# The Intergenerational Effects of the Vietnam Draft on Risky Health Behaviors

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#### What This Paper Answers

- Are children of draft eligible men more likely to engage in risky health behaviors?
  - □ Substance use among adolescents?
  - Delinquent behaviors among adolescents?
- Are children of draft eligible men disproportionately exposed to a home conducive to risky health behaviors?
  - □ Because of parenting styles and inputs?
  - Because of exposure to worse environments?
  - Because of genetic reasons?

#### **Preview of Results**

- Paternal draft eligibility affects risky health behaviors.
  - □ Increases propensity to consume marijuana by age 18.
  - □ Reduces marijuana and cigarette age of initiation.
  - □ Increases time-varying measures of marijuana consumption.
  - Increases propensity to commit crime.
- Paternal draft eligibility affects potential mechanisms.
  - □ Affects some parenting styles and attitudes toward the child.
  - Affects residential location.
  - □ No apparent genetic differences.

## Why Parental Draft Eligibility May Affect Children's Risky Behaviors?

- Military service could have an ambiguous effect.
  - □ Increase opioid use, psychiatric conditions, propensity to commit violent crimes and incarceration, domestic violence, lower socioeconomic status by precluding soldiers from labor market experience.
    - Negative impact on children's outcomes.
  - □ Provide training, impart discipline, access to GI Bill benefits.
    - Positive impact on children's outcomes.
- Draft avoidance could have a positive effect.
  - Educational deferments
    - Positive impact on children's outcomes.

#### Contribution to the Literature

- Literature on identification of causal intergenerational effects of shocks and policies.
  - □ Literature on intergenerational consequences of the Vietnam lottery (Goodman and Isen, 2019; Johnson and Dawes, 2016).
  - □ Literature on unintended consequences of the Vietnam lottery draft.
- Literature on determinants of adolescent risky health behaviors.
  - □ Identifying causal intergenerational effects of policies that affect parental inputs on children's risky behaviors is challenging due to data availability (Chalfin and Deza, 2015).

## **Empirical Strategy**

- Selective Service implemented Vietnam draft lottery to increase number of men who served in the military.
- Lottery randomly associated each day of a given year with a specific number.
- Numbers equal or less than a specific cutoff determined whether men born that day were draft-eligible.
- Three lotteries
  - □ 1969: affected those born between 1944-1950 (cutoff 195).
  - □ 1970: affected those born in 1951 (cutoff 125).
  - □ 1971: affected those born in 1952 (cutoff 95).
- We exploit the randomized variation that occurred as a result of the Vietnam lottery draft.

### Empirical Strategy (cont.)

$$Y_{i,c,p} = \beta_1 + \beta_2 Eligible_{i,p} + \beta_3 X_i + \beta_c + \beta_{py} + \beta_{pm} + \mu_{i,c,p}$$

 $Y_{i,c,p}$ : outcome for child *i*, born in year *c*, whose father had an exact date of birth *p*.

Eligible<sub>i,p</sub>: whether father was draft eligible (based on lottery).

 $X_i$ : demographic characteristics of child (male, black, Hispanic).

 $\beta_c$ : child's year of birth fixed effect.

 $\beta_{py}$ : father's year of birth fixed effect.

 $\beta_{pm}$ : father's month of birth fixed effect.

 $\beta_2$ : parameter of interest.

#### Interpretation of Results

Draft eligibility: Are results driven by military service or draft avoidance?

- At least three reasons to believe effect of draft avoidance may be limited.
  - Avoidance through spousal and paternal exemptions no longer available at time of the lotteries (Bitler and Schmidt, 2012).
  - □ Avoidance through educational deferments were not prevalent (Card and Lemieux, 2001) and should work against our results.
  - □ Refusing to serve in military resulted in convictions of draft offenders and prison sentencing, making avoidance costly.

#### Data

- National Longitudinal Survey of Youth 1997.
- Nationally representative sample of children born between 1980 and 1984, interviewed between 1997 and present.
  - □ Substance use: alcohol, marijuana, cigarettes, and hard drugs.
  - Delinquent behaviors: attack somebody, steal, sell drugs, belong to a gang.
  - Parenting styles: authoritative, authoritarian, permissive, uninvolved.
  - □ Attitudes toward children: praise, criticize, help or blame children.
  - Environment: peers and characteristics of residence.
  - Exact date of birth for resident parents, allowing link to lottery numbers.

#### **Summary Statistics**

- N=8,984 respondents in the NLSY97.
- $\sim$  N=5,958 report information on the father.

N=2,029 fathers born between 1944 and 1952, with 1,464 born in the US.

	Non-Draft-Eligible	Draft-Eligible			
Consumed by Age	18				
Alcohol	80%	79%			
Cigarette	60%	61%			
Marijuana	41%	46%			
Hard Drugs	12%	15%			
Age of Initiation					
Alcohol	15.2	15.2			
Cigarette	15.2	14.8			
Marijuana	17.3	16.6			
Hard Drugs	18.1	17.8			
Delinquent Behavior by Age 18					
Engaged?	51%	58%			
Observations	757	707			

### Results: Ever Used Drugs by Age 18?

	Alcohol	Cigarette	Marijuana	Hard Drugs
Father Draft Eligible	-0.016	0.013	0.069**	0.037*
	(0.025)	(0.026)	(0.030)	(0.020)
Mean	0.795	0.603	0.436	0.133
Respondent Year of Birth FE	Y	Y	Y	Y
Father Year of Birth FE	Y	Y	Y	Y
Father Month of Birth FE	Y	Y	Y	Y
Father 1944-1952	Y	Y	Y	Y

<sup>\*\* 5%, \* 10%</sup> 

• Children of draft eligible fathers more likely to have consumed marijuana and hard drugs by 16 and 28 percent, respectively.

### Results: Age of Initiation

	Alcohol	Cigarette	Marijuana	Hard Drugs
Father Draft Eligible	-0.008	-0.561**	-1.031***	0.063
	(0.213)	(0.253)	(0.350)	(0.435)
Mean	15.17	15	16.93	17.93
Respondent Year of Birth FE	Y	Y	Y	Y
Father Year of Birth FE	Y	Y	Y	Y
Father Month of Birth FE	Y	Y	Y	Y
Father 1944-1952	Y	Y	Y	Y

<sup>\*\*\* 1%, \*\* 5%, \* 10%</sup> 

• Children of draft eligible fathers more likely to start consuming earlier cigarettes and marijuana, by 0.6 and 1 years respectively.

#### Results: Used in the Past Year?

	Alcohol	Cigarette	Marijuana	Hard Drugs
Father Draft Eligible	0.008	0.005	0.046**	0.017*
	(0.025)	(0.022)	(0.022)	(0.010)
Mean	0.583	0.383	0.247	0.0648
Respondent Year of Birth FE	Y	Y	Y	Y
Father Year of Birth FE	Y	Y	Y	Y
Father Month of Birth FE	Y	Y	Y	Y
Father 1944-1952	Y	Y	Y	Y

<sup>\*\*\* 1%, \*\* 5%, \* 10%</sup> 

• Children of draft eligible fathers more likely to have used marijuana and hard drugs in the past year.

## Results: Intensity of Use—Ln(Days in Past Month)

	Alcohol	Cigarette	Marijuana	Hard Drugs
Father Draft Eligible	0.025	0.070	0.091**	0.065*
	(0.031)	(0.051)	(0.038)	(0.035)
Mean	0.547	0.637	0.266	0.168
Respondent Year of Birth FE	Y	Y	Y	Y
Father Year of Birth FE	Y	Y	Y	Y
Father Month of Birth FE	Y	Y	Y	Y
Father 1944-1952	Y	Y	Y	Y

<sup>\*\*\* 1%, \*\* 5%, \* 10%</sup> 

• Children of draft eligible fathers more likely to consume more days marijuana and hard drugs in month prior to interview.

### Results: Ever Engage in Delinquency by Age 18?

Father Draft Eligible	0.067**	
	(0.031)	
Mean	0.544	
Respondent Year of Birth FE	Y	
Father Year of Birth FE	Y	
Father Month of Birth FE	Y	
Father 1944-1952	Y	

<sup>\*\*\* 1%, \*\* 5%, \* 10%</sup> 

- Dependent variable: whether respondent have attacked somebody, stolen, sold drugs, or belong to a gang by age 18.
- Children of draft eligible fathers are 6.7 pp. more likely to engage in delinquent behavior by age 18.

#### Summary of Results on Risky Behaviors

- Paternal draft eligibility affects risky health behaviors
  - □ Increases propensity to consume marijuana by age 18 by 6.9 pp. (mean 43%).
  - □ Reduces marijuana initiation age by 1 year (mean 16.9).
  - □ Reduces cigarette initiation age by 0.5 years (mean 15).
  - □ Increases time-varying measures of marijuana consumption, such as last year use and number of days marijuana was consumed in last month.
  - □ Increases propensity to commit crime by age 18 by 6.7 pp. (mean 54%).

#### **Alternative Specifications**

- Results hold to the following alternative specifications:
  - Limit sample to fathers born between 1948-1952 (cohort for which probability of induction conditional on being draft eligible is the highest and access to exemptions was more limited).
  - □ Introduction of father year-by-month fixed effect to account for randomization problems in 1969 lottery.
- Falsification test: use mothers' exact date of birth to determine draft eligibility.
  - Results become insignificant, suggesting findings are not driven by something unrelated that correlates with the exact date of birth of parents.

#### Results: Mechanisms

- Paternal draft eligibility affects potential mechanisms
  - □ Parenting styles are less likely to be authoritative (responsive and demanding) and more likely to be uninvolved.
  - □ Father less likely to help and more likely to cancel plans on child.
  - □ School peers more likely to engage in risky health behaviors (smoke and have sex).
  - Residence less likely to be perceived as safe by interviewer.
  - No apparent genetic differences.

## Conclusions. Why Should We Care? Implications for Current Environment

- Fathers' draft eligibility had unintended negative consequences on children's risky health behaviors.
- Important to measure true cost of policy for those affected.
- Current environment based on volunteering.
  - □ Results could be informative for countries that maintain a draft (e.g., Russia, China, Brazil, Denmark, Egypt).
  - □ Lottery system similar to Vietnam's expected to be resumed in times of national emergency (Selective Service System).
- Strength of results call for additional research.
  - □ Censur and Sabia's (2016) findings of increased domestic violence among current vets suggest our results may still hold.

Thank you!