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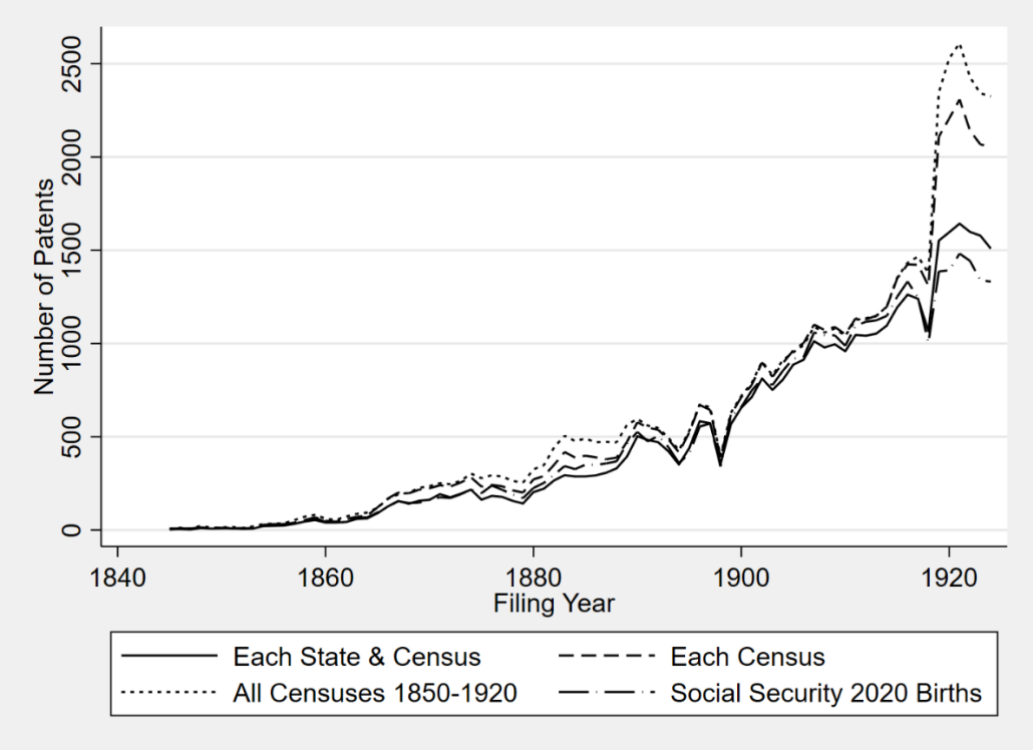
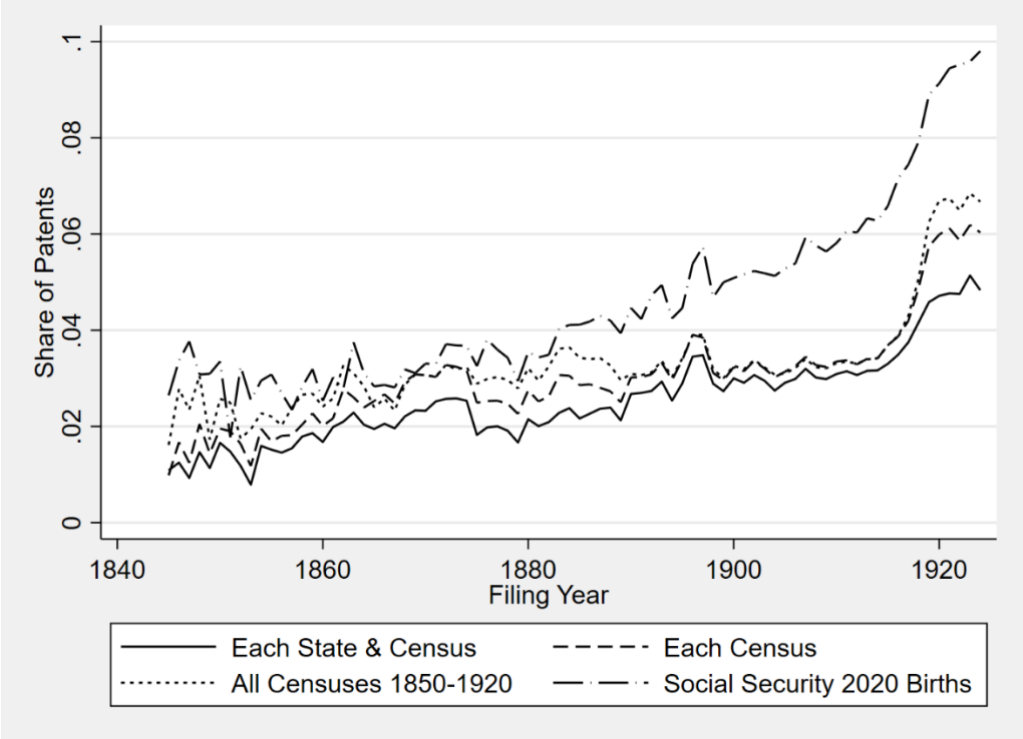
Figures

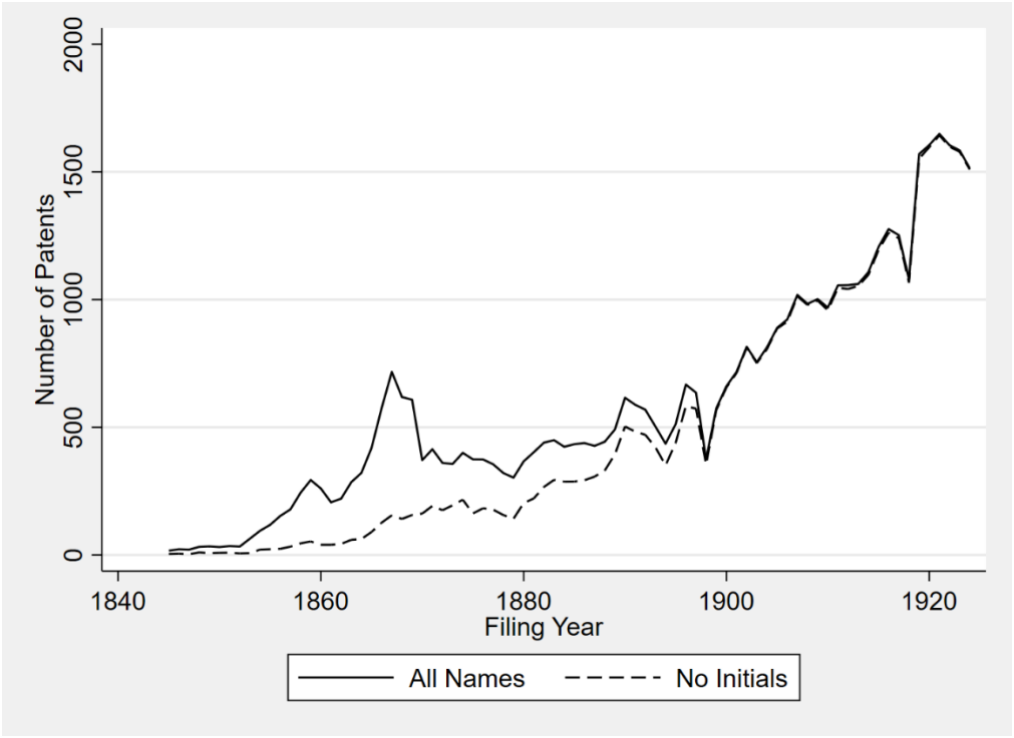


a) Number of Patents



b) Share of Patents with Identifiable First Name

Figure 1: Patents by women inventors when using various sources to determine the gender of each name.



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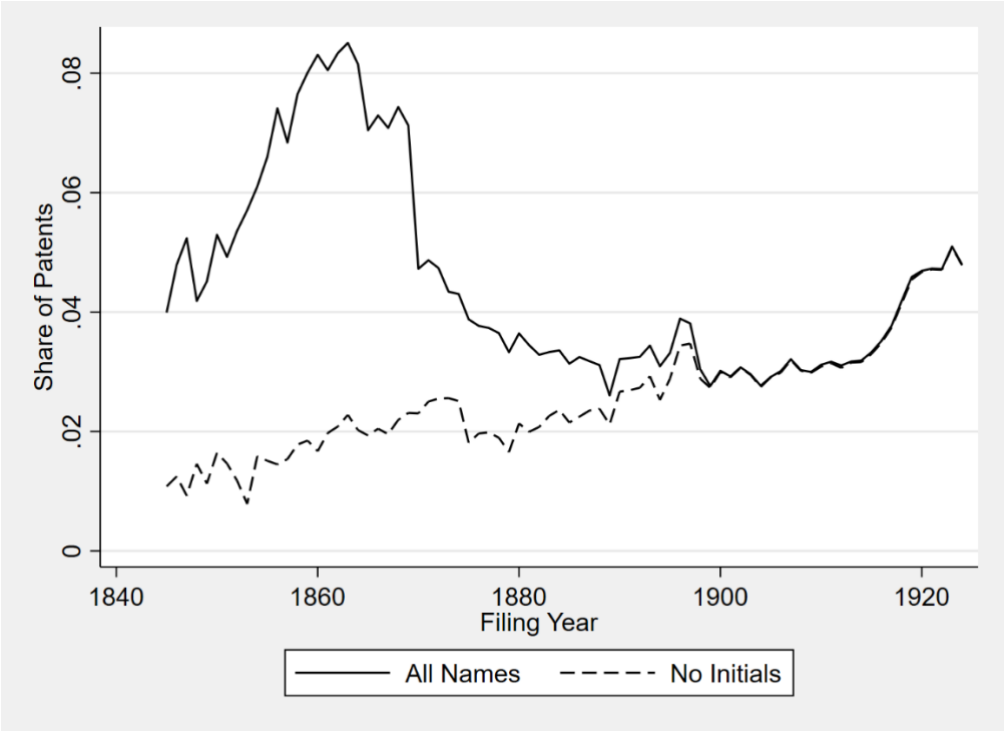
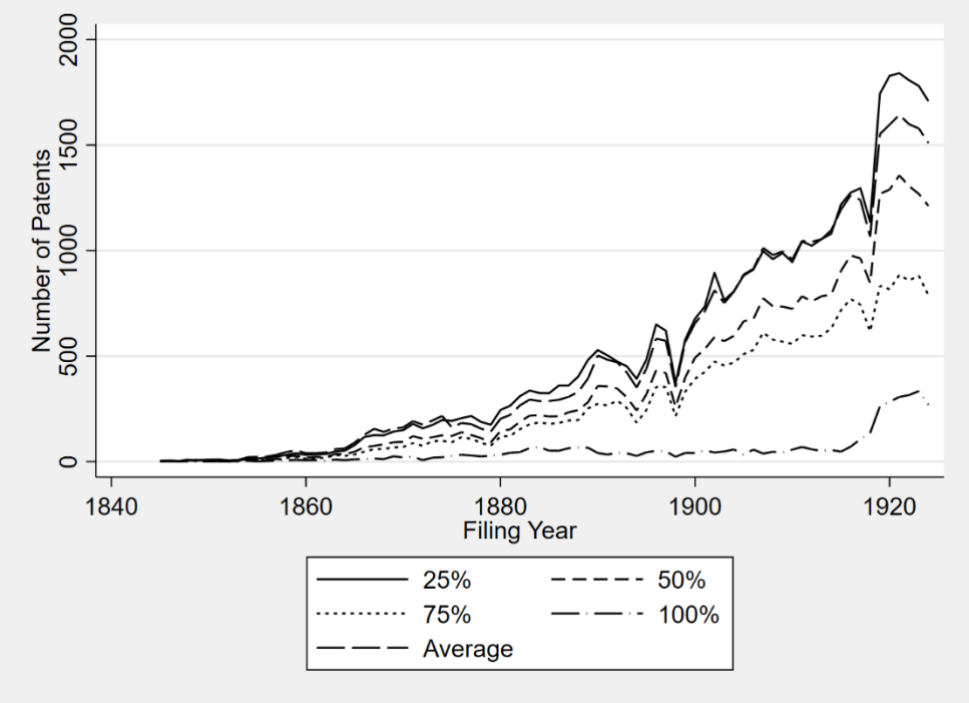


b) Share of Patents with Identifiable First Name

Figure 2: Patents by women inventors when including names that are only first initials.



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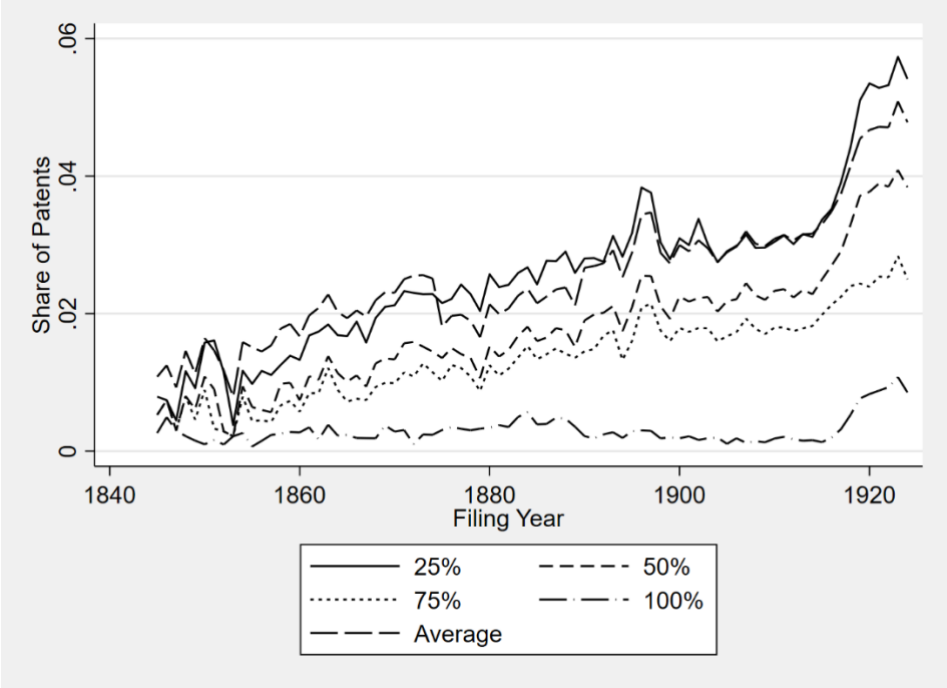
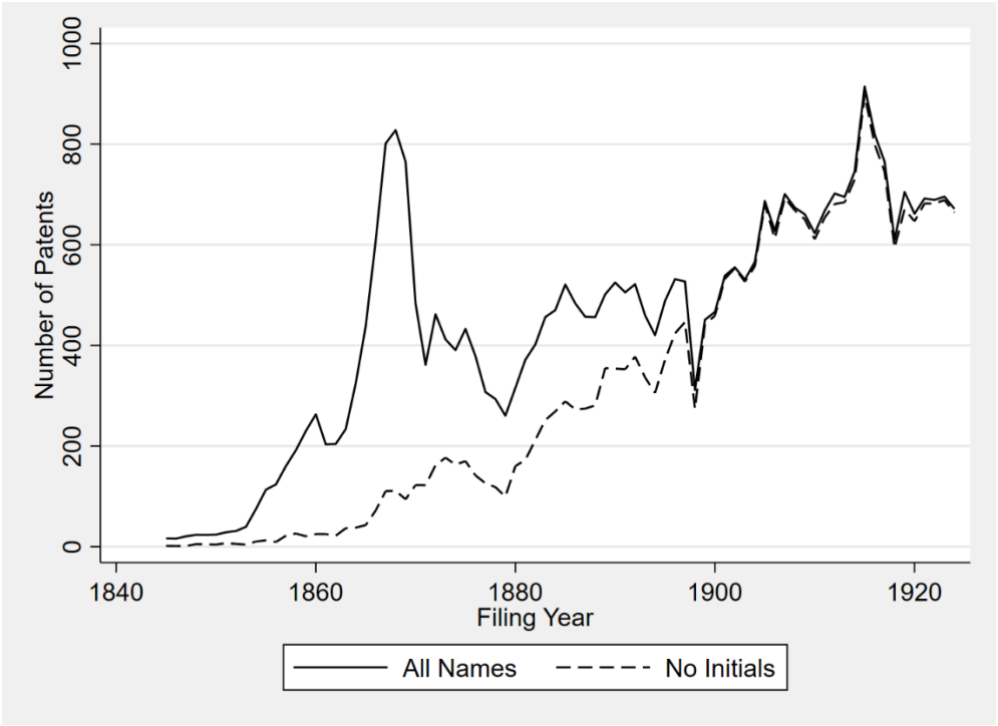


b) Share of Patents with Identifiable First Name

Figure 3: Patents by women inventors when using various cutoffs to determine if a first name belongs to a woman.



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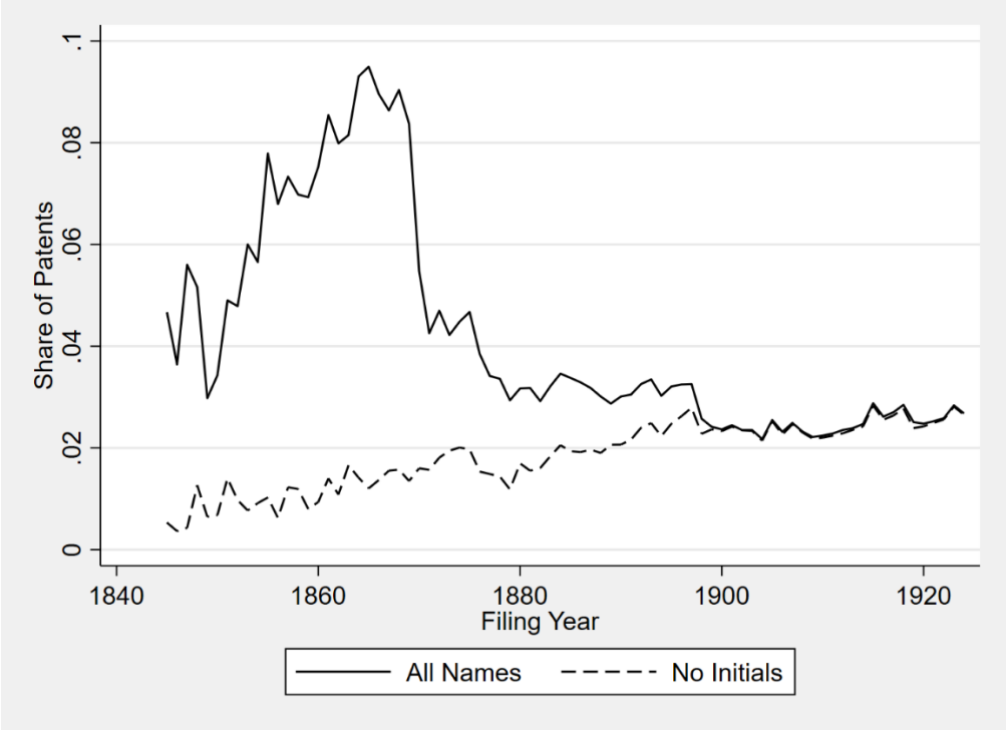
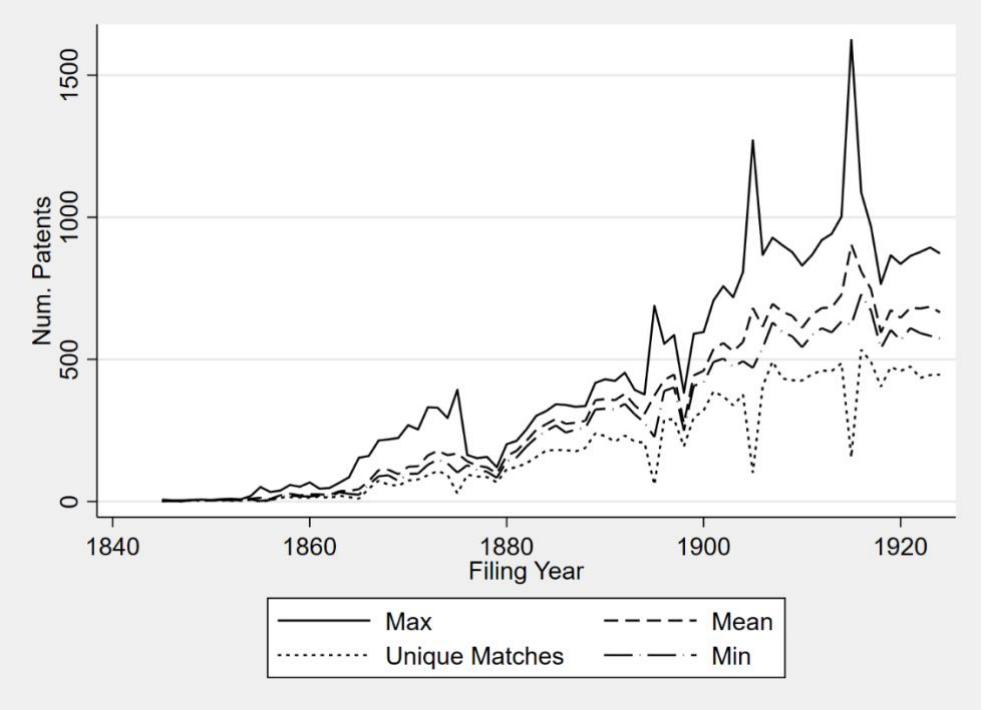


b) Share of Patents with Identifiable First Name

Figure 4: Patents by women inventors when using various cutoffs to determine if a first name belongs to a woman.



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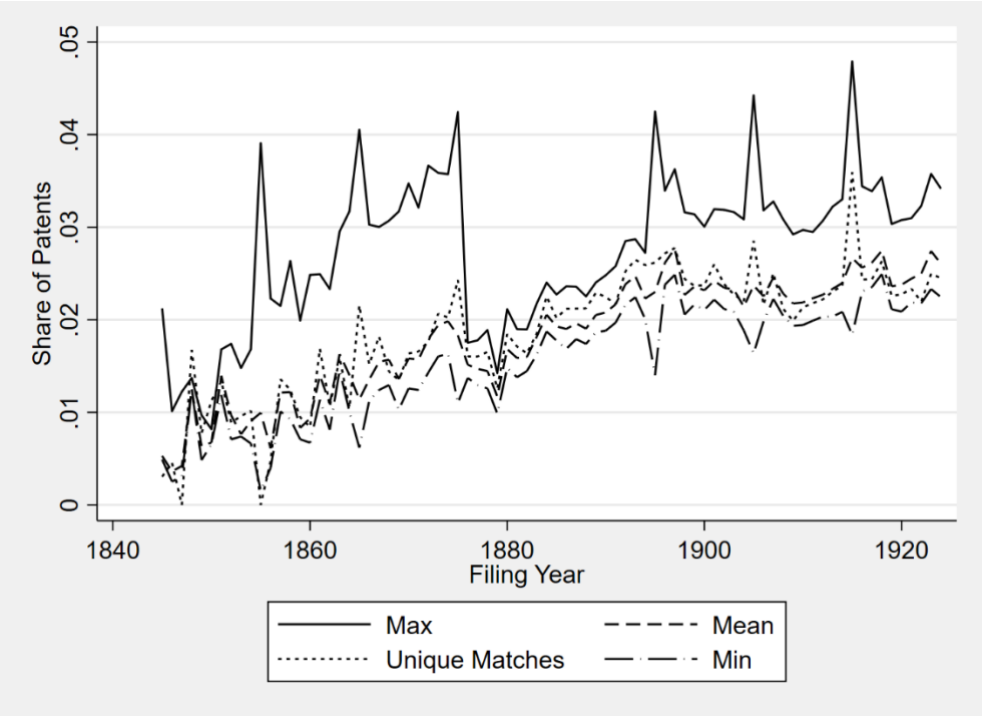
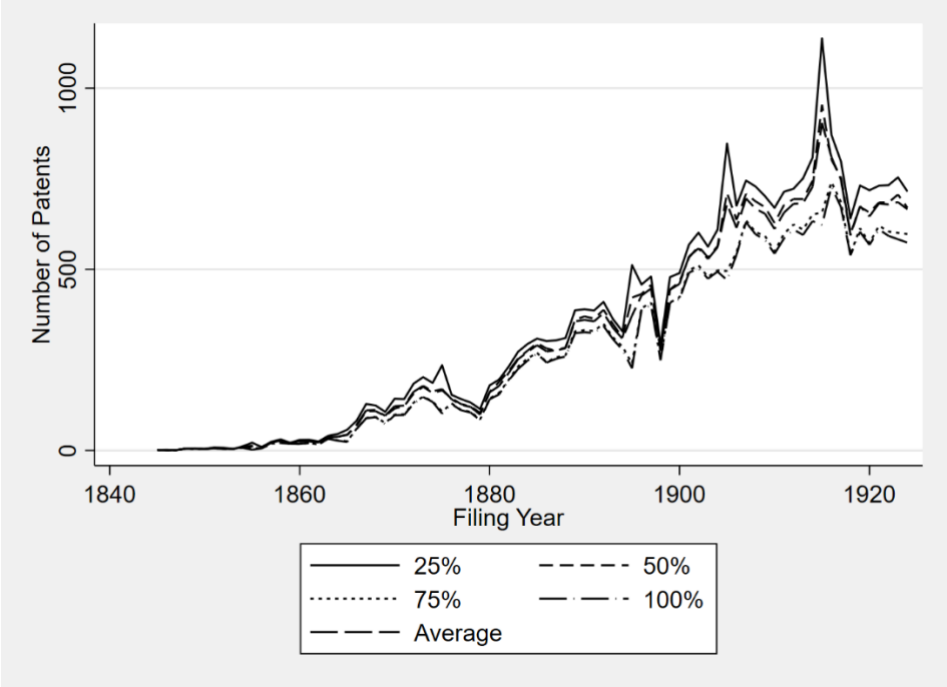


b) Share of Census-Linked Patents

Figure 5: Patents by women inventors when using various methods to handle patents that link to multiple census records.



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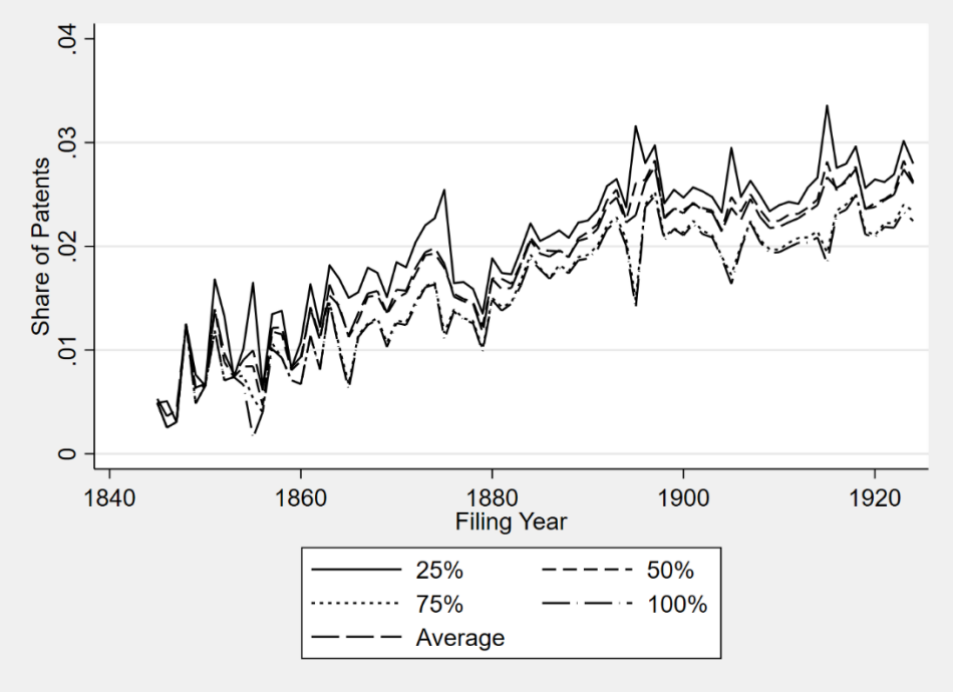
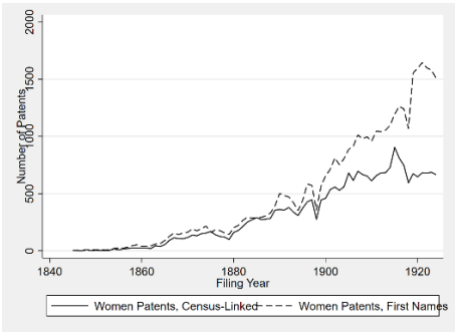


b) Share of Census-Linked Patents

Figure 6: Patents by women inventors when using various cutoffs to determine if a potential match belongs to a woman.



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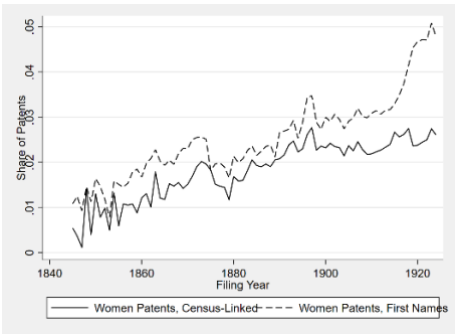
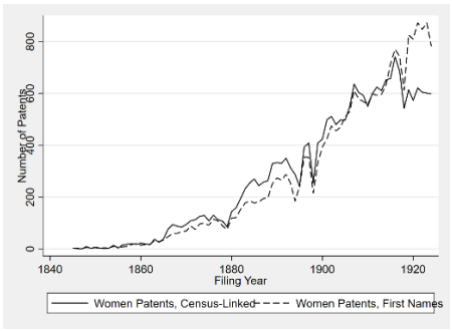
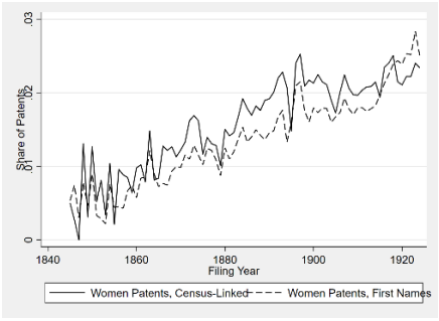


b) Share of Patents, Expected



c) Number of Patents, 75% Threshold



d) Share of Patents, 75% Threshold

Figure 7: Patents by women inventors when using first name and census-linked techniques to determine inventor gender.

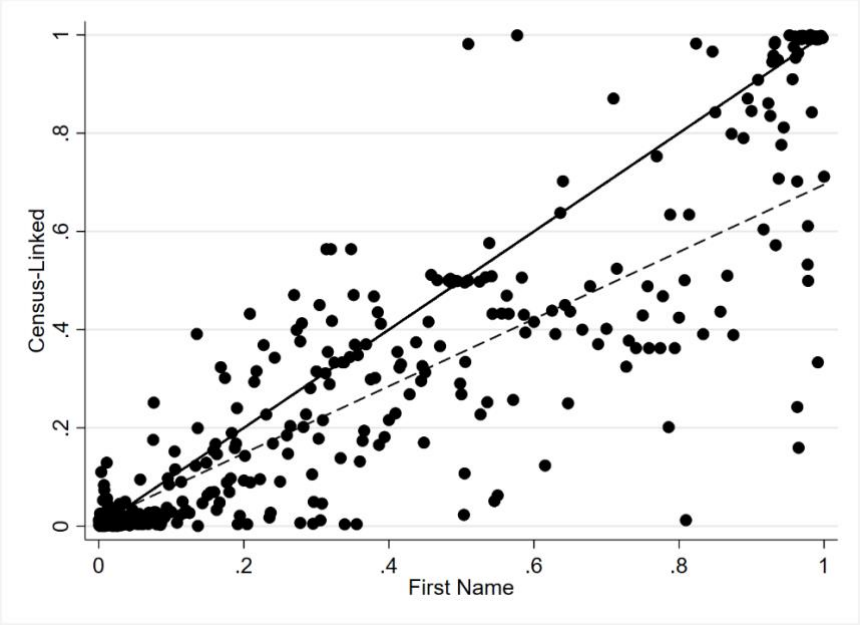


Figure 8: Scatter plot of the expected value of being a woman inventor using the first name and census-linked methods.

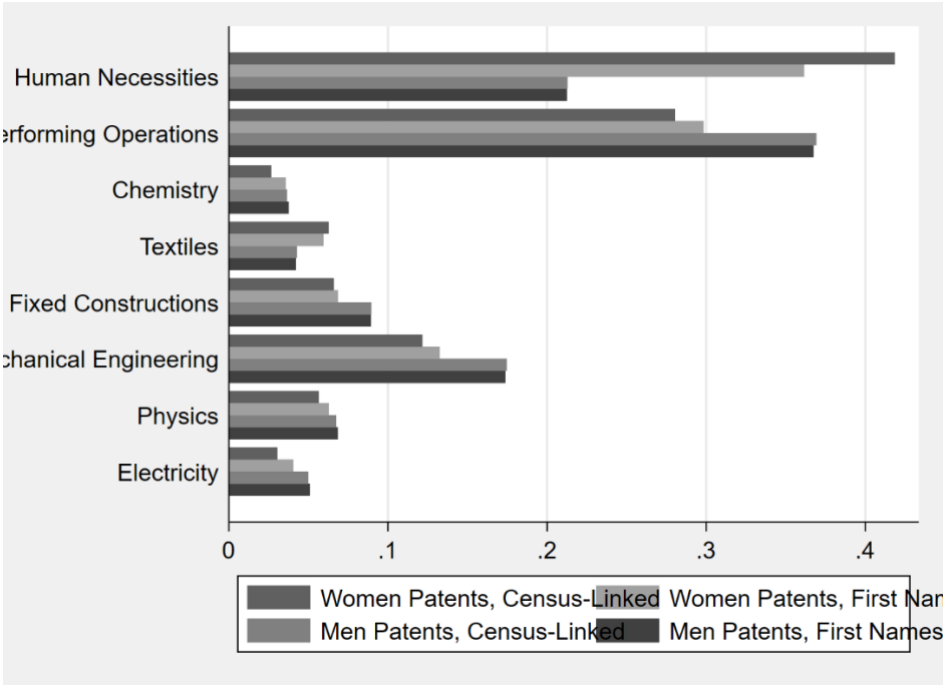
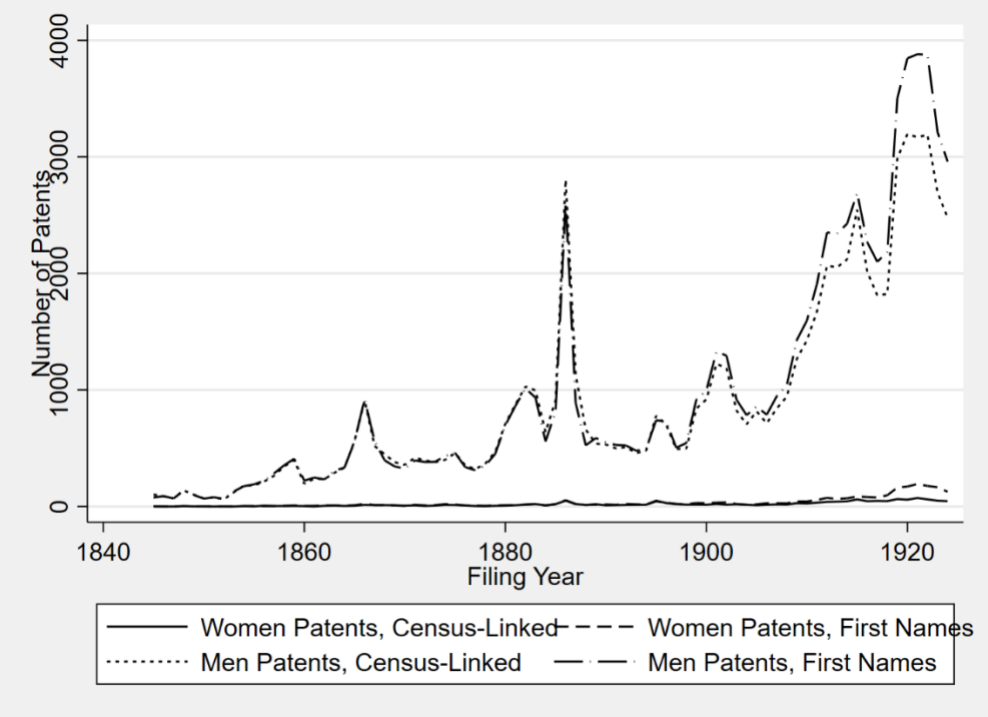
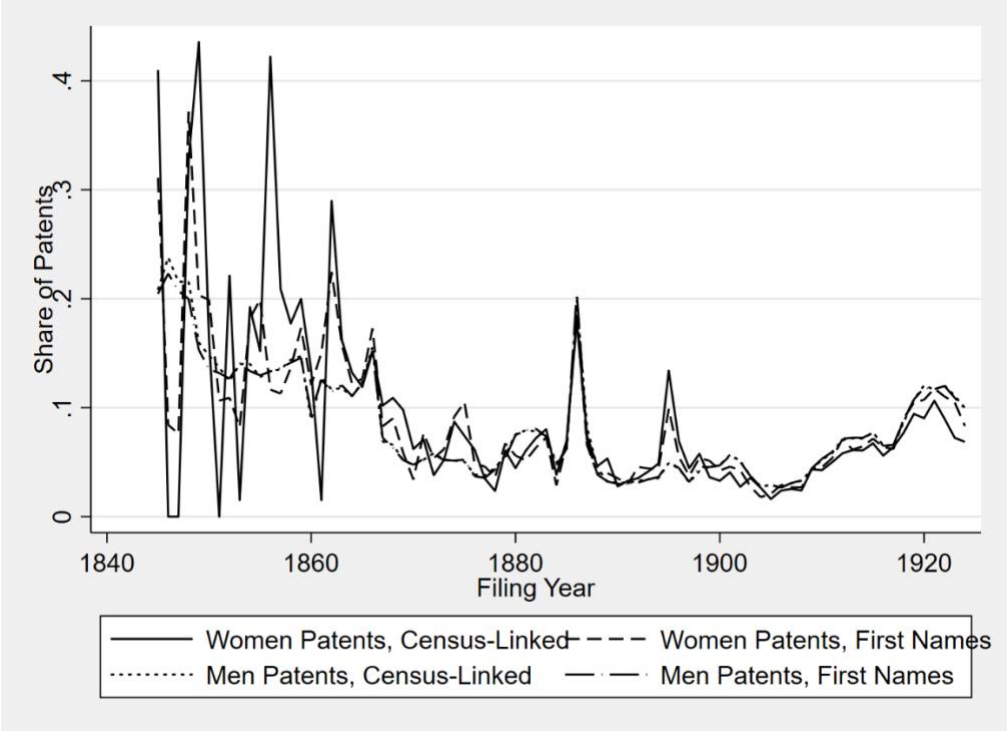


Figure 9: Share of patents by CPC code.

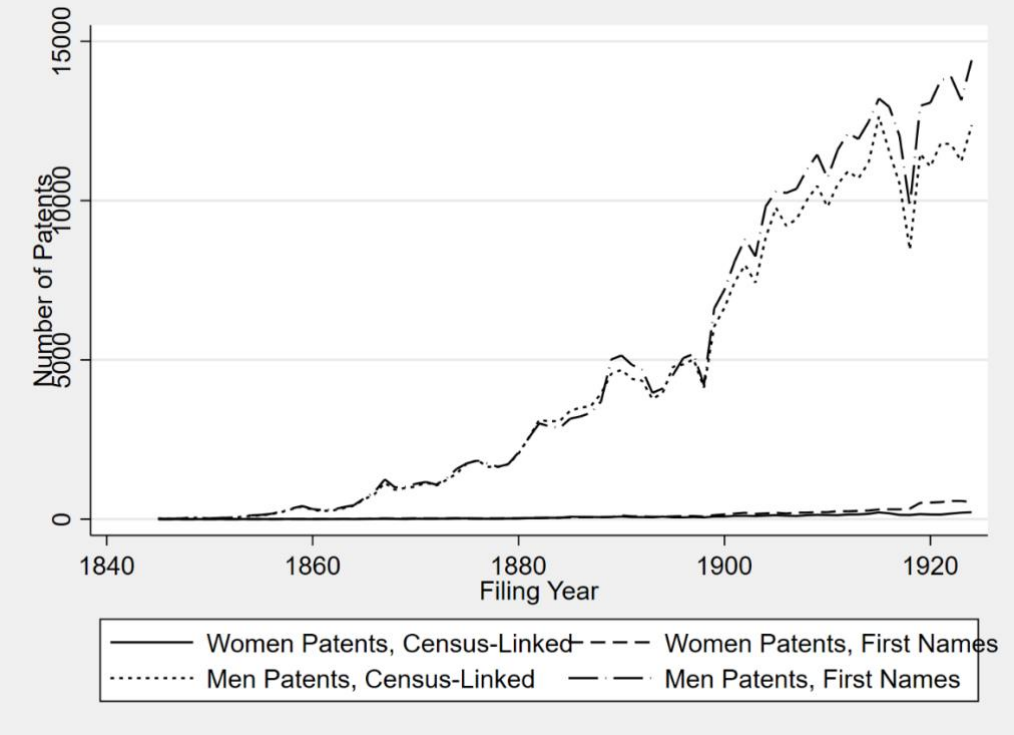


a) Number of patents

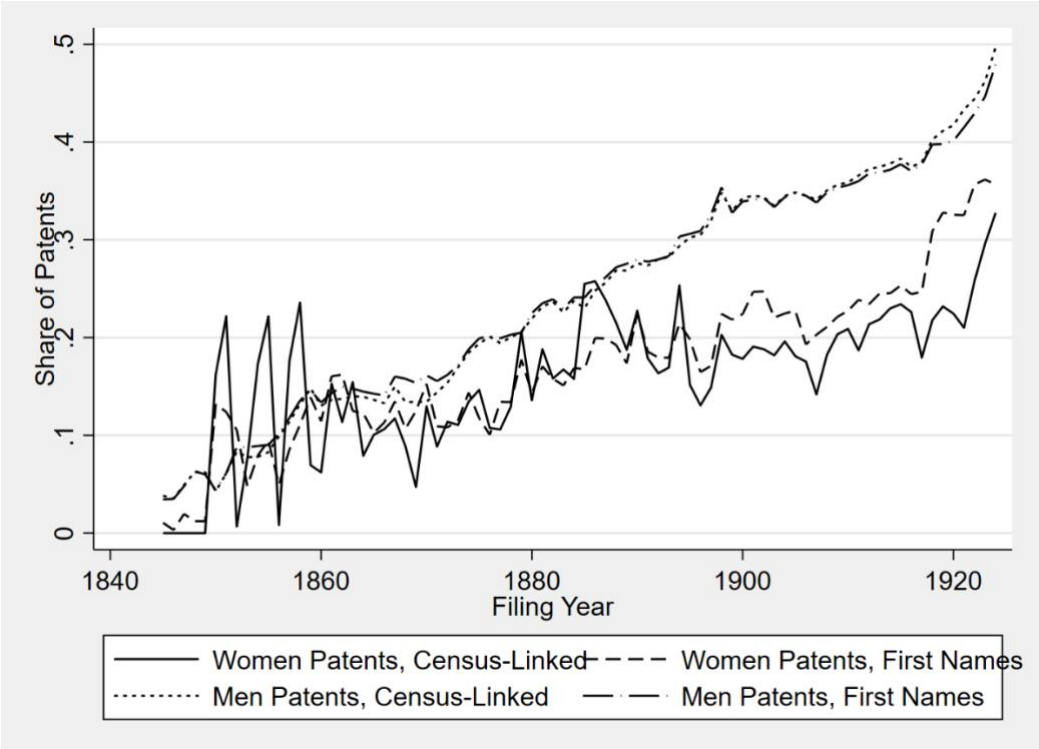


b) Share of patents

Figure 10: Breakthrough patents.



a) Number of patents



b) Share of patents

Figure 11: Assignment.

Figure 12: Share of census-linked inventors that are non-White.

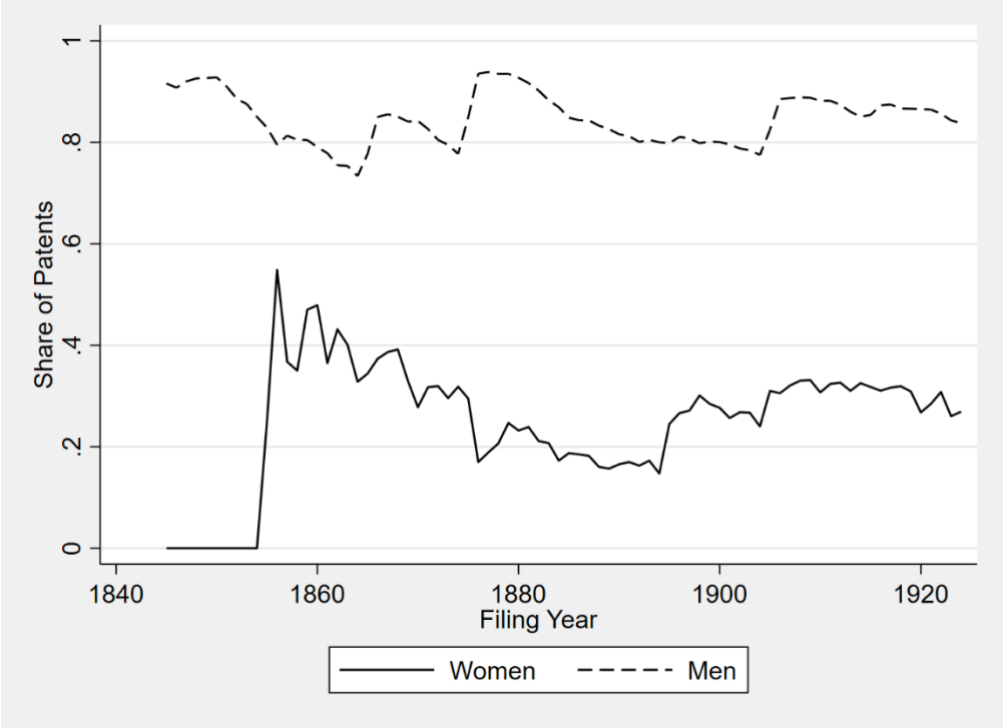
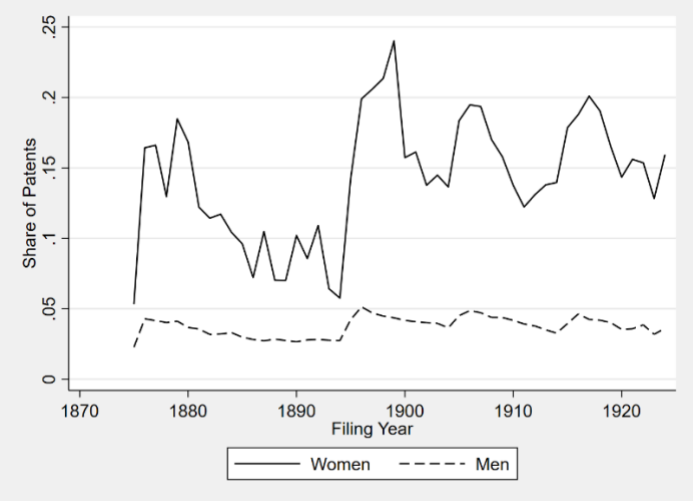


Figure 13: Share of census-linked inventors by labor force participation.

Figure 14: Average age of census-linked inventors.

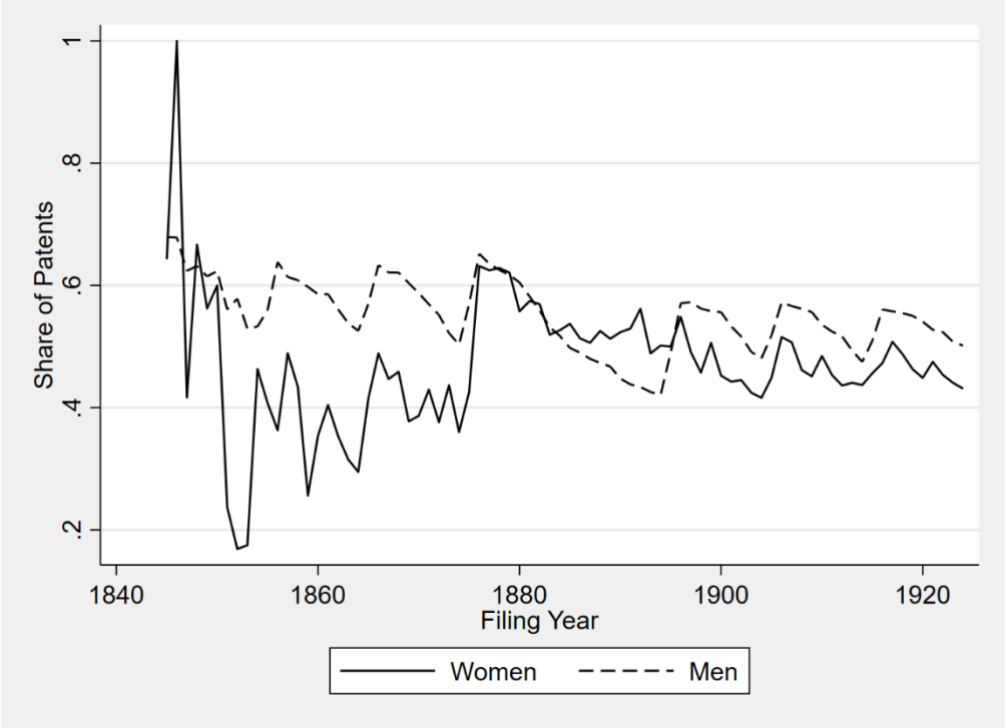
a) Married

b) Never Married



c) Widowed

Figure 15: Share of census-linked inventors by marital status.



a) Any Children in the Household

b) Children <5 in the Household

Figure 16: Share of census-linked inventors by presence of children in the household.

Tables

	First Names		
Census-Link	Women	Men	N/A
Women	14,894	2,747	5,976
Men	8,025	1,058,148	34,430
N/A	628	448,511	

Table 1: Comparing Number of Patents with Women Inventors Using the First Name and Census-Linked Methods

	Other Source	First Name	Census-Linked
Entire Sample Period (1845-1924)		23,617	23,547
PTO List (1845-1894)	3,040	4,609	5,938
Khan 1996 (1860-1894)	4,126	4,505	5,813
Merritt 1991 (1865-1900)	5,549	6,437	8,205

Table 2: Comparing Number of Patents with Women Inventors Using Automated Methods to Counts from Other Sources

Online Appendix Figures

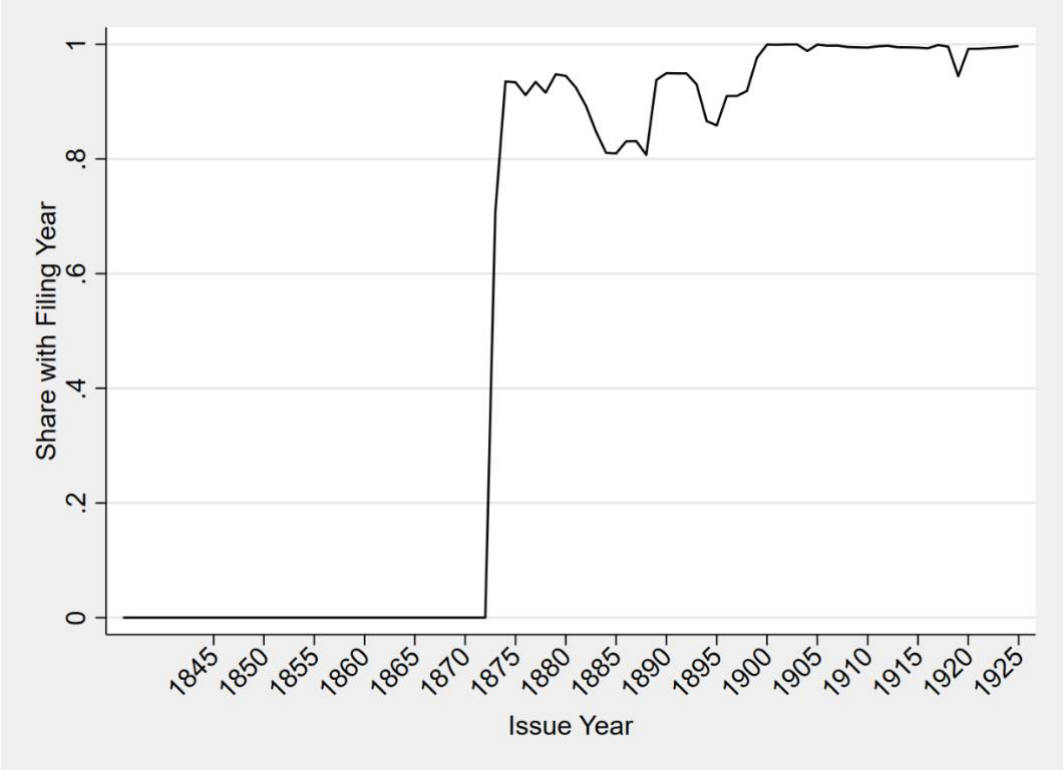
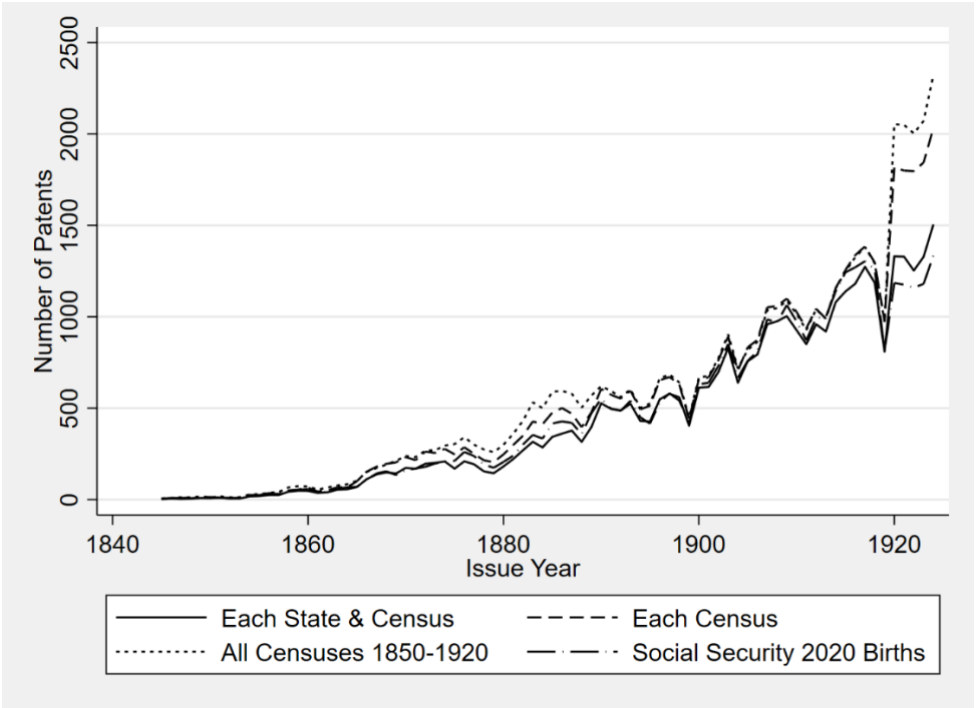
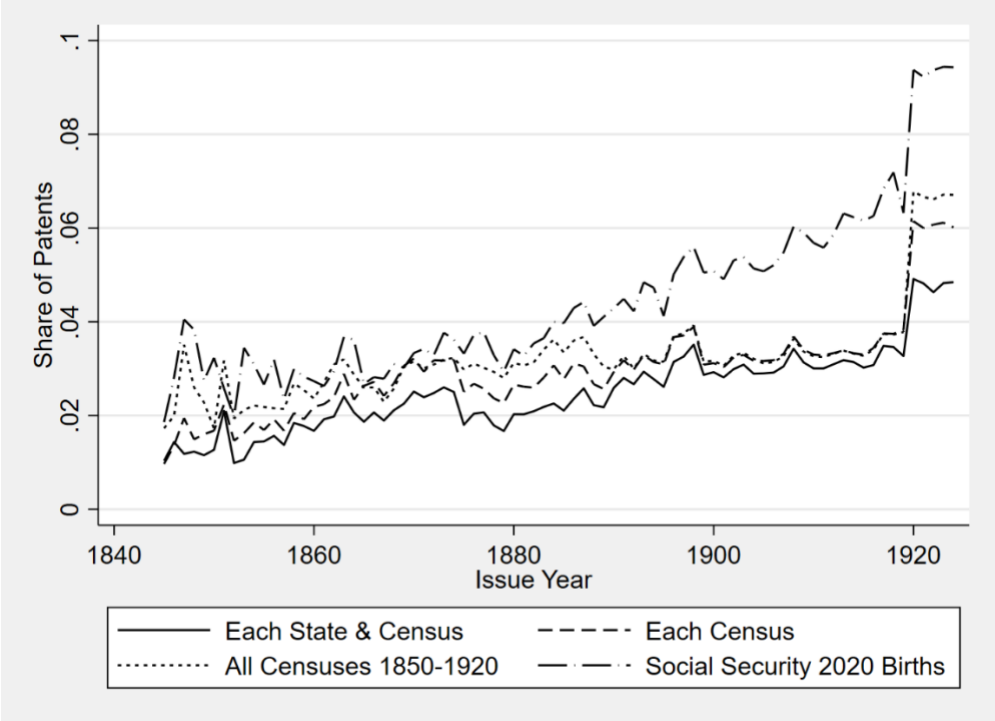


Figure A1: Share of patents issued each year that report filing dates.

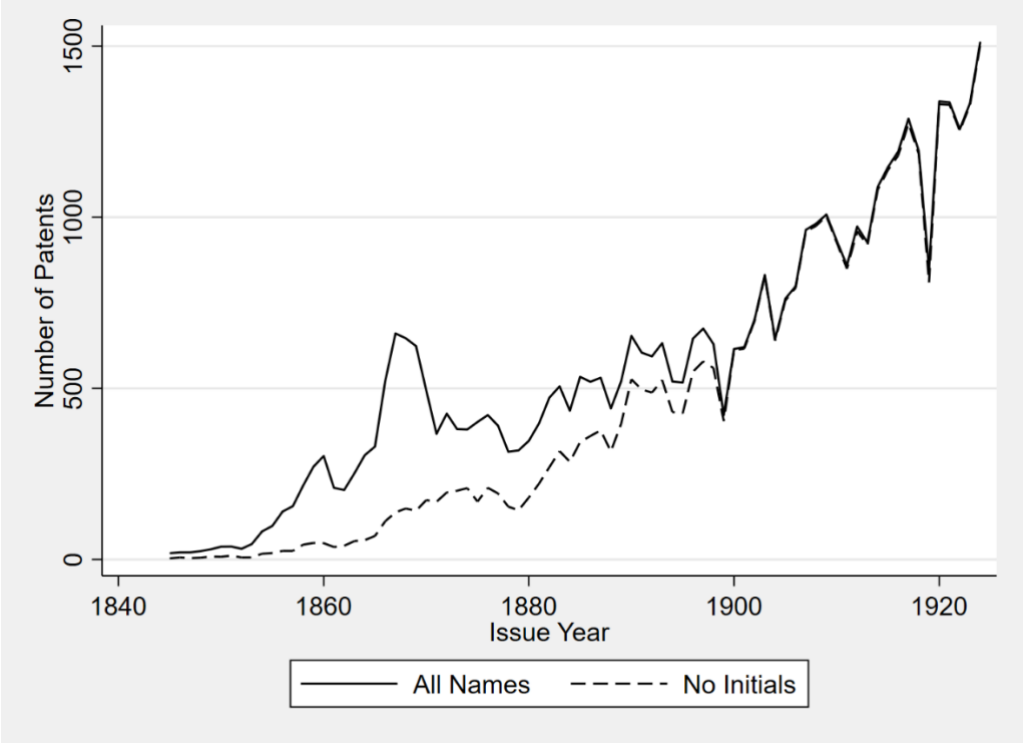


a) Number of Patents

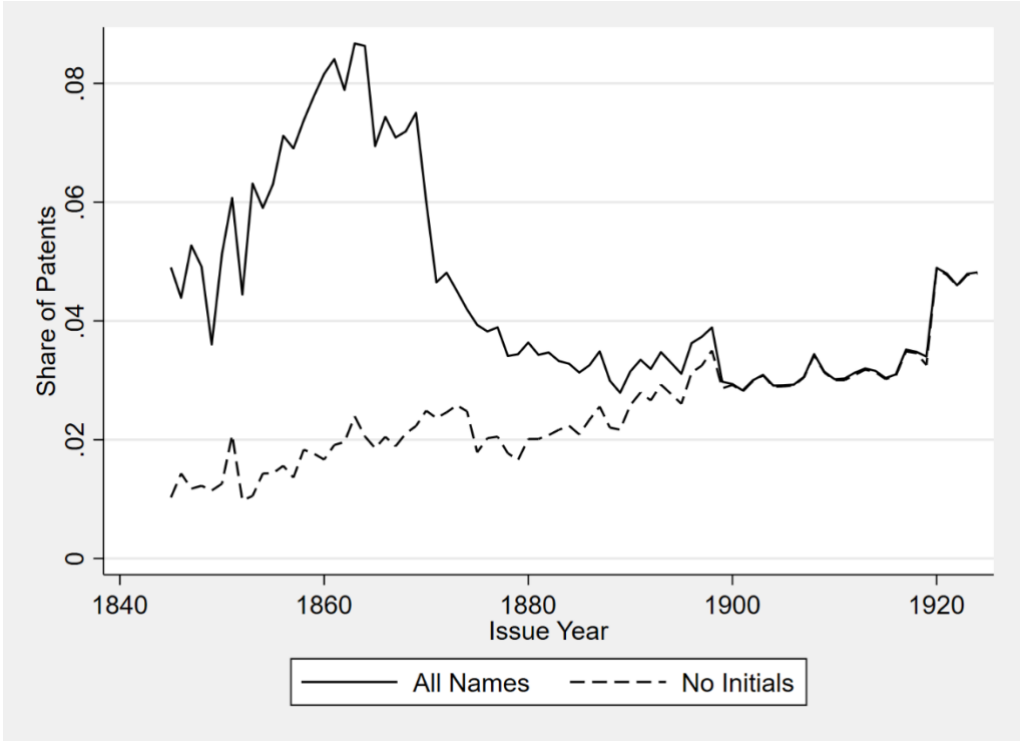


b) Share of Patents with Identifiable First Name

Figure A2: Patents by women inventors when using various sources to determine the gender of each name, using issue years.

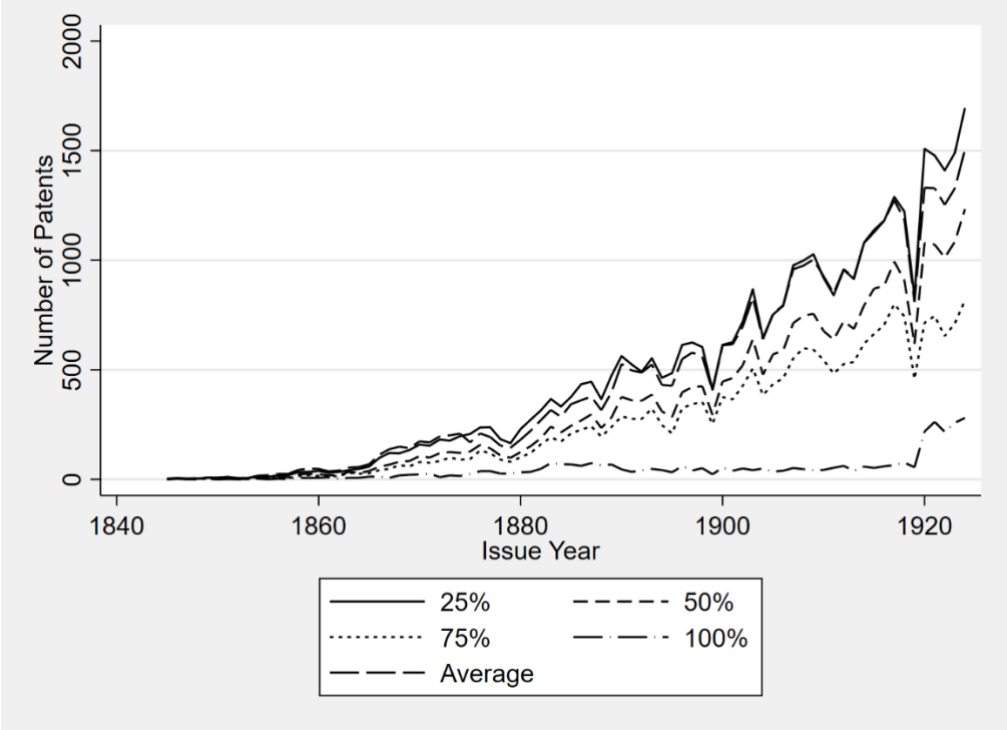


a) Number of Patents

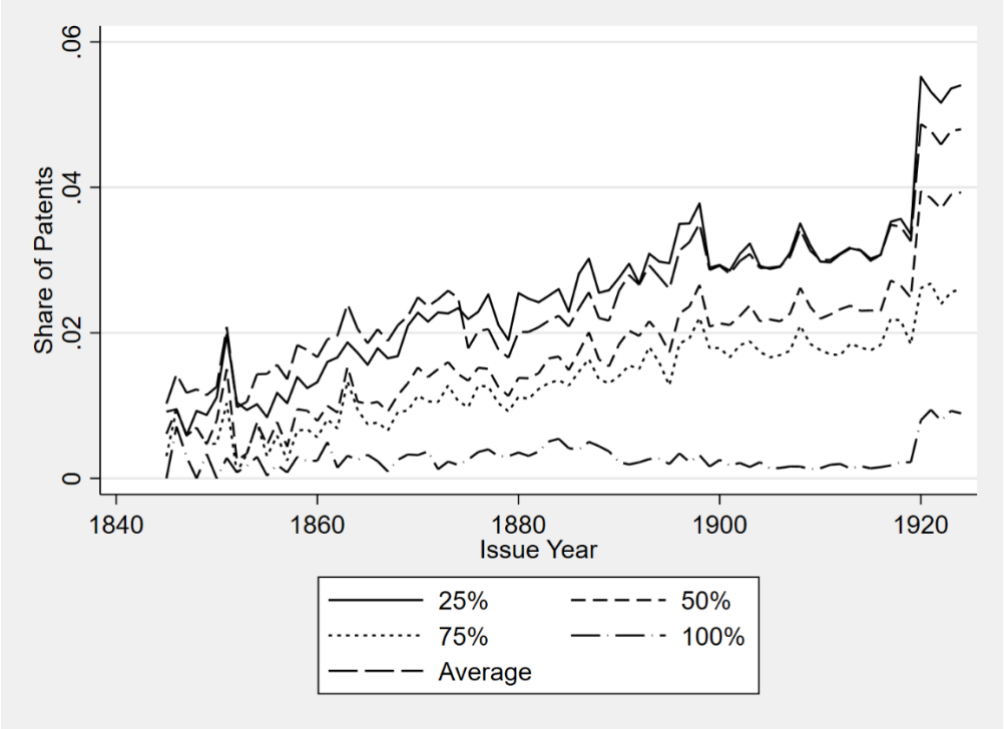


b) Share of Patents with Identifiable First Name

Figure A3: Patents by women inventors when using names that are only first initials, using issue year.

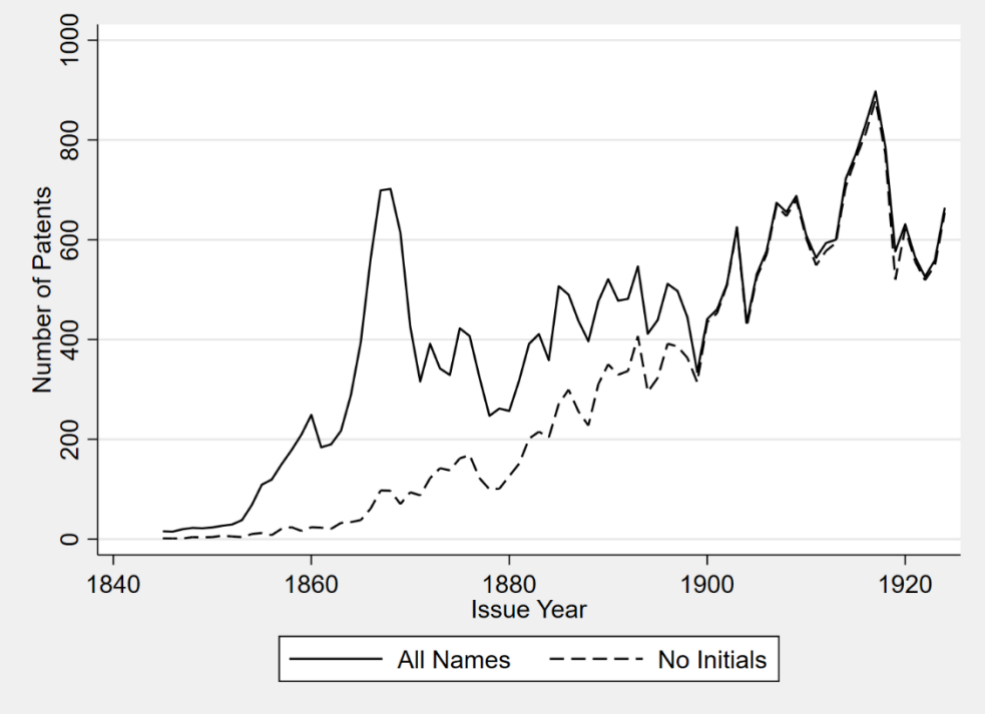


a) Number of Patents



b) Share of Patents with Identifiable First Name

Figure A4: Patents by women inventors when using various cutoffs to determine if a first name belongs to a woman, using issue year.



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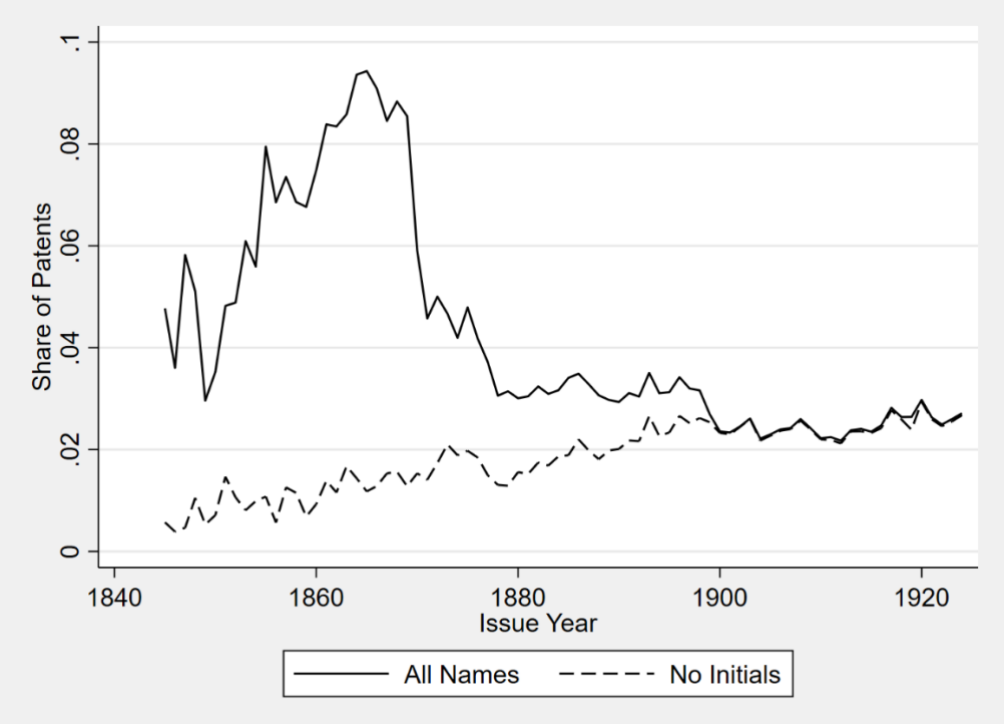
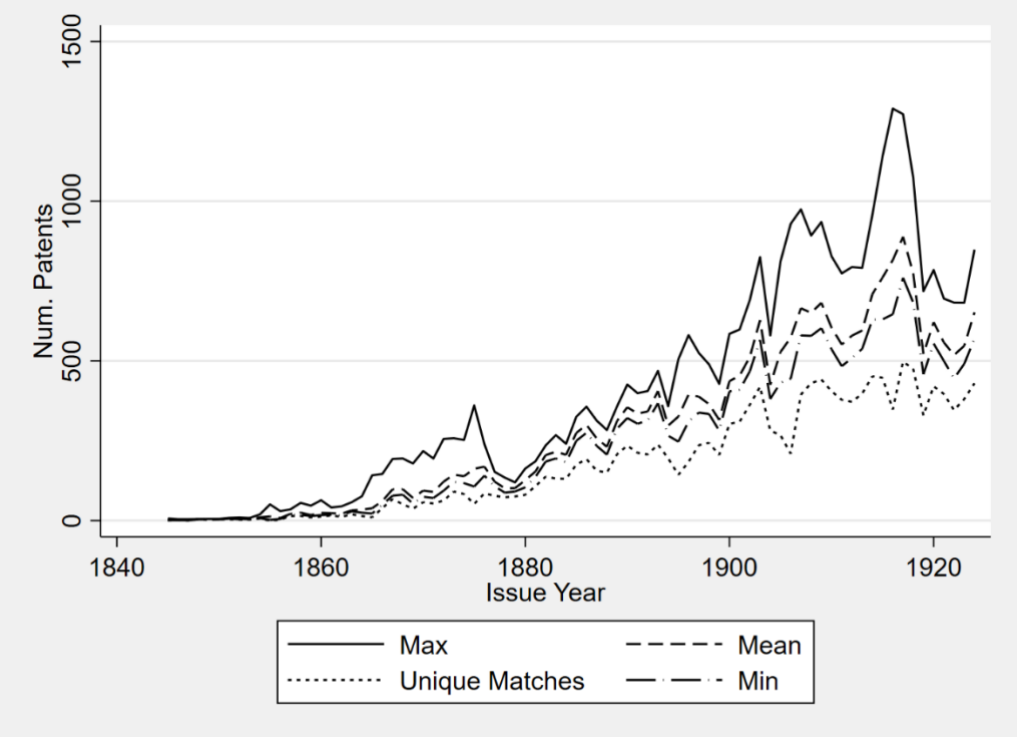
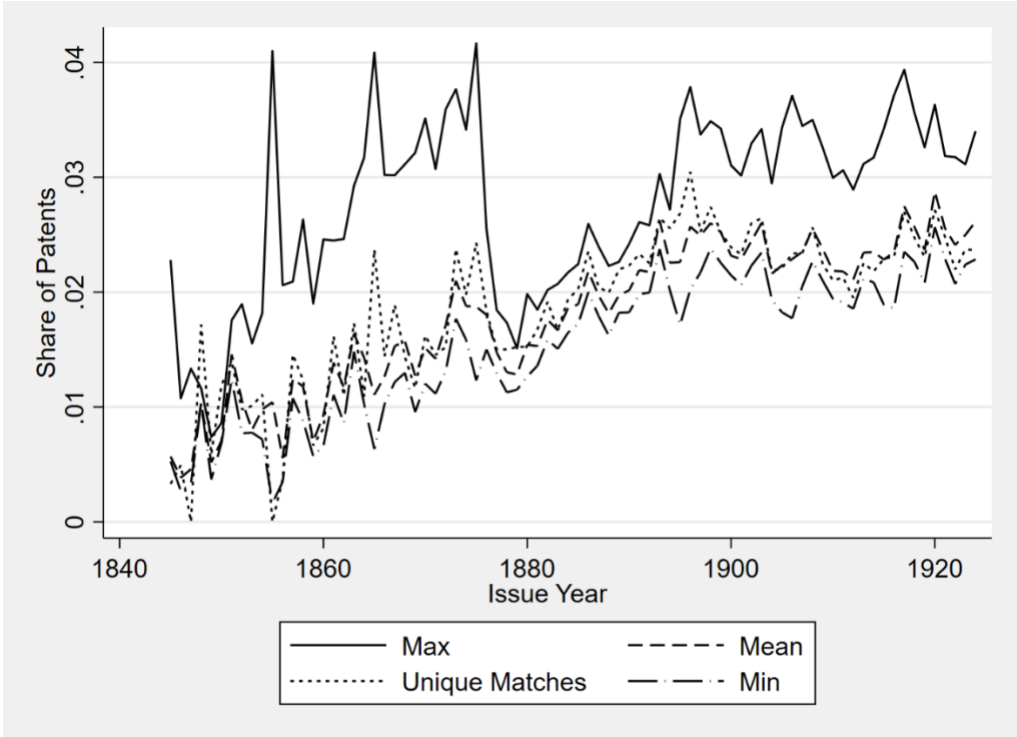


b) Shar of Census-Linked Patents

Figure A5: Patents by women inventors when attempting to link names that are only first initials, using issue year.

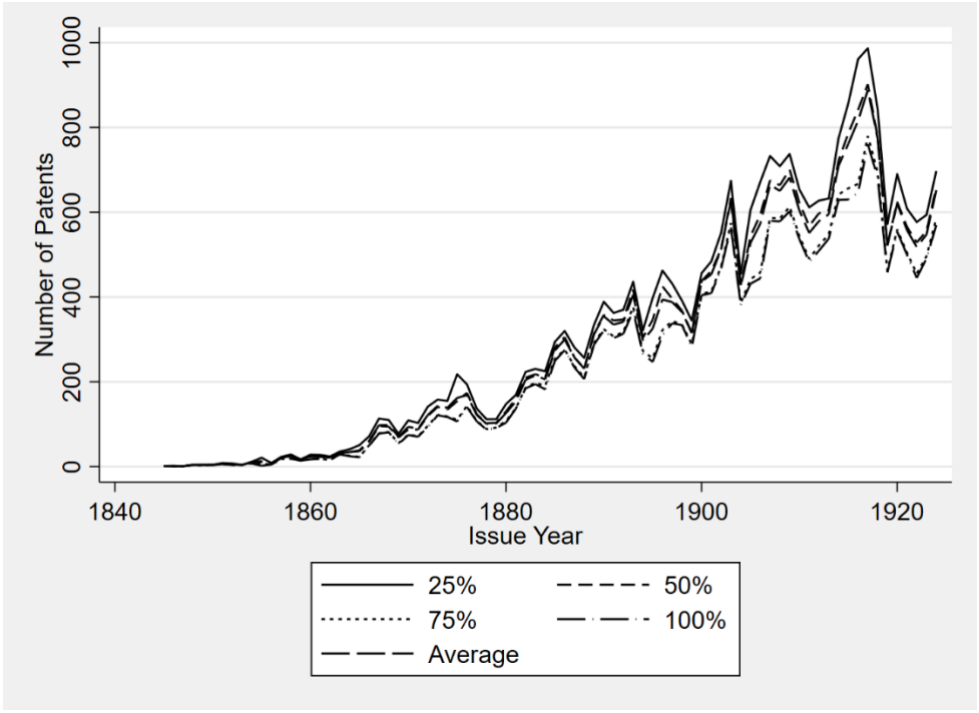


a) Number of Patents



b) Share of Census-Linked Patents

Figure A6: Patents by women inventors when using various methods to handle patents that link to multiple census records, using issue year.



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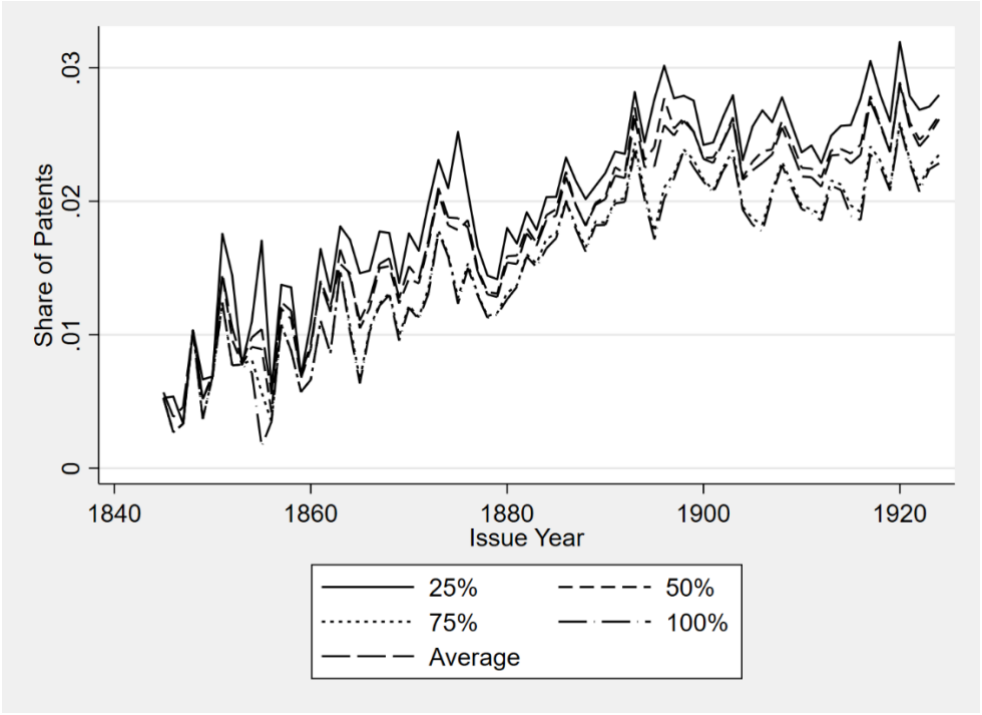
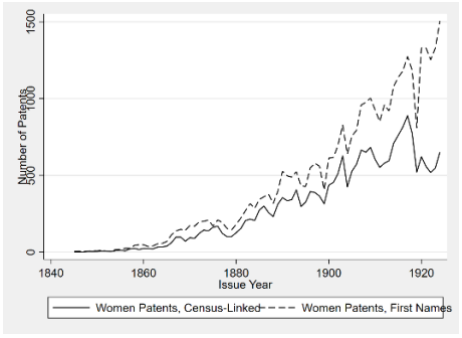


b) Share of Census-Linked Patents

Figure A7: Patents by women inventors when using various cutoffs to determine if a potential census match belongs to a woman, using issue years.



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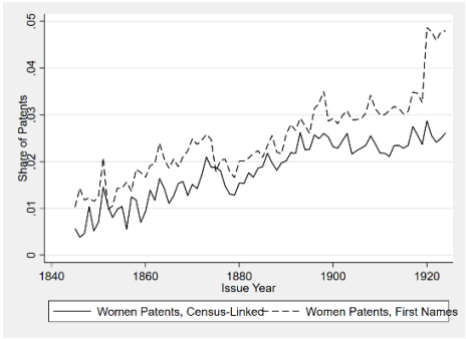
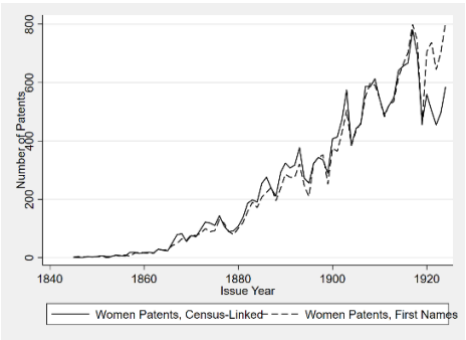
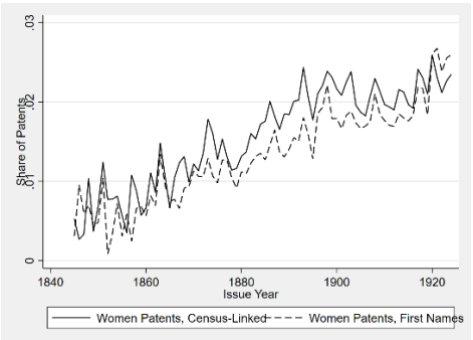


b) Share of Patents, Expected

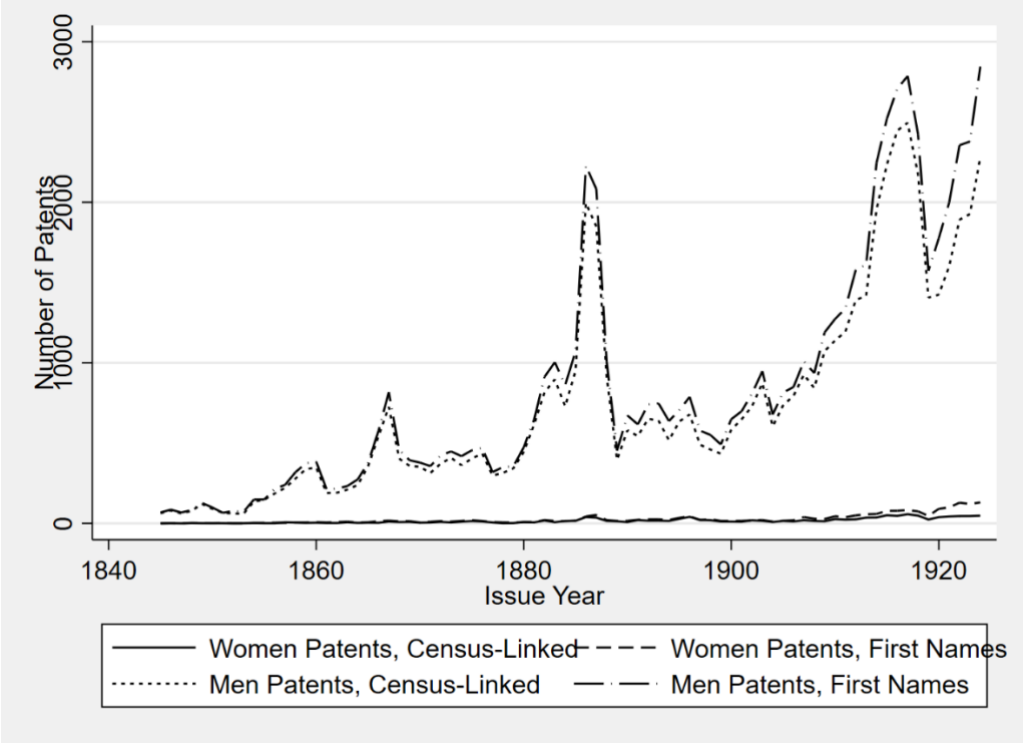


c) Number of Patents,75% Threshold



d) Share of Patents, 75% Threshold

Figure A8: Patents by women inventors when using first name and census-linked techniques to determine inventor gender, using issue years.



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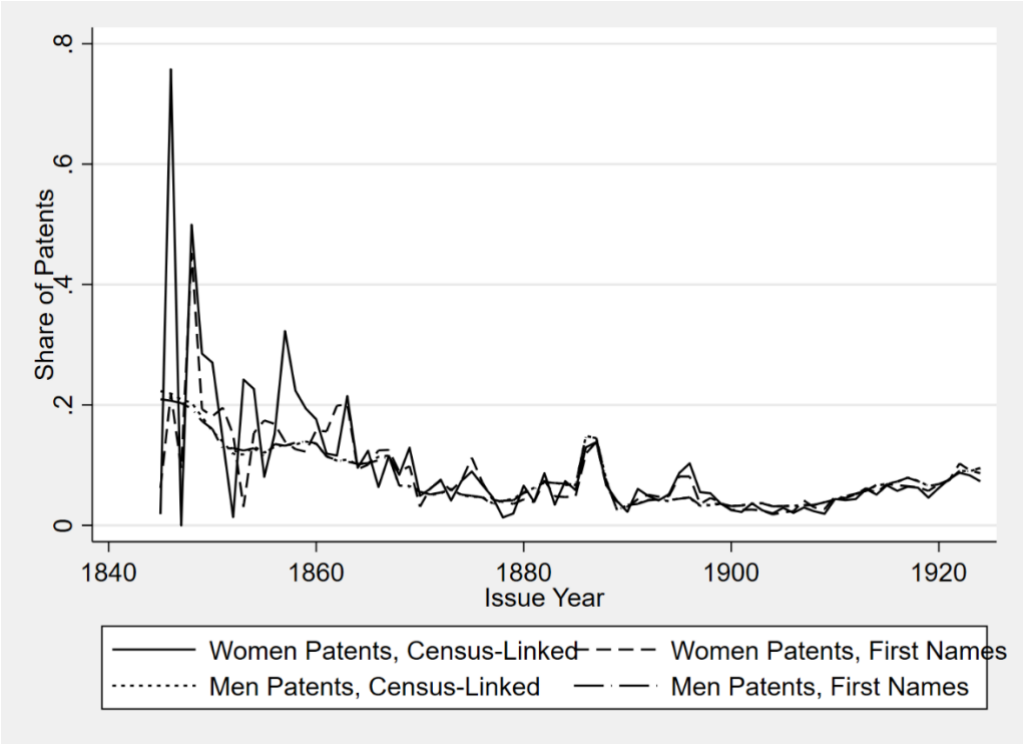
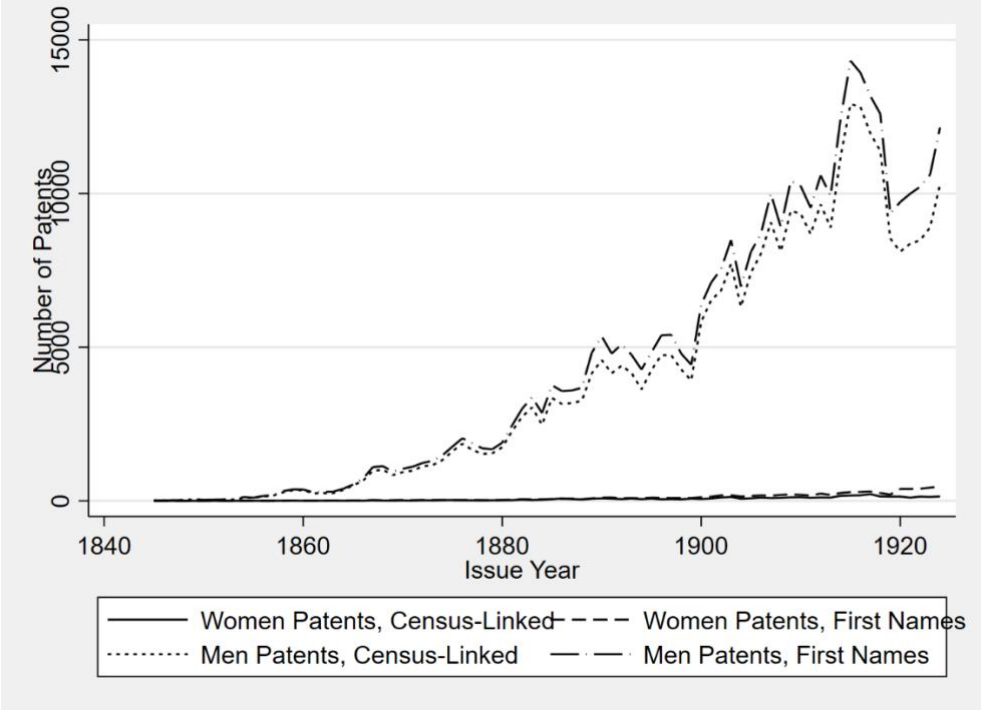


b) Share of Patents

Figure A9: Breakthrough patents, using issue year.



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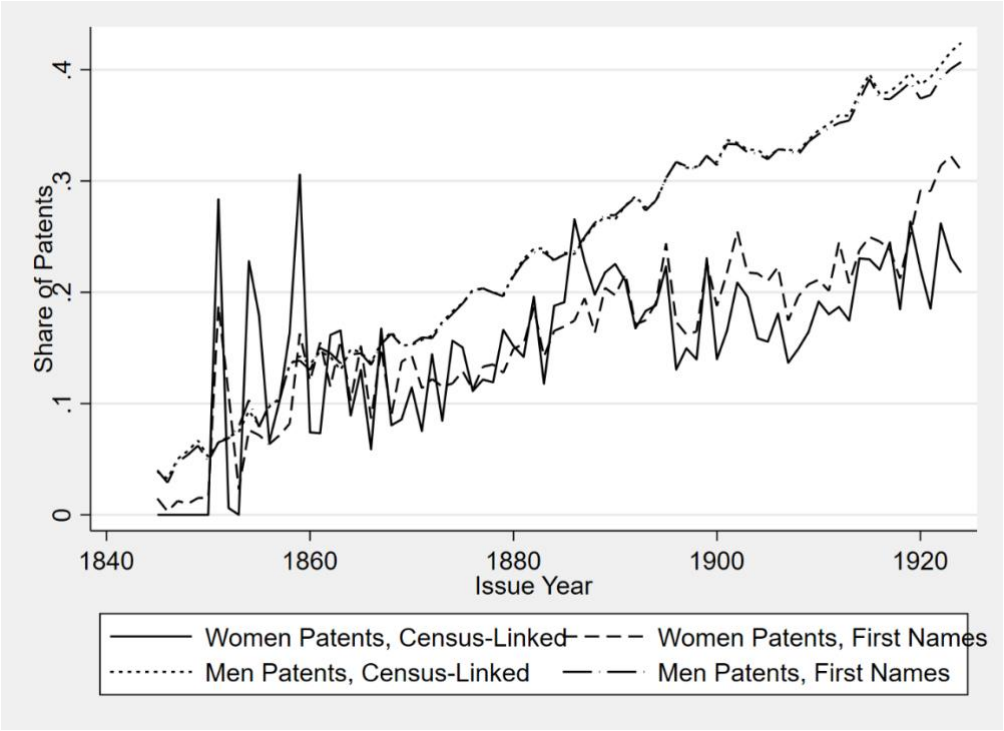


b) Share of Patents

Figure A10: Assignment, using issue years.

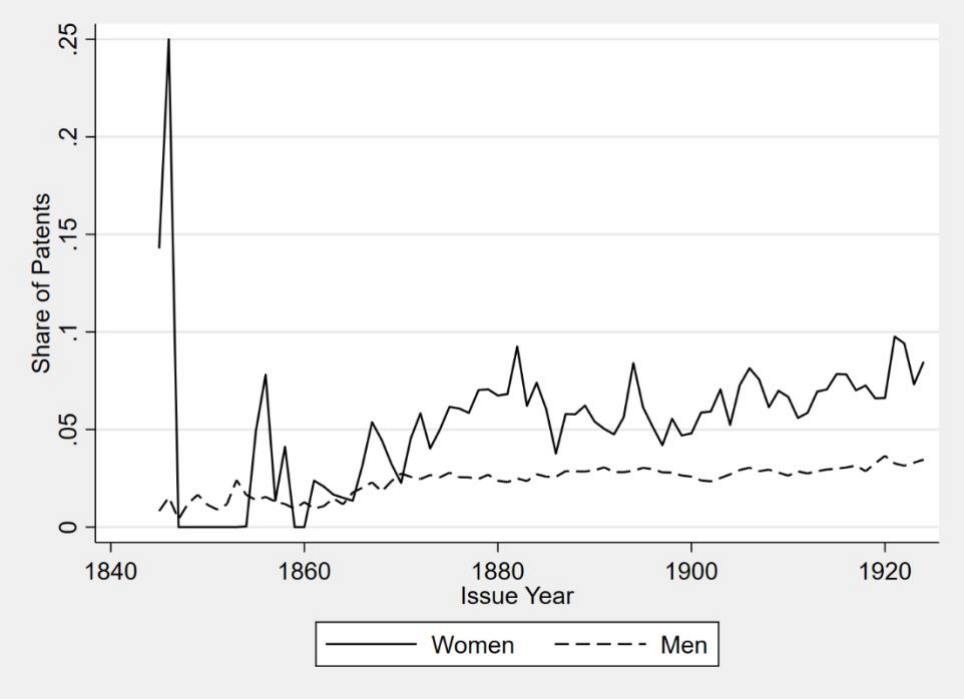


Figure A11: Share of census-linked inventors that are non-White, using issue years.

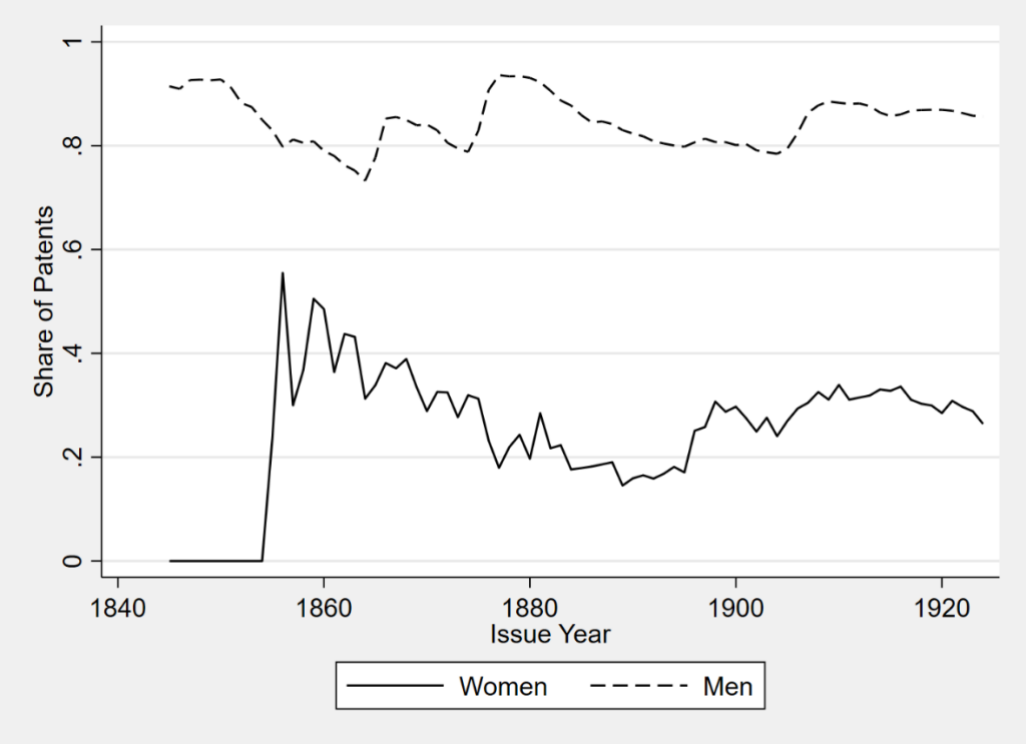


Figure A12: Share of census-linked inventors by labor force participation, using issue years.

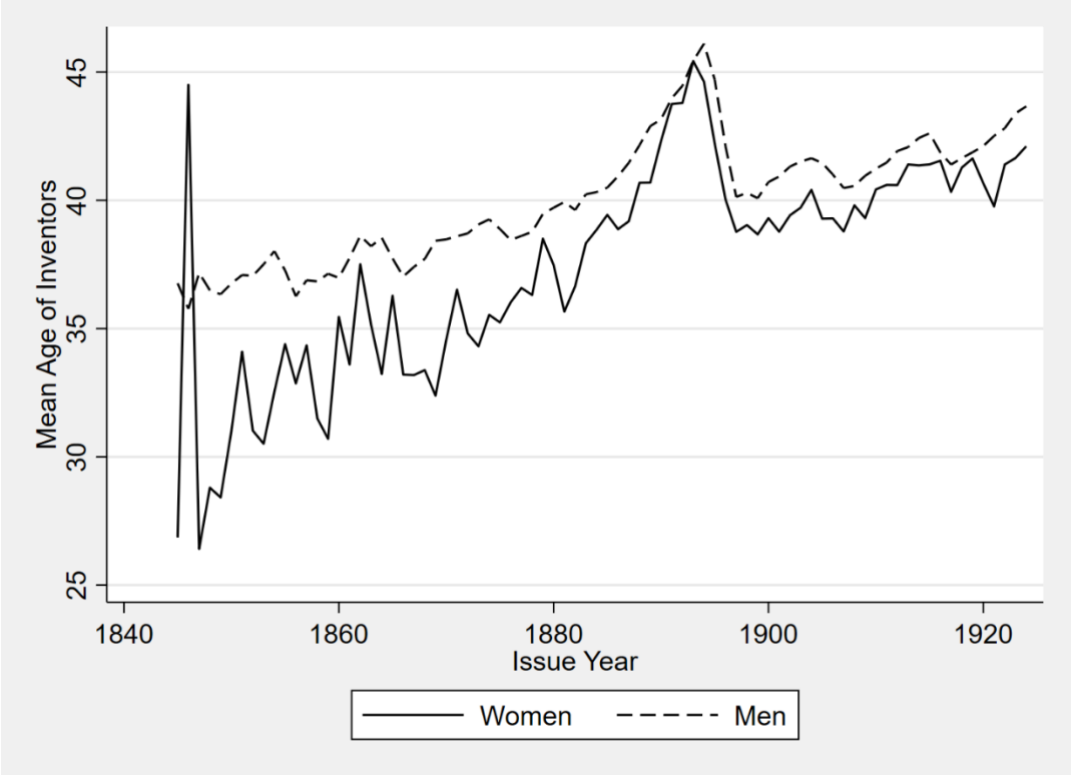
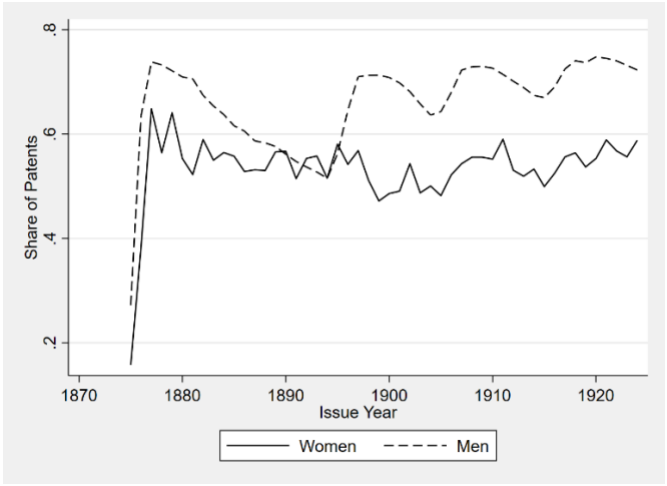


Figure A13: Average age of census-linked inventors, using issue years.

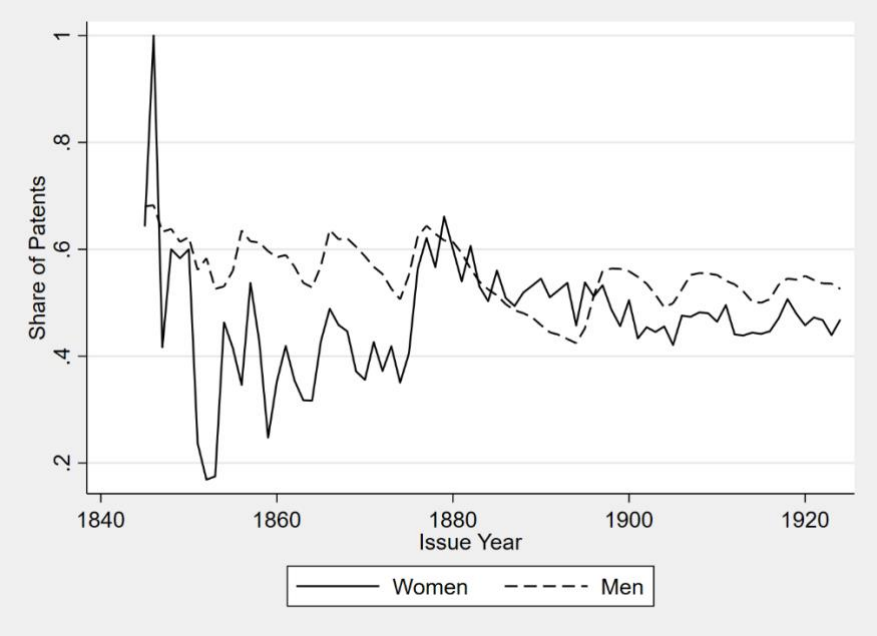


a) Married

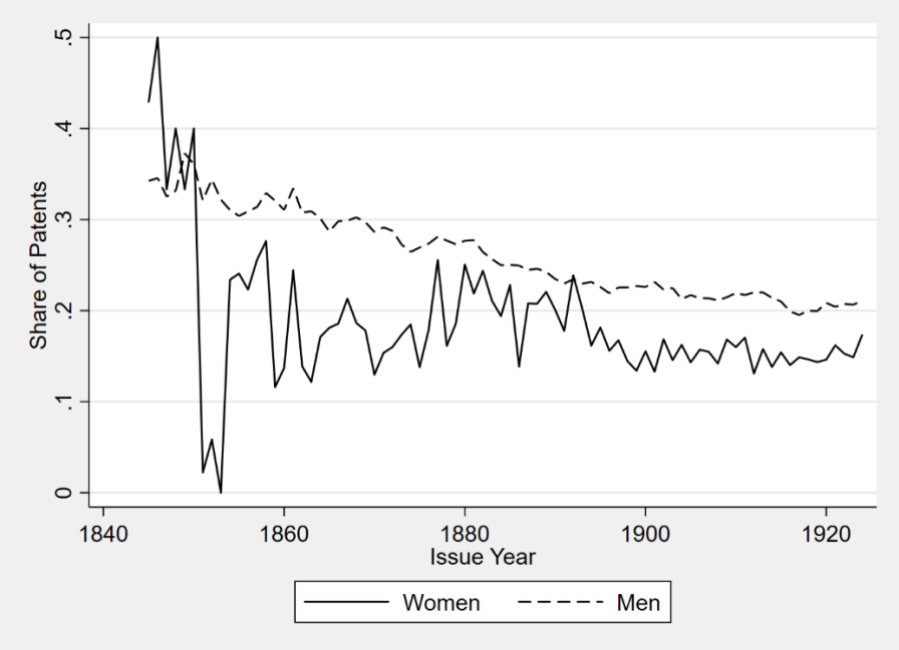
b) Never Married

c) Widowed

Figure A14: Share of census-linked inventors by marital status, using issue years.

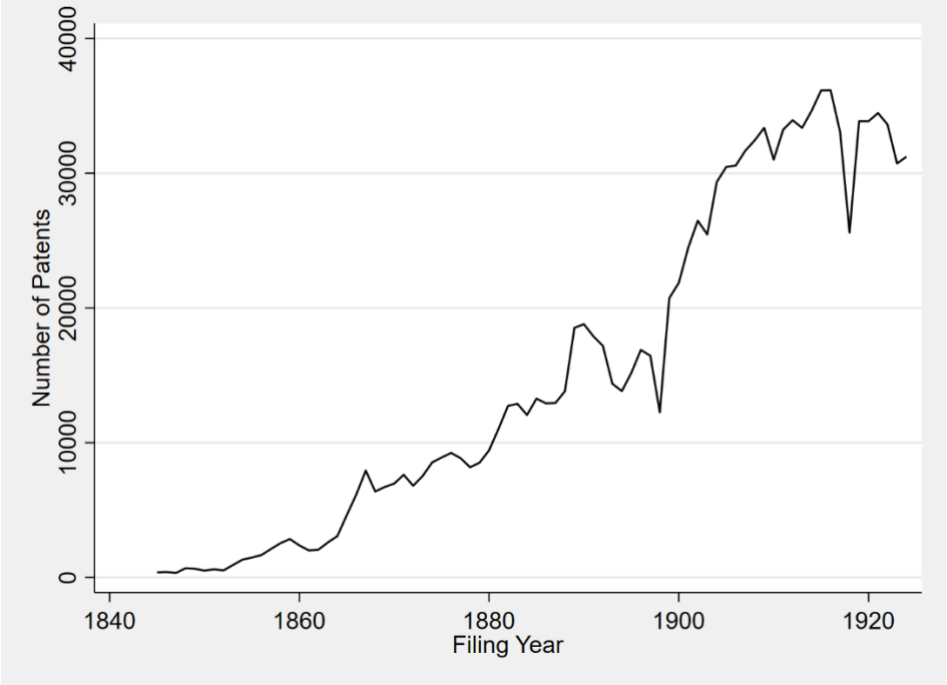


a) Any Children in the Household

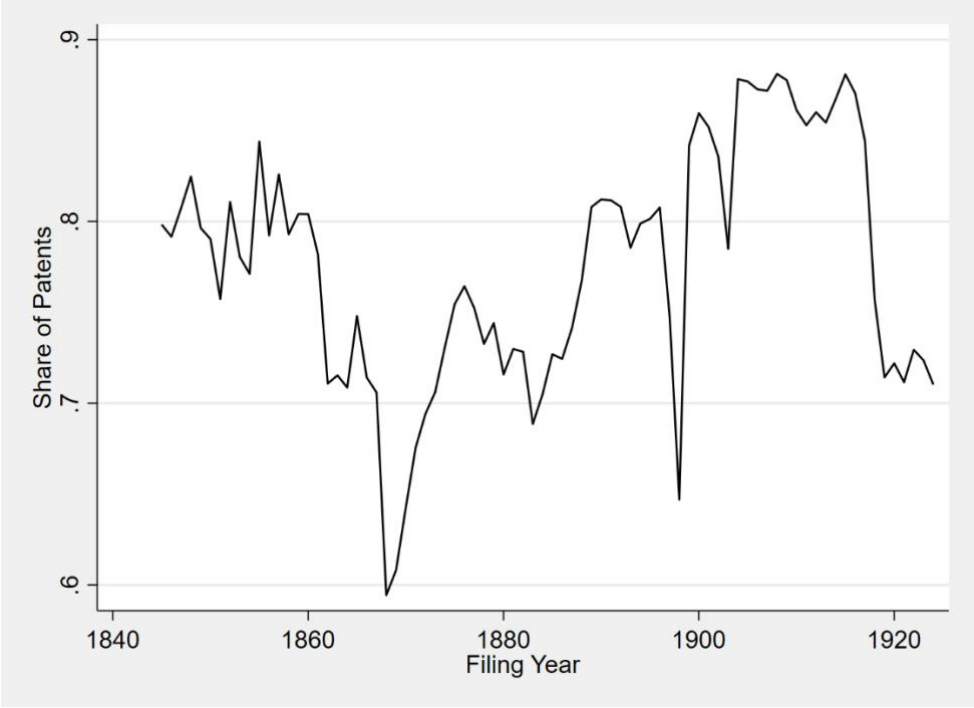


b) Children <5 in the Household

Figure A15: Share of census-linked inventors by presence of children in the household, using issue years.



a) Number of Patents



b) Share of Patents

Figure A16: Patents with inventor first names found in nearest census state and year.

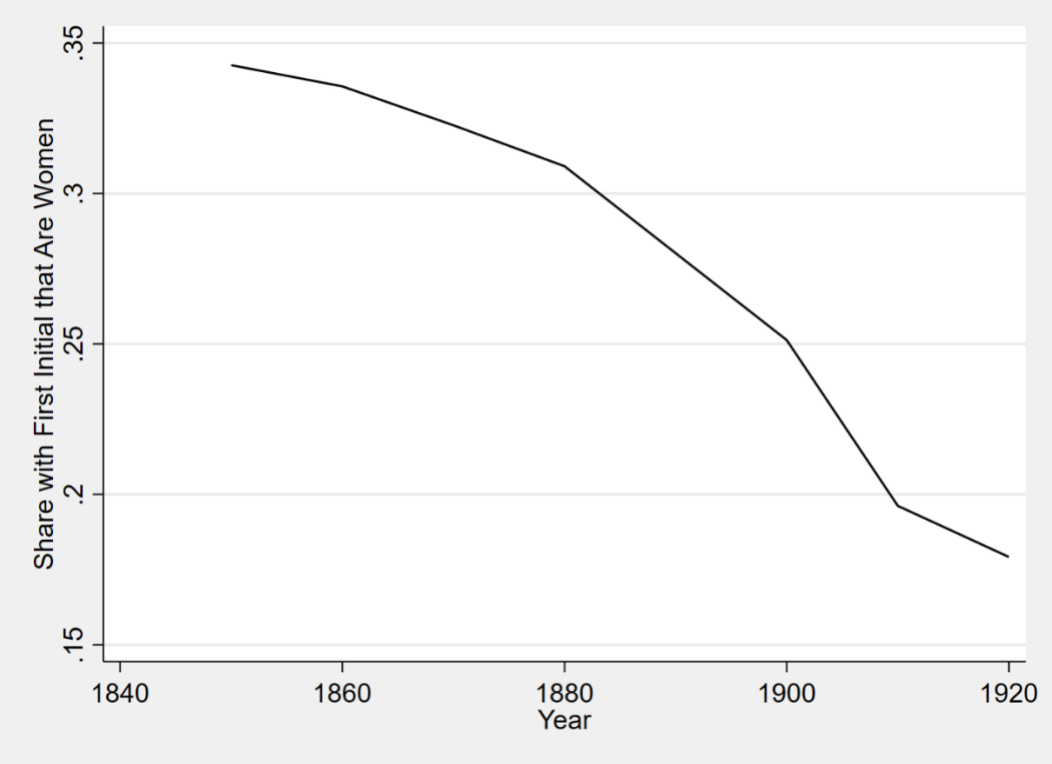


Figure A17: Share of individuals that report only a first initial in the census that are women.

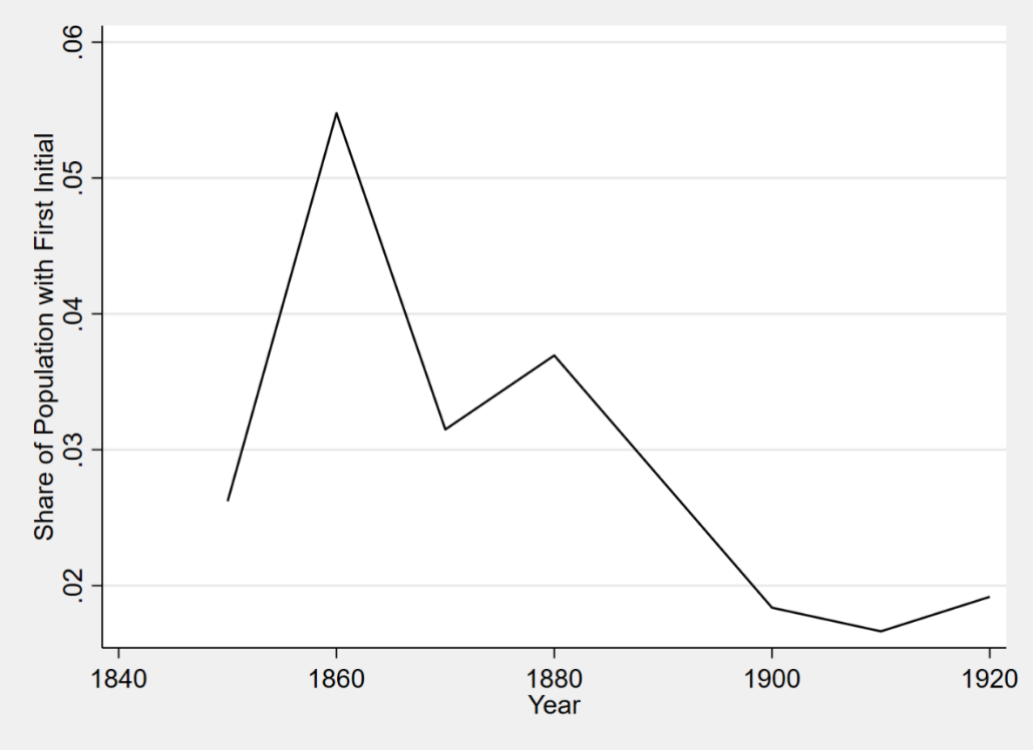
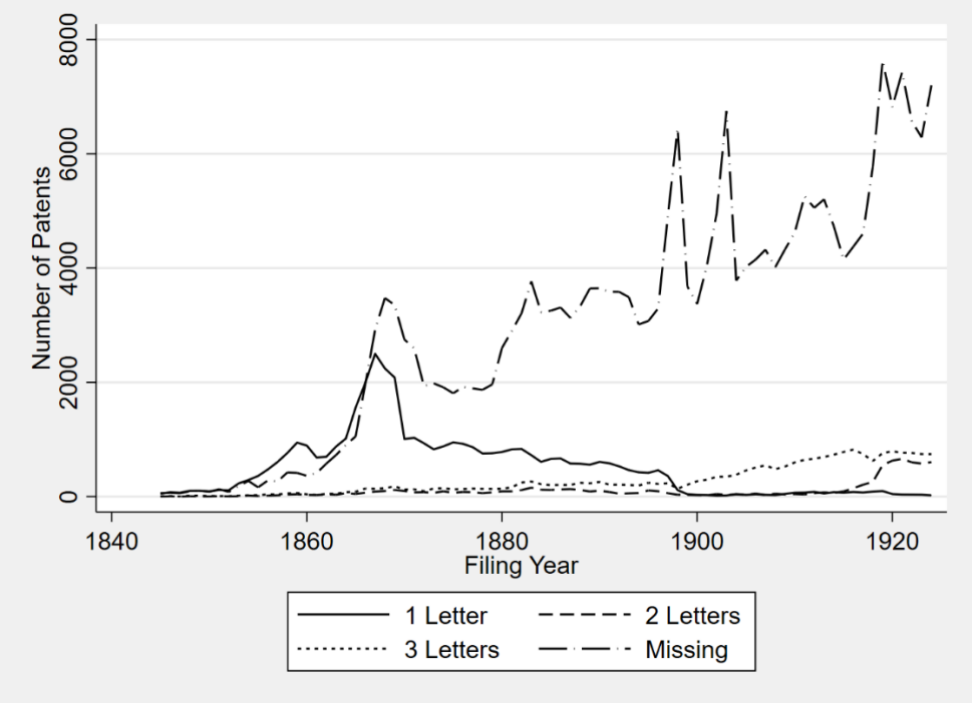
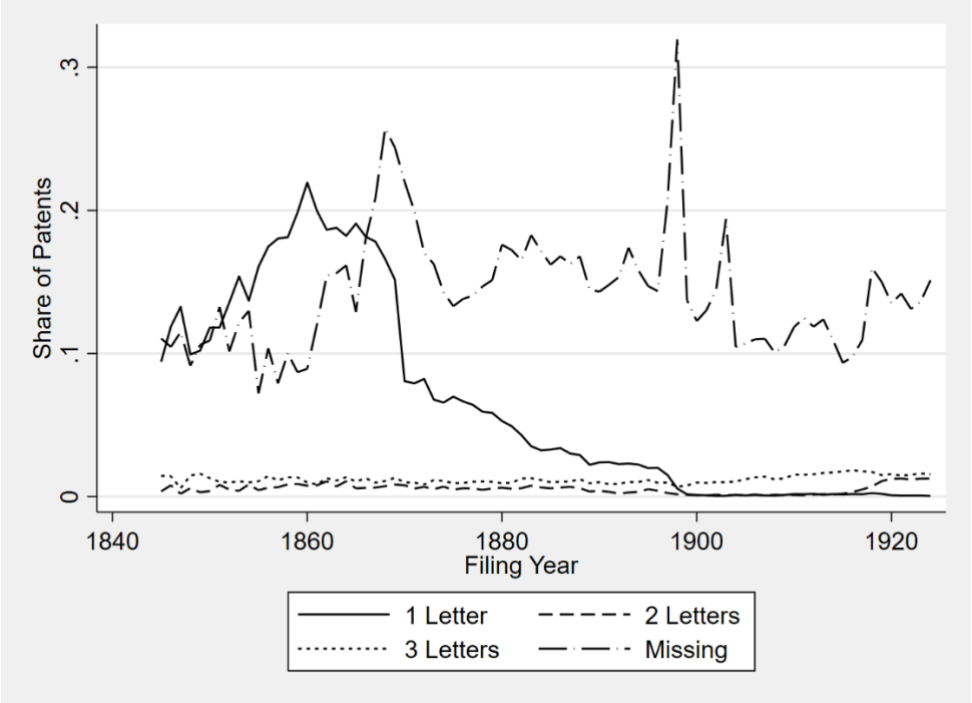


Figure A18: Share of individuals in the census that report only a first initial.

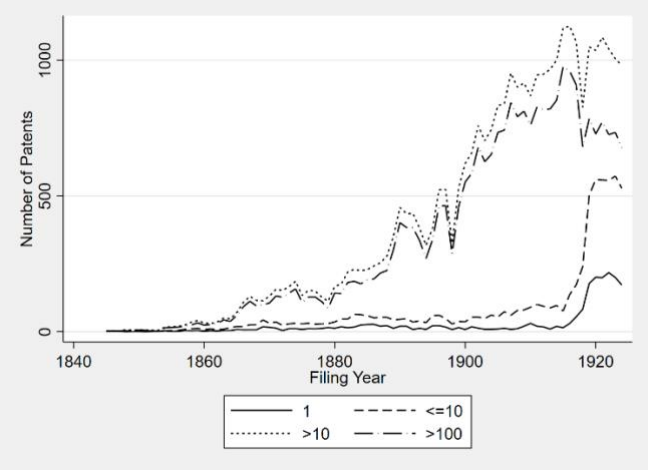


a) Number of Patents

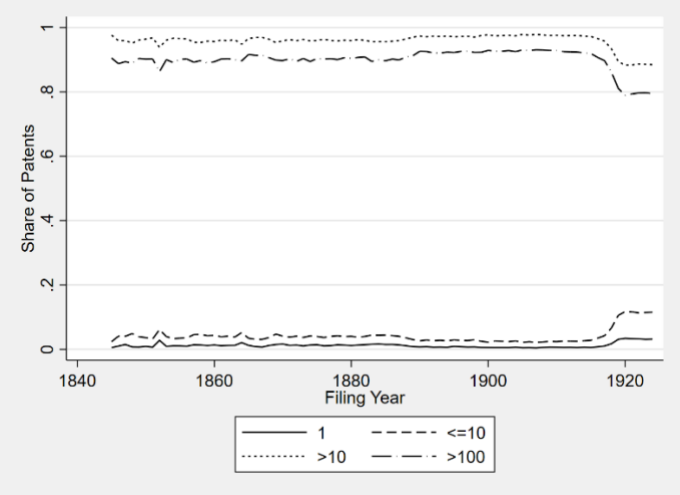


b) Share of Patents

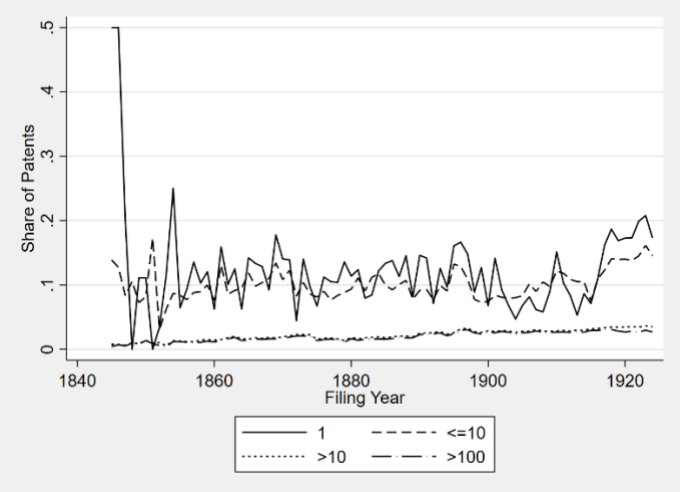
Figure A19: Patents with unusable first names.



a) Number of Patents with Women Inventors

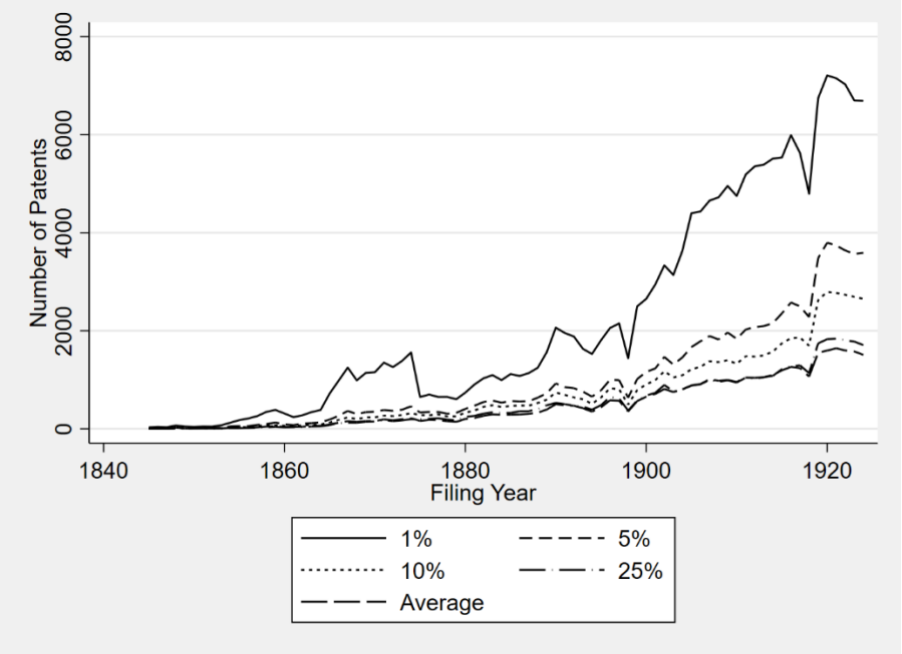


b) Share of All Patents that Have a Particular Name Frequency

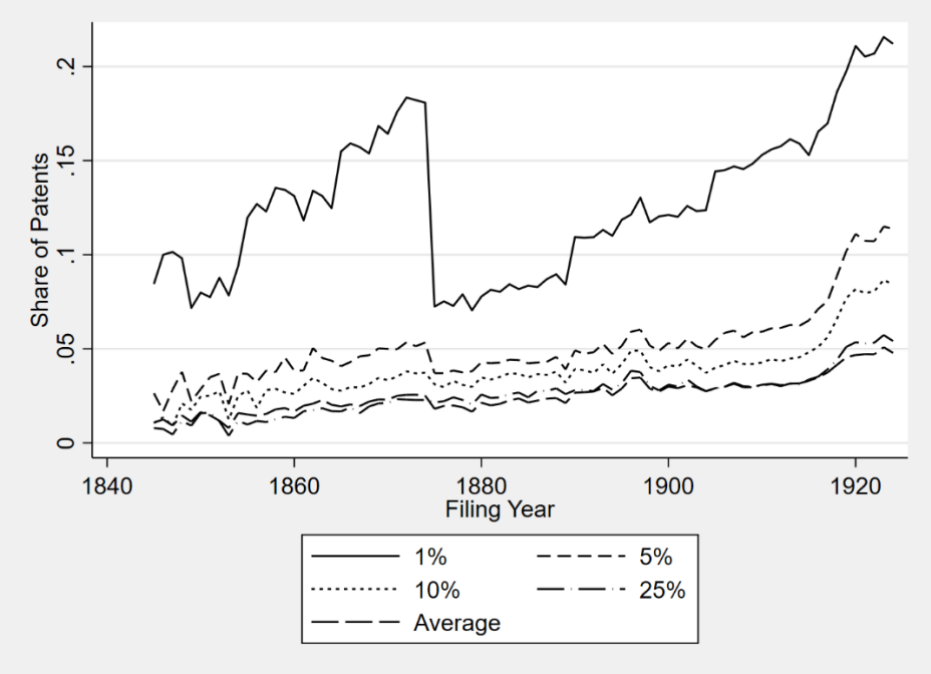


c) Share of Patents with Women Inventors among Patents with Each Name Frequency

Figure A20: Patents by women inventors that occur with different name frequencies in each state census.



a) Number of Patents



b) Share of Patents with Identifiable First Name

Figure A21: Patents by women inventors when using lower cutoffs to determine if a first name belongs to a woman.

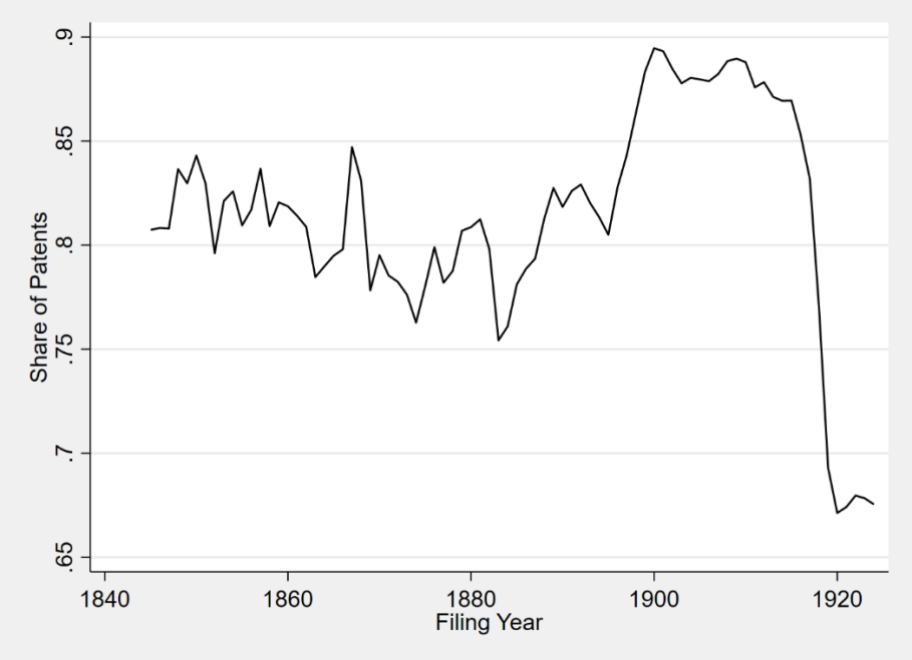
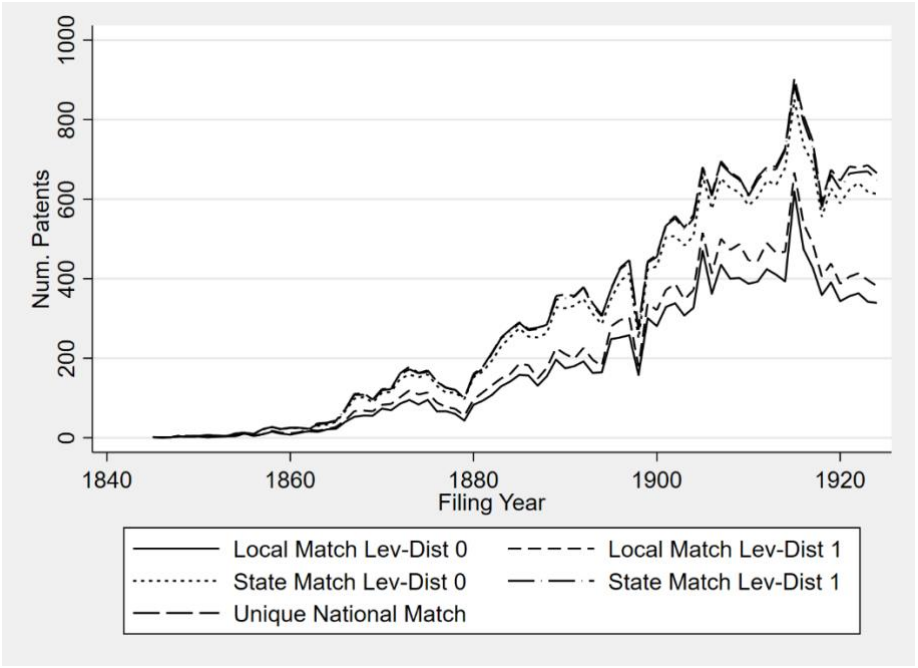
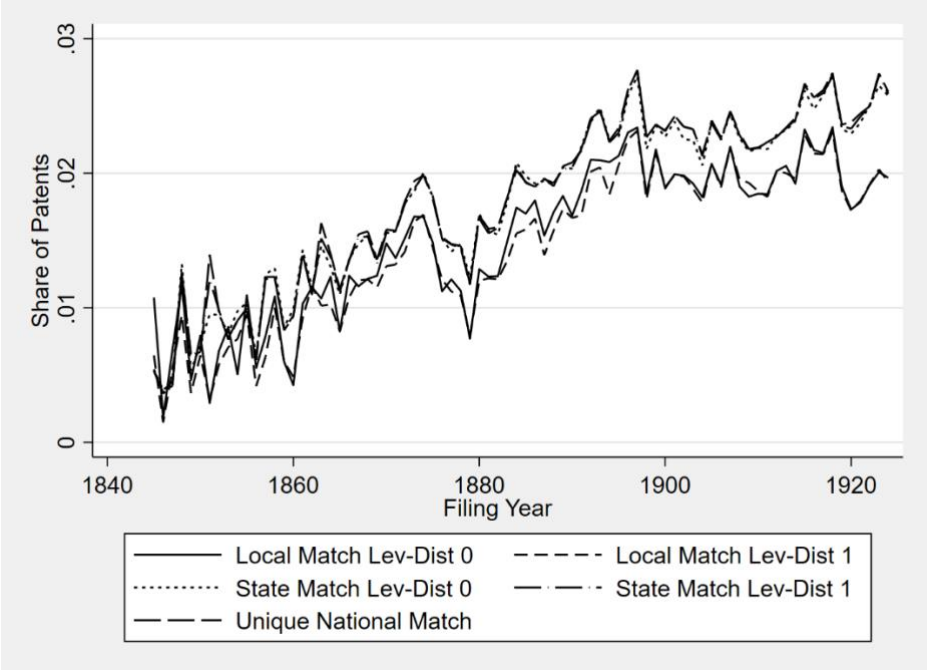


Figure A22: Share of patents with at least one inventor that links to the census.

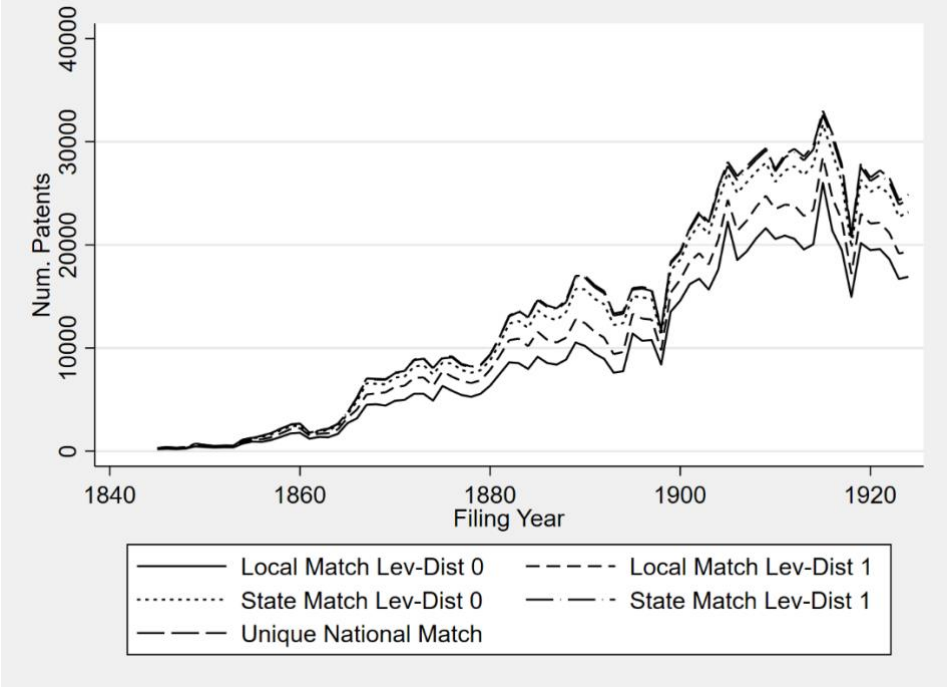


a) Number of Patents

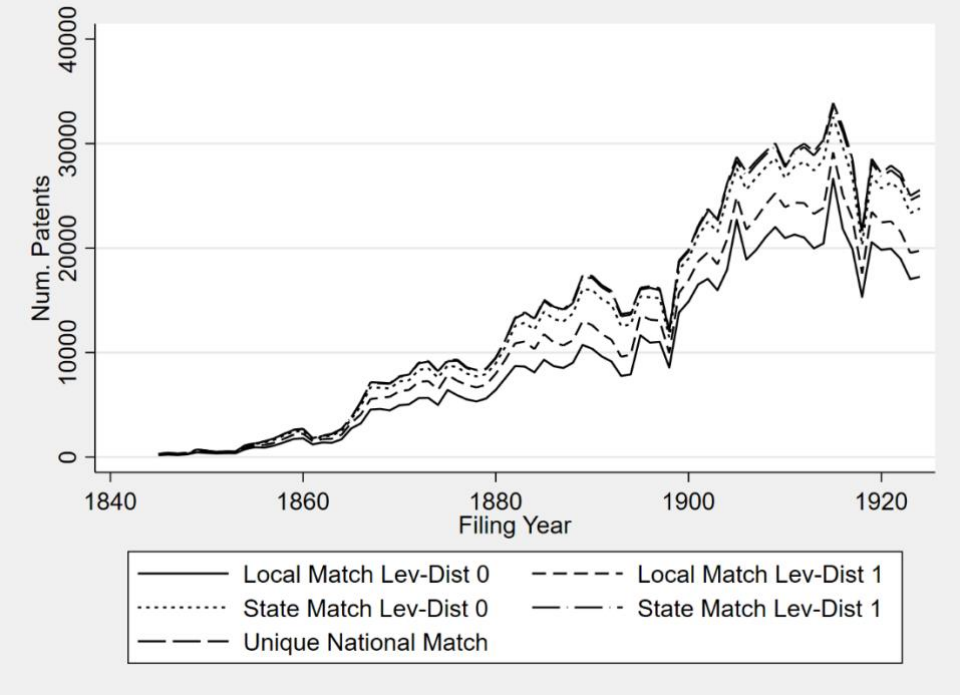


b) Share of Census-Linked Patents

Figure A23: Patents by women inventors when using various methods to determine if a record matches to the census.



a) Number of Male Patents



b) Number of Census-Linked Patents

Figure A24: Number of patents when using various methods to determine if a record matches to the census.

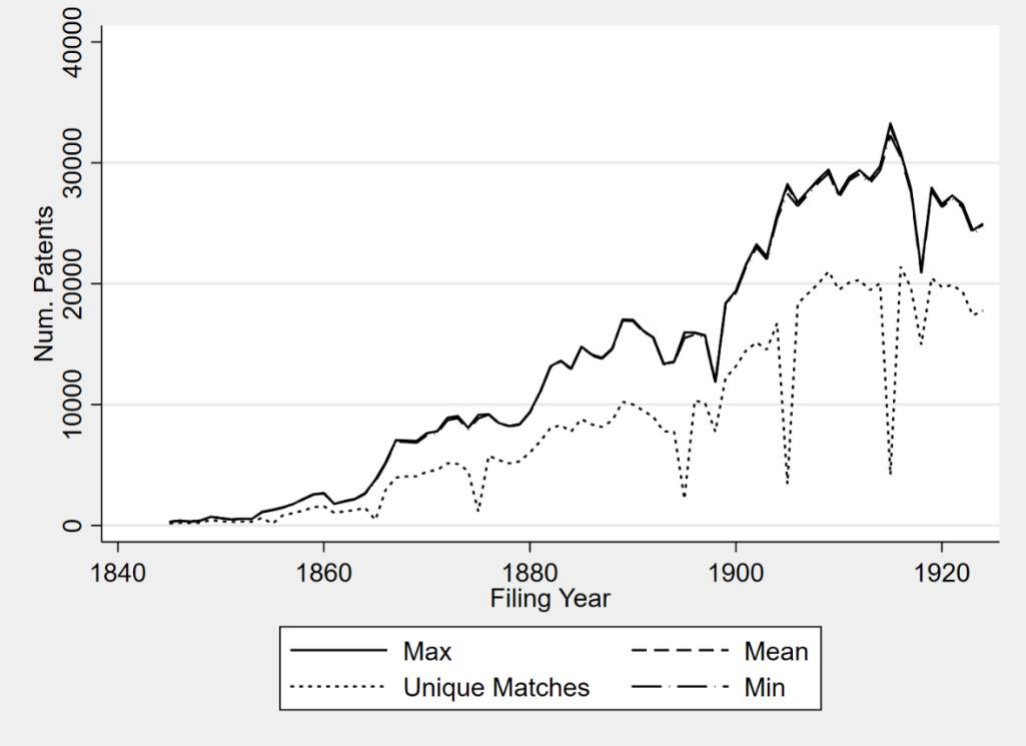
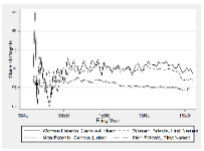
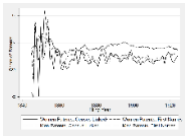


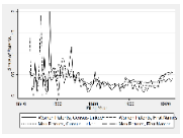
Figure A25: Patents by men inventors when using various methods to handle patents that link to multiple census records.



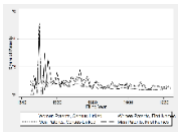
a) Human Necessities



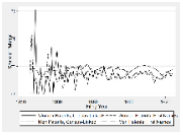
b) Performing Operations



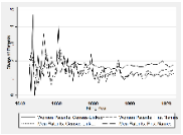
c) Chemistry/Metallurgy



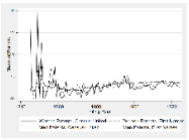
d) Textiles/Paper



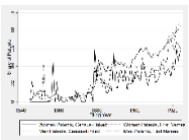
e) Fixed Construction



f) Mechanical Engineering



g) Physics



h) Electricity

Figure A26: Time series for share of patents in each CPC 1-digit.

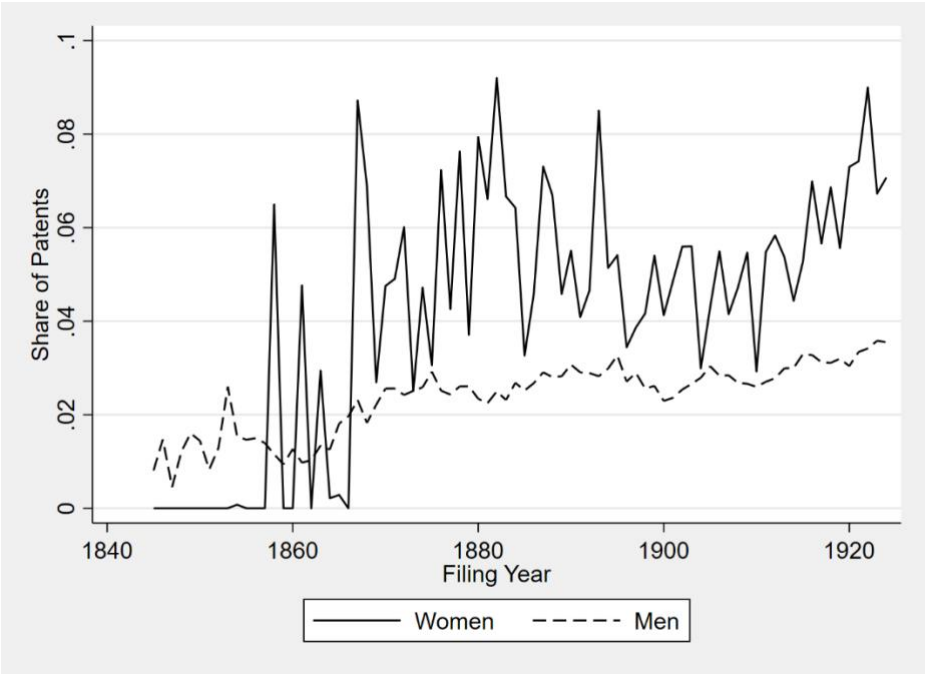


Figure A27: Share of census-linked inventors that are non-White, 75% threshold.

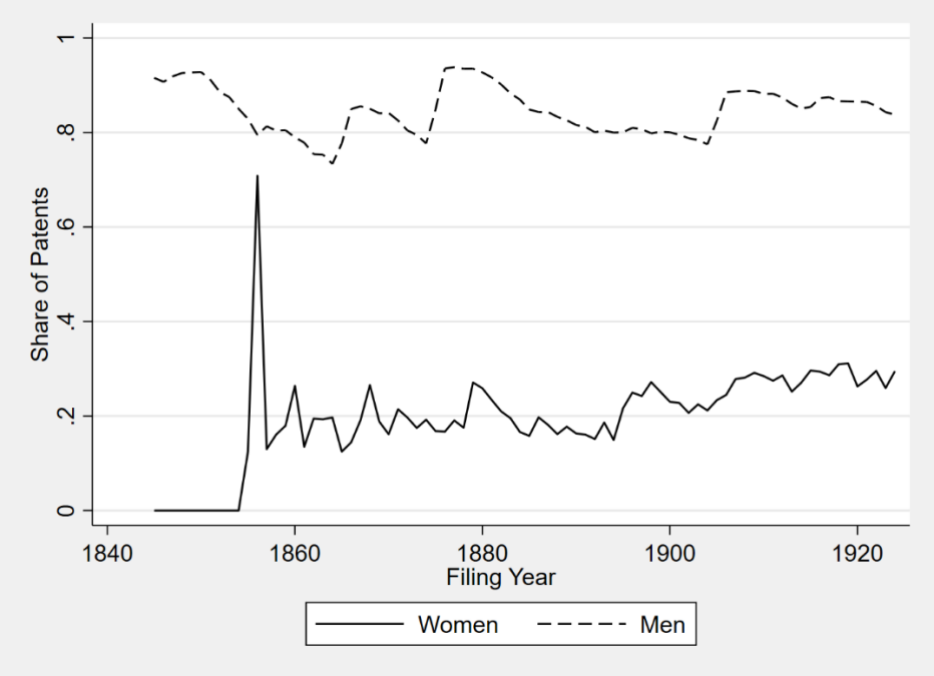


Figure A28: Share of census-linked inventors by labor force participation, 75% threshold.

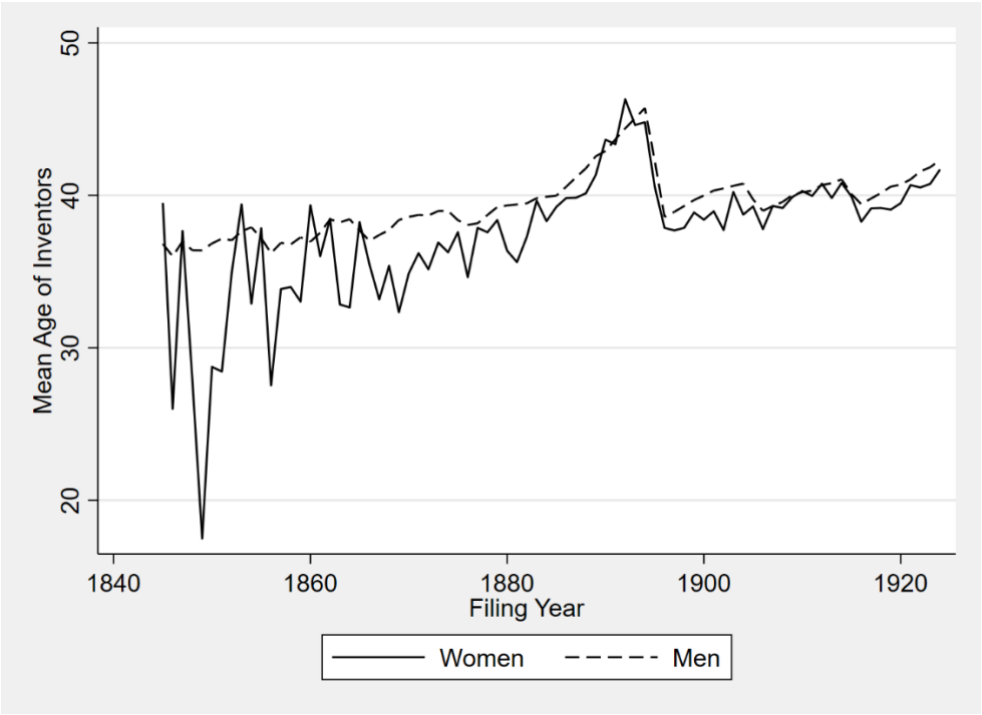
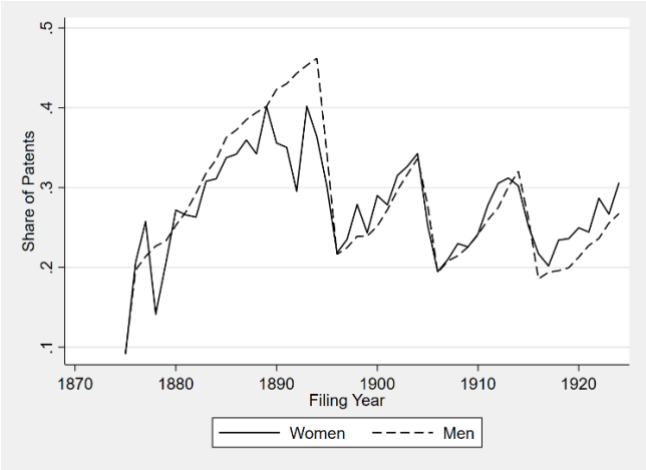
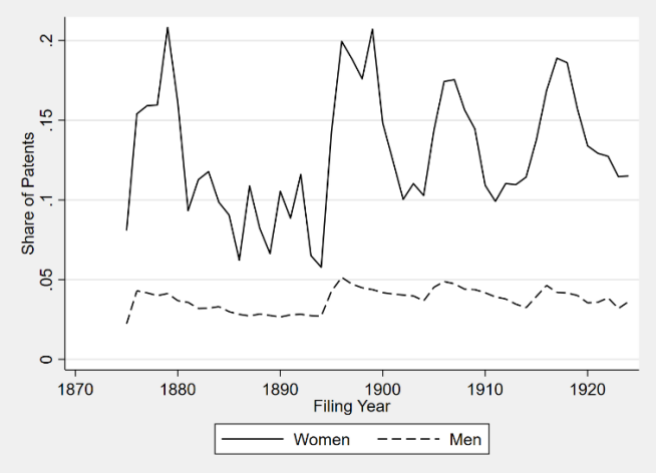


Figure A29: Average age of census-linked inventors, 75% threshold.

a) Married

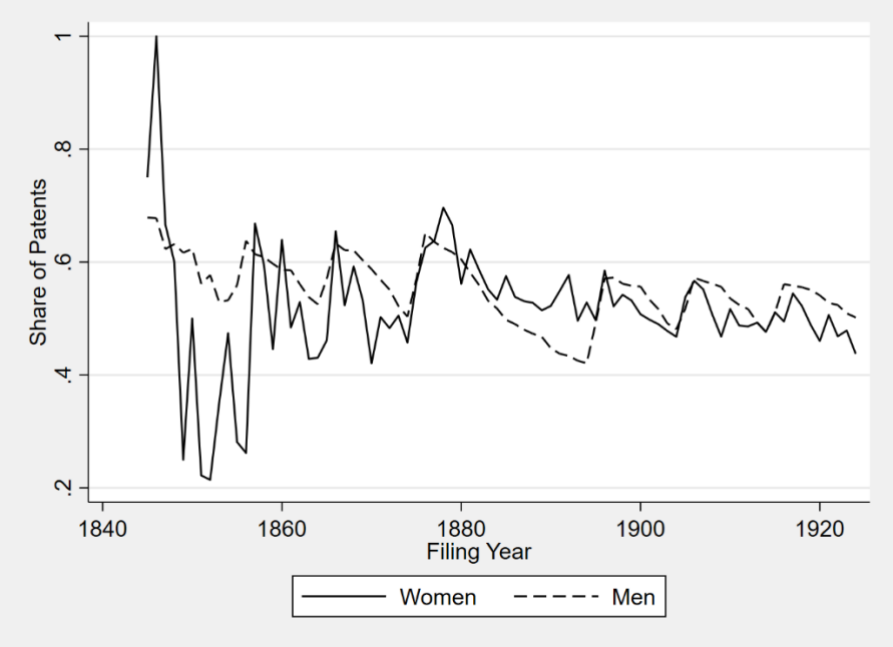


b) Never Married



c) Widowed

Figure A30: Share of census-linked inventors by marital status, 75% threshold.



a) Any Children in the Household

b) Children <5 in the Household

Figure A31: Share of census-linked inventors by presence of children in the household, 75% threshold.

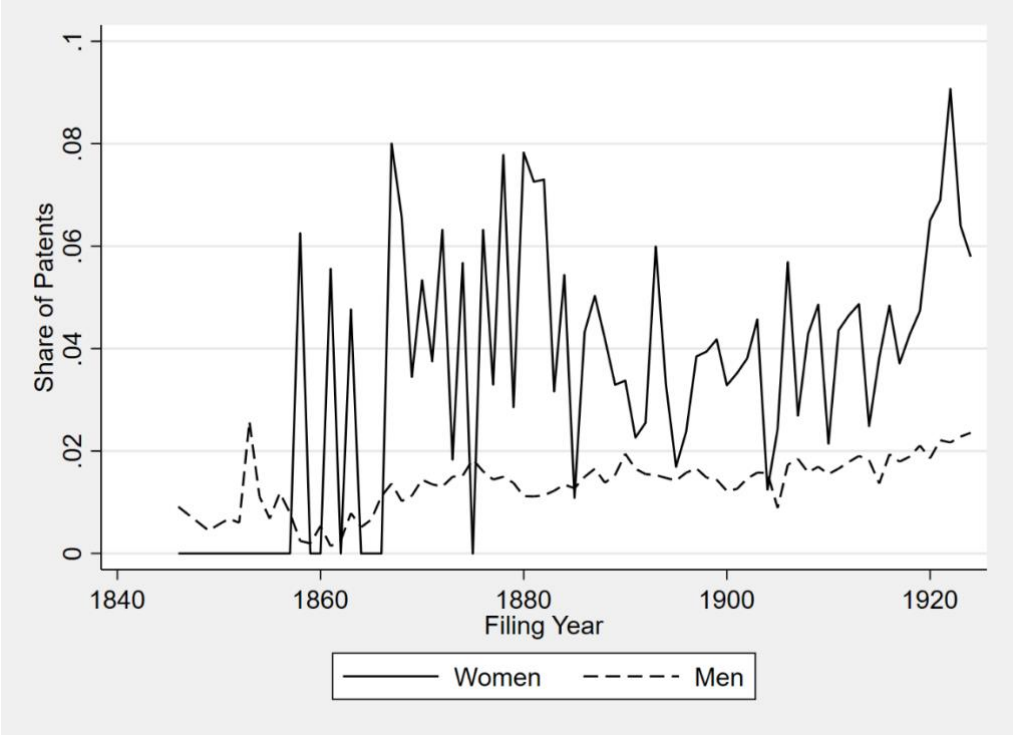


Figure A32: Share of census-linked inventors that are non-White, unique matches.

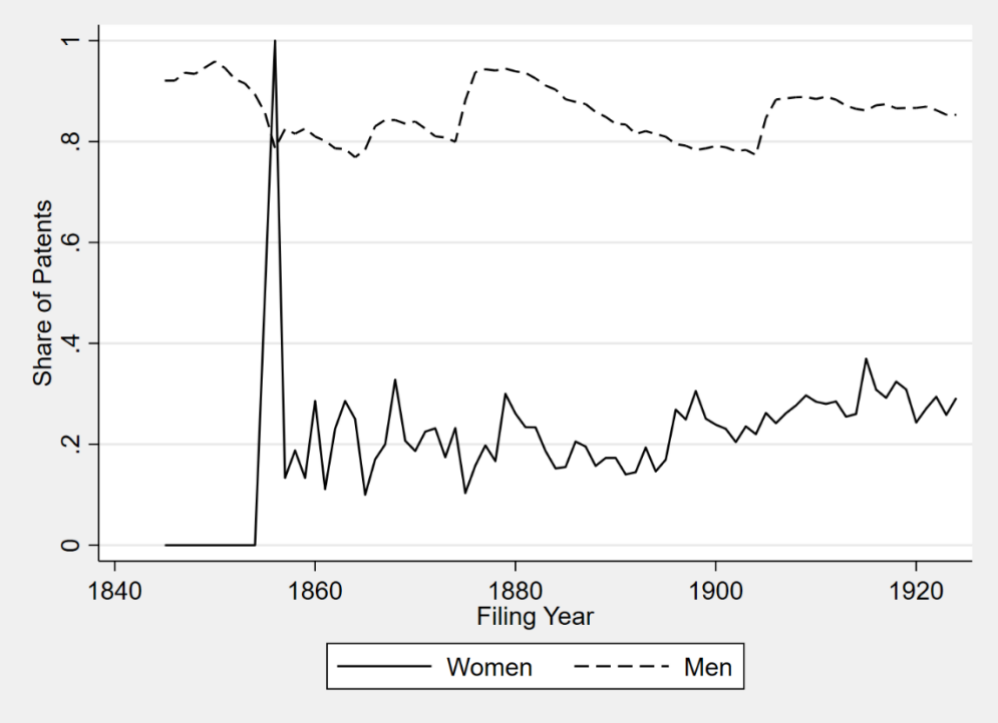


Figure A33: Share of census-linked inventors by labor force participation, unique matches.

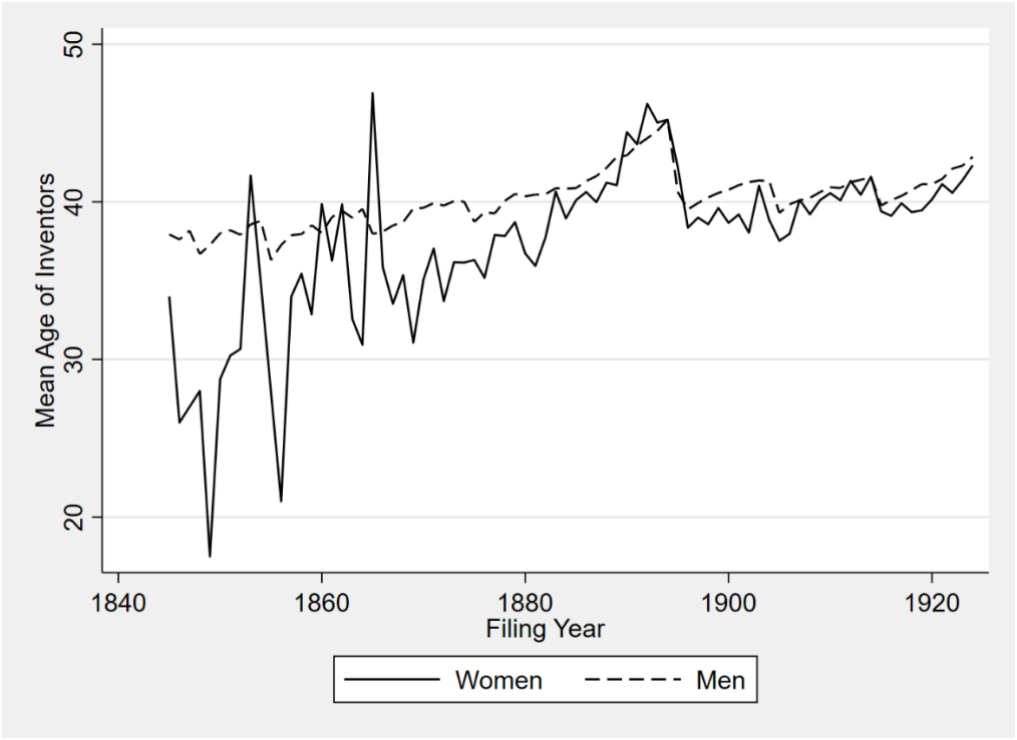
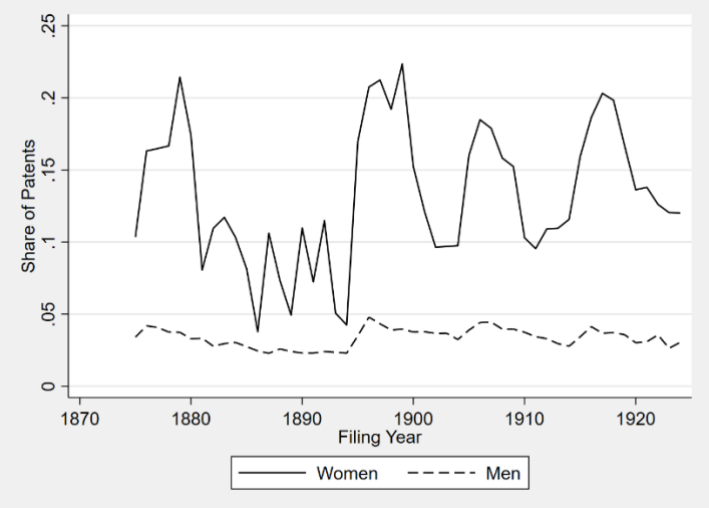


Figure A34: Average age of census-linked inventors, unique matches.

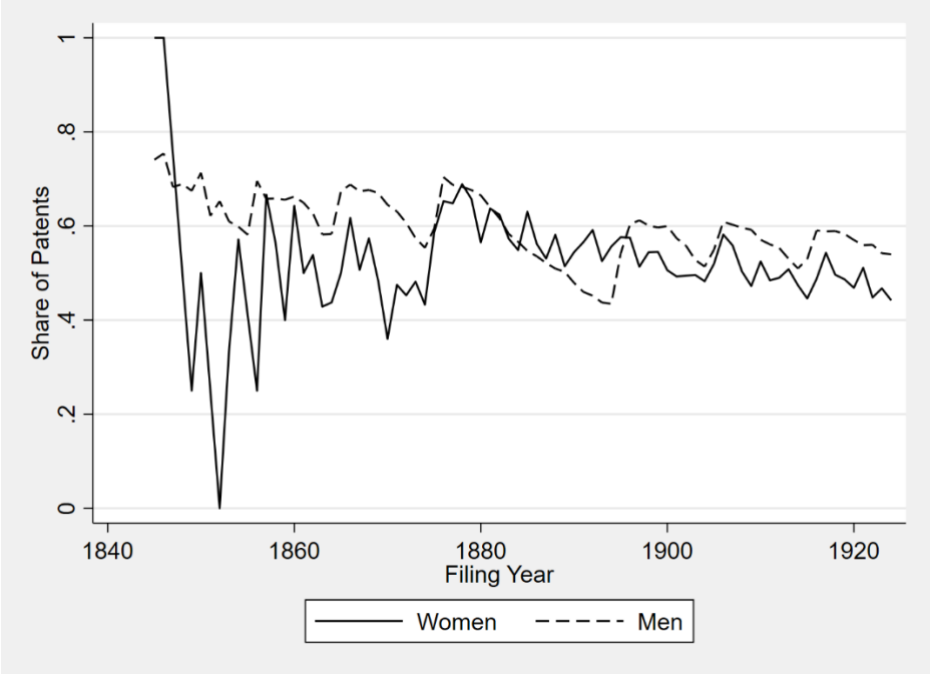
a) Married

b) Never Married

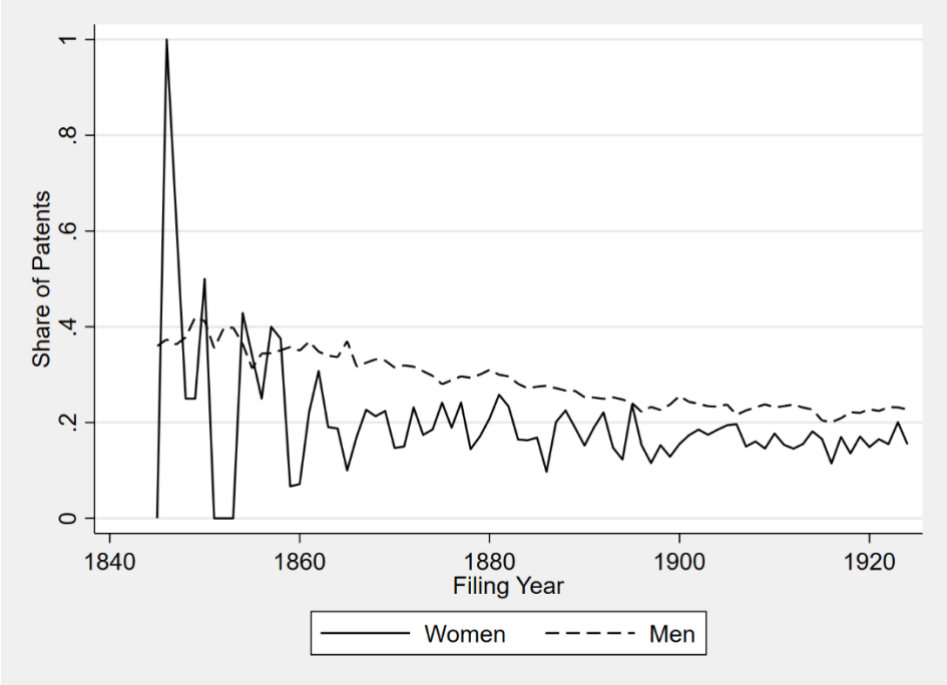


c) Widowed

Figure A35: Share of census-linked inventors by marital status, unique matches.



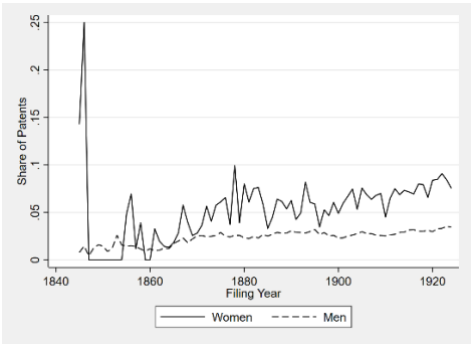
a) Any Children in the Household



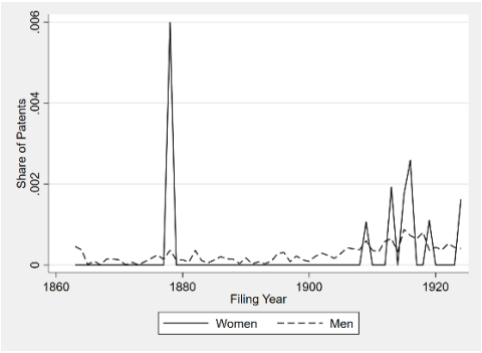
b) Children <5 in the Household

Figure A36: Share of census-linked inventors by presence of children in the household, unique matches.

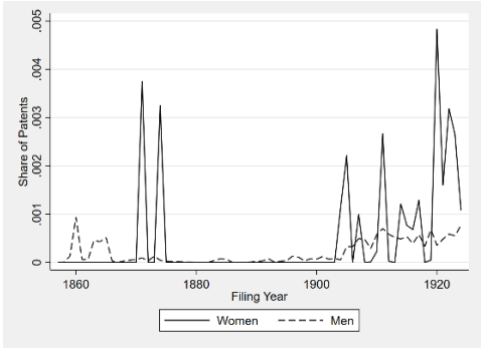
a) White



b) Black



c) Asian



d) American Indian

Figure A37: Share of census-linked patents by race.

Online Appendix Tables

	Other Source	First Name	Census-Linked
Entire Sample Period (1845-1924)		22,263	21,794
PTO List (1845-1894)	3,841	4,839	5,422
Khan 1996 (1860-1894)	4,126	4,745	5,316
Merritt 1991 (1865-1900)	5,549	6,626	7,485

Table A1: Comparing Number of Patents with Women Inventors Using Automated Methods to Counts from Other Sources, Using CUSP Issue Years

	First Name			Census-Linked		
PTO List	Women	Men	N/A	Women	Men	N.A
Women	2,326	714	0	1,924	145	971
N/A	2,283			4,104		

(a) 75% Cutoff

	First Name			Census-Linked		
PTO List	Women	Men	N/A	Women	Men	N.A
Women	2,342	698	0	1,936	133	971
N/A	3,465			4,850		

(b) 50% Cutoff

Table A2: Comparing Patents Found in PTO List to Patents Found Using Each Method

	First Name			Census-Linked		
Macdonald	Women	Men	N/A	Women	Men	N.A
Women	143	58	3	130	14	60
N/A	23,474			23,417		

(a) 75% Cutoff

	First Name			Census-Linked		
Macdonald	Women	Men	N/A	Women	Men	N.A
Women	145	56	3	132	12	60
N/A	31,129			29,915		

(b) 50% Cutoff

Table A3: Comparing Patents Found in Macdonald (1992) to Patents Found Using Each Method