990	*
	0.047		0.057		0.279		0.046		0.048		0.028		0.316	
N	930000		930000		23000		930000		570000		930000		23000	
PR2	0.182		0.110		0.028		0.248		0.222		0.016		0.044	
AIC	312800		159900		1677000		264000		575100		935600		2405000	
BIC	313100		160200		1677000		264300		575400		935900		2405000	

Notes: Authors' analysis of multiple data sources in the Census Bureau Data Linkage Infrastructure. Abbreviations: ACE, adverse childhood experience; AGI, adjusted gross income; AME, average marginal effect; IPV, intimate partner violence; ND, included in model but not disclosed due to small cell size; SES childhood socioeconomic status; SUD, substance use disorder. U.S. Census Bureau, Project P-7500378, Approval CBDRB-FY23-0527, CBDRB-FY24-SEHSD013-006.
* p<0.05
Model 1 independent variables: Birth year, state of birth, sex, race, ethnicity, family structure at birth, inverse hyperbolic sine-transformed year 2000 parent AGI.
Model 2 independent variables: Primary model without year 2000 parent AGI.
Model 3 independent variables: Primary model plus parent disability, poverty, high school degree, and US citizenship.

Exhibit A15: ACEs type (Model 2)

Measure	Felony Charge b/se	AME/se		Teen Birth b/se	AME/se		Poverty b/se	AME/se		Housing Assistance b/se	AME/se		Medicaid b/se	AME/se		Employment b/se	AME/se		Education Enrollment b/se	AME/se	
ACE type																					
Parent Death	0.12	0.01	*	-0.01	0.00		0.20	0.03		-0.33	-0.01	*	0.59	0.10	*	-0.16	-0.03	*	-0.31	-0.07	*
	0.04	0.00		0.06	0.00		0.22	0.03		0.05	0.00		0.02	0.00		0.02	0.00		0.16	0.03	
Parent Separation	0.49	0.02	*	0.80	0.01	*	0.33	0.04	*	0.84	0.03	*	1.18	0.20	*	0.07	0.01	*	-0.45	-0.10	*
	0.01	0.00		0.02	0.00		0.06	0.01		0.01	0.00		0.01	0.00		0.01	0.00		0.05	0.01	
Parent Incarceration	0.35	0.02	*	0.27	0.01	*	0.14	0.02		0.20	0.01	*	0.60	0.10	*	0.00	0.00		0.14	0.03	
	0.02	0.00		0.03	0.00		0.13	0.02		0.02	0.00		0.02	0.00		0.01	0.00		0.12	0.03	
Witnessing IPV	0.40	0.02	*	0.44	0.01	*	0.06	0.01		0.50	0.02	*	0.54	0.09	*	-0.03	-0.01		-0.46	-0.10	*
		0.00		0.04	0.00		0.23	0.03		0.03	0.00		0.03	0.01		0.03	0.00		0.21	0.05	
Parent SUD	0.61	0.03	*	0.67	0.01	*	0.14	0.02		0.56	0.02	*	0.93	0.16	*	-0.04	-0.01	*	-0.38	-0.08	*
	0.01	0.00		0.02	0.00		0.08	0.01		0.01	0.00		0.01	0.00		0.01	0.00		0.07	0.01	
Phys/emotional abuse	0.31	0.01	*	0.30	0.01	*	SUP			0.20	0.01	*	0.77	0.13	*	-0.08	-0.01	*	SUP		
	0.05	0.00		0.07	0.00		SUP			0.05	0.00		0.05	0.01		0.04	0.01		SUP		
Sexual abuse	0.21	0.01	*	0.39	0.01	*	0.53	0.07	*	0.21	0.01	*	0.79	0.13	*	-0.05	-0.01	*	-0.57	-0.13	*
	0.03	0.00		0.04	0.00		0.18	0.02		0.03	0.00		0.03	0.00		0.02	0.00		0.16	0.04	
Additional Controls																					
Household Status at Birth																					
Dual Parent	Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.	
Single Mom	0.68	0.04	*	1.06	0.02	*	0.62	0.10	*	1.37	0.06	*	1.75	0.35	*	-0.01	0.00		-0.58	-0.13	*
	0.01	0.00		0.02	0.00		0.07	0.01		0.01	0.00		0.01	0.00		0.01	0.00		0.06	0.01	
Single Dad	0.32	0.01	*	0.63	0.01	*	0.45	0.07		0.16	0.00	*	0.97	0.19	*	-0.06	-0.01	*	-0.07	-0.02	
	0.05	0.00		0.07	0.00		0.23	0.04		0.06	0.00		0.03	0.01		0.03	0.00		0.21	0.05	
Race																					
White	Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.	
Black	0.64	0.03	*	0.40	0.01	*	0.31	0.04	*	2.22	0.09	*	0.78	0.15	*	0.12	0.02	*	-0.12	-0.03	*
	0.01	0.00		0.02	0.00		0.07	0.01		0.01	0.00		0.01	0.00		0.01	0.00		0.06	0.01	
AIAN	0.55	0.03	*	0.68	0.01	*	0.43	0.06		1.25	0.03	*	0.89	0.17	*	-0.40	-0.07	*	-0.12	-0.03	
	0.04	0.00		0.06	0.00		0.23	0.04		0.05	0.00		0.03	0.01		0.03	0.01		0.19	0.04	
Asian/NHPI	-0.69	-0.02	*	-1.21	-0.01	*	0.04	0.00		0.13	0.00		0.16	0.03	*	-0.60	-0.11	*	0.85	0.17	*
	0.06	0.00		0.12	0.00		0.16	0.02		0.07	0.00		0.02	0.00		0.01	0.00		0.15	0.02	
Some Other Race	0.21	0.01	*	0.30	0.01	*	0.53	0.08		0.22	0.00	*	0.72	0.13	*	-0.01	0.00		0.37	0.08	*
	0.04	0.00		0.05	0.00		0.26	0.05		0.05	0.00		0.03	0.01		0.02	0.00		0.19	0.04	
Multiracial	0.33	0.01	*	0.33	0.01	*	-0.05	-0.01		1.32	0.03	*	0.42	0.08	*	-0.05	-0.01	*	-0.03	-0.01	
	0.02	0.00		0.03	0.00		0.13	0.02		0.02	0.00		0.01	0.00		0.01	0.00		0.10	0.02	
Ethnicity																					
Hispanic	-0.01	0.00		0.38	0.01	*	0.01	0.00		0.21	0.01	*	0.51	0.09	*	0.01	0.00		-0.25	-0.06	
	0.02	0.00		0.03	0.00		0.12	0.02		0.02	0.00		0.01	0.00		0.01	0.00		0.09	0.02	
Female	-0.01	0.00		0.00	0.00		-0.06	-0.01		0.03	0.00	*	0.00	0.00		0.00	0.00		-0.02	0.00	
	0.01	0.00		0.02	0.00		0.05	0.01		0.01	0.00		0.01	0.00		0.01	0.00		0.04	0.01	

	Coef.	AME		Coef.	AME		Coef.	AME		Coef.	AME		Coef.	AME		Coef.	AME		Coef.	AME	
Year of Birth																						
1999	Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.	
2000	-0.48	-0.04	*	-0.08	0.00	*	-0.06	-0.01		-0.04	0.00	*	-0.08	-0.01	*	-0.08	-0.01	*	0.18	0.04	*
	0.01	0.00		0.02	0.00		0.07	0.01		0.02	0.00		0.01	0.00		0.01	0.00		0.05	0.01	
2001	-1.06	-0.07	*	-0.26	-0.01	*	-0.19	-0.03	*	-0.13	-0.01	*	-0.21	-0.04	*	-0.15	-0.02	*	0.40	0.09	*
	0.01	0.00		0.02	0.00		0.07	0.01		0.02	0.00		0.01	0.00		0.01	0.00		0.05	0.01	
2002	-2.38	-0.10	*	-1.08	-0.02	*	-0.25	-0.03	*	-0.20	-0.01	*	-	-		-0.34	-0.05	*	0.66	0.14	*
	0.02	0.00		0.03	0.00		0.09	0.01		0.02	0.00		-	-		0.01	0.00		0.07	0.01	
2003	-7.75	-0.12	*	-1.85	-0.02	*	-0.35	-0.05	*	-0.29	-0.01	*	-	-		-0.75	-0.13	*	0.69	0.15	*
	0.30	0.00		0.04	0.00		0.14	0.02		0.02	0.00		-	-		0.01	0.00		0.10	0.02	
State of Birth																						
MD	Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.	
MI	0.87	0.03	*	0.10	0.00	*	0.22	0.03	*	-0.37	-0.02	*	0.11	0.02	*	0.09	0.01	*	-0.22	-0.05	*
	0.02	0.00		0.02	0.00		0.07	0.01		0.01	0.00		0.01	0.00		0.01	0.00		0.05	0.01	
NC	0.69	0.02	*	0.14	0.00	*	0.25	0.03	*	-0.45	-0.02	*	-0.11	-0.02	*	0.02	0.00	*	-0.22	-0.05	*
	0.02	0.00		0.02	0.00		0.08	0.01		0.01	0.00		0.01	0.00		0.01	0.00		0.06	0.01	
ND	1.10	0.05	*	0.08	0.00		0.26	0.03		0.22	0.01	*	-0.57	-0.09	*	0.61	0.09	*	-0.10	-0.02	
	0.03	0.00		0.06	0.00		0.16	0.02		0.04	0.00		0.03	0.00		0.02	0.00		0.12	0.03	
Constant	-3.37			-4.15			-1.99			-4.50			-1.19			1.56			0.52		
	0.03			0.04			0.14			0.03			0.02			0.01			0.10		
N	930000			930000			23000			930000			570000			930000			23000		
PR2	0.181			0.108			0.028			0.245			0.205			0.016			0.041		
AIC	313000			160400			1677000			265200			588000			936000			2414000		
BIC	313300			160700			1677000			265500			587800			936000			2414000		

Notes: Authors' analysis of multiple data sources in the Census Bureau Data Linkage Infrastructure. Abbreviations: ACE, adverse childhood experience; AGI, adjusted gross income; AME, average marginal effect; IPV, intimate partner violence; ND, included in model but not disclosed due to small cell size; SES childhood socioeconomic status; SUD, substance use disorder. U.S. Census Bureau, Project P-7500378, Approval CBDRB-FY23-0527, CBDRB-FY24-SEHSD013-006.
* p<0.05
Model 1 independent variables: Birth year, state of birth, sex, race, ethnicity, family structure at birth, inverse hyperbolic sine-transformed year 2000 parent AGI.
Model 2 independent variables: Primary model without year 2000 parent AGI.
Model 3 independent variables: Primary model plus parent disability, poverty, high school degree, and US citizenship.

Exhibit A16: ACEs type (Model 3)

	Felony Charge		Teen Birth		Poverty		Housing Assistance		Medicaid		Employment		Education Enrollment	
Measure	b/se	AME/se	b/se	AME/se	b/se	AME/se	b/se	AME/se	b/se	AME/se	b/se	AME/se	b/se	AME/se
ACE type														
Parental Death	0.121	0.005	-0.090	-0.001	0.293	0.036	-0.340	-0.012 *	0.603	0.093 *	-0.094	-0.015	-0.731	-0.155
	0.120	0.005	0.214	0.003	0.443	0.055	0.163	0.006	0.086	0.013	0.067	0.011	0.402	0.085
Parent Separation	0.432	0.018 *	0.694	0.011 *	0.394	0.049 *	0.843	0.029 *	0.857	0.133 *	0.081	0.013 *	-0.204	-0.043
	0.039	0.002	0.064	0.001	0.181	0.022	0.046	0.002	0.025	0.004	0.021	0.003	0.141	0.030
Parent Incarceration	0.343	0.014 *	0.440	0.007 *	-0.412	-0.051	0.075	0.003	0.379	0.059 *	0.049	0.008	0.191	0.040
	0.083	0.003	0.126	0.002	0.560	0.069	0.102	0.004	0.086	0.013	0.063	0.010	0.496	0.105
Witnessing IPV	0.602	0.025 *	0.440	0.007 *	-1.487	-0.184	0.427	0.015 *	0.488	0.076 *	-0.088	-0.014	-0.445	-0.094
	0.102	0.004	0.148	0.002	0.852	0.106	0.118	0.004	0.117	0.018	0.087	0.014	0.587	0.124
Parent SUD	0.438	0.018 *	0.506	0.008 *	0.201	0.025	0.332	0.011 *	0.604	0.094 *	-0.122	-0.020 *	-0.324	-0.069
	0.043	0.002	0.068	0.001	0.271	0.034	0.049	0.002	0.034	0.005	0.028	0.004	0.190	0.040
Phys/emotional abuse	0.307	0.013	0.169	0.003	ND		0.161	0.006	0.684	0.106 *	-0.083	-0.013	ND	
	0.159	0.007	0.228	0.004	ND	ND	0.170	0.006	0.148	0.023	0.105	0.017	ND	
Sexual abuse	0.272	0.011 *	0.399	0.006 *	1.496	0.185 *	0.194	0.007	0.556	0.086 *	0.067	0.011	-0.179	-0.038
	0.093	0.004	0.129	0.002	0.434	0.053	0.113	0.004	0.084	0.013	0.063	0.010	0.411	0.087
Childhood SES														
Parent Income	-0.045	-0.002 *	-0.058	-0.001 *	0.059	0.007	-0.118	-0.004 *	-0.187	-0.029 *	0.019	0.003 *	0.057	0.012
	0.011	0.000	0.011	0.000	0.133	0.016	0.009	0.000	0.019	0.003	0.007	0.001	0.049	0.010
Parent Poverty	0.278	0.012 *	0.534	0.009 *	0.717	0.089 *	0.621	0.021 *	0.756	0.117 *	-0.122	-0.020 *	-0.159	-0.034
	0.040	0.002	0.061	0.001	0.215	0.027	0.043	0.001	0.029	0.004	0.023	0.004	0.162	0.034
Parent Education	-0.379	-0.016 *	-1.231	-0.020 *	0.457	0.057 *	-1.496	-0.052 *	-1.264	-0.196 *	-0.063	-0.010 *	0.718	0.152 *
	0.044	0.002	0.102	0.002	0.194	0.024	0.086	0.003	0.028	0.004	0.020	0.003	0.136	0.028
Parental Citizenship (2000)	0.018	0.001	0.513	0.008 *	-0.916	-0.113 *	0.334	0.012 *	-0.363	-0.056 *	0.219	0.035 *	0.410	0.087
	0.139	0.006	0.219	0.004	0.430	0.053	0.140	0.005	0.077	0.012	0.054	0.009	0.450	0.095
Parent Disability	0.013	0.001	0.125	0.002	-0.204	-0.025	0.192	0.007 *	0.386	0.060 *	-0.040	-0.006	-0.277	-0.059
	0.046	0.002	0.070	0.001	0.226	0.028	0.049	0.002	0.032	0.005	0.025	0.004	0.177	0.037
Additional Controls														
Household Status at Birth														
Dual Parent	Ref.	Ref.	Ref.	Ref.	Ref.		Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	
Single Mom	0.612	0.030 *	0.781	0.015 *	1.433	0.242 *	1.184	0.049 *	1.288	0.226 *	-0.058	-0.009	-0.496	-0.109 *
	0.048	0.003	0.075	0.002	0.250	0.051	0.050	0.003	0.037	0.007	0.030	0.005	0.211	0.048
Single Dad	0.369	0.016 *	0.420	0.007	ND		-0.080	-0.002	0.638	0.108 *	0.062	0.010	ND	
	0.179	0.009	0.332	0.007	ND	ND	0.252	0.006	0.120	0.021	0.112	0.017	ND	
Race														
White	Ref.	Ref.	Ref.	Ref.	Ref.		Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	
Black	0.604	0.028 *	0.141	0.002 *	-0.083	-0.010	1.934	0.074 *	0.516	0.085 *	0.044	0.007	0.240	0.051
	0.044	0.002	0.071	0.001	0.232	0.028	0.049	0.002	0.032	0.005	0.027	0.004	0.192	0.039
AIAN	0.564	0.026 *	0.488	0.009 *	1.510	0.273	0.879	0.020 *	0.342	0.055 *	-0.542	-0.100 *	-0.312	-0.069
	0.130	0.007	0.176	0.004	0.855	0.189	0.177	0.006	0.116	0.019	0.084	0.017	0.973	0.217

	M1 Coef	M1 AME	M2 Coef	M2 AME	M3 Coef	M3 AME	M4 Coef	M4 AME	M5 Coef	M5 AME	M6 Coef	M6 AME	M7 Coef	M7 AME
Asian/NHPI	-0.555	-0.016 *	-1.196	-0.011 *	-0.111	-0.014	0.573	0.011 *	0.058	0.009	-0.498	-0.091 *	1.465	0.250 *
	0.199	0.005	0.455	0.002	0.506	0.061	0.237	0.006	0.094	0.015	0.058	0.012	0.678	0.081
Some Other Race	0.373	0.016 *	0.387	0.007	-0.791	-0.079	0.368	0.007	0.470	0.077 *	-0.065	-0.011	0.715	0.141
	0.163	0.008	0.207	0.004	0.835	0.064	0.205	0.004	0.110	0.019	0.086	0.014	0.684	0.120
Multiracial	0.278	0.011 *	0.373	0.007 *	-0.768	-0.077	1.070	0.027 *	0.346	0.056 *	-0.013	-0.002	0.653	0.130 *
	0.077	0.003	0.109	0.002	0.411	0.033	0.084	0.003	0.054	0.009	0.041	0.007	0.313	0.056
Ethnicity														
Hispanic	-0.069	-0.003	0.265	0.005 *	0.233	0.031	0.290	0.011 *	0.193	0.030 *	0.015	0.002	-0.401	0.088
	0.084	0.003	0.107	0.002	0.368	0.051	0.091	0.004	0.053	0.008	0.042	0.007	0.283	0.063
Female	-0.022	-0.001	0.044	0.001	-0.176	-0.022	0.066	0.002	0.000	0.000	-0.007	-0.001	-0.030	-0.006
	0.034	0.001	0.056	0.001	0.170	0.021	0.040	0.001	0.023	0.004	0.017	0.003	0.122	0.026
Year of Birth														
1999	Ref.	Ref.	Ref.	Ref.	Ref.		Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	
2000	-0.456	-0.035 *	-0.004	0.000	-0.291	-0.038	-0.024	-0.001	-0.081	-0.013 *	-0.026	-0.004	0.266	0.059
	0.040	0.003	0.070	0.002	0.202	0.026	0.060	0.002	0.028	0.004	0.029	0.004	0.155	0.034
2001	-1.155	-0.070 *	-0.387	-0.008 *	-0.628	-0.075 *	-0.153	-0.006 *	-0.179	-0.028 *	-0.156	-0.023 *	0.821	0.171 *
	0.047	0.003	0.076	0.002	0.216	0.025	0.061	0.002	0.028	0.004	0.029	0.004	0.155	0.031
2002	-2.171	-0.095 *	-1.149	-0.018 *	-0.204	-0.027	-0.226	-0.008 *	-	-	-0.294	-0.045 *	0.394	0.087
	0.069	0.003	0.099	0.001	0.307	0.040	0.061	0.002	-	-	0.028	0.004	0.208	0.045
2003	-9.271	-0.110 *	-2.068	-0.023 *	-0.851	-0.094 *	-0.341	-0.012 *	-	-	-0.695	-0.119 *	1.002	0.203 *
	1.000	0.002	0.149	0.001	0.422	0.038	0.064	0.002	-	-	0.027	0.004	0.303	0.054
State of Birth														
MD	Ref.	Ref.	Ref.	Ref.	Ref.	-0.007	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	-0.054
MI	0.737	0.027 *	-0.054	-0.001	-0.055	0.025	-0.537	-0.019 *	0.033	0.005	0.098	0.016 *	-0.254	0.030
	0.050	0.002	0.072	0.001	0.199	0.299	0.046	0.002	0.027	0.004	0.020	0.003	0.144	0.110
NC	0.118	0.003	-0.048	-0.001	1.629	0.127 *	-0.621	-0.022 *	-0.255	-0.039 *	0.014	0.002	0.589	0.085
	0.154	0.005	0.219	0.003	0.578	-0.056	0.158	0.005	0.095	0.014	0.058	0.010	0.505	0.020
ND	1.090	0.046 *	-0.047	-0.001	-0.520	0.042	0.103	0.005	-0.758	-0.109 *	0.615	0.086 *	0.098	0.062
	0.089	0.005	0.146	0.002	0.427		0.130	0.006	0.072	0.009	0.051	0.006	0.310	
Constant	-2.709	*	-3.763	*	-1.532		-3.066	*	1.516	*	1.180	*	-1.174	
	0.206		0.271		1.574		0.191		0.224		0.107		0.786	
N	107000		107000		3400		107000		63500		107000		3400	
PR2	0.188		0.140		0.086		0.275		0.259		0.016		0.076	
AIC	250800		116800		58		202700		452600		793200		58	
BIC	251100		117100		236		203000		452800		793500		236	

Notes: Authors' analysis of multiple data sources in the Census Bureau Data Linkage Infrastructure. Abbreviations: ACE, adverse childhood experience; AGI, adjusted gross income; AME, average marginal effect; IPV, intimate partner violence; ND, included in model but not disclosed due to small cell size; SES childhood socioeconomic status; SUD, substance use disorder. U.S. Census Bureau, Project P-7500378, Approval CBDRB-FY23-0527, CBDRB-FY24-SEHSD013-006.
* p<0.05
Model 1 independent variables: Birth year, state of birth, sex, race, ethnicity, family structure at birth, inverse hyperbolic sine-transformed year 2000 parent AGI.
Model 2 independent variables: Primary model without year 2000 parent AGI.
Model 3 independent variables: Primary model plus parent disability, poverty, high school degree, and US citizenship.

Exhibit A17. Summary model results

Measure	Felony charge		Teen birth		Poverty		Housing assistance		Medicaid		Employment		Education enrollment	
	AME	Prob. change[a]	AME	Prob. change	AME	Prob. change	AME	Prob. change	AME	Prob. change	AME	Prob. change	AME	Prob. change
Binary ACE Models														
Any ACE[b]	0.035*	67%	0.020*	98%	0.053*	32%	0.035*	75%	0.245*	70%	0.006*	1%	-0.112*	-18%
Model 2: No SES[c]	0.036*	68%	0.020*	101%	0.053*	31%	0.036*	77%	0.269[c]	77%	0.005*	1%	-0.121*	-19%
Model 3: Addtl SES[d]	0.025*	49%	0.014*	71%	0.055*	32%	0.026*	55%	0.172*	49%	0.002	0%	-0.070*	-11%
ACEs Count Models														
1 ACE	0.026*	49%	0.015*	77%	0.046*	27%	0.029*	62%	0.205*	58%	0.008*	1%	-0.090*	-15%
Model 2: No SES	0.026*	50%	0.016*	78%	0.046*	27%	0.030*	63%	0.223*	64%	0.007*	1%	-0.098*	-16%
Model 3: Addtl SES	0.018*	34%	0.012*	58%	0.048*	28%	0.022*	47%	0.147*	42%	0.004	1%	-0.052	-8%
2-3 ACEs	0.057*	109%	0.030*	152%	0.074*	44%	0.050*	107%	0.367*	104%	-0.001	0%	-0.176*	-28%
Model 2: No SES	0.058*	112%	0.031*	157%	0.074*	44%	0.052*	110%	0.402*	115%	-0.001	0%	-0.189*	-30%
Model 3: Addtl SES	0.045*	86%	0.020*	100%	0.080*	47%	0.035*	75%	0.252*	72%	-0.006	-1%	-0.133*	-21%
4+ ACEs	0.095*	182%	0.053*	266%	0.062	36%	0.072*	152%	0.531*	151%	-0.003	0%	-0.146	-24%
Model 2: No SES	0.097*	186%	0.055*	275%	0.061	36%	0.074*	158%	0.566*	161%	-0.004	-1%	-0.164*	-26%
Model 3: Addtl SES	0.086*	166%	0.070*	350%	ND	ND	0.074*	157%	0.411*	117%	0.006	1%	ND	ND
ACEs Type Models														
Parent death	0.006*	11%	0.000	-1%	0.027	16%	-0.013*	-27%	0.101*	29%	-0.025*	-3%	-0.071*	-11%
Model 2: No SES	0.006*	11%	0.000	-1%	0.027	16%	-0.013*	-27%	0.099*	28%	-0.025*	-3%	-0.069*	-11%
Model 3: Addtl SES	0.005	10%	-0.001	-7%	0.036	21%	-0.012*	-25%	0.093*	27%	-0.015	-2%	-0.155	-25%
Parent separation	0.022*	42%	0.015*	73%	0.045*	27%	0.032*	67%	0.183*	52%	0.012*	2%	-0.093*	-15%
Model 2: No SES	0.022*	43%	0.015*	75%	0.045*	26%	0.032*	69%	0.199*	57%	0.012*	1%	-0.100*	-16%
Model 3: Addtl SES	0.018*	35%	0.011*	55%	0.049*	29%	0.029*	62%	0.133*	38%	0.013*	2%	-0.043*	-7%
Parent incarceration	0.015*	30%	0.005*	25%	0.019	11%	0.007*	16%	0.092*	26%	0.000	0%	0.032	5%
Model 2: No SES	0.016*	30%	0.005*	25%	0.019	11%	0.007*	16%	0.101*	29%	0.000	0%	0.031	5%
Model 3: Addtl SES	0.014*	28%	0.007*	35%	-0.051	-30%	0.003	6%	0.059*	17%	0.008	1%	0.040	6%
Witnessing IPV	0.018*	34%	0.008*	40%	0.008	5%	0.019*	40%	0.079*	23%	-0.005	-1%	-0.095*	-15%
Model 2: No SES	0.018*	35%	0.008*	41%	0.008	5%	0.019*	41%	0.091*	26%	-0.006	-1%	-0.103*	-17%
Model 3: Addtl SES	0.025*	48%	0.007*	35%	-0.184	-109%	0.015*	31%	0.076*	22%	-0.014	-2%	-0.094	-15%
Parent SUD	0.027*	52%	0.012*	61%	0.019	11%	0.021*	45%	0.143*	41%	-0.007*	-1%	-0.079*	-13%
Model 2: No SES	0.028*	53%	0.012*	62%	0.019	11%	0.022*	46%	0.157*	45%	-0.007*	-1%	-0.084*	-14%
Model 3: Addtl SES	0.018*	35%	0.008*	40%	0.025	15%	0.011*	24%	0.094*	27%	-0.020*	-2%	-0.069	-11%
Phys/emotional abuse	0.014*	26%	0.006*	28%	ND	ND	0.007*	16%	0.117*	33%	-0.013*	-2%	ND	ND
Model 2: No SES	0.014*	27%	0.006*	28%	ND	ND	0.008*	16%	0.131*	37%	-0.013*	-2%	ND	ND
Model 3: Addtl SES	0.013	25%	0.003	13%	ND	ND	0.006	12%	0.106*	30%	-0.013	-2%	ND	ND
Sexual abuse	0.009*	18%	0.007*	35%	0.072*	43%	0.008*	16%	0.120*	34%	-0.008*	-1%	-0.124*	-20%
Model 2: No SES	0.010*	18%	0.007*	36%	0.072*	43%	0.008*	17%	0.134*	38%	-0.008*	-1%	-0.128*	-21%
Model 3: Addtl SES	0.011*	22%	0.006*	32%	0.185*	110%	0.007	14%	0.086*	25%	0.011	1%	-0.038	-6%
Sample size, n														
Primary model	930,000		930,000		23,000		930,000		570,000		930,000		23,000	
Model 2	930,000		930,000		23,000		930,000		570,000		930,000		23,000	
Model 3	107,000		107,000		3,400		107,000		63,500		107,000		3,400	

Notes: Authors' analysis of multiple data sources in the Census Bureau Data Linkage Infrastructure. See Tables A7-A15 for full model results. The table depicts separate models of three different definitions of ACEs (by row): Binary (Any ACE; reference: no ACEs), ACEs count, or categorical (1, 2-3, 4+; reference: zero), and ACEs type (binary for each ACE type in the same model). Abbreviations: ACE, adverse childhood experience; AGI, adjusted gross income; AME, average marginal effect; IPV, intimate partner violence; ND, included in model but not disclosed due to small cell size; SES childhood socioeconomic status; SUD, substance use disorder. U.S. Census Bureau, Project P-7500378, Approval CBDRB-FY23-0527, CBDRB-FY24-SEHSD013-006.
* p<0.05

[a] Calculated using sample means for analyzed outcomes in Exhibit 1 (e.g., 0.052, or 5.2%, of analyzed individuals had a felony charge during age 18-22; an AME of 0.035 indicates a 3.5 percentage point, or +65%, higher probability of having a felony charge if an individual had any ACE).

[b] Primary model (shaded) independent variables: Birth year, state of birth, sex, race, ethnicity, family structure at birth, inverse hyperbolic sine-transformed year 2000 parent AGI.

[c] Model 2 independent variables: Primary model without year 2000 parent AGI.

[d] Model 3 independent variables: Primary model plus parent disability, poverty, high school degree, and US citizenship.