The Effects of the Dependent Coverage Mandates on Fathers' Job Mobility and Compensation

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Introduction

Dependent Coverage Mandates

The mandates allow young adults to be covered through their parents' health insurance plans. These were enacted both at the state and federal level

- In 1995, state-level mandates were implemented in Utah and North Dakota
- Other states implemented the mandates in different years
- Mandates expanded the age limit to the maximum age of 23–26 depending on the state

Uninsured rates (1997 to 2015)
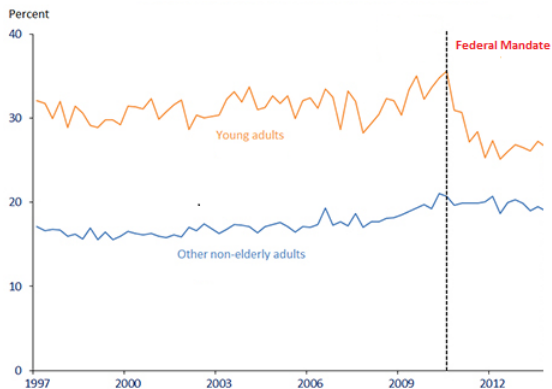
Source: National Health Interview Survey; CEA calculations.

- Young adults may not perceive a need for health insurance (Barkowski and McLaughlin, 2018)
- Employer-Provided Health Insurance (EPHI) would not always be a viable option

Mandates
Year of First Implementation and Eligible Child Age Limit

state

States	Year	Max age	States	Year	Max age
CO†	2006	24	MO†	2008	24
CT†	2009	25	MT†	2008	24
DE†	2008	23	NH†	2007	25
FL*†	2008	24	NM†	2003	24
ID*†	2008	24	ND*†	1995	25
IL†	2010	25	RI*†	2007	24
IN	2008	23	SD*†	2005	23
KY†	2008	25	UT†	1995	25
LA*†	2009	23	VA	2007	24
ME†	2007	24	WA†	2009	24
MD†	2008	24	WV†	2007	24
MA*	2007	25			
MN†	2008	24			

* indicates states with **student status** and † shows states required to be **unmarried**

- Implemented in September 2010
- Eligibility: until the age of 26 across all states

- Did the mandates increase fathers' dependence on their employment to secure EPHI ?
  - Fathers with EPHI
    - Jobs with EPHI become more attractive, so some fathers would stay in their current jobs even if they were dissatisfied otherwise
    - **Job-lock (decrease in job mobility)**
  - Fathers without EPHI (including unemployed workers)
    - The opportunity cost of staying in their current employment status would increase
    - **Job-push (increase in job mobility)**
- Did any corresponding compensation reduction occur among fathers with EPHI?
  - Fathers with EPHI (excluding those who switched employers)
    - Employers offset the health-care cost by lowering all types of compensation [e.g., wage or retirement benefits] (Anand, 2017)

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    - Fathers with EPHI
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        - **Job-lock (decrease in job mobility)**
    - Fathers without EPHI (including unemployed workers)
        - The opportunity cost of staying in their current employment status would increase
        - **Job-push (increase in job mobility)**
        - Feel pressured to move to a job with EPHI
- Did any corresponding compensation reduction occur among fathers with EPHI?
    - Fathers with EPHI (excluding those who switched employers)
        - Employers offset the health-care cost by lowering all types of compensation [e.g., wage or retirement benefits] (Anand, 2017)

Research Questions
Job-Lock, Job-Push and the Reduction in Compensation

- Did the mandates increase fathers' dependence on their employment to secure employer-provided health insurance (EPHI)?
  - Fathers with EPHI
    - Jobs with EPHI become more attractive, so some fathers would stay in their current jobs even if they were dissatisfied otherwise
    - **Job-lock (decrease in job mobility)**
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Roadmap

Economics of Job-Lock
A model of EPHI and Labor Mobility (Gruber, 2000)

*Non-portability of benefit causes workers locked into their present jobs

- $U_{ij} = U(W_{ij}, H_{ij})$
  - i (individual), j (firm)
  - W : wage
  - H : an indicator for EPHI through one's job
  - Not all firms can provide EPHI
  - Market-wide compensating wage differential: ΔW

Job-lock

Now holding job A with EPHI, but would be more productive on job B without EPHI: $W_{iB} \geq W_{iA}$
$\longrightarrow U(W_{iA} - \Delta W, 1) - U(W_{iB}, 0) \geq 0$
Worker will **not** switch a job

- Other effects: less entrepreneurship

Literature Review
Effect of The Dependent Coverage Mandates on Young Adults

- Below is all about young adult
  - Health Insurance
    - **State-level mandates**: Burgdorf (2014), Monheit et al. (2011)
    - **Federal mandate**: Sommers and Kronick (2011), Cantor et al. (2012) and Antwi et al. (2013)
    - 4.5 million young adults were additionally covered (Furman and Fiedler, 2015)
  - Hours of Work
    - Antwi et al. (2013) and Colman and Dave (2017) suggest that the federal mandate has **reduced hours of work**
  - Financial Distress
    - Blascak and Mikhed (2018) show that the federal mandate **lowered the past due debt and had fewer delinquencies**
  - Medical care (In-patient care and primary care)
    - Wong (2015) and Antwi et al. (2015) find evidence that the federal mandate increased the **inpatient, mental illness and primary care visits**
  - Marriage rates
    - Barkowski and McLaughlin (2018)

Literature Review
Effect of Mandates on Demographic of Interest

- Dependent coverage mandates
  - Biehl et al. (2018): solely use federal mandate and only consider parents' retirement decisions
  - Goda et al. (2016): study incidence of the mandates

- Other mandates
  - **SCHIP** increased parents' voluntary job separation rates (Bansak and Rapahel, 2008)
  - **ACA prohibition of the preexisting condition exclusions** for children increased job mobility among fathers with disabled children (Chatterji et al., 2016)
  - **Medicaid eligibility** increased job separation among the working fathers (Barkowski, 2017)

Why Fathers?

- Fathers have a more predictable labor force pattern and persistent attachment (Blundell and MaCurdy, 1999)

- Parents value the jobs with EPHI as they provide a safety net for their adult child's career progression

- Health insurance enrollment decisions in the U.S. are often made at the immediate family level

    - Cost-effective decision for fathers

- Prime earning stage in one's life

Roadmap

Survey of Income and Program Participation (SIPP)

- Nationally representative sample

- Household income, insurance status, and participation in welfare benefits

  - Baseline demographic characteristics

  - Two jobs in a given wave

  - Year when a respondent's last child was born (SIPP wave 2 topical module question)

    - Sample: Fathers with children aged 19–29

- Households interviewed every four months (wave)

- 2004 and 2008 SIPP panels

  - Spans from January 2004 to December 2012

- Per person per wave (interview)

- **Detailed Earnings Records (DER)**
    - Linked to SIPP based on respondents' **Social Security Numbers**
    - Accurate measures of annual earnings and total monetary compensation from W-2s
        - Data is not top-coded

- **Business Registrar (BR)**
    - Linked to SIPP-DER based on **Employer Identification Numbers (EIN)**
    - Provides establishment information for U.S. businesses
        - Location, organization type, industry classification and operating data
    - Identify whether different employers share the same parent company
    - Firms have multiple EINs
        - Multiple locations
        - Payroll or tax purposes

Eligibility Criteria of Example States

- Depew (2015), Cantor et al. (2012a) and National Conference of State Legislatures (2010)

States	Pre-State Law		State Law			ACA Period (from 2010)	
	Elig.	Inelig.	**Year**	Elig.	Inelig.	Elig.	Inelig.
IN	.	19–29	**2008**	19–23	24–29	19–26	27–29
CO	.	19–29	**2006**	19–24	25–29	19–26	27–29
CT	.	19–29	**2009**	19–25	26–29	19–26	27–29
MI	.	19–29		.	19–29	19–26	27–29

Note: The numbers represent the age of children by state of residence and time period. IN, CO and CT are examples of states that had state-level mandates prior to the ACA.

Descriptive Statistics of Fathers

	Job-Lock		Job-Push	
	Alws. Inelig.	Ever Elig.	Alws. Inelig.	Ever Elig.
Elig.	-	.41	-	.45
Age	56.30	54.09	57.29	54.03
Below HS	.05	.04	.02	.04
HS grad.	.27	.26	.16	.25
Above HS	.69	.71	.81	.71
White	.81	.82	.83	.79
Black	.07	.07	.06	.07
Others	.11	.11	.10	.14
Public.	.21	.19	.05	.08
Vol. Sep. rates	.02	.02	.02	.02
N. of Ind. [1,000]	.55	2.00	.10	.45
N. of Obs [1,000]	3.70	11.00	.50	1.90
Ln(SIPP Earns.)	10.97	10.85	10.49	10.53
Ln(DER Earns.)	10.84	10.94	10.00	10.32
Ln(Tot. Comp.)	10.90	10.99	10.04	1.34
N. of Ind. [1,000]	.50	1.90	.10	.40
N. of Obs. [1,000]	3.50	10.50	.40	1.70

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N. of Ind. [1,000]	.50	1.90
N. of Obs. [1,000]	3.50	10.50

- Sample
  - Married fathers (aged 45–64) with their youngest children (aged 19–29)
  - Fathers who were employed with EPHI in the previous wave

Descriptive Statistics of Fathers

	Job-Push	
	Alws. Inelig.	Ever Elig.
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N. of Obs. [1,000]	.40	1.70

- Sample
  - Married fathers (aged 45–64) with their youngest children (aged 19–29)
  - Fathers who were either unemployed or employed without EPHI in the previous wave

Roadmap

The comparison between two groups of fathers within each state before and after the implementation of the mandates (**diff in diff**)

- Fathers with the youngest child whose ages are at or beneath the mandate thresholds

- Fathers with the youngest child whose ages are above the mandate thresholds

$$Y_{ijt} = \beta_0 + \beta_1 * Elig_{ijt} + \beta_2 * X_{ijt} + \beta_3 * time_t + \beta_4 * state_j + \epsilon_{ijt}$$

- i (individual), j (state) and t (time)

- Sample

    - Job-Lock: Working fathers with EPHI (previous wave) $\longrightarrow$ negative estimate of β_1

- Y_{ijt}: An indicator whether fathers voluntarily separated from their jobs within this wave

- $Elig_{ijt}$: A binary variable for eligible fathers determined by state of residence, year of interview and the age of the youngest child

- X_{ijt}: other controls

- $time_t$: time fixed effect

- $state_j$: state fixed effect

$$Y_{ijt} = \beta_0 + \beta_1 * Elig_{ijt} + \beta_2 * X_{ijt} + \beta_3 * time_t + \beta_4 * state_j + \epsilon_{ijt}$$

- i (individual), j (state) and t (time)

- Sample

  - Job-Push: Fathers who are unemployed or employed without EPHI (previous wave) $\longrightarrow$ positive estimate of β_1

- Y_{ijt}: An indicator whether fathers voluntarily left their jobs without EPHI or voluntarily changed their employment status from unemployed to employed within this wave

- $Elig_{ijt}$: A binary variable for eligible fathers determined by state of residence, year of interview and the age of the youngest child

- X_{ijt}: other controls, time and state fixed effects

- $time_t$: time fixed effect

- $state_j$: state fixed effect

Estimation Strategy
Job-Lock, Job-Push and Change in Compensation

$$Y_{ijt} = \beta_0 + \beta_1 * Elig_{ijt} + \beta_2 * X_{ijt} + \beta_3 * time_t + \beta_4 * state_j + \epsilon_{ijt}$$

- i (individual), j (state) and t (time)

- Sample

  - Change in Compensation: Employed with EPHI (previous wave) **and did not separate from their employers in the current wave** $\longrightarrow$ negative estimate of β_1

- Y_{ijt}: ln(Annual earnings) and ln(Total Monetary Compensation)

- $Elig_{ijt}$: A binary variable for eligible fathers determined by state of residence, year of interview and the age of the youngest child

- X_{ijt}: other controls, time and state fixed effects

- $time_t$: time fixed effect

- $state_j$: state fixed effect

Roadmap

The Effects of Eligibility on Voluntary Job Separation Rates
Main Results (Job-Lock)

LPM or Logit   insurance takeup

	[1]	[2]
	Voluntary Job Separation	
Eligible	-.007**	-.007**
	(.003)	(.003)
Covariates	Y	Y
State Differential-Time Trends		Y
N. of Individuals[1,000]	2.5	2.5
N. of Observations[1,000]	14.5	14.5
Dependent variable means		
Ever eligible, before Mandate	.020	.017

Table 1: Standard errors clustered at the state level * p <0.10, ** p<0.05, *** p< 0.01

Result: Job-lock has increased for those fathers with eligible adult children

Robustness Checks
Job-Lock

- Child's age range

    - Expand the sample by including working fathers with children (19–33)

- Short time periods

    - Expand the time period with the 2001 SIPP

- Unclear implementation dates for state-level mandates (Goda et al., 2016)

    - Exclude fathers from these five states (i.e., GA, NV, PA, SC and WY)

- Some states (i.e., FL, ID, LA, MA, ND, RI and SD) required student status

    - Treat those states as if they did **not** have mandates

Robustness Checks

Job-Lock

	[1]	[2]	[3]	[4]
	Voluntary Job Separation			
Eligible	-.007**	-.006**	-.008**	-.006
	(.003)	(.003)	(.004)	(.004)
Youngest Child Aged 19-33	Y			
Including 2001 SIPP		Y		
Excluding Five States			Y	
Treating States with Student-Status as Non-mandated				Y
N. of Individuals [1,000]	2.4	3.6	2.4	2.5
N. of Observations [1,000]	18.0	21.0	13.5	14.5

Table 2: All regressions include a vector of fathers' characteristics, state and time fixed effects and state differential time trends * p <0.10, ** p<0.05, *** p< 0.01

Voluntary Job Separation	[1] Higher Educ. (college ↑)	[2] Lower Educ. (high school ↓)
Eligible	-.009* (.005)	-.002 (.005)
N. of Individuals [1,000]	1.7	0.8
N. of Observations [1,000]	10.0	4.4

Table 3: All regressions include a vector of fathers' characteristics, state and time fixed effects and state differential time trends * p <0.10, ** p<0.05, *** p< 0.01.

Result: Job-lock has increased more for those eligible working fathers with higher education

Assumptions
Job-Lock

- Parallel trends assumptions (In the absence of treatment, the difference between the treatment and control group should be constant over time)

    - Examining pre-trends

- No contemporaneous changes

    - Falsification Tests

Parallel trends assumptions

Job-Lock

Event History Analysis
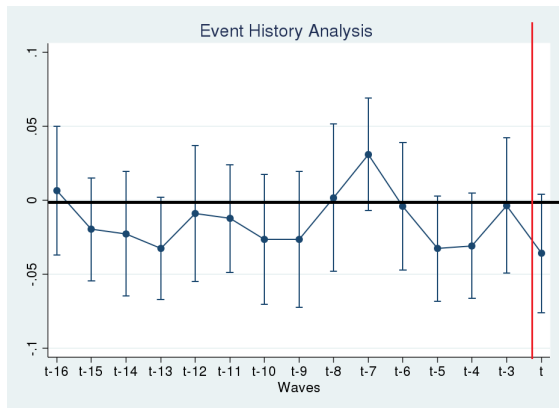
- t: When the state or federal mandate was implemented (varies by state)

- $t-1$: Baseline wave

- $t-2$: Suppressed (less than five individuals voluntarily separated from their employers)

	Table1	[1]	[2]	[3]
	19–29	8–18	30–40	27–37
Eligible	-.007**	.003	-.002	.006
	(.003)	(.005)	(.007)	(.008)
N. of Ind. [1,000]	2.5	1.6	1.0	1.1
N. of Obs. [1,000]	14.5	12.5	7.7	9.4

Table 4: All regressions include a vector of fathers' characteristics, state and time fixed effects and state differential time trends * p <0.10, ** p<0.05, *** p< 0.01

1. Placebo eligibility (1): consider each mandate's eligibility by subtracting 11

	Table1	[1]	[2]	[3]
	19–29	8–18	30–40	27–37
Eligible	-.007**	.003	-.002	.006
	(.003)	(.005)	(.007)	(.008)
N. of Ind. [1,000]	2.5	1.6	1.0	1.1
N. of Obs. [1,000]	14.5	12.5	7.7	9.4

Table 4: All regressions include a vector of fathers' characteristics, state and time fixed effects and state differential time trends * p <0.10, ** p<0.05, *** p< 0.01

1. Placebo eligibility (1): consider each mandate's eligibility by subtracting 11

2. Placebo eligibility (2): consider each mandate's eligibility by adding 11

The Effects of Eligibility on Voluntary Job Separation
Job-Push

	[1]	[2]
	Voluntary Job Separation	
Eligible	-.006	.009
	(.005)	(.008)
Covariates	Y	Y
State Differential Time Trends		Y
N. of Individuals [1,000]	0.55	0.55
N. of Observations [1,000]	2.4	2.4

Table 5: All regressions include a vector of fathers' characteristics, state and time fixed effects and state differential time trends * p <0.10, ** p<0.05, *** p< 0.01

Result: No evidence of job-push for fathers

Mandated Benefits
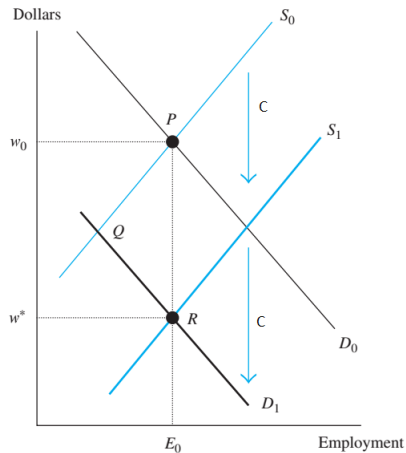
- Workers value the mandated benefit at the same rate (C) that it costs to provide this mandate (C)
- Initial eq.: P ($wage = w_0$)
  - The demand and supply curves both shift down by the same amount (C)
- New eq.: R ($wage = w_0 - c = w*$)

The Effects of Eligibility on Annual Earnings and Total Monetary Compensation

Other specifications   falsification

	[1]	[2]	[3]
	SIPP-DER-BR		SIPP alone
	ln(Earnings)	ln(Tot Comp.)	ln(Earnings)
Eligible	-.104*	-.117*	.001
	(.062)	(.062)	(.041)
N. of Individuals [1,000]	2.4	2.4	2.4
N. of Observations [1,000]	13.5	13.5	18.5

Table 6: All regressions include a vector of fathers' characteristics, state and time fixed effects and state differential time trends * p <0.10, ** p<0.05, *** p< 0.01

The Effects of Eligibility on Annual Earnings and Total Monetary Compensation

Other specifications   falsification

	[1]	[2]	[3]
	SIPP-DER-BR		SIPP alone
	ln(Earnings)	ln(Tot Comp.)	ln(Earnings)
Eligible	-.104*	-.117*	.001
	(.062)	(.062)	(.041)
N. of Individuals [1,000]	2.4	2.4	2.4
N. of Observations [1,000]	13.5	13.5	18.5

Table 7: All regressions include a vector of fathers' characteristics, state and time fixed effects and state differential time trends * p <0.10, ** p<0.05, *** p< 0.01

1. Responses from fathers who have zero reported earnings were automatically omitted

   - Ex. private households, construction, agriculture and informal occupations

Roadmap

Conclusions

- I explored whether fathers' dependence on employment would increase

  - Eligible working fathers aged 45–64 with EPHI experienced a 37 percent decrease in the rate of voluntary job separation due to the mandates

- Fathers are willing to adjust their labor market decisions to secure EPHI for their children

Roadmap

Other specification (Main Result)

| | [1] | [2] | [3] | [4] |
	Linear		Logit	
Eligible	-.007	-.004	-.008*	-.006*
	[.004]	[.003]	[.004]	[.003]
Weighted	Y		Y	
N. Inds. [1,000]	2.5	2.5	2.5	2.5
N. Obs. [1,000]	14.5	14.5	14.5	14.5
Dependent variable means				
Ever Eligible, before Mandate	.020	.019	.020	.019

The Effects of Eligibility on Annual Earnings and Total Monetary Compensation

Other specifications

Other specifications   ▸ Back

	[1]	[2]	[3]	[4]	[5]	[6]
	SIPP-DER-BR				Public SIPP	
	Linear		Tobit		Linear	Tobit
	ln(E+1)	ln(T+1)	ln(E+1)	ln(T+1)	ln(E+1)	ln(E+1)
Eligible	-.208†	-.222†	-.213†	-.227†	-.022	-.022
	(.123)	(.126)	(.126)	(.129)	(.047)	(.047)
N. Inds. [1,000]	2.5	2.5	2.5	2.5	2.4	2.4
N. Obs. [1,000]	14.0	14.0	14.0	14.0	19.0	19.0

The Effects of Eligibility on Annual Earnings and Total Monetary Compensation

	[1]	[2]	[3]	[4]	[5]	[6]
	Linear		Linear		Tobit	
	ln(E)	ln(T)	ln(E+1)	ln(T+1)	ln(E+1)	ln(T+1)
Eligible	-.109	-.123	-.438	-.451	-.501	-.515
	[.243]	[.248]	[.562]	[.565]	[.630]	[.633]
N. Inds. [1,000]	0.45	0.45	0.55	0.55	0.55	0.55
N. Obs [1,000]	2.1	2.1	2.4	2.4	2.4	2.4

The Effect of Eligibility on Working Fathers' Health Insurance Coverage Take-up Decisions For Young Adult Dependents

	[1]	[2]
Eligible	.021**	.023**
	[.011]	[.011]
Covariates	Y	Y
State Differential Time Trends		Y
N. of Individuals [1,000]	2.5	2.5
N. of Observations [1,000]	14.5	14.5
Dependent variable means		
Ever eligible, before Mandate	.069	.069