Proximity to Abortion Services and Child Maltreatment

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National Bureau of Economic Research
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Child maltreatment

- Child maltreatment, including neglect, physical, emotional and sexual abuse, is a serious and prevalent societal problem in the U.S.
  - In 2022 → **558,899** child victims reported at a rate of **7.7** per 1,000 children
  - The youngest children are the *most vulnerable* to maltreatment

Source: US Department of Health & Human Services, ACF, Children’s Bureau, 2022
Far reaching implications...

- Consequences at early stage extend far into adulthood, adversely affecting:
  - psychological and behavioral health (Lansford et al., 2002; Fletcher, 2009; Danese and Widom, 2023)
    - → substance dependence (Min et al., 2013)
  - physical health / chronic medical conditions (Min et al., 2013)

- A series of lifelong repercussions beyond health:
  - ↓ education levels (Currie and Spatz Widom, 2010; Henkhaus, 2022)
  - ↓ employment, earnings, and assets (Currie and Spatz Widom, 2010)
  - ↑ incarceration and crime rates (Currie and Tekin, 2012)
  - ↑ teen pregnancy (Anda et al., 2001)

- Lifetime economic burden ≈ $578 billion in 2018 (Klika, Rosenzweig, and Merrick, 2020)
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Abortion and child maltreatment

  - Medicaid funding restrictions
  - Parental involvement laws
  - Mandatory waiting period
Abortion and child maltreatment

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  - Mandatory waiting period

**Question:** What is the impact of abortion access on child maltreatment?

→ Use travel distance to the nearest abortion facility
→ Capture real-world barriers (financial and logistical)
→ Dynamic perspective on access over time
→ Broader applicability across various legal contexts
Potential pathways

- Increased travel distance
  - “unwanted” or “unplanned” children
  - higher maltreatment risk
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- Financial distress / strain (Miller, Wherry, and Foster, 2023)
  → Maltreatment cases involving caregiver risk factors
    → financial problems
    → reliance on public assistance (TANF, SNAP, Medicaid, etc.)
  → Eviction filings
Potential pathways

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- Emotional stress and mental health (e.g., the Turnaway Study, [Biggs et al., 2017](#); [Rocca et al., 2021](#))
  → Mental health problems
  → Substance abuse (drug & alcohol)
  → Intimate partner violence
Potential pathways

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  - Intimate partner violence

- **Family instability** (Fomby and Cherlin, 2007)
Data

- FBI’s National Incident-Based Reporting System (NIBRS)
  - Concatenated NIBRS data by Kaplan (2021), 2011-2018
  - Victim’s age < 18
  - Kaplan and Block (2023) → the offender is the victim’s biological parent, a stepparent, or the significant other of the biological parent
  - Simple and aggravated assault (physical abuse) + intimidation (psychological abuse) ≈ 90% of offenses when victim is the youngest
  - Limit to agencies that reported consistently throughout the year
  - 6,104 police agencies, 1,708 counties, 41 states
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- Myers Abortion Facility Database (Myers, 2024)
  - Travel distance from the population centroid of each origin county to all facilities → search for the minimum distance
  - County-by-month panel between January 1, 2009 and May 1, 2023
Additional Data

- National Child Abuse and Neglect Data System (NCANDS) Child Files
  - Provided by the National Data Archive on Child Abuse and Neglect (NDACAN) at Cornell
  - Each report of alleged child abuse and neglect that received a Child Protective Services (CPS) response
  - State reporting is voluntary but most states consistently report during years 2011-2018
  - Aggregate case-level to county-level measures of child maltreatment
  - Use identified counties (see Evans et al., 2022 → “super” counties)
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- Eviction filings from the Eviction Lab at Princeton (Gromis et al., 2022)
  - Draws on 99.9 million court records → eviction case filings
  - Purchased 73.2 million individual eviction records from LexisNexis Risk Solutions and the remaining electronic records came directly from courts
  - Aggregated counts by county, 2011-2018
Methodology

\[ E(Y_{a,c,s,t+1}|distance_{c,s,t}, X_{c,s,t}, \gamma_c, \gamma_t) = \exp[f(distance_{c,s,t}) + \beta X_{c,s,t} + \gamma_c + \gamma_t + \gamma_{s,t}] \]

- Exposure variable → the number of children under 17 served by each agency
Methodology

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- **Exposure variable** → the number of children under 17 served by each agency
- **County characteristics**
  - % of white females aged 15 to 44, % of children under 17, median household income (log), unemployment rate, the number of psychiatric treatment facilities

Aslim, Fu, and Tekin (2024)
Methodology

\[ E( Y_{a,c,s,t+1} | \text{distance}_{c,s,t}, X_{c,s,t}, \gamma_c, \gamma_t ) = \exp [ f(\text{distance}_{c,s,t}) + \beta X_{c,s,t} 
+ \gamma_c + \gamma_t + \gamma_s,t ] \]

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- State policy and welfare measures
  - one- and two-trip mandatory waiting periods, parental involvement laws, the average service population (log), ...
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- Alternative specifications using state-by-year FE (\( \gamma_{s,t} \))
DID estimates by age

Increase by 21.7% if travel distance increases by 100 miles
Heterogeneity

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Estimated Change

- Non-White Child: 22.2% (10%)
- White Child: 22.5%
- Female Child: 20.2%
- Male Child: 23.1% (-11.7%)
- Yes: 33.2% (-15%)
- No: 23.4% (6.3%)
- Above Median: 22% (14.5%)
- Below Median

Beta from Poisson Estimation (Age 0-1)
Additional checks

- Nonlinear effects
- Inclusion of state-by-year FE
- Placebo checks w/ and w/o state-by-year FE
- Reverse causality (Maltreatment ← Abortion → Distance)
- Event study

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Alternative measures - NDACAN

![Graph showing beta from Poisson estimation for alleged and substantiated child maltreatment by caregiver's financial problems and need for social assistance.]

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Eviction filings

Baseline Result

By 18-44 Female Share
3rd Tertile
2nd Tertile
1st Tertile

By County Poverty Rate
Above Median
Below Median

By County Minority Pop
Above Median
Below Median

By County Rural Pop
Above Median
Below Median

Estimated Change

107.4%
107.8%
24.9%
-4%
123.8%
85.3%
112%
-5.9%
107.7%
1.4%

Beta from Poisson Estimation
Conclusion

- Positive (nonlinear) relationship between distance to abortion clinics and child maltreatment
- Racial disparities suggest restrictive abortion policies could worsen societal inequities
- Economic disadvantages amplify issues of access
- Additional cost per children due to a 100-mile increase:

\[
\text{Base Cost} \times \text{% Increase} = \$224,416
\]

- Need for accessible reproductive health services and comprehensive family support
Appendix: Distribution of travel distance
Appendix: Variation in travel distance, 2010-2017

- TRAP laws → e.g., Texas HB2 in 2013 - hospital admitting privileges and minimum proximity requirements (Lu and Slusky, 2014; Fischer, Royer, and White, 2018; Lindo et al., 2020)
- Openings → advanced practice clinicians providing abortion services (e.g., Colorado), telemedicine provision of abortion services (e.g., Maine), response to closures (e.g., Trust Women in Kansas)
Appendix: Change in child maltreatment

![Bar graph showing changes in child maltreatment among aged 0-1 (%).](image)

- Decrease 50 miles or more: -33.87%
- Decrease 0 to 50 miles: 3.97%
- Increase 0 to 50 miles: 32.41%
- Increase 50 miles or more: 94.01%

Changes in Travel Distance

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Appendix: Myers Database

- All publicly-identifiable abortion facilities
  - Excludes facilities that provide a small number of abortions and do not advertise their services

- Obtain physical addresses and dates of abortion services
  - State licensing databases
  - Current and historical versions of facility websites (e.g., Waybackmachine)
  - Current and historical directories of Planned Parenthood health centers
  - Current and historical directories of the National Abortion Federation (NAF)
  - News accounts of provider operations and protests
  - Corroborate sources using information from organizations with political agendas
    - Operation Rescue (abortiondocs.org)
    - Life Dynamics (childpredators.com/tape) - “sting” operation in 2002
Appendix: Other Databases

- Guttmacher Institute
  - Broader in scope than the Myers database
    - Includes all facilities even those that provide a small number of abortions, and even if they do not advertise
  - Intermittent snapshots of operations
    - E.g., 2010-2011, 2013-2014, 2016-2017
  - County-level counts *suppress* facilities providing \(<400\) abortions
    - Some counties to appear and disappear due to the suppression threshold
      - Not due to openings or closures

- Advancing New Standards in Reproductive Health (ANSIRH)
  - All publicly-identifiable abortion facilities
  - Current snapshot of operations (2018-2013)
  - Not a panel covering earlier years
Appendix: Nonlinear Effects

As Figure 1 shows, the predicted change in child maltreatment (%) increases nonlinearly as the increase in travel distance to the nearest abortion facility (miles) increases.

- **Baseline (0 mile)**: The predicted change in child maltreatment increases by 105.2% if the travel distance increases from 0 to 100 miles.
- **Median (63 miles)**: The predicted change in child maltreatment increases by 41.6% if the travel distance increases from 63 to 163 miles.
- **Average (79 miles)**: The predicted change in child maltreatment increases by 28.3% if the travel distance increases from 79 to 179 miles.

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## Appendix: Alternative Specifications

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<td>0.339**</td>
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### Appendix: Placebo Test

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<th>Child Maltreatment Among Children Aged 2-6</th>
<th>7-12</th>
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#### Panel A: Linear
Distance (100 miles)

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<td>0.016</td>
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<td>-0.029</td>
<td>-0.057**</td>
<td>-0.021</td>
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#### Panel B: Quadratic
Distance (100 miles)

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Distance (100 miles) Squared

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#### Panel C: Categorical
Distance: 50-100 miles

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Distance: 100-150 miles

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Distance: 150-200 miles

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Distance: 200+ miles

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N
38,827
Clusters
1,708
Dep. Var. Mean
55.064
County FE
√
Year FE
√
County Demographics
√
State Policy Measures
√
State × Year FE
√
Appendix: Is distance driven by demand?

- **Ideal path:** Maltreatment ← Abortion ← Distance
- **Violation:** Maltreatment ← Abortion → Distance

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<th>1 mile</th>
<th>10 miles</th>
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<td>Abortion Rate ($t + 1$)</td>
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Average Causal Effects by Callaway and Sant'Anna (2021): 7.016 (s.e: 2.248)
Average Child Maltreatment Incidence per 100000: 16.809
Appendix: Race/Ethnicity breakdown

### Alleged Child Maltreatment

- Non-Hispanic White: Estimated Change = 14.7%
- Black: Estimated Change = 27.5%
- Hispanics: Estimated Change = 18.5%
- Other Races: Estimated Change = 26.5%

### Substantiated Child Maltreatment

- Non-Hispanic White: Estimated Change = 22.4%
- Black: Estimated Change = 52.8%
- Hispanics: Estimated Change = 21.4%
- Other Races: Estimated Change = 36.1%

*Beta from Poisson Estimation (Age 0-1, Among Families with Financial Difficulties/Social Assistance Needs)*
Appendix: Other risk factors

Alleged Child Maltreatment
- Drug Abuse
- Drug + Alcohol Abuse
- Mental Problems
- IPV

Estimated Change
- .7%
- 1.2%
- 17.1%
- 11%

Substantiated Child Maltreatment
- Drug Abuse
- Drug + Alcohol Abuse
- Mental Problems
- IPV

Estimated Change
- -.1%
- .4%
- 2.5%
- 19.9%

Beta from Poisson Estimation (Age 0-1)
## Appendix: Substantiated Child Maltreatment

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<th>(1) Total</th>
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<th>(5) Drug Abuse Alcohol Abuse</th>
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