Child Welfare and Child Outcomes: Measuring the Effects of Foster Care

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Florida Task Force for Child Protection
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www.mit.edu/~jjdoyle/research.html
Goals Today:

- Describe my research: effects of foster care on long-term outcomes for children
  - New Research Separating Causation from Correlation
  - Interpretation can be subtle

- Consider “The Big Questions” in child welfare
  - Child welfare literature
  - Your thoughts
Plan of Talk

• Big Questions in Child Welfare
• Why Answers Are So Important
• Why The Questions Are Difficult to Answer
• My Research
  – Effects of Foster Care Placement on Child Outcomes
  – Effects of Changes in Kinship Foster Care
• Conclusions & Going Forward
Big Questions in Child Welfare

1. What Are the Effects of Foster Care Placement on Child Wellbeing?

Foster Care Placement: Difficult Decision
   – What Types of Cases Benefit from Placement?
   – What Types of Cases Show Harm from Placement?
2. What Types of Placements Are Best? Relatives/Non-Relatives/Institutions

As before:

What Types of Cases Benefit from Particular Placement Types?
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Child Welfare Affects Large Numbers of Children

• >2 Million Investigations in the U.S. each year
• Nearly 1 Million Found Abused/Neglected
• >500,000 currently in Foster Care
• $20 Billion spent on Child Protection each year
Child Welfare Affects Particularly At-Risk Children

• Maltreated Children: 4 times higher childhood mortality
  1400 deaths/year attributed to abuse or neglect

• Former Foster Children:
  – 28% of the Homeless Population
  – 20% of Prison Inmates in US (under the age of 30)
  – 25% of Prison Inmates w/ Prior Convictions
  – Children who are still in foster care at 17:
    • 2/3 of boys and 1/2 of girls have been arrested.
    • 3 times more likely to have sexually transmitted disease
    • 4 times more likely to have mental illness
Competing Goods

Child Protection          Family Preservation

• Aggressive Protection ➔ More Placements
  – More Type I Errors (False Positive)
  – Fewer Type II Errors (False Negative)

• Incentives
  – Public Attention on Type II Errors: Failure to remove a child who is later found to be abused
Number of Children in Out-of-Home Care:
1950-2000
Number of Children in Foster Care in the U.S.
1962-2006
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Estimation Issues

To Answer The Questions, We Want to Estimate:

Change in (Average) Outcomes For Children Placed in Foster Care

Compared to:

What Would have Happened if They Remained at Home

Example: Homelessness (H):

\[ E(H|\text{Foster Care} = 1) - E(H|\text{Foster Care} = 0) \]

Problem: Don’t Observe “What Would Have Happened”
Usual Solution: Randomized Trial (ethical concerns)
Estimation Issues

• Previous Studies: Correlations
  Confounding Factors
  – Ex: High Homelessness Rate: May be Due to Abusive Family Background
  – Key Question: What Would the Likelihood of Homelessness be if the child had not been in Foster Care?

• Another Estimation Problem: Lack of Data
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My Research

• Attempt to Go Beyond Correlations and get to Causation
• Ideas Involve “Natural Experiments” that mimic a randomized trial
• Interpretation: Results Apply to Cases “Affected by the Natural Experiment”
Child Protection and Child Outcomes: Measuring the Effects of Foster Care
Introduction

What are the Effects of Foster Care Placement on Long-Term Outcomes:

– Lack of Data

– Estimation Issues
  
  Children Placed are Selected: not randomly assigned
  • Children Placed Come from Troubled Families
  • Children Placed are Those Most Likely to Benefit
Background: Previous Evidence

• Most Studies Compare FC with All Children
  – More likely to be in Prison, Homeless, Suffer Mental Abuse
  – Courtney et al. (2004): 2/3 of foster children who “age out” are arrested.

• 3 studies compare investigated children
  – Davidson-Arad et al. (2003): N=92, Interviews 6 months after investigation & removed children have better quality of life indicators.
  – Jonson-Reid and Barth (2000): N=160,000, Children who received in-home services showed less delinquency than those who were removed or who did not receive in-home services.
My Research: Data

• Chapin Hall Center for Children (U of Chicago)
• Illinois Administrative Data Linked across Programs:
  Abuse Investigations Data Matched to:
  – Juvenile Delinquency Court Records
  – Teen Motherhood in Medicaid
  – Employment in Unemployment Insurance Records
  – Adult Arrests/Convictions/Prison from Illinois State Police
  – & More...
ILLINOIS DATA SOURCES

Department of Children & Family Services:
    July 1, 1990-June 30, 2001
    -Child Age, Race, Sex, Address
    -Initial Reporter
    -Allegation
    -Perpetrator (Parent, Step-Parent, Cohabitating Adult)
    -Foster Care Entry (recorded through 2003)

Medicaid
1990-2003

Department of Employment Security
Employment & Earnings
2002

Juvenile Court
Of Cook County
1990-2000

Illinois State Police
Arrests/Imprisonment
2000-2005
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<th>Variable</th>
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<td></td>
<td>Mean</td>
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<td>Foster Care Placement</td>
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<td>Race</td>
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<td>white</td>
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<td>0.25</td>
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<td>Hispanic</td>
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</tr>
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<tr>
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<tr>
<td>Allegation</td>
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<td>lack of supervision</td>
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<td>environmental neglect</td>
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<td>substantial risk of harm</td>
<td>0.35</td>
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<td>physical abuse</td>
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<td>Observations</td>
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Children investigated between July 1, 1990 and June 30, 2003 and were at least 18 in 2005. Cook County includes the City of Chicago.
My Research: Main Idea

Consider Child Protection Investigators

– Most Families Are Effectively Randomized Families to Investigators
– Investigators Affect Removal
– Estimates of Interest:
  Children “Affected by the Natural Experiment”:
  Cases When Investigators May Disagree about a Placement Recommendation
Figure 1: Abuse Thresholds for Removal

CM1: Remove if $a > a_1$; CM2: Remove if $a > a_2$
Background

• All Investigations begin with State Central Register
• Case Assigned to a Field Team (County-level)
• Assigned to one of ~8 Investigators
• Decision 1: Determine if case has merit
• Decision 2: Emergency Removal
• Decision 3: Present Evidence to Judge for Longer Term Removal
# Investigator Rotational Assignment

## Exceptions

| -Initial investigator reassigned for any future investigations |
| -Neighborhood Assignment |
| -Spanish-Speaking Cases |
| -Special Investigations Sexual Abuse |

## Data Restrictions

| -Investigator in First Investigation |
| -Sub-team cells defined by: TEAM x ZIP x HISPANIC x YEAR |
| -Dropped from Analysis |
Separating Causation from Correlation

• Key Variable: How “Strict” is the Investigator?
• Economics Jargon: “Instrumental Variable”, Z

• Here, Z = Case Manager Placement Differential: In cases other than a particular family’s case, what fraction of children investigated by that family’s case manager are placed, relative to placement rates of other investigators on the same team in a given year
Figure A1A: FC Placement & Predicted FC Placement vs. CM Removal Differential:
Outside Cook County

- FM Placement
- P(Placement|X)
Interpretation

Investigator Type vs. Foster Care Placement

Investigators:

– do not supervise child once in foster care
– are not associated with observable characteristics
– focus on gathering facts for foster care placement recommendation
Figure 1A: FC Placement & Arrest Rate vs. CM Placement Differential: Outside Cook County

- FC Placement
- Arrested

CM Placement Differential

FC Placement vs. CM Placement Differential

Arrested
Figure 2A: Arrested vs. P(Placement|Z):
Outside Cook County
Figure 3A: Delinquency as a function of $P(z)$
Figure 4A: Teen Motherhood as a function of $P(z)$
Figure 5A: Earnings as a function of $P(z)$
Summary: Large Effects

• Long-term Outcomes
  – 3x Higher Arrest Rate
  – 3x Higher Delinquency
  – 2x Higher Teen Motherhood
  – 40% Lower Employment

• Childhood Health:
  – No Effects for Childhood Burns / Broken Bones
  – 3x more likely to receive wellness visit
Types of Cases

• Some Evidence that “Marginal Cases” (Larger Negative Effects of Foster Care Placement) are Found for:
  – African Americans
  – Girls
  – Young adolescents (11-13 year olds)
  – Victims of Abuse (compared to neglect)

• Negative effects found across all groups, however
Limitations

• Outcomes only available for children who remain in Illinois

• Effect of Foster Care on Safety
Additional Outcomes:

• Short-term Outcomes
  Test Scores (Chicago)

• Additional Long-term Outcomes
  – Mortality
  – Treatment for Sexually Transmitted Diseases
<table>
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<tr>
<th>Variable</th>
<th>IL</th>
<th>FL</th>
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<tbody>
<tr>
<td>Median Length of Stay (months)</td>
<td>48</td>
<td>23</td>
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<tr>
<td>Kinship Placement</td>
<td>50%</td>
<td>45%</td>
</tr>
<tr>
<td>Permanency within 1 year</td>
<td>25%</td>
<td>65%</td>
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</tbody>
</table>

Source: US DHHS
Conclusion

• Investigator Removal Tendencies are Associated w/ Removal in Subsequent Cases
• Large Negative Effects of Removal for Marginal Cases
• Size of effects suggests caution in interpretation
• Taken together: children at the margin of removal perform better when they remain home:
  – Adult Arrests
  – Delinquency
  – Teen Pregnancy
  – Employment & Earnings
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Kinship Foster Care and Child Outcomes:

Measuring the Effects of A Change in Financial Incentives for Relative Caregivers
Are Children Better Off with Relative Foster Care Providers?

• Anecdotal Pros (less traumatic) & Cons (providers are parents of abusive/neglectful parents)

• Difficult to Answer
  – Lack of data
  – Homes are Chosen: Not Randomly Assigned
Are Children Better Off with Relative Foster Care Providers?

Idea: Exploit Reform in Illinois Foster Care System

- Wage offer to Relatives of New Foster Care Entrants Drops by 30% in 1995
- Compare Children Investigated Just Before & After
- Rich Data as Before
- Children “Affected by the Natural Experiment”: Cases Whose Relatives Respond to the Change in the Subsidy Offer
Background

• Entry into Foster Care
  – Initial Report (police, physician, family…)
  – Investigation Office: Looks for Relative First

• Illinois: Large Growth in Foster Care System
  – 14,000 in 1986; 50,000 in 1995
  – Spending increased to over $1 billion
Background

- Illinois Reform: Two-tiered system put in place
  - Licensed caregivers receive higher payment
  - Unlicensed: monthly subsidy is ~30% lower (e.g. 9-year old child: $410 to $285 per month)
  - In practice, few get licensed
    - Space requirements and intrusiveness given as reasons.
Figure 1:
Fraction of Foster Children Going to Relatives
Figure 1A: Foster Children Going to Relatives

Month of FC Entry

Pre-reform
Post-reform
Findings

• Care of Relatives Does Respond to Subsidy Rate
  
  30% drop in Subsidies $\iff$ Relatives are 20% less likely to provide care even among abuse cases

• Response Varies by Child Characteristic
  
  Larger for children requiring mental health services, and children under 10
Limitation: Concurrent Reforms

Admissions of pre-existing informal kinship care no longer allowed

Study: Considered abuse cases, with similar results
Findings on Quality of Care

• Child Outcomes do not appear to worsen with lower subsidies
  – 1-year Quit Rate unchanged at 30% (compared to 49% for non-relative homes)
  – No change in wellness visits; injuries; test scores in Chicago Public Schools

• Traditional FC vs. Kinship FC (on the margin)
  Selection effect may mitigate income effect
Conclusion

• Following a 30% drop in subsidies, relatives are 15-20% less likely to provide care.
• Children requiring mental health services, and children under 10 saw bigger responses.
• Lower subsidies did not appear to lower quality.
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Research Conclusions

• Children “on the margin of placement” in Illinois during 1990s: Better Outcomes if remained at home
• Found across all types, particularly African American children, girls, and young adolescents

• Kinship Caregivers “on the margin of providing care” respond to financial incentives and are similar in quality to non-relative caregivers
Going Forward

• Research in Other States
  (Replication/Different Settings)

• Big Questions in Child Welfare
  1. What Are the Effects of Foster Care Placement on Child Wellbeing?
  2. What Types of Placements Are Best? Relatives/Non-Relatives/Institutions
  3. What do Practitioners Want to Know?