Women and Asylums

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February 27, 2026

INTRODUCTION

- By the late nineteenth century, England and Wales operated one of the world's largest public asylum systems (Scull,1993; Porter, 1987).
- Women made up a large share of patients.
- How did so many women end up in the asylum, and how did the socioeconomic conditions they faced contribute to this pattern?
- Did changes in legal and economic institutions—especially the extension of married women's property rights—alter this gendered pattern of confinement?

LUNACY

- *Lunacy* as defined in the Oxford English Dictionary:

  The condition of being a lunatic; intermittent insanity once believed to be influenced by the phases of the moon; now generally applied to any form of insanity (usually excluding idiocy). In legal terms, it refers to mental unsoundness that affects civil rights or transactions. It can also denote an episode or attack of such insanity.

- Moral causes of insanity include:

  "fear, grief, reverses of fortune, speculation, domestic trouble, pride, ambition ... religious fanaticism" (Smith, 2006).

The Rise of Public Asylums in Nineteenth-Century England

- The nineteenth century witnessed an unprecedented expansion of mental institutions across England and Wales.
- The 1808 County Asylums Act authorized counties to build public asylums, marking the state's first major intervention in the welfare of the insane.
- By the mid-1840s, about twenty county asylums had been established.
- The 1845 County and Borough Lunatic Asylums Act made such provision *mandatory*, creating a comprehensive national asylum system.
- By law, all individuals deemed "*dangerous to themselves or others*" were to be admitted.

Inside a Late–19th-Century Asylum Ward



Figure: Ward interior at Sunnyside Royal Hospital (formerly the Montrose Lunatic Asylum), Montrose, Scotland.

Source: Wighton Family genealogy essay on "Sunnyside Lunatic Asylum"; see also the University of Dundee "Sunny Days" exhibition for background.

Why We Observe "Causes of Lunacy" in the Registers

- Growing institutional provision. As county asylums expanded, admissions became a routine administrative event recorded in standardized registers (Scull, 1979; Porter, 2002).
- Local finance mattered. Poor Law and county budgeting made admissions a monitored margin, strengthening incentives to document who entered and on what stated grounds (Bartlett, 1999; Scull, 1993).
- What this paper uses. I use the stated reason at entry to classify recorded circumstances around admission.

Previous Work on Mental Asylums in Adjacent Disciplines

- History of Medicine (Wright, 1997)
- History of Psychiatry (Scull, 1993; Porter, 2002)
- History of Ideas (Ossa-Richardson, 2013)
- Philosophy & Social Theory (Foucault, 1961; Scull, 1989)
- Social History (Walton, 1979; Luckin, 1983; Adair, Melling & Forsythe, 1997)
- Legal History (Jones, 1998; Eigen, 1995)
- Institutional History (Scull, 1979; Bartlett, 1999)

Related Work in Economics and Economic History

- Disability and historical measurement. Costa (1995, 1998).
- Mental health in historical settings. Biasi, Dahl, and Moser (forthcoming).
- Women's rights, intra-household power, and legal reform. Doepke and Tertilt (2009); Fernández (2014).
- Domestic violence and intra-household incentives. Stevenson and Wolfers (2006); Aizer (2010); Sanin (2025); Adams, Huttunen, Nix, and Zhang (2024).

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Data Sources

- Population Census Microdata (1851–1911):
  - Individual-level census records.
  - From 1881 onward: dedicated flag for "lunatic" status.
- Admission Registers (1846–1921):
  - Over 800,000 admissions to asylums across the UK.
  - Includes sex, name, date of admission, date of discharge/death, and institution; no causes. ▸ Discharge outcomes ▸ Length of stay
- Commission Reports:
  - Annual tabulations of stated causes of confinement by sex and institution.
  - Transcribed from scanned facsimiles and aggregated to county–year–sex level.

Asylum Opening

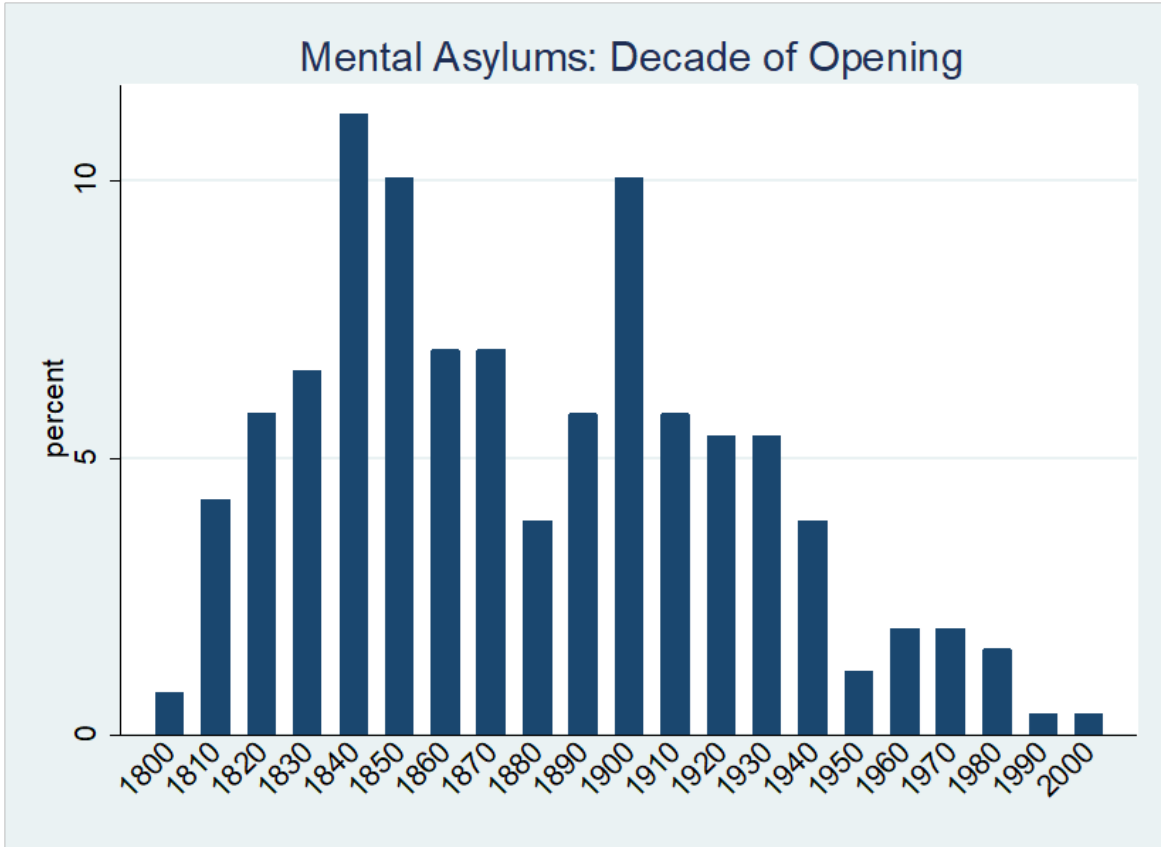


Figure: Annual Number of Asylums Opened in England and Wales

Note: Raw count of new asylum institutions opening each year, based on compiled historical records. This reflects the expanding infrastructure of mental health care across counties.

County-Level Correlates of Asylum Admission Rate (1851–1911)

Economic characteristics	
Per capita income	0.508***
Middle class (share)	0.410***
Female domestics (share)	0.419***
Civil service (share)	0.260*
Manufacturing (share)	-0.217
Agriculture (share)	0.047
Employment rate	0.167
Social and demographic characteristics	
Population growth	0.338**
Population density	-0.063
City size	-0.097
Urban population (share)	0.006
Birth rate	-0.171
Infant mortality	-0.162
Marriage rate	-0.133
Population aged 65+ (share)	0.053

Note: Pearson correlations with the asylum admission rate.

Roadmap

Introduction and Motivation

Historical Context & Prior Work

Data & Descriptives

Individual-Level Correlates

Causes of Admission

Natural Experiment — MWPA (1882)

Linking Patients to the Census: Data Construction

- Asylum registers record name, sex, date of admission, date of death/discharge, and institution; causes of admission are not recorded.
- Each patient is linked to the census taken immediately before the first recorded admission.
- Matching uses name, sex, and location.
- The linked census row serves as the pre-admission snapshot of characteristics.
- Preliminary analysis uses a 20% sample of national census microdata.

Linkage Challenges and Bias Checks

- Linking women is inherently more difficult due to name changes upon marriage.
- By matching to the census *immediately before* admission, the approach minimizes but cannot fully eliminate missed links caused by intervening marriage.
- Linkage rates are higher for men and unmarried women.
- Ongoing work tests sensitivity to alternative linkage windows and looser matching criteria.

Outcome and Predictors (Measured Pre-Admission)

- Outcome: indicator for admission in the immediate post-census window; linked eventual patients outside the window form the comparison group.
- Predictors measured at the prior census (20% sample):
  - Gender (female / male).
  - Age group (e.g., 10–19, 20–29, 30–39, . . .).
  - Marital status (single, married, separated/divorced, widowed).
  - Occupation group (e.g., agriculture, manufacturing, domestic service, textiles, other).
  - Group-quarters status (collective dwelling vs. private household).

Lunatic asylum admission (0/1): correlates	
	Log-odds
Sex (ref.=male)	
Female	0.350***
Age group (ref.=21–30)	
0–10	-0.597***
11–20	0.112
31–40	0.113
41–50	0.160**
51–60	0.106
61–70	-0.134
71–80	-0.0118
81–90	-0.388**
91+	-0.427*
Marital status (ref.=single/never married)	
Married/in union	0.218***
Separated/divorced/spouse absent	— omitted —
Widowed	0.0866
Unknown/missing	0.404

Lunatic asylum admission (0/1): correlates	
	Log-odds
Occupation (ref.= Unclassifiable / Armed forces)	
Legislators, senior officials, managers	0.235
Professionals	-0.315
Technicians & associate professionals	0.130
Clerks & sales workers	0.156
Service workers	0.156
Agriculture & fishery	-0.233
Craft & production	-0.130
Transport & communication	0.146
Laborers / unskilled	0.105
Non-occupational response	-0.354
No occupation / unknown	-0.0146
Group quarters (ref.=0)	
Group quarters = 1	0.860***
Observations	19,606,414

Focusing on the Female Factor

- In our preferred specification, the `female` coefficient is positive.
- Next, we assess how sensitive this estimate is to specification choice.
- We re-estimate the model with fewer and then progressively richer controls for age, marital status, occupation, household type, and location fixed effects, and trace the stability of the `female` coefficient.

SPECIFICATIONS

(1) Baseline	Female only.
(2) + Age	Adds age-group dummies.
(3) + Marital	Adds marital status (single/married/widowed/other).
(4) + Occupation	Adds occupation indicator (no-occupation flag).
(5) + Group quarters	Adds group-quarters indicator.
(6) + County FE	Adds county fixed effects.
(7) + Year FE	Adds census-year fixed effects (1881 baseline).
(8) + County × Year context	Adds county–year % female.
(9) + Parish × Year context	Replaces (8) with parish–year % female.

The female indicator is included in all models; each row builds on the previous.

Gender and Admission to Lunatic Asylums

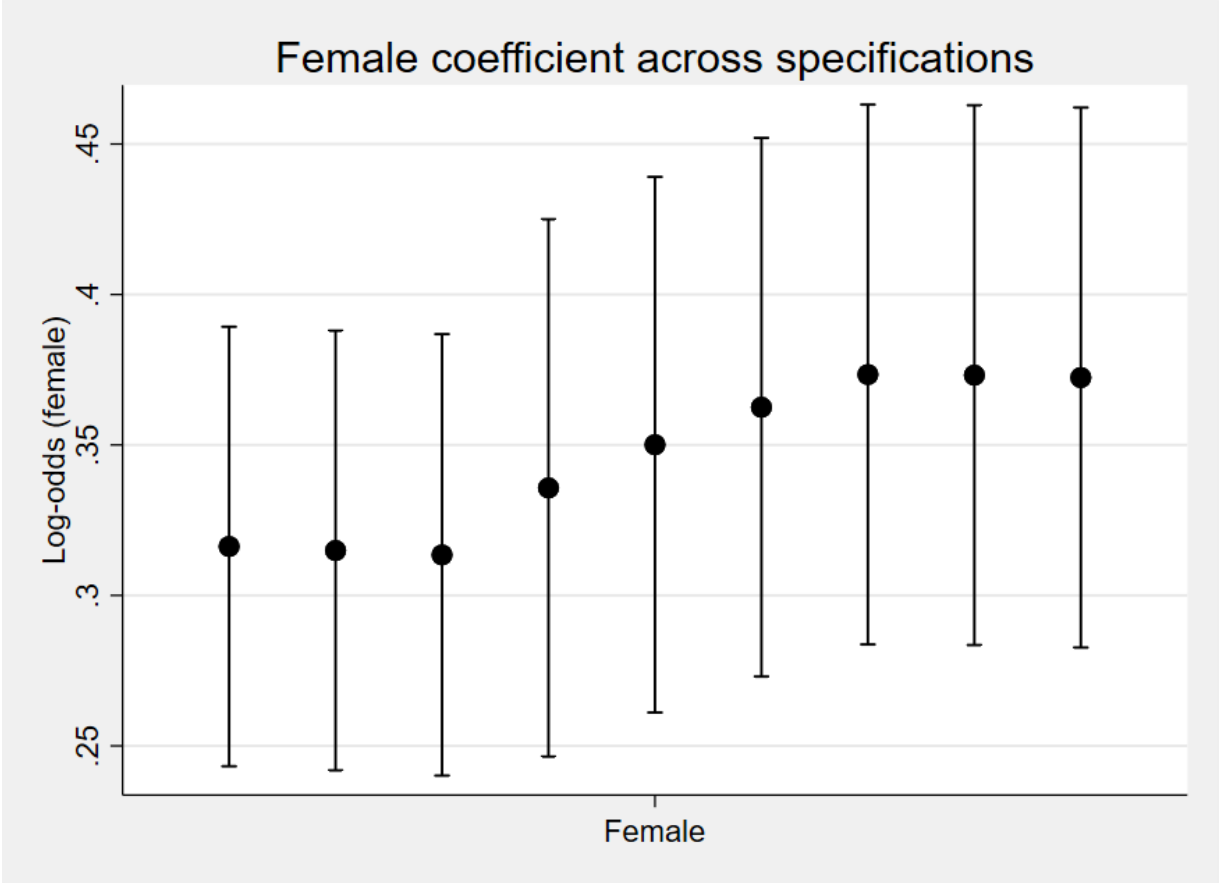


Figure: Female coefficient across model specifications

Note: Logit estimates of the `female` indicator with 90% CIs. Outcome: lunatic asylum admission (0/1). Points correspond to models (1)–(9) in the "Model Specifications" slide; controls accumulate across specifications. Vertical line at 0.

Using Census Data Directly as an Alternative Approach

- Because linkage between asylum registers and the census is incomplete—especially for women whose surnames change upon marriage—we also analyze census data directly.
- The censuses of 1881, 1891, and 1901 contain a standardized variable created by the data providers, flagging individuals enumerated as "lunatic."
- I use these repeated cross-sections to estimate the "female effect" on being recorded as "lunatic," without relying on linkage.

Using Census Data Directly as an Alternative Approach

- Limitations:
  - Coverage exists only for census years (1881, 1891 and 1901); no information between them.
  - Marital status and occupation are observed contemporaneously and may already reflect the onset of illness—making them unsuitable as predictors of incidence.
- The census-based analysis therefore focuses on immutable traits (e.g., age, sex) and group-level characteristics such as county- and parish-level sex ratios.

Table: Gender and Psychological Disability (1881–1901)

	Psychologically Disabled (0/1)					
	(1)	(2)	(3)	(4)	(5)	(6)
Female	0.110***	0.0931***	0.0844***	0.0885***	0.0916***	0.128***
	(0.0129)	(0.0129)	(0.0129)	(0.0130)	(0.0130)	(0.0131)
Age group FE		✓	✓	✓	✓	✓
County FE			✓	✓	✓	✓
Year FE				✓	✓	✓
County-year % female					✓	
Parish-year % female						✓
Mean of Dep. Var.	0.00123	0.00123	0.00123	0.00123	0.00123	0.00123
Observations	19618677	19606509	19573317	19573317	19573317	19573317

Notes Robust standard errors in parentheses. $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$. Each column reports a logistic regression of a psychological disability indicator on a female indicator with the listed controls. County fixed effects correspond to historical counties as in the census. Year fixed effects span 1881, 1891, and 1901. Columns (5) and (6) add female population shares at the county–year and parish–year levels, respectively.

Roadmap

Introduction and Motivation

Historical Context & Prior Work

Data & Descriptives

Individual-Level Correlates

Causes of Admission

Natural Experiment — MWPA (1882)

Why Were Women Recorded as "Insane"?

- Women were more likely to appear among asylum admissions; next I ask why they were recorded as cases of "lunacy."
- I use the stated reasons at admission for each new patient.
- Annual institutional and government reports list "causes of lunacy" for new admissions.
- Coverage spans much of the nineteenth century, with most reports from roughly 1850–1900.
- I treat these causes as recorded circumstances around admission (for example, childbirth, overwork, domestic conflict).

Data: Reported Causes of Admission

- Source: annual asylum and governmental reports that recorded "causes of lunacy" for new admissions.
- Reports were authored by a mix of actors: medical superintendents (principal writers), committees of visitors or trustees (signatories), and occasionally chaplains or matrons.
- When no individuals were listed, the asylum itself appeared as the author—reflecting institutional authorship conventions of the time.
- About 2,700 distinct cause labels were transcribed, standardized, and grouped into broader categories.
- Most reports were issued between roughly 1850 and 1900, forming a county–year–sex panel suitable for studying patterns of admission and gender composition.

Causes of Insanity in Admissions, 1860 (Nottingham)

TABLE II.

SHOWING THE ALLEGED CAUSES OF INSANITY IN THE ADMISSIONS, 1860.

PHYSICAL.	M.	F.	MORAL.	M.	F.
Age	0	1	Anxiety	1	0
Bodily Illness	1	0	Disappointment... ...	1	1
Chorea	1	0	Death of Relatives ...	1	1
Congenital	4	0	Death and Blindness of Children	0	1
Disease of Brain ...	6	1	Desertion by Husband...	0	1
Epilepsy	6	3	Elections, Excitement at	1	0
Former Attacks	3	3	Family Troubles ...	0	1
Hereditary	13	11	Grief	1	0
Intemperance	5	2	Jealousy	0	1
Physical Injury	2	1	Loss of Money	2	0
Scrofula	0	1	Poverty	2	2
Typhus	0	1	Religious Excitement ...	1	0
	41	24	Son leaving her... ...	0	1
Unknown	7	7		10	9
			Total	58	40

The hereditary disposition existed in 2 other cases.—1 Male, 1 Female.

Source: *Fourth Annual Report of the United Lunatic Asylum for the County and Borough of Nottingham, and the Forty-Ninth of the Original Institution* (1860). Nottingham United Lunatic Asylum at Snenton; Procter, B. W.; Nairne, Robert; Phillimore Stiff, William; Birkin, Richard.

From Raw Labels to 25 Cause Categories

- Annual reports list around 2,700 distinct "causes of lunacy": *grief*, *domestic trouble*, *childbirth*, *speculation*, *intemperance*, etc.
- Many labels are synonyms or close variants; taken literally they are too sparse to analyze.
- I clean the text (lower case, simple tokenization) and represent each label with TF–IDF features (unigrams and bigrams).
- Applying k-means clustering and comparing $k \in [20, 30]$, $k = 25$ offers a good balance of fit and interpretability.
- Clusters are named by their most frequent words: Domestic Troubles, Grief & Loss, Intemperance, Religious Excitement, Work Stress, etc.

Linking Cause Categories to Gender

- Question: which cause categories are disproportionately associated with women versus men?
- Unit of observation: county $\times$ sex $\times$ year. Regressors are counts in each of the 25 cause clusters.
- Method: LASSO logit predicting `female` (1=female, 0=male), with year fixed effects.
- Interpretation: selected clusters are those most predictive of a female (vs. male) admission, conditional on year effects.

Which Causes Are Most Gendered? LASSO–Logit Results

- The LASSO selects 12 of the 25 clusters as the strongest predictors of gender.
- Positive coefficients indicate female-skewed causes; negative coefficients indicate male-skewed causes.
- These estimates highlight a sharp gender divide in reported causes of admission and guide the more detailed breakdown that follows.

Which Causes Drive the Female Excess?

Female-skewed ($+\hat{\beta}$)		Male-skewed ($-\hat{\beta}$)	
+0.69	C18 Domestic troubles	–1.29	C24 Injury & accidents
+0.56	C17 Modes of life and respectability	–0.31	C6 Epilepsy / congenital
+0.48	C13 Grief & bereavement	–0.19	C14 Adverse circumstances
+0.25	C12 Family affliction	–0.15	C23 Mental anxiety
+0.16	C15 Disappointment (love / marriage)	–0.15	C16 Business / political excitement

Positive coefficients = clusters disproportionately linked to women's admissions. Female-linked causes center on household conflict, bereavement, and social respectability; male-linked on injury, neurological illness, and work–public sphere pressures.

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What the Causes of Admission Suggest

- Female-skewed causes concentrate in domestic and relational categories — domestic trouble, family affliction, grief or loss, disappointment in love or marriage.
- This pattern directs attention to conditions inside the household and to women's status at home, which is shaped by outside options.
- Next, I use the Married Women's Property Act of 1882 as a source of variation in women's fallback options, interacting it with pre-1839 cotton intensity (a proxy for local female earning power) to test this mechanism.

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Natural Experiment — MWPA (1882)

The Married Women's Property Act of 1882

- Gave married women independent control over earnings and income, rather than channeling them through the husband.
- Allowed women to own, buy, and sell property and to keep inheritances in their own name.
- Came into force on 1 January 1883 in England and Wales; Scotland did not get an equivalent reform until 1920.
- One instance of a wider shift in married women's property rights studied in the economics literature (Geddes and Lueck 2002; Fernández 2014; Doepke, Tertilt and Voena 2012).

Coverture in English Law — Before vs. After Marriage

Before marriage *feme sole*

- Full legal standing to contract and to sue or be sued.
- Hold and convey real and personal property.
- Make wills and manage assets independently.

After marriage *feme covert*

- Wife's legal identity merged with the husband's.
- Loss of independent capacity to contract, litigate, or alienate property.
- Cash earnings typically controlled by the husband.

Coverture and Constraints on Women



Note: Satirical cartoon depicting a woman bound by "law," "finance," "control," "artificial limitations," "prejudice," and "custom," facing a comfortable gentleman—an illustration of legal and social constraints under coverture.

PREDICTED IMPACT OF THE 1882 REFORM

- Within-marriage control over earnings and assets rises after MWPA (1882). A wife's income and property are her separate estate rather than automatically under the husband's control.
- Bargaining power increases when private control over resources expands $\Rightarrow$ weaker scope for coercion and appropriation; improved household allocation (Lundberg and Pollak, 1993).
- Implication tested in the data psychological disability declines after 1882, with larger declines in places where women's earning opportunities were greater pre-reform.

COTTON TEXTILE INDUSTRY — WHY IT MATTERS

- Cotton districts had high female participation and comparatively high factory wages (Burnette, 2008).
- Married women were also employed at scale in cotton districts (census and factory reports), so "female earning opportunities" capture wives as well as unmarried women (Higgs and Wilkinson, 2016).
- We use an exogenous source of variation in women's earning potential set before the reform the pre-reform distribution of cotton mills.
- $\ln(\text{Cotton}_{c,1839})$ comes from the detailed 1839 Parliamentary survey of textile mills and serves as the treatment-intensity measure. Placebos wool and Scotland provide checks.

EMPIRICAL DESIGN

- Outcome Y_{ict} indicator equals 1 if listed "lunatic" in the census $\in \{1881, 1891, 1901\}$.
- Treatment intensity $\ln \text{Cotton}_{c,1839}$ log number of cotton mills in 1839.

$$\begin{aligned} Y_{ict} = \beta &\left(\text{Female}_i \times \text{Post}_t \times \ln \text{Cotton}_{c,1839}\right) \\ &+ \delta_1 \left(\text{Female}_i \times \text{Post}_t\right) + \delta_2 \left(\text{Female}_i \times \ln \text{Cotton}_{c,1839}\right) \\ &+ \delta_3 \left(\text{Post}_t \times \ln \text{Cotton}_{c,1839}\right) + \mathbf{X}_{ic}\gamma + \mu_c + \lambda_t + \varepsilon_{ict}. \end{aligned}$$

- $\text{Post}_t = 1$ for 1891 and 1901; 0 for 1881. μ_c county FE; λ_t census-year FE.
- $\mathbf{X}_{ic}$ age groups and marital status. SEs clustered by county.
- Interpretation $\beta < 0$ larger post-1882 female decline in high-cotton counties, relative to men and to low-cotton counties.

IDENTIFICATION — WHAT IDENTIFIES β

- β on Female $\times$ Post_{1882} $\times$ $\ln \text{Cotton}_{1839}$ — the extra post-1882 decline for women in higher-cotton counties, beyond men and beyond low-cotton counties.

Identifying variation

- Sharp national timing of MWPA in 1882 (effective 1 Jan 1883).
- Cross-county differences in pre-1839 cotton intensity (set before the reform).
- Gender contrast within the same county and census year.

Key assumption

- Absent MWPA, the *female–male difference* in psychological disability would not differentially evolve with $\ln \text{Cotton}_{1839}$ after 1882.

PRE-REFORM VALIDATION: 1881 CROSS-SECTION

- Design: restrict to 1881 and test whether cotton intensity is differentially related to female psychological disability *before* the MWPA.
- Specification (1881 only): include Female, $\ln \text{Cotton}^{1839}$, and Female $\times \ln \text{Cotton}^{1839}$, with county FE (and age groups in spec 2).
- Prediction: no cotton-specific gender gap pre-1882 $\Rightarrow$ Female $\times \ln \text{Cotton}^{1839} \approx 0$.
- Result: the interaction is small and statistically indistinguishable from zero in both specs.

Pre-reform check: Female × Cotton in 1881

	Psychologically Disabled (0/1)	
	(1)	(2)
Female × lnCotton^{1839}	0.000690	0.00280
	(0.0121)	(0.0123)
Female	0.168***	0.140***
	(0.0428)	(0.0423)
lnCotton^{1839}	0.160***	0.162***
	(0.00699)	(0.00715)
Age Group	No	Yes
County FE	Yes	Yes
Observations	5,837,544	5,668,772

BASELINE RESULT, 1881–1901

	Dependent variable: Psychologically Disabled (0/1)			
	(1)	(2)	(3)	(4)
Female × Post_{1882} × ln Cotton_{1839}	-0.0481^{***}	-0.0481^{***}	-0.0482^{***}	-0.0473^{***}
	(0.0098)	(0.0098)	(0.0099)	(0.0101)
Female × Post_{1882}	0.0545	0.0546	0.0666^{*}	0.0484
	(0.0389)	(0.0389)	(0.0387)	(0.0395)
Post_{1882} × ln Cotton_{1839}	−0.0230	−0.0230	−0.0221	−0.0221
	(0.0644)	(0.0643)	(0.0645)	(0.0638)
Female × ln Cotton_{1839}	0.0140	0.0140	0.0163	0.0171^{*}
	(0.0098)	(0.0098)	(0.0101)	(0.0104)
Marital status controls	No	No	No	Yes
Age-group controls	No	No	Yes	Yes
Census-year fixed effects	No	Yes	Yes	Yes
County fixed effects	Yes	Yes	Yes	Yes
Observations	19,235,419	19,235,419	19,223,757	19,223,757

Note: All specifications include county fixed effects; columns (2)–(4) add census-year fixed effects; columns (3)–(4) add age-group controls; column (4) adds marital-status controls; sample is 20% of national census microdata. Robust standard errors clustered by county
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

BASELINE RESULT — SUMMARY

- Across all columns, the triple-difference term Female $\times$ Post_{1882} $\times$ $\ln \text{Cotton}_{1839}$ is negative, stable, and precisely estimated $\Rightarrow$ a larger post-1882 decline for women in high-cotton counties relative to men and to low-cotton counties.
- Preferred specification is Column (3): includes age-group controls and census-year fixed effects (with county fixed effects) while *excluding* marital status to avoid conditioning on a likely post-treatment/choice variable.
- Column (4) adds marital status, which may respond to the reform and is therefore a *bad control*; its similar point estimate is reassuring, but Column (3) is cleaner for causal interpretation.
- Sample is 20% of national census microdata; standard errors clustered by county.

Heterogeneity by age

- Effects are stronger among women aged 30 and over.
- For women under 30, the estimated effect is smaller and imprecise.
- Interpretation. Consistent with greater reform exposure once married on average; younger women are less exposed.

HETEROGENEITY BY AGE, 1881–1901

	Psychologically Disabled (0/1)	
	Age $\geq$ 30	Age $<$ 30
Female $\times$ Post$_{1882}$ $\times$ ln Cotton$_{1839}$	-0.0324**	0.0494
	(0.0150)	(0.0371)
Post$_{1882}$ $\times$ ln Cotton$_{1839}$	-0.0301	-0.0464
	(0.0649)	(0.0454)
	(0.0320)	(0.187)
Female $\times$ Post$_{1882}$	-0.0608	-0.219*
	(0.0617)	(0.128)
Female $\times$ ln Cotton$_{1839}$	0.0133	-0.0217
	(0.0129)	(0.0225)
Age-group controls	Yes	Yes
Census-year fixed effects	Yes	Yes
County fixed effects	Yes	Yes
Observations	7,425,936	8,580,161

Logit with county and census-year fixed effects; age-group controls included; standard errors clustered by county. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

MEN-ONLY ESTIMATES

	Psychologically Disabled (0/1)		
	(1)	(2)	(3)
$Post_{1882} \times \ln \text{Cotton}^{1839}$	-0.0410	-0.0411	-0.0404
	(0.0655)	(0.0654)	(0.0657)
$Post_{1882}$	-0.558***	-0.477***	-0.503***
	(0.135)	(0.155)	(0.156)
$\ln \text{Cotton}^{1839}$	0.148***	-0.0136	0.0674
	(0.0480)	(0.0112)	(0.197)
Age group	No	No	Yes
Census-year FE	No	Yes	Yes
County FE	Yes	Yes	Yes
Observations	9,170,331	9,170,331	9,164,940

Notes—Sample restricted to men. County and census-year fixed effects as indicated; standard errors clustered by county. Same specification family as the baseline triple-difference, but without the female interactions.

FALSIFICATION

- Scotland (separate legal regime) — expect no gender–cotton break.
- Wool industry (sector placebo) — bargaining channel shouldn't operate.

PLACEBO: SCOTLAND SAMPLE

- The 1882 Act applied to *England and Wales* only; Scotland did not adopt a broadly comparable reform until 1920.
- Prediction: within Scotland, there should be *no gender-differential* shift in the cotton effect around 1882.
- Check: a null Female $\times$ Post_{1882} $\times$ $\ln \text{Cotton}^{1839}$ supports that England Wales results are driven by the legal change rather than common shocks.

PLACEBO: SCOTLAND SAMPLE

	Psychologically Disabled (0/1)		
	(1)	(2)	(3)
Female × $Post_{1882}$ ×lnCotton^{1839}	-0.103	-0.103	-0.0963
	(0.0721)	(0.0720)	(0.0709)
Female × $Post_{1882}$	-0.103	-0.103	-0.0963
	(0.0721)	(0.0720)	(0.0709)
$Post_{1882}$ × lnCotton^{1839}	0.369***	0.368***	0.361***
	(0.0615)	(0.0612)	(0.0591)
Female × lnCotton^{1839}	0.0644	0.0645	0.0753
	(0.0586)	(0.0587)	(0.0570)
Age Group	No	No	Yes
Census Year FE	No	Yes	Yes
County FE	Yes	Yes	Yes
Observations	2079647	2079647	2076740

PLACEBO: WOOL

- Sector falsification: replace cotton intensity with pre-1839 *wool* intensity.
- Mechanism: the bargaining channel is cotton-specific (large-scale female wage work); it should not operate through wool.
- Prediction: no gender-specific post-1882 change with $\ln \text{Wool}^{1839}$—i.e., $\text{Female} \times \text{Post}_{1882} \times \ln \text{Wool}^{1839} \approx 0$.

PLACEBO: WOOL

	Psychologically Disabled (0/1)		
	(1)	(2)	(3)
Female $\times$ $Post_{1882}$ $\times$ lnWool^{1839}	-0.0179	-0.0179	-0.0179
	(0.0258)	(0.0258)	(0.0264)
Female $\times$ $Post_{1882}$	0.0245	0.0245	0.0254
	(0.0171)	(0.0171)	(0.0177)
$Post_{1882}$ $\times$ lnWool^{1839}	0.0365	0.0370	0.0359
	(0.0676)	(0.0678)	(0.0673)
Female $\times$ lnWool^{1839}	0.0245	0.0245	0.0254
	(0.0171)	(0.0171)	(0.0177)
Age Group	No	No	Yes
Census Year FE	No	Yes	Yes
County FE	Yes	Yes	Yes
Observations	19255131	19255131	19243449

Drivers of Psychological Distress in the Economics Literature

- Intimate partner violence and mental health. Devries et al. (2013); Oram, Khalifeh, and Howard (2017)
- Economic stress and adverse shocks. Ruhm (2000); Farré et al. (2015); Sullivan and von Wachter (2009).
- Income and material resources. Haushofer and Shapiro (2016, 2018).

Mechanism Check — Causes of Admission

- We focus on violence-related causes because they are the closest cause-of-admission categories to within-marriage coercion and harm.
- Prediction: if MWPA strengthened women's fallback options, violence-related admissions should fall after 1882, especially in places with higher pre-1882 female earning potential (proxied by $\ln \text{Cotton}_{1839}$) (Stevenson and Wolfers 2006; Aizer 2010).
- Outcome: $\ln(\text{admissions} + 1)$ tagged as *domestic violence* or *spousal abuse*.
- Sample: England & Wales, 1861–1899; women and men estimated separately.

Mechanism Check — Evidence from Causes of Admission

Context: Building on the MWPA results for psychological disability, we turn to cause-of-admission data.

Why these causes?

- We use *domestic violence* and *spousal abuse* admissions as direct indicators of women's suffering within the household—particularly when fallback options are weak.

Prediction

- The 1882 reform strengthened women's control over earnings and property, improving fallback options.
- Therefore, violence-related admissions should decline after 1882, especially in counties with higher pre-reform female earning potential (proxied by $\ln \text{Cotton}_{1839}$).

Mechanism Check: Violence-Related Admissions Fall

Outcome: Log female admissions (+1) citing *domestic violence* or *spousal abuse*.

$$\log(y_{ct} + 1) = \alpha + \beta_3 \, \text{Post}_{1882} \times \ln \text{Cotton}_c + \mu_c + \lambda_t + \varepsilon_{ct}$$

- Specification includes county fixed effects (μ_c) and decade fixed effects (λ_t).
- $\beta_3 < 0$ indicates larger post-1882 declines in higher-cotton counties.
- Outcomes shown on the dedicated results slide with full estimates.

	Cause of Admission: Domestic Violence / Spousal Abuse			
	(1) DV—Women	(2) DV—Men	(3) Spousal—Women	(4) Spousal—Men
$\text{Post}_{1882} \times \ln \text{Cotton}_{1839}$	-0.122^{**}	-0.0204	-0.114^{*}	-0.0442
	(0.0561)	(0.0325)	(0.0585)	(0.0317)
$\ln \text{Cotton}_{1839}$	0.0175	0.0888^{***}	-0.0708^{**}	-0.0153^{*}
	(0.0232)	(0.00860)	(0.0287)	(0.00828)
Post_{1882}	-0.420	-0.401	-0.451	-0.377
	(0.483)	(0.398)	(0.490)	(0.392)
County fixed effects	Yes	Yes	Yes	Yes
Decade fixed effects	Yes	Yes	Yes	Yes
Adjusted R^2	0.487	0.289	0.0408	0.0630
Observations	215	222	215	222

Notes: OLS with county and decade fixed effects; standard errors clustered at the county level (in parentheses). Columns (1) and (3) report estimates for women; columns (2) and (4) report estimates for men. "DV" denotes domestic violence; "Spousal" denotes spousal abuse. Post_{1882} indicates admissions after 1882. The interaction $\text{Post}_{1882} \times \ln \text{Cotton}_{1839}$ captures how the 1882 Act's impact varies with pre-1882 cotton intensity. England & Wales; core window 1861–1899 with exclusions where specified in the do-file. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Interpretation and Checks

- Interpretation — Bigger post-1882 declines in high-cotton counties align with stronger control over earnings/property $\Rightarrow$ fewer violence-related admissions for women.
- Men (comparison) — Domestic violence: small, n.s.; Spousal abuse: negative, n.s.
- Placebo (sector) — Replace $\ln \text{Cotton}_{1839}$ with wool intensity: coefficients near zero.
- Placebo (geography) — Scotland (no comparable reform until 1920): coefficients near zero under the same specification.

SUMMARY

- Reconstructed nineteenth-century England's patterns of psychological disability and asylum confinement.
- Found large gender gaps: women were overrepresented, often admitted for *domestic troubles*.
- Under coverture, lack of control over earnings and property increased women's vulnerability.
- After the 1882 Married Women's Property Act, greater control over income and assets coincided with sharper female declines in psychological disability and related admissions.

From Conditions to Confinement to Stereotype

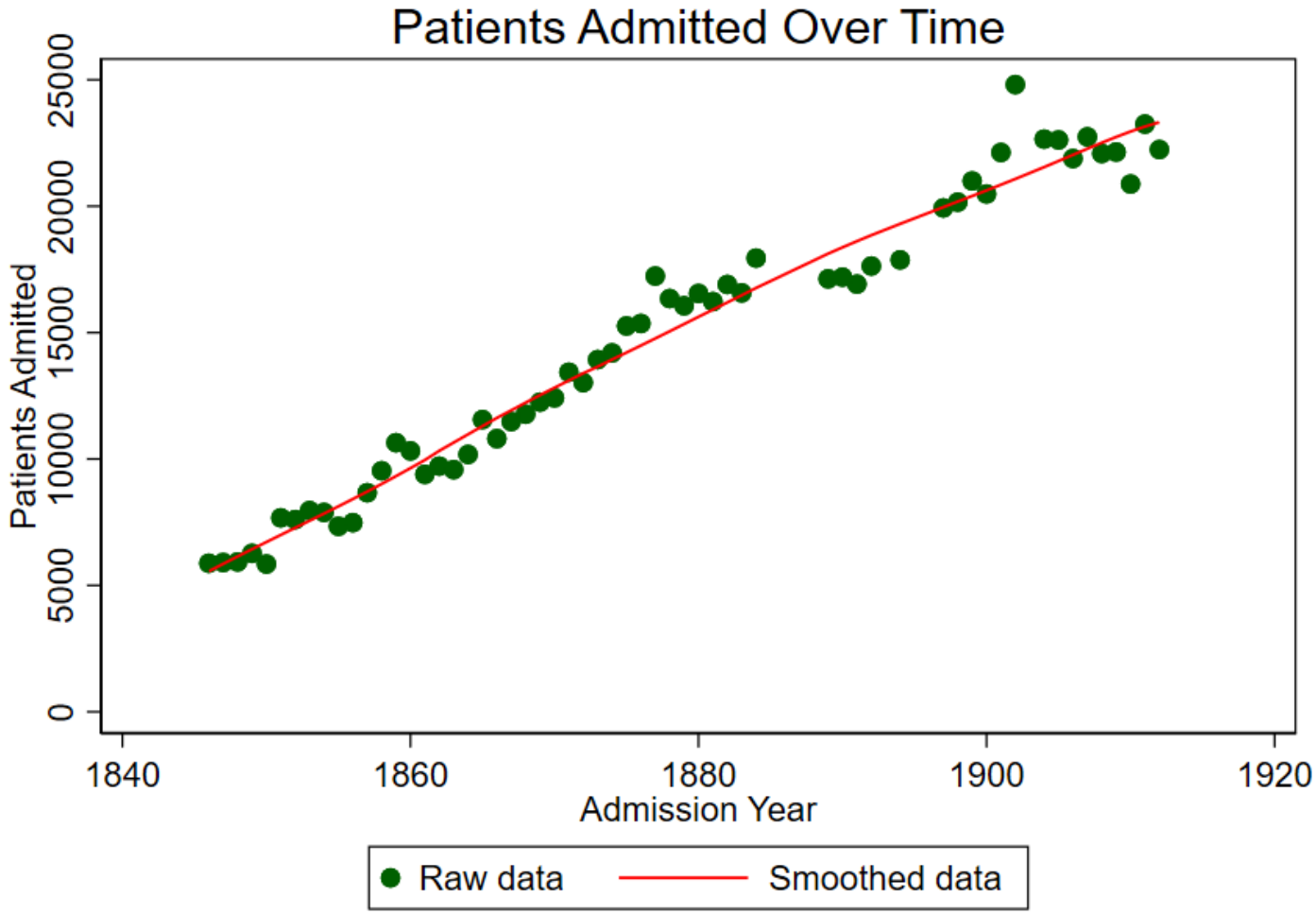
- The results point to a chain: economic and legal conditions shaped women's exposure to stress and conflict at home, which in turn raised their risk of asylum confinement.
- Once women made up a disproportionate share of asylum patients, these institutional patterns could be read as evidence that women were "naturally mad," giving the stereotype an apparent empirical basis.
- In future work, I plan to study both how this stereotype emerged from asylum records and public statistics and how it affected women's lives well beyond confinement and beyond the nineteenth century.

Asylum Locations



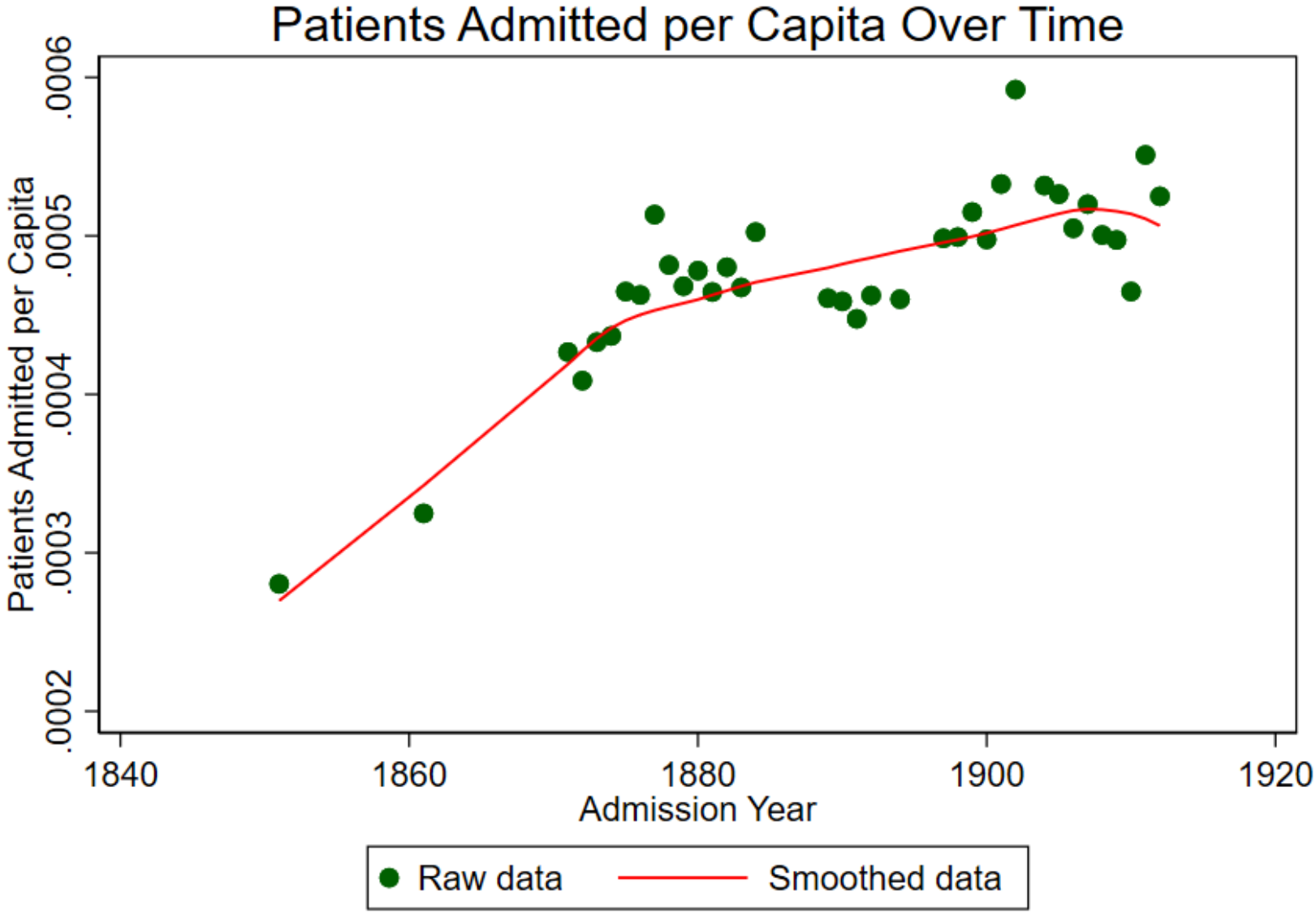
Return

Growth Trends in Asylum Committals

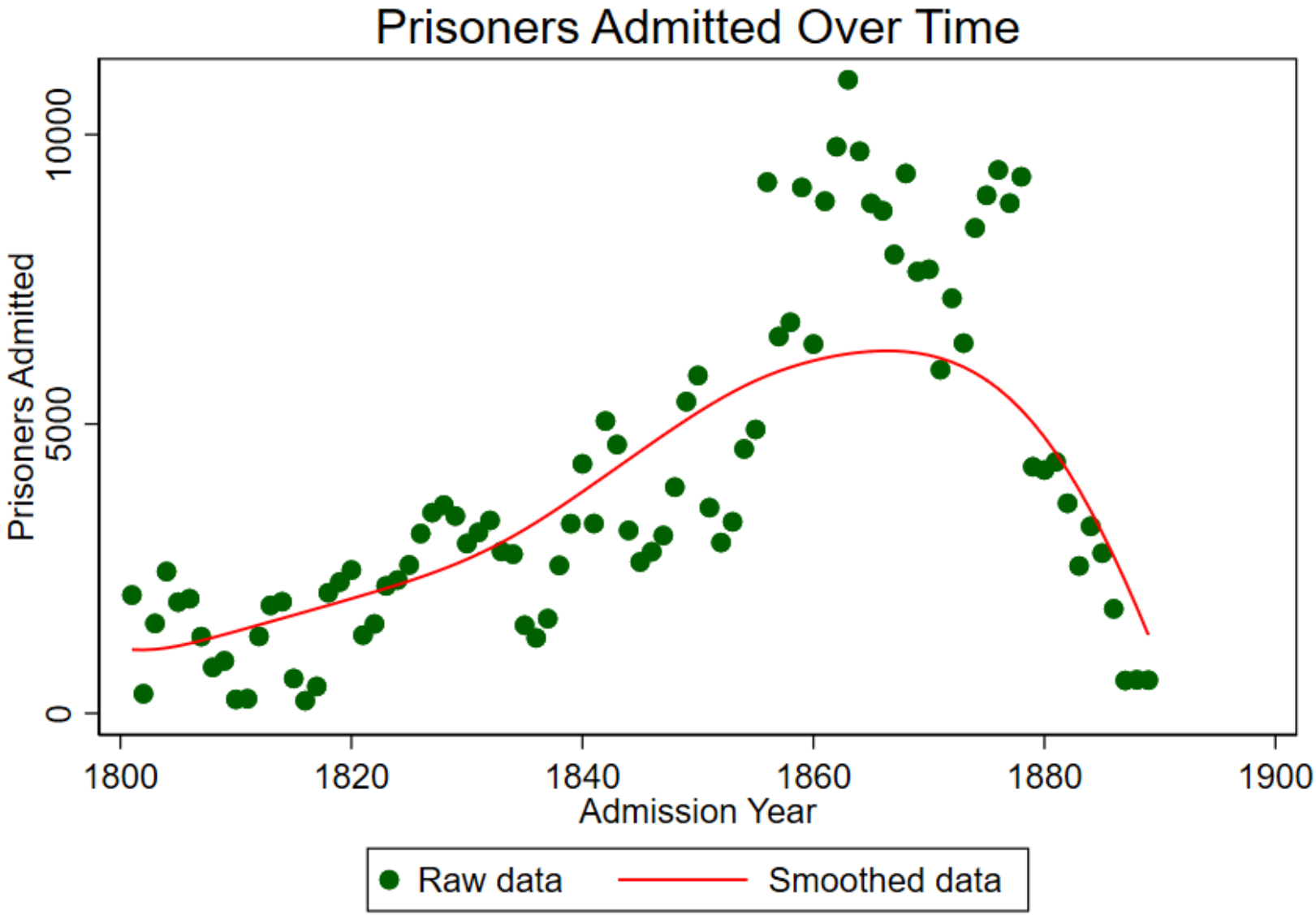


Note: Authors' calculations based on register data.

▸ Per Capita ▸ Prison Population


Patients Admitted per Capita Over Time
Patients Admitted per Capita
.0002
.0003
.0004
.0005
.0006
1840
1860
1880
1900
1920
Admission Year
Raw data
Smoothed data

Return


Prisoners Admitted Over Time
Prisoners Admitted
0
5000
10000
1800
1820
1840
1860
1880
1900
Admission Year
Raw data
Smoothed data

Return

Legal Procedures

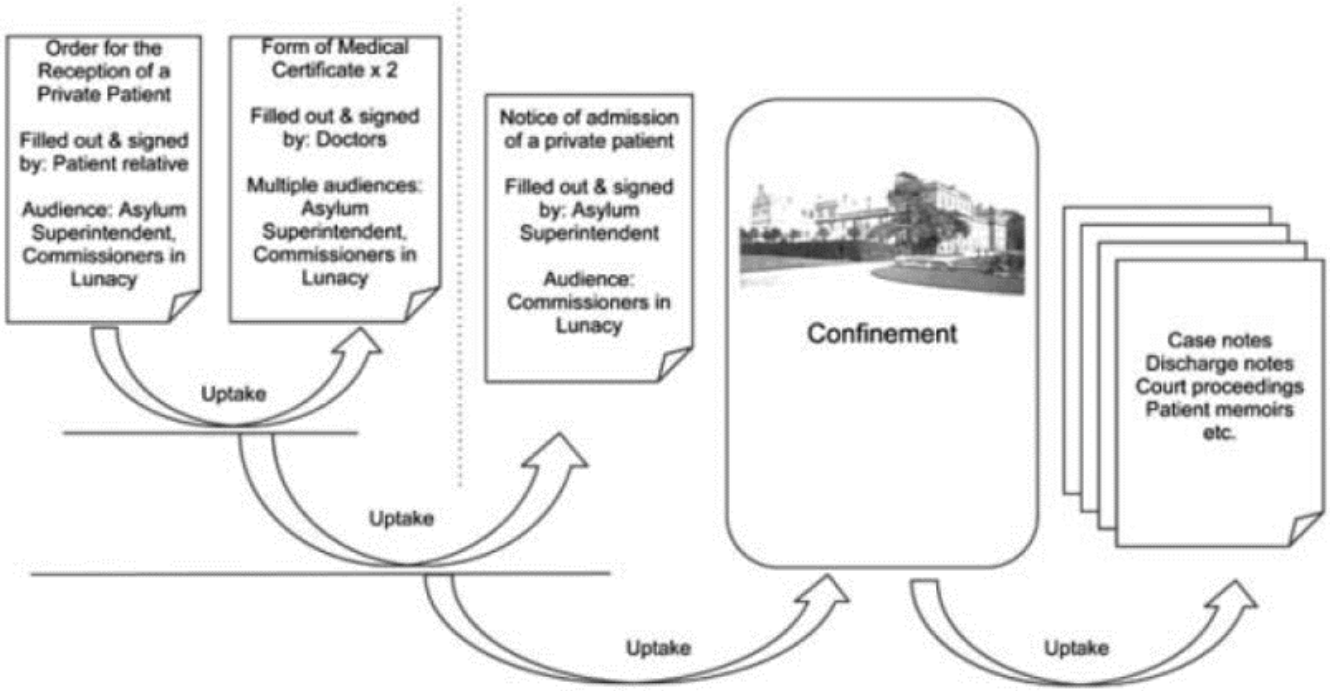


Figure: The chain of "uptakes" following the request ("Order") to confine a patient in the asylum. Source: Berkenkotter and Hanganu-Bresch (2011).

Discharge Outcomes in the Cleaned Subsample

Discharge outcome	N	Percent
Died	18,657	26.80
Not improved	13,662	19.62
Recovered	21,813	31.33
Relieved	14,098	20.25
Unknown	1,391	2.00
Total	69,621	100.00

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Length of Stay in the Cleaned Subsample

Length of stay	N	Percent
<1 month	2,924	8.63
1–3 months	4,989	14.72
3–6 months	5,753	16.98
6 months–1 year	5,885	17.37
1–2 years	4,656	13.74
2–5 years	4,310	12.72
>5 years	5,368	15.84
Total	33,885	100.00

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